

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-1	Description: SHMW-04D @ 4-5'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	33.8	%	42b mod.	10/12/2006
Silt	41.2	%	42b mod.	10/12/2006
Clay	25.0	%	42b mod.	10/12/2006
Texture	Loam	----	42b mod.	10/12/2006
Electrical Conductivity Saturated Paste	0.73	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	8.2	S.U.	21a	10/12/2006
Saturation	49.4	%	27a	10/12/2006
Calcium saturated paste	0.96	meq/l	3-5.4	10/18/2006
Magnesium saturated paste	2.64	meq/l	3-5.4	10/18/2006
Sodium saturated paste	4.25	meq/l	3-5.4	10/18/2006
Sodium Adsorption Ratio	3.17	----	20b	10/18/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-2	Description: SHMW-04D @ 5-10'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	56.2	%	42b mod.	10/12/2006
Silt	21.3	%	42b mod.	10/12/2006
Clay	22.5	%	42b mod.	10/12/2006
Texture	SaClLo	----	42b mod.	10/12/2006
Electrical Conductivity Saturated Paste	12.7	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	4.4	S.U.	21a	10/12/2006
Saturation	72.1	%	27a	10/12/2006
Calcium saturated paste	21.7	meq/l	3-5.4	10/18/2006
Magnesium saturated paste	86.7	meq/l	3-5.4	10/18/2006
Sodium saturated paste	91.9	meq/l	3-5.4	10/18/2006
Sodium Adsorption Ratio	12.5	----	20b	10/18/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-3	Description: SHMW-04D @ 12-14'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	42b mod.	10/12/2006
Silt	27.5	%	42b mod.	10/12/2006
Clay	65.0	%	42b mod.	10/12/2006
Texture	Clay	-----	42b mod.	10/12/2006
Electrical Conductivity Saturated Paste	9.38	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	4.1	S.U.	21a	10/12/2006
Saturation	66.5	%	27a	10/12/2006
Calcium saturated paste	21.6	meq/l	3-5.4	10/18/2006
Magnesium saturated paste	57.6	meq/l	3-5.4	10/18/2006
Sodium saturated paste	58.6	meq/l	3-5.4	10/18/2006
Sodium Adsorption Ratio	9.32	-----	20b	10/18/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-4	Description: SHMW-04D @ 16-18'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	42b mod.	10/12/2006
Silt	60.0	%	42b mod.	10/12/2006
Clay	35.0	%	42b mod.	10/12/2006
Texture	SiCILo	-----	42b mod.	10/12/2006
Electrical Conductivity Saturated Paste	4.09	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	7.7	S.U.	21a	10/12/2006
Saturation	70.8	%	27a	10/12/2006
Calcium saturated paste	6.88	meq/l	3-5.4	10/18/2006
Magnesium saturated paste	17.2	meq/l	3-5.4	10/18/2006
Sodium saturated paste	26.0	meq/l	3-5.4	10/18/2006
Sodium Adsorption Ratio	7.49	-----	20b	10/18/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-5	Description: SHMW-04D @ 21-23'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.2	%	42b mod.	10/12/2006
Silt	58.8	%	42b mod.	10/12/2006
Clay	35.0	%	42b mod.	10/12/2006
Texture	SiClLo	----	42b mod.	10/12/2006
Electrical Conductivity Saturated Paste	3.42	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	8.4	S.U.	21a	10/12/2006
Saturation	86.8	%	27a	10/12/2006
Calcium saturated paste	3.34	meq/l	3-5.4	10/18/2006
Magnesium saturated paste	8.96	meq/l	3-5.4	10/18/2006
Sodium saturated paste	24.1	meq/l	3-5.4	10/18/2006
Sodium Adsorption Ratio	9.73	----	20b	10/18/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-6	Description: SHMW-04D @ 27-30'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	42b mod.	10/12/2006
Silt	58.7	%	42b mod.	10/12/2006
Clay	32.5	%	42b mod.	10/12/2006
Texture	SiClLo	-----	42b mod.	10/12/2006
Electrical Conductivity Saturated Paste	2.70	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	8.3	S.U.	21a	10/12/2006
Saturation	79.0	%	27a	10/12/2006
Calcium saturated paste	3.20	meq/l	3-5.4	10/18/2006
Magnesium saturated paste	6.63	meq/l	3-5.4	10/18/2006
Sodium saturated paste	18.5	meq/l	3-5.4	10/18/2006
Sodium Adsorption Ratio	8.34	-----	20b	10/18/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-7	Description: SHMW-04D @ 30-32'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	42b mod.	10/12/2006
Silt	48.7	%	42b mod.	10/12/2006
Clay	42.5	%	42b mod.	10/12/2006
Texture	Silty Clay	-----	42b mod.	10/12/2006
Electrical Conductivity Saturated Paste	3.63	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	7.2	S.U.	21a	10/12/2006
Saturation	80.1	%	27a	10/12/2006
Calcium saturated paste	5.57	meq/l	3-5.4	10/18/2006
Magnesium saturated paste	10.7	meq/l	3-5.4	10/18/2006
Sodium saturated paste	23.6	meq/l	3-5.4	10/18/2006
Sodium Adsorption Ratio	8.27	-----	20b	10/18/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-8	Description: SHMW-04D @ 37-38'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	3.8	%	42b mod.	10/12/2006
Silt	55.0	%	42b mod.	10/12/2006
Clay	41.2	%	42b mod.	10/12/2006
Texture	Silty Clay	----	42b mod.	10/12/2006
Electrical Conductivity Saturated Paste	2.57	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	8.5	S.U.	21a	10/12/2006
Saturation	89.4	%	27a	10/12/2006
Calcium saturated paste	2.59	meq/l	3-5.4	10/18/2006
Magnesium saturated paste	4.25	meq/l	3-5.4	10/18/2006
Sodium saturated paste	19.6	meq/l	3-5.4	10/18/2006
Sodium Adsorption Ratio	10.6	----	20b	10/18/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-9	Description: SHMW-04D @ 39-42'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	53.8	%	42b mod.	10/12/2006
Silt	27.4	%	42b mod.	10/12/2006
Clay	18.8	%	42b mod.	10/12/2006
Texture	Sandy Loam	----	42b mod.	10/12/2006
Electrical Conductivity Saturated Paste	4.58	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	8.3	S.U.	21a	10/12/2006
Saturation	42.3	%	27a	10/12/2006
Calcium saturated paste	6.12	meq/l	3-5.4	10/18/2006
Magnesium saturated paste	9.63	meq/l	3-5.4	10/18/2006
Sodium saturated paste	35.9	meq/l	3-5.4	10/18/2006
Sodium Adsorption Ratio	12.8	----	20b	10/18/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-10	Description: SHMW-04D @ 46-49'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	42b mod.	10/12/2006
Silt	63.7	%	42b mod.	10/12/2006
Clay	27.5	%	42b mod.	10/12/2006
Texture	SiClLo	----	42b mod.	10/12/2006
Electrical Conductivity Saturated Paste	1.70	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	8.6	S.U.	21a	10/12/2006
Saturation	105	%	27a	10/12/2006
Calcium saturated paste	0.87	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.78	meq/l	3-5.4	10/31/2006
Sodium saturated paste	14.7	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	16.2	----	20b	10/31/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-11	Description: SHMW-04D @ 54'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	174 (1)	%	27a	10/30/2006
Sand	6.2	%	42b mod.	10/12/2006
Silt	43.8	%	42b mod.	10/12/2006
Clay	50.0	%	42b mod.	10/12/2006
Texture	Silty Clay	----	42b mod.	10/12/2006
Electrical Conductivity Saturated Paste	2.41	mmhos/cm	10-3.3	11/01/2006
pH Saturated Paste	8.4	S.U.	21a	10/12/2006
Saturation	141	%	27a	10/12/2006
Calcium saturated paste	0.87 (1)	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	2.83 (1)	meq/l	3-5.4	11/02/2006
Sodium saturated paste	22.7 (1)	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	16.6 (1)	----	20b	11/02/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-12	Description: SHMW-04D @ 56'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	42b mod.	10/14/2006
Silt	61.2	%	42b mod.	10/14/2006
Clay	22.5	%	42b mod.	10/14/2006
Texture	Silt Loam	----	42b mod.	10/14/2006
Electrical Conductivity Saturated Paste	1.38	mmhos/cm	10-3.3	10/30/2006
pH Saturated Paste	8.9	S.U.	21a	10/25/2006
Saturation	114	%	27a	10/24/2006
Calcium saturated paste	0.40	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.38	meq/l	3-5.4	11/02/2006
Sodium saturated paste	12.5	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	20.0	----	20b	11/02/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-13	Description: SHMW-04D @ 61'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	58.8	%	42b mod.	10/12/2006
Silt	23.7	%	42b mod.	10/12/2006
Clay	17.5	%	42b mod.	10/12/2006
Texture	Sandy Loam	-----	42b mod.	10/12/2006
Electrical Conductivity Saturated Paste	2.45	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	9.5	S.U.	21a	10/12/2006
Saturation	68.6	%	27a	10/12/2006
Calcium saturated paste	0.91	meq/l	3-5.4	10/18/2006
Magnesium saturated paste	0.66	meq/l	3-5.4	10/18/2006
Sodium saturated paste	26.0	meq/l	3-5.4	10/18/2006
Sodium Adsorption Ratio	29.4	-----	20b	10/18/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-14	Description: SHMW-04D @ 66'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	71.2	%	42b mod.	10/12/2006
Silt	16.3	%	42b mod.	10/12/2006
Clay	12.5	%	42b mod.	10/12/2006
Texture	Sandy Loam	----	42b mod.	10/12/2006
Electrical Conductivity Saturated Paste	2.14	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	9.5	S.U.	21a	10/12/2006
Saturation	55.6	%	27a	10/12/2006
Calcium saturated paste	0.55	meq/l	3-5.4	10/18/2006
Magnesium saturated paste	0.45	meq/l	3-5.4	10/18/2006
Sodium saturated paste	22.7	meq/l	3-5.4	10/18/2006
Sodium Adsorption Ratio	32.1	----	20b	10/18/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-15	Description: SHMW-04D @ 87'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	229 (1)	%	27a	10/30/2006
Sand	6.2	%	42b mod.	10/12/2006
Silt	38.8	%	42b mod.	10/12/2006
Clay	55.0	%	42b mod.	10/12/2006
Texture	Clay	----	42b mod.	10/12/2006
Electrical Conductivity Saturated Paste	1.03 (1)	mmhos/cm	10-3.3	11/01/2006
pH Saturated Paste	9.0	S.U.	21a	10/12/2006
Saturation	161	%	27a	10/12/2006
Calcium saturated paste	0.12 (1)	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.10 (1)	meq/l	3-5.4	11/02/2006
Sodium saturated paste	9.25 (1)	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	27.6 (1)	----	20b	11/02/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-16	Description: SHMW-04D @ 92'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	42b mod.	10/12/2006
Silt	63.8	%	42b mod.	10/12/2006
Clay	31.2	%	42b mod.	10/12/2006
Texture	SiCILo	----	42b mod.	10/12/2006
Electrical Conductivity Saturated Paste	1.16	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	9.4	S.U.	21a	10/12/2006
Saturation	110	%	27a	10/12/2006
Calcium saturated paste	0.68	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.55	meq/l	3-5.4	10/31/2006
Sodium saturated paste	12.6	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	16.0	----	20b	10/31/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-17	Description: SHMW-04D @ 97'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	71.2	%	42b mod.	10/12/2006
Silt	17.6	%	42b mod.	10/12/2006
Clay	11.2	%	42b mod.	10/12/2006
Texture	Sandy Loam	-----	42b mod.	10/12/2006
Electrical Conductivity Saturated Paste	0.81	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	9.4	S.U.	21a	10/12/2006
Saturation	43.5	%	27a	10/12/2006
Calcium saturated paste	0.36	meq/l	3-5.4	10/18/2006
Magnesium saturated paste	0.24	meq/l	3-5.4	10/18/2006
Sodium saturated paste	8.55	meq/l	3-5.4	10/18/2006
Sodium Adsorption Ratio	15.6	-----	20b	10/18/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-18	Description: SHMW-04D @ 102'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	221 (1)	%	27a	10/30/2006
Sand	3.8	%	42b mod.	10/12/2006
Silt	18.7	%	42b mod.	10/12/2006
Clay	77.5	%	42b mod.	10/12/2006
Texture	Clay	----	42b mod.	10/12/2006
Electrical Conductivity Saturated Paste	1.43 (1)	mmhos/cm	10-3.3	11/01/2006
pH Saturated Paste	9.2	S.U.	21a	10/12/2006
Saturation	149	%	27a	10/12/2006
Calcium saturated paste	0.13 (1)	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.26 (1)	meq/l	3-5.4	11/02/2006
Sodium saturated paste	13.8 (1)	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	31.2 (1)	----	20b	11/02/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-19	Description: SHMW-04D @ 104-105'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	21.2	%	42b mod.	10/12/2006
Silt	56.3	%	42b mod.	10/12/2006
Clay	22.5	%	42b mod.	10/12/2006
Texture	Silt Loam	----	42b mod.	10/12/2006
Electrical Conductivity Saturated Paste	1.02	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	9.7	S.U.	21a	10/12/2006
Saturation	101	%	27a	10/12/2006
Calcium saturated paste	0.55	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.39	meq/l	3-5.4	10/31/2006
Sodium saturated paste	11.6	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	16.9	----	20b	10/31/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-20	Description: SHMW-04D @ 109'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	220 (1)	%	27a	10/30/2006
Sand	8.8	%	42b mod.	10/12/2006
Silt	57.4	%	42b mod.	10/12/2006
Clay	33.8	%	42b mod.	10/12/2006
Texture	SiClLo	----	42b mod.	10/12/2006
Electrical Conductivity Saturated Paste	1.11 (1)	mmhos/cm	10-3.3	11/01/2006
pH Saturated Paste	9.5	S.U.	21a	10/12/2006
Saturation	129	%	27a	10/12/2006
Calcium saturated paste	0.18 (1)	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.14 (1)	meq/l	3-5.4	11/02/2006
Sodium saturated paste	10.8 (1)	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	27.0 (1)	----	20b	11/02/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-21	Description: SHMW-04D @ 114'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	224 (1)	%	27a	10/30/2006
Sand	7.5	%	42b mod.	10/17/2006
Silt	52.5	%	42b mod.	10/17/2006
Clay	40.0	%	42b mod.	10/17/2006
Texture	Silty Clay	----	42b mod.	10/17/2006
Electrical Conductivity Saturated Paste	1.61 (1)	mmhos/cm	10-3.3	11/01/2006
pH Saturated Paste	9.3	S.U.	21a	10/12/2006
Saturation	149	%	27a	10/13/2006
Calcium saturated paste	0.24 (1)	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.23 (1)	meq/l	3-5.4	11/02/2006
Sodium saturated paste	15.5 (1)	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	32.0 (1)	----	20b	11/02/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-22	Description: SHMW-04D @ 119'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	140 (1)	%	27a	10/30/2006
Sand	6.3	%	42b mod.	10/17/2006
Silt	48.7	%	42b mod.	10/17/2006
Clay	45.0	%	42b mod.	10/17/2006
Texture	Silty Clay	----	42b mod.	10/17/2006
Electrical Conductivity Saturated Paste	2.18 (1)	mmhos/cm	10-3.3	11/01/2006
pH Saturated Paste	8.9	S.U.	21a	10/12/2006
Saturation	103	%	27a	10/13/2006
Calcium saturated paste	0.57 (1)	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	1.84 (1)	meq/l	3-5.4	11/02/2006
Sodium saturated paste	22.8 (1)	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	20.8 (1)	----	20b	11/02/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-23	Description: SHMW-04D @ 124'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	57.5	%	42b mod.	10/17/2006
Silt	23.7	%	42b mod.	10/17/2006
Clay	18.8	%	42b mod.	10/17/2006
Texture	Sandy Loam	-----	42b mod.	10/17/2006
Electrical Conductivity Saturated Paste	0.90	mmhos/cm	10-3.3	10/16/2006
pH Saturated Paste	9.7	S.U.	21a	10/12/2006
Saturation	84.5	%	27a	10/13/2006
Calcium saturated paste	0.28	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.34	meq/l	3-5.4	10/19/2006
Sodium saturated paste	8.90	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	16.0	-----	20b	10/19/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-24	Description: SHMW-04D @ 129'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	235 (1)	%	27a	10/30/2006
Sand	10.0	%	42b mod.	10/17/2006
Silt	53.7	%	42b mod.	10/17/2006
Clay	36.3	%	42b mod.	10/17/2006
Texture	SiClLo	----	42b mod.	10/17/2006
Electrical Conductivity Saturated Paste	1.20 (1)	mmhos/cm	10-3.3	11/01/2006
pH Saturated Paste	9.4	S.U.	21a	10/12/2006
Saturation	142	%	27a	10/13/2006
Calcium saturated paste	0.11 (1)	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.09 (1)	meq/l	3-5.4	11/02/2006
Sodium saturated paste	11.8 (1)	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	37.4 (1)	----	20b	11/02/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-25	Description: SHMW-04D @ 134'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	307 (1)	%	27a	10/30/2006
Sand	3.8	%	42b mod.	10/17/2006
Silt	46.2	%	42b mod.	10/17/2006
Clay	50.0	%	42b mod.	10/17/2006
Texture	Silty Clay	----	42b mod.	10/17/2006
Electrical Conductivity Saturated Paste	1.11 (1)	mmhos/cm	10-3.3	10/24/2006
pH Saturated Paste	9.4	S.U.	21a	10/12/2006
Saturation	156	%	27a	10/13/2006
Calcium saturated paste	0.12 (1)	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	<0.08 (1)	meq/l	3-5.4	11/02/2006
Sodium saturated paste	10.4 (1)	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	37.3	----	20b	11/02/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-26	Description: SHMW-04D @ 139'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	206 (1)	%	27a	10/30/2006
Sand	15.0	%	42b mod.	10/17/2006
Silt	50.0	%	42b mod.	10/17/2006
Clay	35.0	%	42b mod.	10/17/2006
Texture	SiCILo	----	42b mod.	10/17/2006
Electrical Conductivity Saturated Paste	1.11 (1)	mmhos/cm	10-3.3	11/01/2006
pH Saturated Paste	9.6	S.U.	21a	10/12/2006
Saturation	144	%	27a	10/13/2006
Calcium saturated paste	0.09 (1)	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.15 (1)	meq/l	3-5.4	11/02/2006
Sodium saturated paste	10.7 (1)	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	31.3	----	20b	11/02/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-27	Description: SHMW-04D @ 144'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	65.0	%	42b mod.	10/17/2006
Silt	18.7	%	42b mod.	10/17/2006
Clay	16.3	%	42b mod.	10/17/2006
Texture	Sandy Loam	----	42b mod.	10/17/2006
Electrical Conductivity Saturated Paste	1.33	mmhos/cm	10-3.3	10/16/2006
pH Saturated Paste	9.7	S.U.	21a	10/12/2006
Saturation	71.4	%	27a	10/13/2006
Calcium saturated paste	0.35	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.22	meq/l	3-5.4	10/19/2006
Sodium saturated paste	12.9	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	24.2	----	20b	10/19/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-28	Description: SHMW-04D @ 148-153'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	71.3	%	42b mod.	10/17/2006
Silt	14.9	%	42b mod.	10/17/2006
Clay	13.8	%	42b mod.	10/17/2006
Texture	Sandy Loam	----	42b mod.	10/17/2006
Electrical Conductivity Saturated Paste	1.23	mmhos/cm	10-3.3	10/16/2006
pH Saturated Paste	9.3	S.U.	21a	10/12/2006
Saturation	59.7	%	27a	10/13/2006
Calcium saturated paste	0.15	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.16	meq/l	3-5.4	10/19/2006
Sodium saturated paste	12.0	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	30.4	----	20b	10/19/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-29	Description: SHMW-04D @ 153-158'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	75.0	%	42b mod.	10/17/2006
Silt	12.5	%	42b mod.	10/17/2006
Clay	12.5	%	42b mod.	10/17/2006
Texture	Sandy Loam	----	42b mod.	10/17/2006
Electrical Conductivity Saturated Paste	0.83	mmhos/cm	10-3.3	10/16/2006
pH Saturated Paste	9.4	S.U.	21a	10/12/2006
Saturation	46.7	%	27a	10/13/2006
Calcium saturated paste	0.58	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.41	meq/l	3-5.4	10/19/2006
Sodium saturated paste	8.88	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	12.6	----	20b	10/19/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-30	Description: SHMW-04D @ 158-163'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	75.0	%	42b mod.	10/17/2006
Silt	15.0	%	42b mod.	10/17/2006
Clay	10.0	%	42b mod.	10/17/2006
Texture	Sandy Loam	----	42b mod.	10/17/2006
Electrical Conductivity Saturated Paste	0.90	mmhos/cm	10-3.3	10/16/2006
pH Saturated Paste	9.2	S.U.	21a	10/12/2006
Saturation	46.6	%	27a	10/13/2006
Calcium saturated paste	0.34	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.20	meq/l	3-5.4	10/19/2006
Sodium saturated paste	9.09	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	17.5	----	20b	10/19/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-31	Description: SHMW-04D @ 163-168'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	73.6 (1)	%	27a	10/30/2006
Sand	76.3	%	42b mod.	10/17/2006
Silt	13.7	%	42b mod.	10/17/2006
Clay	10.0	%	42b mod.	10/17/2006
Texture	Sandy Loam	-----	42b mod.	10/17/2006
Electrical Conductivity Saturated Paste	1.11 (1)	mmhos/cm	10-3.3	11/01/2006
pH Saturated Paste	9.4	S.U.	21a	10/12/2006
Saturation	47.5	%	27a	10/13/2006
Calcium saturated paste	0.13 (1)	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	<0.08 (1)	meq/l	3-5.4	11/02/2006
Sodium saturated paste	10.3 (1)	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	32.4 (1)	-----	20b	11/02/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-32	Description: SHMW-04D @ 168-173'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	77.5	%	42b mod.	10/17/2006
Silt	12.5	%	42b mod.	10/17/2006
Clay	10.0	%	42b mod.	10/17/2006
Texture	Sandy Loam	----	42b mod.	10/17/2006
Electrical Conductivity Saturated Paste	0.75	mmhos/cm	10-3.3	10/16/2006
pH Saturated Paste	9.5	S.U.	21a	10/12/2006
Saturation	45.7	%	27a	10/13/2006
Calcium saturated paste	0.43	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.27	meq/l	3-5.4	10/19/2006
Sodium saturated paste	7.47	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	12.7	----	20b	10/19/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-33	Description: SHMW-04D @ 173-180'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	74.8 (1)	%	27a	10/30/2006
Sand	77.5	%	42b mod.	10/17/2006
Silt	11.2	%	42b mod.	10/17/2006
Clay	11.3	%	42b mod.	10/17/2006
Texture	Sandy Loam	-----	42b mod.	10/17/2006
Electrical Conductivity Saturated Paste	1.47 (1)	mmhos/cm	10-3.3	11/01/2006
pH Saturated Paste	9.5	S.U.	21a	10/12/2006
Saturation	48.6	%	27a	10/13/2006
Calcium saturated paste	0.26 (1)	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.30 (1)	meq/l	3-5.4	11/02/2006
Sodium saturated paste	13.6 (1)	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	25.8 (1)	-----	20b	11/02/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-34	Description: SHMW-04D @ 180-185'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	73.8	%	42b mod.	10/13/2006
Silt	14.9	%	42b mod.	10/13/2006
Clay	11.3	%	42b mod.	10/13/2006
Texture	Sandy Loam	----	42b mod.	10/13/2006
Electrical Conductivity Saturated Paste	1.18	mmhos/cm	10-3.3	10/24/2006
pH Saturated Paste	9.8	S.U.	21a	10/12/2006
Saturation	62.3	%	27a	10/13/2006
Calcium saturated paste	0.19	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	<0.08	meq/l	3-5.4	11/02/2006
Sodium saturated paste	10.7	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	29.2	----	20b	11/02/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-35	Description: SHMW-04D @ 185-190'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	72.5	%	42b mod.	10/13/2006
Silt	15.0	%	42b mod.	10/13/2006
Clay	12.5	%	42b mod.	10/13/2006
Texture	Sandy Loam	----	42b mod.	10/13/2006
Electrical Conductivity Saturated Paste	0.75	mmhos/cm	10-3.3	10/16/2006
pH Saturated Paste	9.7	S.U.	21a	10/12/2006
Saturation	79.0	%	27a	10/13/2006
Calcium saturated paste	0.34	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.28	meq/l	3-5.4	10/19/2006
Sodium saturated paste	8.79	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	15.8	----	20b	10/19/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-36	Description: SHMW-04D @ 190-195'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	232 (1)	%	27a	10/30/2006
Sand	6.3	%	42b mod.	10/13/2006
Silt	31.2	%	42b mod.	10/13/2006
Clay	62.5	%	42b mod.	10/13/2006
Texture	Clay	-----	42b mod.	10/13/2006
Electrical Conductivity Saturated Paste	1.37 (1)	mmhos/cm	10-3.3	11/01/2006
pH Saturated Paste	9.5	S.U.	21a	10/12/2006
Saturation	158	%	27a	10/13/2006
Calcium saturated paste	0.08 (1)	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	<0.08 (1)	meq/l	3-5.4	11/02/2006
Sodium saturated paste	12.8 (1)	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	48.0 (1)	-----	20b	11/02/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-37	Description: SHMW-04D @ 195-200'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	261 (1)	%	27a	10/30/2006
Sand	6.3	%	42b mod.	10/13/2006
Silt	48.7	%	42b mod.	10/13/2006
Clay	45.0	%	42b mod.	10/13/2006
Texture	Silty Clay	-----	42b mod.	10/13/2006
Electrical Conductivity Saturated Paste	1.01 (1)	mmhos/cm	10-3.3	10/24/2006
pH Saturated Paste	9.5	S.U.	21a	10/12/2006
Saturation	124	%	27a	10/13/2006
Calcium saturated paste	0.23 (1)	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.16 (1)	meq/l	3-5.4	11/02/2006
Sodium saturated paste	9.64 (1)	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	21.8 (1)	-----	20b	11/02/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-38	Description: SHMW-04D @ 200-204'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	230 (1)	%	27a	10/30/2006
Sand	10.0	%	42b mod.	10/13/2006
Silt	32.5	%	42b mod.	10/13/2006
Clay	57.5	%	42b mod.	10/13/2006
Texture	Clay	-----	42b mod.	10/13/2006
Electrical Conductivity Saturated Paste	0.78 (1)	mmhos/cm	10-3.3	10/24/2006
pH Saturated Paste	9.4	S.U.	21a	10/12/2006
Saturation	128	%	27a	10/13/2006
Calcium saturated paste	0.29 (1)	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.35 (1)	meq/l	3-5.4	11/02/2006
Sodium saturated paste	7.65 (1)	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	13.5 (1)	-----	20b	11/02/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-39	Description: SHMW-04D @ 222-227'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	239 (1)	%	27a	10/30/2006
Sand	16.3	%	42b mod.	10/13/2006
Silt	31.2	%	42b mod.	10/13/2006
Clay	52.5	%	42b mod.	10/13/2006
Texture	Clay	-----	42b mod.	10/13/2006
Electrical Conductivity Saturated Paste	0.84 (1)	mmhos/cm	10-3.3	10/24/2006
pH Saturated Paste	9.7	S.U.	21a	10/12/2006
Saturation	138	%	27a	10/13/2006
Calcium saturated paste	0.18 (1)	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.31 (1)	meq/l	3-5.4	11/02/2006
Sodium saturated paste	7.83 (1)	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	15.9 (1)	-----	20b	11/02/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-40	Description: SHMW-04D @ 227-232'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	214 (1)	%	27a	10/30/2006
Sand	8.8	%	42b mod.	10/13/2006
Silt	33.7	%	42b mod.	10/13/2006
Clay	57.5	%	42b mod.	10/13/2006
Texture	Clay	-----	42b mod.	10/13/2006
Electrical Conductivity Saturated Paste	1.07 (1)	mmhos/cm	10-3.3	11/01/2006
pH Saturated Paste	9.3	S.U.	21a	10/12/2006
Saturation	140	%	27a	10/13/2006
Calcium saturated paste	0.14 (1)	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.26 (1)	meq/l	3-5.4	11/02/2006
Sodium saturated paste	10.3 (1)	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	23.1 (1)	-----	20b	11/02/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-41	Description: SHMW-04D @ 232-235	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	42b mod.	10/17/2006
Silt	57.4	%	42b mod.	10/17/2006
Clay	31.3	%	42b mod.	10/17/2006
Texture	SiCILo	----	42b mod.	10/17/2006
Electrical Conductivity Saturated Paste	0.52	mmhos/cm	10-3.3	10/30/2006
pH Saturated Paste	9.7	S.U.	21a	10/25/2006
Saturation	192	%	27a	10/24/2006
Calcium saturated paste	0.31	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.48	meq/l	3-5.4	11/02/2006
Sodium saturated paste	5.37	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	8.52	----	20b	11/02/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-42	Description: SHMW-04D @ 235-240'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	0.0	%	42b mod.	10/17/2006
Silt	75.0	%	42b mod.	10/17/2006
Clay	25.0	%	42b mod.	10/17/2006
Texture	Silt Loam	-----	42b mod.	10/17/2006
Electrical Conductivity Saturated Paste	0.63	mmhos/cm	10-3.3	10/30/2006
pH Saturated Paste	9.4	S.U.	21a	10/25/2006
Saturation	95.3	%	27a	10/24/2006
Calcium saturated paste	1.50	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.65	meq/l	3-5.4	11/02/2006
Sodium saturated paste	6.05	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	5.83	-----	20b	11/02/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-43	Description: SHMW-04D @ 240-243'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	42b mod.	10/17/2006
Silt	52.5	%	42b mod.	10/17/2006
Clay	37.5	%	42b mod.	10/17/2006
Texture	SiClLo	-----	42b mod.	10/17/2006
Electrical Conductivity Saturated Paste	0.55	mmhos/cm	10-3.3	10/30/2006
pH Saturated Paste	9.5	S.U.	21a	10/25/2006
Saturation	181	%	27a	10/24/2006
Calcium saturated paste	0.44	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.40	meq/l	3-5.4	11/02/2006
Sodium saturated paste	4.98	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	7.68	-----	20b	11/02/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-44	Description: SHMW-04D @ 243-250'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	42b mod.	10/17/2006
Silt	56.2	%	42b mod.	10/17/2006
Clay	31.3	%	42b mod.	10/17/2006
Texture	SiClLo	----	42b mod.	10/17/2006
Electrical Conductivity Saturated Paste	0.63	mmhos/cm	10-3.3	10/30/2006
pH Saturated Paste	9.6	S.U.	21a	10/25/2006
Saturation	185	%	27a	10/24/2006
Calcium saturated paste	0.36	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.38	meq/l	3-5.4	11/02/2006
Sodium saturated paste	6.40	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	10.6	----	20b	11/02/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100061-45	Description: SHMW-04D @ 251-255'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	42b mod.	10/17/2006
Silt	46.2	%	42b mod.	10/17/2006
Clay	28.8	%	42b mod.	10/17/2006
Texture	Clay Loam	-----	42b mod.	10/17/2006
Electrical Conductivity Saturated Paste	0.77	mmhos/cm	10-3.3	10/30/2006
pH Saturated Paste	9.8	S.U.	21a	10/25/2006
Saturation	182	%	27a	10/24/2006
Calcium saturated paste	0.15	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	<0.08	meq/l	3-5.4	11/02/2006
Sodium saturated paste	8.03	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	25.3	-----	20b	11/02/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-2	Description: SHMW05-5-10	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	42b mod.	10/11/2006
Silt	27.5	%	42b mod.	10/11/2006
Clay	70.0	%	42b mod.	10/11/2006
Texture	Clay	----	42b mod.	10/11/2006
Electrical Conductivity Saturated Paste	5.87	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	8.1	S.U.	21a	10/11/2006
Saturation	133	%	27a	10/11/2006
Calcium saturated paste	11.3	meq/l	3-5.4	10/18/2006
Magnesium saturated paste	19.7	meq/l	3-5.4	10/18/2006
Sodium saturated paste	42.0	meq/l	3-5.4	10/18/2006
Sodium Adsorption Ratio	10.7	----	20b	10/18/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-3	Description: SHMW05-12-16	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	3.8	%	42b mod.	10/11/2006
Silt	37.4	%	42b mod.	10/11/2006
Clay	58.8	%	42b mod.	10/11/2006
Texture	Clay	----	42b mod.	10/11/2006
Electrical Conductivity Saturated Paste	5.71	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	7.7	S.U.	21a	10/11/2006
Saturation	140	%	27a	10/11/2006
Calcium saturated paste	12.8	meq/l	3-5.4	10/18/2006
Magnesium saturated paste	17.0	meq/l	3-5.4	10/18/2006
Sodium saturated paste	41.6	meq/l	3-5.4	10/18/2006
Sodium Adsorption Ratio	10.8	----	20b	10/18/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-4	Description: SHMW05-17-20	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.2	%	42b mod.	10/11/2006
Silt	42.6	%	42b mod.	10/11/2006
Clay	51.2	%	42b mod.	10/11/2006
Texture	Silty Clay	----	42b mod.	10/11/2006
Electrical Conductivity Saturated Paste	5.64	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	7.4	S.U.	21a	10/11/2006
Saturation	127	%	27a	10/11/2006
Calcium saturated paste	12.7	meq/l	3-5.4	10/18/2006
Magnesium saturated paste	16.4	meq/l	3-5.4	10/18/2006
Sodium saturated paste	41.0	meq/l	3-5.4	10/18/2006
Sodium Adsorption Ratio	10.8	----	20b	10/18/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-5	Description: SHMW05-22-26	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.2	%	42b mod.	10/11/2006
Silt	56.3	%	42b mod.	10/11/2006
Clay	37.5	%	42b mod.	10/11/2006
Texture	SiClLo	-----	42b mod.	10/11/2006
Electrical Conductivity Saturated Paste	2.72	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	8.4	S.U.	21a	10/11/2006
Saturation	151	%	27a	10/11/2006
Calcium saturated paste	1.74	meq/l	3-5.4	10/18/2006
Magnesium saturated paste	2.59	meq/l	3-5.4	10/18/2006
Sodium saturated paste	23.1	meq/l	3-5.4	10/18/2006
Sodium Adsorption Ratio	15.7	-----	20b	10/18/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-6	Description: SHMW05-27-32	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	42b mod.	10/11/2006
Silt	48.8	%	42b mod.	10/11/2006
Clay	46.2	%	42b mod.	10/11/2006
Texture	Silty Clay	----	42b mod.	10/11/2006
Electrical Conductivity Saturated Paste	1.93	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	8.6	S.U.	21a	10/11/2006
Saturation	145	%	27a	10/11/2006
Calcium saturated paste	1.07	meq/l	3-5.4	10/18/2006
Magnesium saturated paste	1.30	meq/l	3-5.4	10/18/2006
Sodium saturated paste	15.9	meq/l	3-5.4	10/18/2006
Sodium Adsorption Ratio	14.6	----	20b	10/18/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-7	Description: SHMW05-32-35	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	42b mod.	10/11/2006
Silt	55.0	%	42b mod.	10/11/2006
Clay	36.2	%	42b mod.	10/11/2006
Texture	SiClLo	----	42b mod.	10/11/2006
Electrical Conductivity Saturated Paste	1.59	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	8.9	S.U.	21a	10/11/2006
Saturation	126	%	27a	10/11/2006
Calcium saturated paste	0.83	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.83	meq/l	3-5.4	10/19/2006
Sodium saturated paste	13.3	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	14.6	----	20b	10/19/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-8	Description: SHMW05-35-37	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.2	%	42b mod.	10/11/2006
Silt	46.3	%	42b mod.	10/11/2006
Clay	42.5	%	42b mod.	10/11/2006
Texture	Silty Clay	----	42b mod.	10/11/2006
Electrical Conductivity Saturated Paste	3.26	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	8.0	S.U.	21a	10/11/2006
Saturation	123	%	27a	10/11/2006
Calcium saturated paste	5.77	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	7.11	meq/l	3-5.4	11/02/2006
Sodium saturated paste	24.2	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	9.53	----	20b	11/02/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-10	Description: SHMW05-43-48	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	42b mod.	10/11/2006
Silt	35.0	%	42b mod.	10/11/2006
Clay	56.2	%	42b mod.	10/11/2006
Texture	Clay	----	42b mod.	10/11/2006
Electrical Conductivity Saturated Paste	1.50	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	9.1	S.U.	21a	10/11/2006
Saturation	151	%	27a	10/11/2006
Calcium saturated paste	0.57	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.52	meq/l	3-5.4	11/02/2006
Sodium saturated paste	12.2	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	16.6	----	20b	11/02/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-11	Description: SHMW05-50-55	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	235 (1)	%	27a	10/27/2006
Sand	13.8	%	42b mod.	10/11/2006
Silt	33.7	%	42b mod.	10/11/2006
Clay	52.5	%	42b mod.	10/11/2006
Texture	Clay	-----	42b mod.	10/11/2006
Electrical Conductivity Saturated Paste	0.93 (1)	mmhos/cm	10-3.3	10/31/2006
pH Saturated Paste	9.8	S.U.	21a	10/11/2006
Saturation	236	%	27a	10/11/2006
Calcium saturated paste	0.21 (1)	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.30 (1)	meq/l	3-5.4	11/02/2006
Sodium saturated paste	8.71 (1)	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	17.3 (1)	-----	20b	11/02/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-12	Description: SHMW05-57-63	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	42b mod.	10/11/2006
Silt	53.8	%	42b mod.	10/11/2006
Clay	26.2	%	42b mod.	10/11/2006
Texture	Silt Loam	----	42b mod.	10/11/2006
Electrical Conductivity Saturated Paste	1.40	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	9.0	S.U.	21a	10/11/2006
Saturation	120	%	27a	10/11/2006
Calcium saturated paste	0.47	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.37	meq/l	3-5.4	10/19/2006
Sodium saturated paste	12.8	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	19.7	----	20b	10/19/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-13	Description: SHMW05-65-68	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	42b mod.	10/11/2006
Silt	65.0	%	42b mod.	10/11/2006
Clay	26.2	%	42b mod.	10/11/2006
Texture	Silt Loam	-----	42b mod.	10/11/2006
Electrical Conductivity Saturated Paste	0.68	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	9.3	S.U.	21a	10/11/2006
Saturation	101	%	27a	10/11/2006
Calcium saturated paste	0.45	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.26	meq/l	3-5.4	10/19/2006
Sodium saturated paste	6.21	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	10.4	-----	20b	10/19/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-14	Description: SHMW05-69-74	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	42b mod.	10/11/2006
Silt	63.7	%	42b mod.	10/11/2006
Clay	22.5	%	42b mod.	10/11/2006
Texture	Silt Loam	-----	42b mod.	10/11/2006
Electrical Conductivity Saturated Paste	0.81	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	9.2	S.U.	21a	10/11/2006
Saturation	70.0	%	27a	10/11/2006
Calcium saturated paste	0.35	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.29	meq/l	3-5.4	10/19/2006
Sodium saturated paste	7.52	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	13.3	-----	20b	10/19/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-15	Description: SHMW05-75-80	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	41.2	%	42b mod.	10/11/2006
Silt	48.8	%	42b mod.	10/11/2006
Clay	10.0	%	42b mod.	10/11/2006
Texture	Loam	-----	42b mod.	10/11/2006
Electrical Conductivity Saturated Paste	0.78	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	9.4	S.U.	21a	10/11/2006
Saturation	30.9	%	27a	10/11/2006
Calcium saturated paste	0.09	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.14	meq/l	3-5.4	10/19/2006
Sodium saturated paste	7.38	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	21.8	-----	20b	10/19/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-16	Description: SHMW05-80-85	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	56.2	%	42b mod.	10/11/2006
Silt	32.6	%	42b mod.	10/11/2006
Clay	11.2	%	42b mod.	10/11/2006
Texture	Sandy Loam	----	42b mod.	10/11/2006
Electrical Conductivity Saturated Paste	0.79	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	9.5	S.U.	21a	10/11/2006
Saturation	31.7	%	27a	10/11/2006
Calcium saturated paste	0.35	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.38	meq/l	3-5.4	10/19/2006
Sodium saturated paste	8.01	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	13.3	----	20b	10/19/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-17	Description: SHMW05-85-90	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	71.2	%	42b mod.	10/11/2006
Silt	20.0	%	42b mod.	10/11/2006
Clay	8.8	%	42b mod.	10/11/2006
Texture	Sandy Loam	----	42b mod.	10/11/2006
Electrical Conductivity Saturated Paste	0.77	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	9.5	S.U.	21a	10/11/2006
Saturation	32.6	%	27a	10/11/2006
Calcium saturated paste	0.36	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.22	meq/l	3-5.4	10/19/2006
Sodium saturated paste	8.55	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	15.8	----	20b	10/19/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-18	Description: SHMW05-90-95	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	78.8	%	42b mod.	10/11/2006
Silt	13.7	%	42b mod.	10/11/2006
Clay	7.5	%	42b mod.	10/11/2006
Texture	Loamy Sand	-----	42b mod.	10/11/2006
Electrical Conductivity Saturated Paste	0.91	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	9.6	S.U.	21a	10/11/2006
Saturation	52.5	%	27a	10/11/2006
Calcium saturated paste	0.66	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.41	meq/l	3-5.4	10/19/2006
Sodium saturated paste	8.68	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	11.9	-----	20b	10/19/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-19	Description: SHMW05-95-100	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	76.2	%	42b mod.	10/11/2006
Silt	17.6	%	42b mod.	10/11/2006
Clay	6.2	%	42b mod.	10/11/2006
Texture	Loamy Sand	-----	42b mod.	10/11/2006
Electrical Conductivity Saturated Paste	1.23	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	9.3	S.U.	21a	10/11/2006
Saturation	33.5	%	27a	10/11/2006
Calcium saturated paste	0.86	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.82	meq/l	3-5.4	10/19/2006
Sodium saturated paste	11.0	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	12.0	-----	20b	10/19/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-20	Description: SHMW05-100-105	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006		
Collected by: WITT & ELLIOTT		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	56.2	%	42b mod.	10/11/2006
Silt	28.8	%	42b mod.	10/11/2006
Clay	15.0	%	42b mod.	10/11/2006
Texture	Sandy Loam	----	42b mod.	10/11/2006
Electrical Conductivity Saturated Paste	0.48	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	9.0	S.U.	21a	10/11/2006
Saturation	29.6	%	27a	10/11/2006
Calcium saturated paste	0.51	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.31	meq/l	3-5.4	10/19/2006
Sodium saturated paste	3.83	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	6.00	----	20b	10/19/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-21	Description: SHMW05-105-110	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	42b mod.	10/17/2006
Silt	61.2	%	42b mod.	10/17/2006
Clay	21.3	%	42b mod.	10/17/2006
Texture	Silt Loam	----	42b mod.	10/17/2006
Electrical Conductivity Saturated Paste	0.62	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	9.0	S.U.	21a	10/11/2006
Saturation	27.7	%	27a	10/11/2006
Calcium saturated paste	0.59	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.31	meq/l	3-5.4	10/19/2006
Sodium saturated paste	5.82	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	8.66	----	20b	10/19/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-22	Description: SHMW05-110-115	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	45.0	%	42b mod.	10/17/2006
Silt	35.0	%	42b mod.	10/17/2006
Clay	20.0	%	42b mod.	10/17/2006
Texture	Loam	-----	42b mod.	10/17/2006
Electrical Conductivity Saturated Paste	0.72	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	8.9	S.U.	21a	10/11/2006
Saturation	29.8	%	27a	10/11/2006
Calcium saturated paste	0.43	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.40	meq/l	3-5.4	10/19/2006
Sodium saturated paste	6.88	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	10.6	-----	20b	10/19/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-1	Description: SHMW05-115-120	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/02/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	61.3	%	42b mod.	10/26/2006
Silt	28.7	%	42b mod.	10/26/2006
Clay	10.0	%	42b mod.	10/26/2006
Texture	Sandy Loam	---	42b mod.	10/26/2006
Electrical Conductivity Saturated Paste	1.34	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.3	S.U.	21a	10/24/2006
Saturation	41.5	%	27a	10/23/2006
Calcium saturated paste	0.77	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.48	meq/l	3-5.4	10/31/2006
Sodium saturated paste	12.7	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	16.1	---	20b	10/31/2006
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-3	Description: SHMW05-120-124	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/02/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	63.8	%	42b mod.	10/26/2006
Silt	21.2	%	42b mod.	10/26/2006
Clay	15.0	%	42b mod.	10/26/2006
Texture	Sandy Loam	----	42b mod.	10/26/2006
Electrical Conductivity Saturated Paste	1.79	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.4	S.U.	21a	10/24/2006
Saturation	47.0	%	27a	10/23/2006
Calcium saturated paste	0.84	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.52	meq/l	3-5.4	10/31/2006
Sodium saturated paste	17.6	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	21.3	---	20b	10/31/2006
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-4	Description: SHMW05-124-129	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/02/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	0	%	42b mod.	10/26/2006
Silt	58.7	%	42b mod.	10/26/2006
Clay	41.3	%	42b mod.	10/26/2006
Texture	Silty Clay	---	42b mod.	10/26/2006
Electrical Conductivity Saturated Paste	0.76	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.2	S.U.	21a	10/24/2006
Saturation	130	%	27a	10/23/2006
Calcium saturated paste	0.37	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.25	meq/l	3-5.4	10/31/2006
Sodium saturated paste	7.59	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	13.7	---	20b	10/31/2006
Sample Preparation	----	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-5	Description: SHMW05-129-133	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/02/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	1.3	%	42b mod.	10/26/2006
Silt	61.2	%	42b mod.	10/26/2006
Clay	37.5	%	42b mod.	10/26/2006
Texture	Si Cl Lo	---	42b mod.	10/26/2006
Electrical Conductivity Saturated Paste	1.07	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.3	S.U.	21a	10/24/2006
Saturation	137	%	27a	10/23/2006
Calcium saturated paste	0.60	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.37	meq/l	3-5.4	10/31/2006
Sodium saturated paste	10.4	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	14.9	---	20b	10/31/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-6	Description: SHMW05-133-136	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/02/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	27.5	%	42b mod.	10/26/2006
Silt	51.2	%	42b mod.	10/26/2006
Clay	21.3	%	42b mod.	10/26/2006
Texture	Silt Loam	---	42b mod.	10/26/2006
Electrical Conductivity Saturated Paste	1.16	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.4	S.U.	21a	10/24/2006
Saturation	109	%	27a	10/23/2006
Calcium saturated paste	0.44	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.30	meq/l	3-5.4	10/31/2006
Sodium saturated paste	11.5	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	19.0	---	20b	10/31/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-7	Description: SHMW05-136-141	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/02/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	61.3	%	42b mod.	10/26/2006
Silt	21.2	%	42b mod.	10/26/2006
Clay	17.5	%	42b mod.	10/26/2006
Texture	Sandy Loam	---	42b mod.	10/26/2006
Electrical Conductivity Saturated Paste	1.01	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.5	S.U.	21a	10/24/2006
Saturation	79.8	%	27a	10/23/2006
Calcium saturated paste	0.34	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.26	meq/l	3-5.4	10/31/2006
Sodium saturated paste	9.58	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	17.5	---	20b	10/31/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-8	Description: SHMW05-141-146	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/02/2006		
Collected by: WITT & ELLIOTT		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	70.0	%	42b mod.	10/26/2006
Silt	17.5	%	42b mod.	10/26/2006
Clay	12.5	%	42b mod.	10/26/2006
Texture	Sandy Loam	---	42b mod.	10/26/2006
Electrical Conductivity Saturated Paste	1.42	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.5	S.U.	21a	10/24/2006
Saturation	76.2	%	27a	10/23/2006
Calcium saturated paste	0.36	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.26	meq/l	3-5.4	10/31/2006
Sodium saturated paste	13.8	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	24.9	---	20b	10/31/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-9	Description: SHMW05-146-151	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/02/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	72.5	%	42b mod.	10/26/2006
Silt	17.5	%	42b mod.	10/26/2006
Clay	10.0	%	42b mod.	10/26/2006
Texture	Sandy Loam	---	42b mod.	10/26/2006
Electrical Conductivity Saturated Paste	1.26	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.2	S.U.	21a	10/24/2006
Saturation	58.6	%	27a	10/23/2006
Calcium saturated paste	0.32	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.23	meq/l	3-5.4	10/31/2006
Sodium saturated paste	11.9	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	22.6	----	20b	10/31/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-10	Description: SHMW05-175-177.5	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/02/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	42b mod.	10/26/2006
Silt	55.0	%	42b mod.	10/26/2006
Clay	42.5	%	42b mod.	10/26/2006
Texture	Silty Clay	—	42b mod.	10/26/2006
Electrical Conductivity Saturated Paste	1.16	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.4	S.U.	21a	10/24/2006
Saturation	180	%	27a	10/23/2006
Calcium saturated paste	0.49	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.29	meq/l	3-5.4	10/31/2006
Sodium saturated paste	11.4	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	18.2	—	20b	10/31/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-11	Description: SHMW05-184-188	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/03/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	60.0	%	42b mod.	10/26/2006
Silt	21.2	%	42b mod.	10/26/2006
Clay	18.8	%	42b mod.	10/26/2006
Texture	Sandy Loam	---	42b mod.	10/26/2006
Electrical Conductivity Saturated Paste	0.99	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.3	S.U.	21a	10/24/2006
Saturation	84.2	%	27a	10/23/2006
Calcium saturated paste	0.22	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.15	meq/l	3-5.4	10/31/2006
Sodium saturated paste	9.40	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	21.8	---	20b	10/31/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-12	Description: SHMW05-193-198	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/03/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	70.0	%	42b mod.	10/26/2006
Silt	13.7	%	42b mod.	10/26/2006
Clay	16.3	%	42b mod.	10/26/2006
Texture	Sandy Loam	----	42b mod.	10/26/2006
Electrical Conductivity Saturated Paste	1.04	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.4	S.U.	21a	10/24/2006
Saturation	70.8	%	27a	10/23/2006
Calcium saturated paste	0.55	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.29	meq/l	3-5.4	10/31/2006
Sodium saturated paste	9.97	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	15.4	---	20b	10/31/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-14	Description: SHMW05-198-203	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/03/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	67.5	%	42b mod.	10/26/2006
Silt	25.0	%	42b mod.	10/26/2006
Clay	7.5	%	42b mod.	10/26/2006
Texture	Sandy Loam	—	42b mod.	10/26/2006
Electrical Conductivity Saturated Paste	1.31	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.5	S.U.	21a	10/24/2006
Saturation	66.6	%	27a	10/23/2006
Calcium saturated paste	0.61	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.35	meq/l	3-5.4	10/31/2006
Sodium saturated paste	13.2	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	19.1	—	20b	10/31/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-15	Description: SHMW05-205-210	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/03/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	70.0	%	42b mod.	10/26/2006
Silt	18.7	%	42b mod.	10/26/2006
Clay	11.3	%	42b mod.	10/26/2006
Texture	Sandy Loam	----	42b mod.	10/26/2006
Electrical Conductivity Saturated Paste	0.71	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.3	S.U.	21a	10/24/2006
Saturation	64.2	%	27a	10/23/2006
Calcium saturated paste	0.37	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.22	meq/l	3-5.4	10/31/2006
Sodium saturated paste	6.42	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	11.8	—	20b	10/31/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-16	Description: SHMW05-210-215	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/03/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	67.5	%	42b mod.	10/26/2006
Silt	15.0	%	42b mod.	10/26/2006
Clay	17.5	%	42b mod.	10/26/2006
Texture	Sandy Loam	—	42b mod.	10/26/2006
Electrical Conductivity Saturated Paste	1.77	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.4	S.U.	21a	10/24/2006
Saturation	63.2	%	27a	10/23/2006
Calcium saturated paste	0.25	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.19	meq/l	3-5.4	10/31/2006
Sodium saturated paste	18.3	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	39.2	—	20b	10/31/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-17	Description: SHMW05-215-220	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/03/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	71.3	%	42b mod.	10/26/2006
Silt	17.4	%	42b mod.	10/26/2006
Clay	11.3	%	42b mod.	10/26/2006
Texture	Sandy Loam	----	42b mod.	10/26/2006
Electrical Conductivity Saturated Paste	1.16	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.3	S.U.	21a	10/24/2006
Saturation	65.8	%	27a	10/23/2006
Calcium saturated paste	0.39	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.25	meq/l	3-5.4	10/31/2006
Sodium saturated paste	11.3	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	20.1	—	20b	10/31/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-18	Description: SHMW05-220-225	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/03/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	62.5	%	42b mod.	10/26/2006
Silt	18.7	%	42b mod.	10/26/2006
Clay	18.8	%	42b mod.	10/26/2006
Texture	Sandy Loam	----	42b mod.	10/26/2006
Electrical Conductivity Saturated Paste	1.06	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.4	S.U.	21a	10/24/2006
Saturation	77.0	%	27a	10/23/2006
Calcium saturated paste	0.38	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.24	meq/l	3-5.4	10/31/2006
Sodium saturated paste	10.1	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	18.3	—	20b	10/31/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-19	Description: SHMW05-225-230	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/03/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	67.5	%	42b mod.	10/26/2006
Silt	21.2	%	42b mod.	10/26/2006
Clay	11.3	%	42b mod.	10/26/2006
Texture	Sandy Loam	----	42b mod.	10/26/2006
Electrical Conductivity Saturated Paste	1.33	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.4	S.U.	21a	10/24/2006
Saturation	69.8	%	27a	10/23/2006
Calcium saturated paste	0.35	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.25	meq/l	3-5.4	10/31/2006
Sodium saturated paste	13.1	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	24.0	---	20b	10/31/2006
Sample Preparation	----	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-20	Description: SHMW05-230-235	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/03/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	72.5	%	42b mod.	10/26/2006
Silt	16.2	%	42b mod.	10/26/2006
Clay	11.3	%	42b mod.	10/26/2006
Texture	Sandy Loam	—	42b mod.	10/26/2006
Electrical Conductivity Saturated Paste	1.27	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.4	S.U.	21a	10/24/2006
Saturation	73.6	%	27a	10/23/2006
Calcium saturated paste	0.34	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.20	meq/l	3-5.4	10/31/2006
Sodium saturated paste	12.5	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	24.2	----	20b	10/31/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-21	Description: SHMW05-235-238	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/03/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	80.0	%	42b mod.	10/31/2006
Silt	6.2	%	42b mod.	10/31/2006
Clay	13.8	%	42b mod.	10/31/2006
Texture	Sandy Loam	---	42b mod.	10/31/2006
Electrical Conductivity Saturated Paste	0.94	mmhos/cm	10-3.3	10/30/2006
pH Saturated Paste	9.3	S.U.	21a	10/25/2006
Saturation	50.6	%	27a	10/24/2006
Calcium saturated paste	0.18	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.12	meq/l	3-5.4	11/02/2006
Sodium saturated paste	8.55	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	22.0	---	20b	11/02/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.:	2006100095-22	Description:	SHMW05-239.5-242	Matrix:	SOIL
Date Received:	10/09/2006	Date Collected:	10/03/2006	Collected by:	WITT & ELLIOTT

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	42b mod.	10/31/2006
Silt	48.7	%	42b mod.	10/31/2006
Clay	45.0	%	42b mod.	10/31/2006
Texture	Silty Clay	—	42b mod.	10/31/2006
Electrical Conductivity Saturated Paste	1.04	mmhos/cm	10-3.3	10/30/2006
pH Saturated Paste	9.1	S.U.	21a	10/25/2006
Saturation	170	%	27a	10/24/2006
Calcium saturated paste	0.29	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.22	meq/l	3-5.4	11/02/2006
Sodium saturated paste	11.1	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	22.1	—	20b	11/02/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.:	2006100095-23	Description:	SHMW05-242-244	Matrix:	SOIL
Date Received:	10/09/2006				
Date Collected:	10/03/2006	Collected by:	WITT & ELLIOTT		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	42b mod.	10/31/2006
Silt	37.5	%	42b mod.	10/31/2006
Clay	57.5	%	42b mod.	10/31/2006
Texture	Clay	—	42b mod.	10/31/2006
Electrical Conductivity Saturated Paste	1.03	mmhos/cm	10-3.3	10/30/2006
pH Saturated Paste	9.1	S.U.	21a	10/25/2006
Saturation	159	%	27a	10/24/2006
Calcium saturated paste	0.22	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.28	meq/l	3-5.4	11/02/2006
Sodium saturated paste	10.6	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	21.4	—	20b	11/02/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-24	Description: SHMW05-244-250	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/03/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	1.3	%	42b mod.	10/31/2006
Silt	58.7	%	42b mod.	10/31/2006
Clay	40.0	%	42b mod.	10/31/2006
Texture	Silty Clay	—	42b mod.	10/31/2006
Electrical Conductivity Saturated Paste	0.97	mmhos/cm	10-3.3	10/30/2006
pH Saturated Paste	9.1	S.U.	21a	10/25/2006
Saturation	129	%	27a	10/24/2006
Calcium saturated paste	0.29	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.23	meq/l	3-5.4	11/02/2006
Sodium saturated paste	9.57	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	18.8	—	20b	11/02/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-32 Description: SHMW06-0-5 (1.5-5 ON BAG) Matrix: SOIL
 Date Received: 10/05/2006
 Date Collected: 09/26/2006 Collected by: ELLIOTT & WITT

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	42b mod.	10/18/2006
Silt	26.2	%	42b mod.	10/18/2006
Clay	53.8	%	42b mod.	10/18/2006
Texture	Clay	----	42b mod.	10/18/2006
Electrical Conductivity Saturated Paste	2.46	mmhos/cm	10-3.3	10/19/2006
pH Saturated Paste	7.7	S.U.	21a	10/18/2006
Saturation	65.4	%	27a	10/17/2006
Calcium saturated paste	6.82	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	7.38	meq/l	3-5.4	10/19/2006
Sodium saturated paste	12.8	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	4.80	----	20b	10/19/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-33	Description: SHMW06-5-8	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	42b mod.	10/18/2006
Silt	25.0	%	42b mod.	10/18/2006
Clay	62.5	%	42b mod.	10/18/2006
Texture	Clay	----	42b mod.	10/18/2006
Electrical Conductivity Saturated Paste	4.92	mmhos/cm	10-3.3	10/19/2006
pH Saturated Paste	7.7	S.U.	21a	10/18/2006
Saturation	66.4	%	27a	10/17/2006
Calcium saturated paste	25.1	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	26.2	meq/l	3-5.4	10/19/2006
Sodium saturated paste	19.9	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	3.93	----	20b	10/19/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-34	Description: SHMW06-11.5-15	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	35.0	%	42b mod.	10/18/2006
Silt	46.2	%	42b mod.	10/18/2006
Clay	18.8	%	42b mod.	10/18/2006
Texture	Loam	-----	42b mod.	10/18/2006
Electrical Conductivity Saturated Paste	2.12	mmhos/cm	10-3.3	10/19/2006
pH Saturated Paste	8.1	S.U.	21a	10/18/2006
Saturation	44.0	%	27a	10/17/2006
Calcium saturated paste	5.14	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	5.20	meq/l	3-5.4	10/19/2006
Sodium saturated paste	10.4	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	4.57	-----	20b	10/19/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-35	Description: SHMW06-15-20	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	47.5	%	42b mod.	10/18/2006
Silt	41.2	%	42b mod.	10/18/2006
Clay	11.3	%	42b mod.	10/18/2006
Texture	Loam	-----	42b mod.	10/18/2006
Electrical Conductivity Saturated Paste	1.28	mmhos/cm	10-3.3	10/19/2006
pH Saturated Paste	8.0	S.U.	21a	10/18/2006
Saturation	37.4	%	27a	10/17/2006
Calcium saturated paste	4.50	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	3.28	meq/l	3-5.4	10/19/2006
Sodium saturated paste	4.70	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	2.38	-----	20b	10/19/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-1	Description: SHMW06-21.5-25	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	26.3	%	42b mod.	10/14/2006
Silt	61.2	%	42b mod.	10/14/2006
Clay	12.5	%	42b mod.	10/14/2006
Texture	Silt Loam	----	42b mod.	10/14/2006
Electrical Conductivity Saturated Paste	1.63	mmhos/cm	10-3.3	10/18/2006
pH Saturated Paste	7.9	S.U.	21a	10/17/2006
Saturation	42.3	%	27a	10/16/2006
Calcium saturated paste	8.03	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	4.76	meq/l	3-5.4	10/19/2006
Sodium saturated paste	5.33	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	2.11	----	20b	10/19/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-2	Description: SHMW06-25-30	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	31.3	%	42b mod.	10/14/2006
Silt	57.4	%	42b mod.	10/14/2006
Clay	11.3	%	42b mod.	10/14/2006
Texture	Silt Loam	-----	42b mod.	10/14/2006
Electrical Conductivity Saturated Paste	1.59	mmhos/cm	10-3.3	10/18/2006
pH Saturated Paste	7.9	S.U.	21a	10/17/2006
Saturation	40.8	%	27a	10/16/2006
Calcium saturated paste	7.34	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	4.43	meq/l	3-5.4	10/19/2006
Sodium saturated paste	5.42	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	2.23	-----	20b	10/19/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-3	Description: SHMW06-30-35	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	48.8	%	42b mod.	10/14/2006
Silt	41.2	%	42b mod.	10/14/2006
Clay	10.0	%	42b mod.	10/14/2006
Texture	Loam	-----	42b mod.	10/14/2006
Electrical Conductivity Saturated Paste	1.91	mmhos/cm	10-3.3	10/18/2006
pH Saturated Paste	7.9	S.U.	21a	10/17/2006
Saturation	39.4	%	27a	10/16/2006
Calcium saturated paste	9.52	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	5.56	meq/l	3-5.4	10/19/2006
Sodium saturated paste	6.54	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	2.38	-----	20b	10/19/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-4	Description: SHMW06-35-37	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	36.3	%	42b mod.	10/14/2006
Silt	41.2	%	42b mod.	10/14/2006
Clay	22.5	%	42b mod.	10/14/2006
Texture	Loam	----	42b mod.	10/14/2006
Electrical Conductivity Saturated Paste	2.29	mmhos/cm	10-3.3	10/18/2006
pH Saturated Paste	8.0	S.U.	21a	10/17/2006
Saturation	36.1	%	27a	10/16/2006
Calcium saturated paste	10.1	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	6.44	meq/l	3-5.4	10/19/2006
Sodium saturated paste	8.08	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	2.81	----	20b	10/19/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-5	Description: SHMW06-37-41	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	61.3	%	42b mod.	10/14/2006
Silt	32.4	%	42b mod.	10/14/2006
Clay	6.3	%	42b mod.	10/14/2006
Texture	Sandy Loam	----	42b mod.	10/14/2006
Electrical Conductivity Saturated Paste	2.24	mmhos/cm	10-3.3	10/18/2006
pH Saturated Paste	7.9	S.U.	21a	10/17/2006
Saturation	33.4	%	27a	10/16/2006
Calcium saturated paste	10.3	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	6.64	meq/l	3-5.4	10/19/2006
Sodium saturated paste	8.53	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	2.93	----	20b	10/19/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-6	Description: SHMW06-41-45	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	53.8	%	42b mod.	10/14/2006
Silt	34.9	%	42b mod.	10/14/2006
Clay	11.3	%	42b mod.	10/14/2006
Texture	Sandy Loam	-----	42b mod.	10/14/2006
Electrical Conductivity Saturated Paste	2.36	mmhos/cm	10-3.3	10/18/2006
pH Saturated Paste	8.1	S.U.	21a	10/17/2006
Saturation	32.7	%	27a	10/16/2006
Calcium saturated paste	7.94	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	6.48	meq/l	3-5.4	10/19/2006
Sodium saturated paste	11.3	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	4.20	-----	20b	10/19/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-7	Description: SHMW06-46.5-51.5	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006		
Collected by: ELLIOTT & WITT		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	42.5	%	42b mod.	10/14/2006
Silt	37.5	%	42b mod.	10/14/2006
Clay	20.0	%	42b mod.	10/14/2006
Texture	Loam	----	42b mod.	10/14/2006
Electrical Conductivity Saturated Paste	6.57	mmhos/cm	10-3.3	10/18/2006
pH Saturated Paste	7.5	S.U.	21a	10/17/2006
Saturation	52.2	%	27a	10/16/2006
Calcium saturated paste	21.8	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	38.7	meq/l	3-5.4	10/19/2006
Sodium saturated paste	33.9	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	6.17	----	20b	10/19/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-9	Description: SHMW06-69.5-72.5	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	42b mod.	10/14/2006
Silt	45.0	%	42b mod.	10/14/2006
Clay	35.0	%	42b mod.	10/14/2006
Texture	SiCILo	----	42b mod.	10/14/2006
Electrical Conductivity Saturated Paste	1.25	mmhos/cm	10-3.3	10/18/2006
pH Saturated Paste	9.0	S.U.	21a	10/17/2006
Saturation	150	%	27a	10/16/2006
Calcium saturated paste	0.64	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.48	meq/l	3-5.4	10/24/2006
Sodium saturated paste	11.8	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	15.7	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-8	Description: SHMW06-72.5-77.5	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	30.0	%	42b mod.	10/14/2006
Silt	46.2	%	42b mod.	10/14/2006
Clay	23.8	%	42b mod.	10/14/2006
Texture	Loam	-----	42b mod.	10/14/2006
Electrical Conductivity Saturated Paste	0.95	mmhos/cm	10-3.3	10/18/2006
pH Saturated Paste	9.2	S.U.	21a	10/17/2006
Saturation	164	%	27a	10/16/2006
Calcium saturated paste	0.52	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.40	meq/l	3-5.4	10/19/2006
Sodium saturated paste	8.60	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	12.7	-----	20b	10/19/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-10	Description: SHMW06-78-83	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	23.8	%	42b mod.	10/14/2006
Silt	59.9	%	42b mod.	10/14/2006
Clay	16.3	%	42b mod.	10/14/2006
Texture	Silt Loam	-----	42b mod.	10/14/2006
Electrical Conductivity Saturated Paste	1.63	mmhos/cm	10-3.3	10/18/2006
pH Saturated Paste	9.3	S.U.	21a	10/17/2006
Saturation	123	%	27a	10/16/2006
Calcium saturated paste	0.64	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.40	meq/l	3-5.4	10/24/2006
Sodium saturated paste	16.8	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	23.3	-----	20b	10/24/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-11	Description: SHMW06-83-88	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	58.8	%	42b mod.	10/14/2006
Silt	29.9	%	42b mod.	10/14/2006
Clay	11.3	%	42b mod.	10/14/2006
Texture	Sandy Loam	-----	42b mod.	10/14/2006
Electrical Conductivity Saturated Paste	1.62	mmhos/cm	10-3.3	10/18/2006
pH Saturated Paste	9.2	S.U.	21a	10/17/2006
Saturation	73.2	%	27a	10/16/2006
Calcium saturated paste	0.43	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.34	meq/l	3-5.4	10/24/2006
Sodium saturated paste	16.0	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	25.8	-----	20b	10/24/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-12	Description: SHMW06-88-93	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	71.3	%	42b mod.	10/14/2006
Silt	16.2	%	42b mod.	10/14/2006
Clay	12.5	%	42b mod.	10/14/2006
Texture	Sandy Loam	-----	42b mod.	10/14/2006
Electrical Conductivity Saturated Paste	3.46	mmhos/cm	10-3.3	10/18/2006
pH Saturated Paste	7.9	S.U.	21a	10/17/2006
Saturation	98.0	%	27a	10/16/2006
Calcium saturated paste	0.84	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.96	meq/l	3-5.4	10/24/2006
Sodium saturated paste	39.7	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	41.8	-----	20b	10/24/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-14	Description: SHMW06-93-97	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	50.0	%	42b mod.	10/17/2006
Silt	40.0	%	42b mod.	10/17/2006
Clay	10.0	%	42b mod.	10/17/2006
Texture	Loam	----	42b mod.	10/17/2006
Electrical Conductivity Saturated Paste	1.97	mmhos/cm	10-3.3	10/18/2006
pH Saturated Paste	9.2	S.U.	21a	10/17/2006
Saturation	86.2	%	27a	10/16/2006
Calcium saturated paste	0.51	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.39	meq/l	3-5.4	10/24/2006
Sodium saturated paste	22.8	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	33.9	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-15	Description: SHMW06-97-99.5	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	42b mod.	10/14/2006
Silt	65.0	%	42b mod.	10/14/2006
Clay	15.0	%	42b mod.	10/14/2006
Texture	Silt Loam	-----	42b mod.	10/14/2006
Electrical Conductivity Saturated Paste	1.49	mmhos/cm	10-3.3	10/18/2006
pH Saturated Paste	9.3	S.U.	21a	10/17/2006
Saturation	135	%	27a	10/16/2006
Calcium saturated paste	0.44	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.29	meq/l	3-5.4	10/24/2006
Sodium saturated paste	15.6	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	25.8	-----	20b	10/24/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-16	Description: SHMW06-99.5-105	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/27/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	81.3	%	42b mod.	10/14/2006
Silt	9.9	%	42b mod.	10/14/2006
Clay	8.8	%	42b mod.	10/14/2006
Texture	Loamy Sand	-----	42b mod.	10/14/2006
Electrical Conductivity Saturated Paste	1.22	mmhos/cm	10-3.3	10/18/2006
pH Saturated Paste	9.4	S.U.	21a	10/17/2006
Saturation	70.7	%	27a	10/17/2006
Calcium saturated paste	0.45	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.24	meq/l	3-5.4	10/24/2006
Sodium saturated paste	12.0	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	20.4	-----	20b	10/24/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-25	Description: SHMW06-105-107.5	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	75.0	%	42b mod.	10/18/2006
Silt	12.5	%	42b mod.	10/18/2006
Clay	12.5	%	42b mod.	10/18/2006
Texture	Sandy Loam	----	42b mod.	10/18/2006
Electrical Conductivity Saturated Paste	1.99	mmhos/cm	10-3.3	10/19/2006
pH Saturated Paste	9.5	S.U.	21a	10/18/2006
Saturation	67.5	%	27a	10/17/2006
Calcium saturated paste	0.42	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.26	meq/l	3-5.4	10/24/2006
Sodium saturated paste	20.1	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	34.6	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-26	Description: SHMW06-109.6-112.5	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	42b mod.	10/18/2006
Silt	60.0	%	42b mod.	10/18/2006
Clay	17.5	%	42b mod.	10/18/2006
Texture	Silt Loam	-----	42b mod.	10/18/2006
Electrical Conductivity Saturated Paste	1.23	mmhos/cm	10-3.3	10/19/2006
pH Saturated Paste	9.4	S.U.	21a	10/18/2006
Saturation	148	%	27a	10/17/2006
Calcium saturated paste	0.29	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.22	meq/l	3-5.4	10/24/2006
Sodium saturated paste	14.0	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	27.7	-----	20b	10/24/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.:	2006100063-27	Description:	SHMW06-112.5-114.6	Matrix:	SOIL
Date Received:	10/05/2006	Date Collected:	09/28/2006	Collected by:	ELLIOTT & WITT

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	75.0	%	42b mod.	10/18/2006
Silt	12.5	%	42b mod.	10/18/2006
Clay	12.5	%	42b mod.	10/18/2006
Texture	Sandy Loam	----	42b mod.	10/18/2006
Electrical Conductivity Saturated Paste	1.22	mmhos/cm	10-3.3	10/19/2006
pH Saturated Paste	9.4	S.U.	21a	10/18/2006
Saturation	65.1	%	27a	10/17/2006
Calcium saturated paste	0.34	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.21	meq/l	3-5.4	10/24/2006
Sodium saturated paste	11.6	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	22.0	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-28	Description: SHMW06-116.5-118.5	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	42.5	%	42b mod.	10/18/2006
Silt	35.0	%	42b mod.	10/18/2006
Clay	22.5	%	42b mod.	10/18/2006
Texture	Loam	-----	42b mod.	10/18/2006
Electrical Conductivity Saturated Paste	1.55	mmhos/cm	10-3.3	10/19/2006
pH Saturated Paste	9.6	S.U.	21a	10/18/2006
Saturation	131	%	27a	10/17/2006
Calcium saturated paste	0.53	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.32	meq/l	3-5.4	10/24/2006
Sodium saturated paste	17.2	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	26.4	-----	20b	10/24/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-29	Description: SHMW06-118.5-123.5	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	73.8	%	42b mod.	10/18/2006
Silt	12.4	%	42b mod.	10/18/2006
Clay	13.8	%	42b mod.	10/18/2006
Texture	Sandy Loam	-----	42b mod.	10/18/2006
Electrical Conductivity Saturated Paste	1.23	mmhos/cm	10-3.3	10/19/2006
pH Saturated Paste	9.4	S.U.	21a	10/18/2006
Saturation	84.6	%	27a	10/17/2006
Calcium saturated paste	0.31	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.18	meq/l	3-5.4	10/24/2006
Sodium saturated paste	12.3	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	24.9	-----	20b	10/24/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-30	Description: SHMW06-123.5-128.5	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	77.5	%	42b mod.	10/18/2006
Silt	12.5	%	42b mod.	10/18/2006
Clay	10.0	%	42b mod.	10/18/2006
Texture	Sandy Loam	----	42b mod.	10/18/2006
Electrical Conductivity Saturated Paste	2.48	mmhos/cm	10-3.3	10/19/2006
pH Saturated Paste	9.6	S.U.	21a	10/18/2006
Saturation	53.1	%	27a	10/17/2006
Calcium saturated paste	0.53	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.32	meq/l	3-5.4	10/24/2006
Sodium saturated paste	28.3	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	43.4	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-31	Description: SHMW06-128.5-132	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	75.0	%	42b mod.	10/18/2006
Silt	15.0	%	42b mod.	10/18/2006
Clay	10.0	%	42b mod.	10/18/2006
Texture	Sandy Loam	-----	42b mod.	10/18/2006
Electrical Conductivity Saturated Paste	1.70	mmhos/cm	10-3.3	10/19/2006
pH Saturated Paste	9.6	S.U.	21a	10/18/2006
Saturation	58.6	%	27a	10/17/2006
Calcium saturated paste	0.46	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.30	meq/l	3-5.4	10/24/2006
Sodium saturated paste	19.6	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	31.9	-----	20b	10/24/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-44	Description: SHMW06-132-136	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	30.0	%	42b mod.	11/08/2006
Silt	37.5	%	42b mod.	11/08/2006
Clay	32.5	%	42b mod.	11/08/2006
Texture	Clay Loam	-----	42b mod.	11/08/2006
Electrical Conductivity Saturated Paste	1.2	mmhos/cm	10-3.3	
pH Saturated Paste	8.9	S.U.	10-3.2	11/08/2006
Saturation	55.94	%	21a	11/07/2006
Calcium saturated paste	1.46	meq/l	3-5.4	11/09/2006
Magnesium saturated paste	0.17	meq/l	3-5.4	11/09/2006
Sodium saturated paste	11.8	meq/l	3-5.4	11/09/2006
Sodium Adsorption Ratio	13.0	-----	20b	11/09/2006
Sample Preparation	NA	-----	-----	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-43	Description: SHMW06-136-138	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	77.5	%	42b mod.	11/08/2006
Silt	15.0	%	42b mod.	11/08/2006
Clay	7.5	%	42b mod.	11/08/2006
Texture	Sandy Loam	-----	42b mod.	11/08/2006
Electrical Conductivity Saturated Paste	0.89	mmhos/cm	10-3.3	
pH Saturated Paste	9.5	S.U.	10-3.2	11/08/2006
Saturation	86.89	%	21a	11/07/2006
Calcium saturated paste	1.97	meq/l	3-5.4	11/09/2006
Magnesium saturated paste	1.21	meq/l	3-5.4	11/09/2006
Sodium saturated paste	9.74	meq/l	3-5.4	11/09/2006
Sodium Adsorption Ratio	7.73	-----	20b	11/09/2006
Sample Preparation	NA	-----	-----	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-42	Description: SHMW06-138-143	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	43.8	%	42b mod.	11/08/2006
Silt	34.9	%	42b mod.	11/08/2006
Clay	21.3	%	42b mod.	11/08/2006
Texture	Loam	----	42b mod.	11/08/2006
Electrical Conductivity Saturated Paste	0.68	mmhos/cm	10-3.3	
pH Saturated Paste	9.2	S.U.	10-3.2	11/08/2006
Saturation	126.32	%	21a	11/07/2006
Calcium saturated paste	0.47	meq/l	3-5.4	11/09/2006
Magnesium saturated paste	0.26	meq/l	3-5.4	11/09/2006
Sodium saturated paste	7.20	meq/l	3-5.4	11/09/2006
Sodium Adsorption Ratio	12.0	----	20b	11/09/2006
Sample Preparation	NA	----	----	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-41	Description: SHMW06-144-149	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	72.5	%	42b mod.	11/08/2006
Silt	15.0	%	42b mod.	11/08/2006
Clay	12.5	%	42b mod.	11/08/2006
Texture	Sandy Loam	----	42b mod.	11/08/2006
Electrical Conductivity Saturated Paste	0.79	mmhos/cm	10-3.3	
pH Saturated Paste	9.3	S.U.	10-3.2	11/08/2006
Saturation	77.32	%	21a	11/07/2006
Calcium saturated paste	0.49	meq/l	3-5.4	11/09/2006
Magnesium saturated paste	0.34	meq/l	3-5.4	11/09/2006
Sodium saturated paste	8.69	meq/l	3-5.4	11/09/2006
Sodium Adsorption Ratio	13.4	----	20b	11/09/2006
Sample Preparation	NA	----	----	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-40	Description: SHMW06-150-155	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	42b mod.	11/08/2006
Silt	48.7	%	42b mod.	11/08/2006
Clay	48.8	%	42b mod.	11/08/2006
Texture	Silty Clay	----	42b mod.	11/08/2006
Electrical Conductivity Saturated Paste	0.96	mmhos/cm	10-3.3	
pH Saturated Paste	9.2	S.U.	10-3.2	11/08/2006
Saturation	203.01	%	21a	11/07/2006
Calcium saturated paste	0.69	meq/l	3-5.4	11/09/2006
Magnesium saturated paste	0.70	meq/l	3-5.4	11/09/2006
Sodium saturated paste	9.18	meq/l	3-5.4	11/09/2006
Sodium Adsorption Ratio	11.0	----	20b	11/09/2006
Sample Preparation	NA	----	----	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-37	Description: SHMW06-157-160	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	42b mod.	10/18/2006
Silt	49.9	%	42b mod.	10/18/2006
Clay	41.3	%	42b mod.	10/18/2006
Texture	Silty Clay	-----	42b mod.	10/18/2006
Electrical Conductivity Saturated Paste	1.89	mmhos/cm	10-3.3	10/19/2006
pH Saturated Paste	9.3	S.U.	21a	10/18/2006
Saturation	201	%	27a	10/17/2006
Calcium saturated paste	0.52	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.63	meq/l	3-5.4	10/19/2006
Sodium saturated paste	19.3	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	25.4	-----	20b	10/19/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-38	Description: SHMW06-162-167	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	42b mod.	10/18/2006
Silt	57.5	%	42b mod.	10/18/2006
Clay	25.0	%	42b mod.	10/18/2006
Texture	Silt Loam	----	42b mod.	10/18/2006
Electrical Conductivity Saturated Paste	1.08	mmhos/cm	10-3.3	10/19/2006
pH Saturated Paste	9.4	S.U.	21a	10/18/2006
Saturation	154	%	27a	10/17/2006
Calcium saturated paste	0.30	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.23	meq/l	3-5.4	10/19/2006
Sodium saturated paste	11.1	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	21.5	----	20b	10/19/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-39	Description: SHMW06-167-172	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	42b mod.	10/18/2006
Silt	62.5	%	42b mod.	10/18/2006
Clay	20.0	%	42b mod.	10/18/2006
Texture	Silt Loam	-----	42b mod.	10/18/2006
Electrical Conductivity Saturated Paste	1.73	mmhos/cm	10-3.3	10/19/2006
pH Saturated Paste	9.2	S.U.	21a	10/18/2006
Saturation	133	%	27a	10/17/2006
Calcium saturated paste	0.38	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.37	meq/l	3-5.4	10/19/2006
Sodium saturated paste	17.7	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	28.8	-----	20b	10/19/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-17	Description: SHMW06-172-177	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	42b mod.	10/14/2006
Silt	69.9	%	42b mod.	10/14/2006
Clay	18.8	%	42b mod.	10/14/2006
Texture	Silt Loam	-----	42b mod.	10/14/2006
Electrical Conductivity Saturated Paste	1.03	mmhos/cm	10-3.3	10/18/2006
pH Saturated Paste	9.3	S.U.	21a	10/17/2006
Saturation	132	%	27a	10/16/2006
Calcium saturated paste	0.40	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.24	meq/l	3-5.4	10/24/2006
Sodium saturated paste	9.97	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	17.7	-----	20b	10/24/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-18	Description: SHMW06-179-185	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	42b mod.	10/14/2006
Silt	58.7	%	42b mod.	10/14/2006
Clay	27.5	%	42b mod.	10/14/2006
Texture	SiCiLo	-----	42b mod.	10/14/2006
Electrical Conductivity Saturated Paste	1.70	mmhos/cm	10-3.3	10/18/2006
pH Saturated Paste	9.2	S.U.	21a	10/17/2006
Saturation	166	%	27a	10/16/2006
Calcium saturated paste	0.46	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.34	meq/l	3-5.4	10/24/2006
Sodium saturated paste	19.7	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	31.0	-----	20b	10/24/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-19	Description: SHMW06-185-190	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	42b mod.	10/14/2006
Silt	55.0	%	42b mod.	10/14/2006
Clay	37.5	%	42b mod.	10/14/2006
Texture	SiClLo	----	42b mod.	10/14/2006
Electrical Conductivity Saturated Paste	1.90	mmhos/cm	10-3.3	10/18/2006
pH Saturated Paste	9.2	S.U.	21a	10/17/2006
Saturation	169	%	27a	10/16/2006
Calcium saturated paste	0.48	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.38	meq/l	3-5.4	10/24/2006
Sodium saturated paste	22.8	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	34.7	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-20	Description: SHMW06-195-200	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	42b mod.	10/14/2006
Silt	52.5	%	42b mod.	10/14/2006
Clay	37.5	%	42b mod.	10/14/2006
Texture	SiClLo	----	42b mod.	10/14/2006
Electrical Conductivity Saturated Paste	2.18	mmhos/cm	10-3.3	10/18/2006
pH Saturated Paste	9.1	S.U.	21a	10/17/2006
Saturation	157	%	27a	10/16/2006
Calcium saturated paste	0.62	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.43	meq/l	3-5.4	10/24/2006
Sodium saturated paste	25.7	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	35.5	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-21	Description: SHMW06-200-205	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	42b mod.	10/18/2006
Silt	50.0	%	42b mod.	10/18/2006
Clay	35.0	%	42b mod.	10/18/2006
Texture	SiCI _{Lo}	----	42b mod.	10/18/2006
Electrical Conductivity Saturated Paste	1.01	mmhos/cm	10-3.3	10/19/2006
pH Saturated Paste	9.3	S.U.	21a	10/18/2006
Saturation	173	%	27a	10/17/2006
Calcium saturated paste	0.27	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.21	meq/l	3-5.4	10/24/2006
Sodium saturated paste	10.6	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	21.6	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-22	Description: SHMW06-206-210	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	42b mod.	10/18/2006
Silt	60.0	%	42b mod.	10/18/2006
Clay	30.0	%	42b mod.	10/18/2006
Texture	SiClLo	----	42b mod.	10/18/2006
Electrical Conductivity Saturated Paste	2.11	mmhos/cm	10-3.3	10/19/2006
pH Saturated Paste	9.2	S.U.	21a	10/18/2006
Saturation	140	%	27a	10/17/2006
Calcium saturated paste	0.65	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.50	meq/l	3-5.4	10/24/2006
Sodium saturated paste	25.1	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	33.0	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-23	Description: SHMW06-210-215	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	42b mod.	10/18/2006
Silt	37.5	%	42b mod.	10/18/2006
Clay	57.5	%	42b mod.	10/18/2006
Texture	Clay	-----	42b mod.	10/18/2006
Electrical Conductivity Saturated Paste	1.96	mmhos/cm	10-3.3	10/19/2006
pH Saturated Paste	9.0	S.U.	21a	10/18/2006
Saturation	167	%	27a	10/17/2006
Calcium saturated paste	0.60	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.38	meq/l	3-5.4	10/24/2006
Sodium saturated paste	23.5	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	33.5	-----	20b	10/24/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-24	Description: SHMW06-216-221	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	42b mod.	10/18/2006
Silt	43.7	%	42b mod.	10/18/2006
Clay	46.3	%	42b mod.	10/18/2006
Texture	Silty Clay	-----	42b mod.	10/18/2006
Electrical Conductivity Saturated Paste	0.83	mmhos/cm	10-3.3	10/31/2006
pH Saturated Paste	8.1	S.U.	21a	10/18/2006
Saturation	117	%	27a	10/17/2006
Calcium saturated paste	1.26	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.92	meq/l	3-5.4	10/24/2006
Sodium saturated paste	20.0	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	19.1	-----	20b	10/24/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-45	Description: SHMW06-243-248	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006		
Collected by: ELLIOTT & WITT		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	42b mod.	11/08/2006
Silt	50.0	%	42b mod.	11/08/2006
Clay	45.0	%	42b mod.	11/08/2006
Texture	Silty Clay	-----	42b mod.	11/08/2006
Electrical Conductivity Saturated Paste	0.78	mmhos/cm	10-3.3	
pH Saturated Paste	9.2	S.U.	10-3.2	11/08/2006
Saturation	170.43	%	21a	11/07/2006
Calcium saturated paste	0.50	meq/l	3-5.4	11/09/2006
Magnesium saturated paste	0.31	meq/l	3-5.4	11/09/2006
Sodium saturated paste	8.56	meq/l	3-5.4	11/09/2006
Sodium Adsorption Ratio	13.4	-----	20b	11/09/2006
Sample Preparation	NA	-----	-----	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-47	Description: SHMW06-248-252	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	42b mod.	10/31/2006
Silt	55.0	%	42b mod.	10/31/2006
Clay	42.5	%	42b mod.	10/31/2006
Texture	Silty Clay	-----	42b mod.	10/31/2006
Electrical Conductivity Saturated Paste	0.80	mmhos/cm	10-3.3	10/30/2006
pH Saturated Paste	9.3	S.U.	21a	10/25/2006
Saturation	171	%	27a	10/24/2006
Calcium saturated paste	0.42	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.12	meq/l	3-5.4	11/02/2006
Sodium saturated paste	8.41	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	16.2	-----	20b	11/02/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-1	Description: SHMW-10D @ 0-5'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	23.8	%	42b mod.	10/19/2006
Silt	41.2	%	42b mod.	10/19/2006
Clay	35.0	%	42b mod.	10/19/2006
Texture	Clay Loam	-----	42b mod.	10/19/2006
Electrical Conductivity Saturated Paste	0.53	mmhos/cm	10-3.3	10/24/2006
pH Saturated Paste	7.6	S.U.	21a	10/20/2006
Saturation	65.3	%	27a	10/20/2006
Calcium saturated paste	2.78	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	1.61	meq/l	3-5.4	10/24/2006
Sodium saturated paste	1.04	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	0.70	-----	20b	10/24/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-2	Description: SHMW-10D @ 5-10'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	42b mod.	10/19/2006
Silt	46.2	%	42b mod.	10/19/2006
Clay	28.8	%	42b mod.	10/19/2006
Texture	Clay Loam	-----	42b mod.	10/19/2006
Electrical Conductivity Saturated Paste	9.59	mmhos/cm	10-3.3	10/24/2006
pH Saturated Paste	8.3	S.U.	21a	10/20/2006
Saturation	119	%	27a	10/20/2006
Calcium saturated paste	17.7	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	31.5	meq/l	3-5.4	10/24/2006
Sodium saturated paste	84.0	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	16.9	-----	20b	10/24/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-3	Description: SHMW-10D @ 10-15'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	48.8	%	42b mod.	10/19/2006
Silt	32.4	%	42b mod.	10/19/2006
Clay	18.8	%	42b mod.	10/19/2006
Texture	Loam	-----	42b mod.	10/19/2006
Electrical Conductivity Saturated Paste	9.02	mmhos/cm	10-3.3	10/24/2006
pH Saturated Paste	8.5	S.U.	21a	10/20/2006
Saturation	70.8	%	27a	10/20/2006
Calcium saturated paste	3.97	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	15.6	meq/l	3-5.4	10/24/2006
Sodium saturated paste	97.6	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	31.2	-----	20b	10/24/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-4	Description: SHMW-10D @ 15-20'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	56.3	%	42b mod.	10/19/2006
Silt	26.2	%	42b mod.	10/19/2006
Clay	17.5	%	42b mod.	10/19/2006
Texture	Sandy Loam	----	42b mod.	10/19/2006
Electrical Conductivity Saturated Paste	7.79	mmhos/cm	10-3.3	10/24/2006
pH Saturated Paste	8.4	S.U.	21a	10/20/2006
Saturation	68.9	%	27a	10/20/2006
Calcium saturated paste	5.67	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	11.9	meq/l	3-5.4	10/24/2006
Sodium saturated paste	79.7	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	26.9	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-5	Description: SHMW-10D @ 20-25'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	48.8	%	42b mod.	10/19/2006
Silt	31.2	%	42b mod.	10/19/2006
Clay	20.0	%	42b mod.	10/19/2006
Texture	Loam	----	42b mod.	10/19/2006
Electrical Conductivity Saturated Paste	4.95	mmhos/cm	10-3.3	10/24/2006
pH Saturated Paste	8.4	S.U.	21a	10/20/2006
Saturation	49.1	%	27a	10/20/2006
Calcium saturated paste	1.84	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	3.49	meq/l	3-5.4	10/24/2006
Sodium saturated paste	46.0	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	28.2	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-6	Description: SHMW-10D @ 25-30'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	67.5	%	42b mod.	10/19/2006
Silt	16.2	%	42b mod.	10/19/2006
Clay	16.3	%	42b mod.	10/19/2006
Texture	Sandy Loam	----	42b mod.	10/19/2006
Electrical Conductivity Saturated Paste	4.84	mmhos/cm	10-3.3	10/24/2006
pH Saturated Paste	8.4	S.U.	21a	10/20/2006
Saturation	68.1	%	27a	10/20/2006
Calcium saturated paste	2.31	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	3.51	meq/l	3-5.4	10/24/2006
Sodium saturated paste	46.3	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	27.1	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-7	Description: SHMW-10D @ 30-35'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	70.0	%	42b mod.	10/19/2006
Silt	13.7	%	42b mod.	10/19/2006
Clay	16.3	%	42b mod.	10/19/2006
Texture	Sandy Loam	----	42b mod.	10/19/2006
Electrical Conductivity Saturated Paste	4.55	mmhos/cm	10-3.3	10/24/2006
pH Saturated Paste	8.1	S.U.	21a	10/20/2006
Saturation	57.1	%	27a	10/20/2006
Calcium saturated paste	2.84	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	4.16	meq/l	3-5.4	10/24/2006
Sodium saturated paste	38.9	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	20.8	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-8	Description: SHMW-10D @ 35-38'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	58.8	%	42b mod.	10/19/2006
Silt	21.2	%	42b mod.	10/19/2006
Clay	20.0	%	42b mod.	10/19/2006
Texture	Sandy Loam	----	42b mod.	10/19/2006
Electrical Conductivity Saturated Paste	3.85	mmhos/cm	10-3.3	10/24/2006
pH Saturated Paste	8.8	S.U.	21a	10/20/2006
Saturation	95.7	%	27a	10/20/2006
Calcium saturated paste	2.81	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	3.88	meq/l	3-5.4	10/24/2006
Sodium saturated paste	31.9	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	17.4	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-9	Description: SHMW-10D @ 56-60'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	42b mod.	10/19/2006
Silt	63.7	%	42b mod.	10/19/2006
Clay	26.3	%	42b mod.	10/19/2006
Texture	Silt Loam	----	42b mod.	10/19/2006
Electrical Conductivity Saturated Paste	0.77	mmhos/cm	10-3.3	10/24/2006
pH Saturated Paste	9.0	S.U.	21a	10/20/2006
Saturation	122	%	27a	10/20/2006
Calcium saturated paste	0.30	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.22	meq/l	3-5.4	10/24/2006
Sodium saturated paste	7.18	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	14.0	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-10	Description: SHMW-10D @ 60-65'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	42b mod.	10/19/2006
Silt	59.9	%	42b mod.	10/19/2006
Clay	28.8	%	42b mod.	10/19/2006
Texture	Si Cl Lo	----	42b mod.	10/19/2006
Electrical Conductivity Saturated Paste	1.95	mmhos/cm	10-3.3	10/24/2006
pH Saturated Paste	9.2	S.U.	21a	10/20/2006
Saturation	153	%	27a	10/20/2006
Calcium saturated paste	0.52	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.44	meq/l	3-5.4	10/24/2006
Sodium saturated paste	20.3	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	29.4	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-11	Description: SHMW-10D @ 65-75'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	42b mod.	10/19/2006
Silt	28.7	%	42b mod.	10/19/2006
Clay	57.5	%	42b mod.	10/19/2006
Texture	Clay	----	42b mod.	10/19/2006
Electrical Conductivity Saturated Paste	1.46	mmhos/cm	10-3.3	10/24/2006
pH Saturated Paste	8.4	S.U.	21a	10/20/2006
Saturation	185	%	27a	10/20/2006
Calcium saturated paste	0.36	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.35	meq/l	3-5.4	10/24/2006
Sodium saturated paste	14.0	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	23.6	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-12	Description: SHMW-10D @ 75-80'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	42b mod.	10/19/2006
Silt	33.7	%	42b mod.	10/19/2006
Clay	60.0	%	42b mod.	10/19/2006
Texture	Clay	----	42b mod.	10/19/2006
Electrical Conductivity Saturated Paste	1.19	mmhos/cm	10-3.3	10/24/2006
pH Saturated Paste	8.8	S.U.	21a	10/20/2006
Saturation	191	%	27a	10/20/2006
Calcium saturated paste	0.30	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.23	meq/l	3-5.4	10/24/2006
Sodium saturated paste	11.2	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	21.8	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-13	Description: SHMW-10D @ 80-86'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	42b mod.	10/19/2006
Silt	38.7	%	42b mod.	10/19/2006
Clay	41.3	%	42b mod.	10/19/2006
Texture	Clay	----	42b mod.	10/19/2006
Electrical Conductivity Saturated Paste	1.14	mmhos/cm	10-3.3	10/24/2006
pH Saturated Paste	9.1	S.U.	21a	10/20/2006
Saturation	167	%	27a	10/20/2006
Calcium saturated paste	0.22	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.16	meq/l	3-5.4	10/24/2006
Sodium saturated paste	11.0	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	25.2	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-14	Description: SHMW-10D @ 86-90'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	129 (1)	%	27a	10/27/2006
Sand	26.3	%	42b mod.	10/19/2006
Silt	53.7	%	42b mod.	10/19/2006
Clay	20.0	%	42b mod.	10/19/2006
Texture	Silt Loam	----	42b mod.	10/19/2006
Electrical Conductivity Saturated Paste	0.81 (1)	mmhos/cm	10-3.3	10/31/2006
pH Saturated Paste	9.7	S.U.	21a	10/20/2006
Saturation	108	%	27a	10/20/2006
Calcium saturated paste	0.42 (1)	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.37 (1)	meq/l	3-5.4	10/24/2006
Sodium saturated paste	121 (1)	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	193 (1)	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-18	Description: SHMW-10D @ 92-95'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	42b mod.	10/19/2006
Silt	47.4	%	42b mod.	10/19/2006
Clay	41.3	%	42b mod.	10/19/2006
Texture	Silty Clay	----	42b mod.	10/19/2006
Electrical Conductivity Saturated Paste	0.99	mmhos/cm	10-3.3	10/24/2006
pH Saturated Paste	9.2	S.U.	21a	10/20/2006
Saturation	161	%	27a	10/20/2006
Calcium saturated paste	0.44	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.91	meq/l	3-5.4	10/24/2006
Sodium saturated paste	9.81	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	11.9	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-19	Description: SHMW-10D @ 95-105'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	171 (1)	%	27a	10/27/2006
Sand	13.8	%	42b mod.	10/19/2006
Silt	62.4	%	42b mod.	10/19/2006
Clay	23.8	%	42b mod.	10/19/2006
Texture	Silt Loam	----	42b mod.	10/19/2006
Electrical Conductivity Saturated Paste	0.60 (1)	mmhos/cm	10-3.3	10/31/2006
pH Saturated Paste	9.4	S.U.	21a	10/20/2006
Saturation	149	%	27a	10/20/2006
Calcium saturated paste	0.76 (1)	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.83 (1)	meq/l	3-5.4	10/24/2006
Sodium saturated paste	19.0 (1)	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	21.4 (1)	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-20	Description: SHMW-10D @ 105-108'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	173 (1)	%	27a	10/27/2006
Sand	18.8	%	42b mod.	10/19/2006
Silt	58.7	%	42b mod.	10/19/2006
Clay	22.5	%	42b mod.	10/19/2006
Texture	Silt Loam	----	42b mod.	10/19/2006
Electrical Conductivity Saturated Paste	0.86 (1)	mmhos/cm	10-3.3	10/31/2006
pH Saturated Paste	9.4	S.U.	21a	10/20/2006
Saturation	157	%	27a	10/20/2006
Calcium saturated paste	0.27 (1)	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.29 (1)	meq/l	3-5.4	10/24/2006
Sodium saturated paste	14.5 (1)	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	27.5 (1)	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-21	Description: SHMW-10D @ 108-115'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	60.0	%	42b mod.	10/24/2006
Silt	22.5	%	42b mod.	10/24/2006
Clay	17.5	%	42b mod.	10/24/2006
Texture	Sandy Loam	-----	42b mod.	10/24/2006
Electrical Conductivity Saturated Paste	1.33	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.3	S.U.	21a	10/23/2006
Saturation	105	%	27a	10/23/2006
Calcium saturated paste	0.46	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.32	meq/l	3-5.4	10/31/2006
Sodium saturated paste	15.6	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	25.0	-----	20b	10/31/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-22	Description: SHMW-10D @ 115-123'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	42b mod.	10/24/2006
Silt	58.7	%	42b mod.	10/24/2006
Clay	23.8	%	42b mod.	10/24/2006
Texture	Silt Loam	-----	42b mod.	10/24/2006
Electrical Conductivity Saturated Paste	0.84	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.3	S.U.	21a	10/23/2006
Saturation	143	%	27a	10/23/2006
Calcium saturated paste	0.38	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.31	meq/l	3-5.4	10/31/2006
Sodium saturated paste	8.68	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	14.7	-----	20b	10/31/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-23	Description: SHMW-10D @ 123-130'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	42b mod.	10/24/2006
Silt	58.7	%	42b mod.	10/24/2006
Clay	28.8	%	42b mod.	10/24/2006
Texture	SiClLo	-----	42b mod.	10/24/2006
Electrical Conductivity Saturated Paste	0.87	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.1	S.U.	21a	10/23/2006
Saturation	154	%	27a	10/23/2006
Calcium saturated paste	0.30	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.33	meq/l	3-5.4	10/31/2006
Sodium saturated paste	8.27	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	14.7	-----	20b	10/31/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-24	Description: SHMW-10D @ 130-135'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	42b mod.	10/24/2006
Silt	58.7	%	42b mod.	10/24/2006
Clay	36.3	%	42b mod.	10/24/2006
Texture	SiCILO	----	42b mod.	10/24/2006
Electrical Conductivity Saturated Paste	0.77	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	8.9	S.U.	21a	10/23/2006
Saturation	150	%	27a	10/23/2006
Calcium saturated paste	0.35	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.28	meq/l	3-5.4	10/31/2006
Sodium saturated paste	8.13	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	14.5	----	20b	10/31/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-25	Description: SHMW-10D @ 135-140'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	42b mod.	10/24/2006
Silt	46.2	%	42b mod.	10/24/2006
Clay	42.5	%	42b mod.	10/24/2006
Texture	Silty Clay	----	42b mod.	10/24/2006
Electrical Conductivity Saturated Paste	1.04	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	8.8	S.U.	21a	10/23/2006
Saturation	151	%	27a	10/23/2006
Calcium saturated paste	0.36	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.30	meq/l	3-5.4	10/31/2006
Sodium saturated paste	9.65	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	16.8	----	20b	10/31/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-26	Description: SHMW-10D @ 142-148'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	42b mod.	10/24/2006
Silt	50.0	%	42b mod.	10/24/2006
Clay	47.5	%	42b mod.	10/24/2006
Texture	Silty Clay	-----	42b mod.	10/24/2006
Electrical Conductivity Saturated Paste	1.04	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	8.5	S.U.	21a	10/23/2006
Saturation	154	%	27a	10/23/2006
Calcium saturated paste	0.33	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.24	meq/l	3-5.4	10/31/2006
Sodium saturated paste	11.5	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	21.6	-----	20b	10/31/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-27	Description: SHMW-10D @ 148-155'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	42b mod.	10/24/2006
Silt	52.5	%	42b mod.	10/24/2006
Clay	42.5	%	42b mod.	10/24/2006
Texture	Silty Clay	-----	42b mod.	10/24/2006
Electrical Conductivity Saturated Paste	1.09	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	8.8	S.U.	21a	10/23/2006
Saturation	123	%	27a	10/23/2006
Calcium saturated paste	0.27	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.42	meq/l	3-5.4	10/31/2006
Sodium saturated paste	10.9	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	18.6	-----	20b	10/31/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-28	Description: SHMW-10D @ 155-162'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	3.8	%	42b mod.	10/24/2006
Silt	53.7	%	42b mod.	10/24/2006
Clay	42.5	%	42b mod.	10/24/2006
Texture	Silty Clay	-----	42b mod.	10/24/2006
Electrical Conductivity Saturated Paste	1.24	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	8.9	S.U.	21a	10/23/2006
Saturation	131	%	27a	10/23/2006
Calcium saturated paste	0.28	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.28	meq/l	3-5.4	10/31/2006
Sodium saturated paste	13.7	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	25.8	-----	20b	10/31/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-30	Description: SHMW-10D @ 162-166'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	3.8	%	42b mod.	10/24/2006
Silt	31.2	%	42b mod.	10/24/2006
Clay	65.0	%	42b mod.	10/24/2006
Texture	Clay	-----	42b mod.	10/24/2006
Electrical Conductivity Saturated Paste	1.02	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	8.5	S.U.	21a	10/23/2006
Saturation	138	%	27a	10/23/2006
Calcium saturated paste	2.13	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	22.3	meq/l	3-5.4	10/31/2006
Sodium saturated paste	12.5	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	3.59	-----	20b	10/31/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-31	Description: SHMW-10D @ 185-195'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	201 (1)	%	27a	10/27/2006
Sand	10.0	%	42b mod.	10/24/2006
Silt	48.7	%	42b mod.	10/24/2006
Clay	41.3	%	42b mod.	10/24/2006
Texture	Silty Clay	----	42b mod.	10/24/2006
Electrical Conductivity Saturated Paste	0.58 (1)	mmhos/cm	10-3.3	10/31/2006
pH Saturated Paste	9.4	S.U.	21a	10/23/2006
Saturation	175	%	27a	10/23/2006
Calcium saturated paste	0.35 (1)	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.75 (1)	meq/l	3-5.4	10/31/2006
Sodium saturated paste	5.69 (1)	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	7.67 (1)	----	20b	10/31/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-32	Description: SHMW-10D @ 195-204'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	42b mod.	10/24/2006
Silt	48.7	%	42b mod.	10/24/2006
Clay	45.0	%	42b mod.	10/24/2006
Texture	Silty Clay	----	42b mod.	10/24/2006
Electrical Conductivity Saturated Paste	0.84	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.2	S.U.	21a	10/23/2006
Saturation	254	%	27a	10/23/2006
Calcium saturated paste	0.43	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.30	meq/l	3-5.4	10/31/2006
Sodium saturated paste	8.37	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	13.8	----	20b	10/31/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-33	Description: SHMW-10D @ 210-215'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	42b mod.	10/24/2006
Silt	42.5	%	42b mod.	10/24/2006
Clay	45.0	%	42b mod.	10/24/2006
Texture	Silty Clay	-----	42b mod.	10/24/2006
Electrical Conductivity Saturated Paste	0.72	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.1	S.U.	21a	10/23/2006
Saturation	196	%	27a	10/23/2006
Calcium saturated paste	0.44	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.37	meq/l	3-5.4	10/31/2006
Sodium saturated paste	7.47	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	11.7	-----	20b	10/31/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-34	Description: SHMW-10D @ 215-224'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	42b mod.	10/24/2006
Silt	46.2	%	42b mod.	10/24/2006
Clay	48.8	%	42b mod.	10/24/2006
Texture	Silty Clay	----	42b mod.	10/24/2006
Electrical Conductivity Saturated Paste	0.97	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.0	S.U.	21a	10/23/2006
Saturation	227	%	27a	10/23/2006
Calcium saturated paste	0.36	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.27	meq/l	3-5.4	10/31/2006
Sodium saturated paste	9.55	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	17.0	----	20b	10/31/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-35	Description: SHMW-10D @ 224-234'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	30.0	%	42b mod.	10/24/2006
Silt	42.5	%	42b mod.	10/24/2006
Clay	27.5	%	42b mod.	10/24/2006
Texture	Clay Loam	----	42b mod.	10/24/2006
Electrical Conductivity Saturated Paste	0.48	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.3	S.U.	21a	10/23/2006
Saturation	183	%	27a	10/23/2006
Calcium saturated paste	0.48	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.52	meq/l	3-5.4	10/31/2006
Sodium saturated paste	4.18	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	5.94	----	20b	10/31/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-36	Description: SHMW-10D @ 235-240'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	42b mod.	10/24/2006
Silt	56.2	%	42b mod.	10/24/2006
Clay	36.3	%	42b mod.	10/24/2006
Texture	SiCIlo	-----	42b mod.	10/24/2006
Electrical Conductivity Saturated Paste	0.85	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.0	S.U.	21a	10/23/2006
Saturation	174	%	27a	10/23/2006
Calcium saturated paste	0.26	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.20	meq/l	3-5.4	10/31/2006
Sodium saturated paste	8.58	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	18.0	-----	20b	10/31/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-37	Description: SHMW-10D @ 240-250'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	42b mod.	10/24/2006
Silt	57.5	%	42b mod.	10/24/2006
Clay	27.5	%	42b mod.	10/24/2006
Texture	SiClLo	----	42b mod.	10/24/2006
Electrical Conductivity Saturated Paste	0.72	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.4	S.U.	21a	10/23/2006
Saturation	181	%	27a	10/23/2006
Calcium saturated paste	0.43	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.35	meq/l	3-5.4	10/31/2006
Sodium saturated paste	6.81	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	10.8	----	20b	10/31/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-38	Description: SHMW-10D @ 255-265'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	50.0	%	42b mod.	10/24/2006
Silt	26.2	%	42b mod.	10/24/2006
Clay	23.8	%	42b mod.	10/24/2006
Texture	SaClLo	----	42b mod.	10/24/2006
Electrical Conductivity Saturated Paste	0.76	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.5	S.U.	21a	10/23/2006
Saturation	123	%	27a	10/23/2006
Calcium saturated paste	0.49	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	5.69	meq/l	3-5.4	10/31/2006
Sodium saturated paste	9.43	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	5.37	----	20b	10/31/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-39	Description: SHMW-10D @ 267-277'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	113 (1)	%	27a	10/27/2006
Sand	55.0	%	42b mod.	10/24/2006
Silt	25.0	%	42b mod.	10/24/2006
Clay	20.0	%	42b mod.	10/24/2006
Texture	Sandy Loam	----	42b mod.	10/24/2006
Electrical Conductivity Saturated Paste	0.61 (1)	mmhos/cm	10-3.3	10/31/2006
pH Saturated Paste	9.4	S.U.	21a	10/23/2006
Saturation	90.8	%	27a	10/23/2006
Calcium saturated paste	0.58 (1)	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.47 (1)	meq/l	3-5.4	10/31/2006
Sodium saturated paste	25.0 (1)	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	34.6 (1)	----	20b	10/31/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-40	Description: SHMW-10D @ 282.5-287.5'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	3.8	%	42b mod.	10/24/2006
Silt	67.4	%	42b mod.	10/24/2006
Clay	28.8	%	42b mod.	10/24/2006
Texture	SiCILO	-----	42b mod.	10/24/2006
Electrical Conductivity Saturated Paste	0.74	mmhos/cm	10-3.3	10/31/2006
pH Saturated Paste	9.1	S.U.	21a	10/23/2006
Saturation	97.3	%	27a	10/23/2006
Calcium saturated paste	1.25	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.97	meq/l	3-5.4	10/31/2006
Sodium saturated paste	23.7	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	22.5	-----	20b	10/31/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-41	Description: SHMW-10D @ 288-292'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	42b mod.	10/31/2006
Silt	55.0	%	42b mod.	10/31/2006
Clay	32.5	%	42b mod.	10/31/2006
Texture	Si Cl Lo	-----	42b mod.	10/31/2006
Electrical Conductivity Saturated Paste	1.15	mmhos/cm	10-3.3	10/30/2006
pH Saturated Paste	8.9	S.U.	21a	10/25/2006
Saturation	71.8	%	27a	10/24/2006
Calcium saturated paste	0.57	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.33	meq/l	3-5.4	11/02/2006
Sodium saturated paste	11.1	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	16.6	-----	20b	11/02/2006
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-42	Description: SHMW-10D @ 294-299'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	42b mod.	11/08/2006
Silt	70.0	%	42b mod.	11/08/2006
Clay	25.0	%	42b mod.	11/08/2006
Texture	Silt Loam	----	42b mod.	11/08/2006
Electrical Conductivity Saturated Paste	0.86	mmhos/cm	10-3.3	11/10/2006
pH Saturated Paste	9.0	S.U.	21a	11/07/2006
Saturation	74.6	%	27a	11/07/2006
Calcium saturated paste	NA	----	----	
Magnesium saturated paste	NA	----	----	
Sodium saturated paste	NA	----	----	
Sodium Adsorption Ratio	NA	----	----	
Sample Preparation	NA	----	----	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-43	Description: SHMW-10D @ 305-312'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	42b mod.	10/31/2006
Silt	67.5	%	42b mod.	10/31/2006
Clay	27.5	%	42b mod.	10/31/2006
Texture	Si Cl Lo	----	42b mod.	10/31/2006
Electrical Conductivity Saturated Paste	0.83	mmhos/cm	10-3.3	10/30/2006
pH Saturated Paste	9.0	S.U.	21a	10/25/2006
Saturation	72.4	%	27a	10/24/2006
Calcium saturated paste	0.25	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.13	meq/l	3-5.4	11/02/2006
Sodium saturated paste	7.78	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	17.9	----	20b	11/02/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-44	Description: SHMW-10D @ 315-320'	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	42b mod.	10/31/2006
Silt	65.0	%	42b mod.	10/31/2006
Clay	27.5	%	42b mod.	10/31/2006
Texture	Si Cl Lo	-----	42b mod.	10/31/2006
Electrical Conductivity Saturated Paste	1.07	mmhos/cm	10-3.3	10/30/2006
pH Saturated Paste	8.9	S.U.	21a	10/25/2006
Saturation	70.1	%	27a	10/24/2006
Calcium saturated paste	1.34	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.61	meq/l	3-5.4	11/02/2006
Sodium saturated paste	8.03	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	8.13	-----	20b	11/02/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100096-1	Description: SHMW-10D @ 321-326'	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/02/2006	Collected by: R. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	42b mod.	10/31/2006
Silt	45.0	%	42b mod.	10/31/2006
Clay	50.0	%	42b mod.	10/31/2006
Texture	Silty Clay	—	42b mod.	10/31/2006
Electrical Conductivity Saturated Paste	4.07	mmhos/cm	10-3.3	11/07/2006
pH Saturated Paste	8.0	S.U.	21a	11/01/2006
Saturation	114	%	27a	10/31/2006
Calcium saturated paste	0.62	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.63	meq/l	3-5.4	11/02/2006
Sodium saturated paste	42.2	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	53.5	—	20b	11/02/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100096-2	Description: SHMW-10D @ 334-335'	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/02/2006	Collected by: R. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	42b mod.	10/31/2006
Silt	53.7	%	42b mod.	10/31/2006
Clay	33.8	%	42b mod.	10/31/2006
Texture	Si Cl Lo	—	42b mod.	10/31/2006
Electrical Conductivity Saturated Paste	1.18	mmhos/cm	10-3.3	11/10/2006
pH Saturated Paste	8.5	S.U.	21a	11/01/2006
Saturation	90.0	%	27a	11/07/2006
Calcium saturated paste	0.71	meq/l	3-5.4	11/09/2006
Magnesium saturated paste	0.73	meq/l	3-5.4	11/09/2006
Sodium saturated paste	12.2	meq/l	3-5.4	11/09/2006
Sodium Adsorption Ratio	14.4	—	20b	11/09/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100096-3	Description: SHMW-10D @ 335-338'	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/02/2006	Collected by: R. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	42b mod.	10/31/2006
Silt	65.0	%	42b mod.	10/31/2006
Clay	22.5	%	42b mod.	10/31/2006
Texture	Silt Loam	---	42b mod.	10/31/2006
Electrical Conductivity Saturated Paste	1.01	mmhos/cm	10-3.3	11/07/2006
pH Saturated Paste	9.2	S.U.	21a	11/01/2006
Saturation	69.0	%	27a	10/31/2006
Calcium saturated paste	0.33	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.21	meq/l	3-5.4	11/02/2006
Sodium saturated paste	11.2	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	21.5	----	20b	11/02/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100096-4	Description: SHMW-10D @ 346-351'	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/02/2006	Collected by: R. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	42b mod.	10/31/2006
Silt	67.4	%	42b mod.	10/31/2006
Clay	23.8	%	42b mod.	10/31/2006
Texture	Silt Loam	—	42b mod.	10/31/2006
Electrical Conductivity Saturated Paste	1.30	mmhos/cm	10-3.3	11/07/2006
pH Saturated Paste	9.0	S.U.	21a	11/01/2006
Saturation	63.6	%	27a	10/31/2006
Calcium saturated paste	0.34	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.45	meq/l	3-5.4	11/02/2006
Sodium saturated paste	14.0	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	22.3	---	20b	11/02/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100096-5	Description: SHMW-10D @ 356-361'	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/02/2006	Collected by: R. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	35.0	%	42b mod.	10/31/2006
Silt	52.5	%	42b mod.	10/31/2006
Clay	12.5	%	42b mod.	10/31/2006
Texture	Silt Loam	—	42b mod.	10/31/2006
Electrical Conductivity Saturated Paste	1.54	mmhos/cm	10-3.3	11/07/2006
pH Saturated Paste	9.0	S.U.	21a	11/01/2006
Saturation	34.0	%	27a	10/31/2006
Calcium saturated paste	0.27	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.18	meq/l	3-5.4	11/02/2006
Sodium saturated paste	13.9	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	29.2	—	20b	11/02/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100096-6	Description: SHMW-10D @ 379-383'	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/02/2006	Collected by: R. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	42b mod.	10/31/2006
Silt	46.2	%	42b mod.	10/31/2006
Clay	45.0	%	42b mod.	10/31/2006
Texture	Silty Clay	—	42b mod.	10/31/2006
Electrical Conductivity Saturated Paste	1.14	mmhos/cm	10-3.3	11/07/2006
pH Saturated Paste	9.0	S.U.	21a	11/01/2006
Saturation	115	%	27a	10/31/2006
Calcium saturated paste	0.44	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.33	meq/l	3-5.4	11/02/2006
Sodium saturated paste	11.8	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	19.0	—	20b	11/02/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100096-7	Description: SHMW-10D @ 384-389'	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/02/2006	Collected by: R. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	42b mod.	10/31/2006
Silt	73.7	%	42b mod.	10/31/2006
Clay	21.3	%	42b mod.	10/31/2006
Texture	Silt Loam	—	42b mod.	10/31/2006
Electrical Conductivity Saturated Paste	1.62	mmhos/cm	10-3.3	11/07/2006
pH Saturated Paste	8.6	S.U.	21a	11/01/2006
Saturation	55.0	%	27a	10/31/2006
Calcium saturated paste	0.20	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.13	meq/l	3-5.4	11/02/2006
Sodium saturated paste	16.8	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	41.5	—	20b	11/02/2006
Sample Preparation	—	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100096-8	Description: SHMW-10D @ 382-387'	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/02/2006	Collected by: R. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	42b mod.	10/31/2006
Silt	62.5	%	42b mod.	10/31/2006
Clay	32.5	%	42b mod.	10/31/2006
Texture	Si Cl Lo	—	42b mod.	10/31/2006
Electrical Conductivity Saturated Paste	1.19	mmhos/cm	10-3.3	11/07/2006
pH Saturated Paste	8.9	S.U.	21a	11/01/2006
Saturation	60.6	%	27a	10/31/2006
Calcium saturated paste	0.34	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.69	meq/l	3-5.4	11/02/2006
Sodium saturated paste	13.1	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	18.2	—	20b	11/02/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100096-9	Description: SHMW-10D @ 390-400'	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/02/2006	Collected by: R. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	1.3	%	42b mod.	10/31/2006
Silt	51.2	%	42b mod.	10/31/2006
Clay	47.5	%	42b mod.	10/31/2006
Texture	Silty Clay	----	42b mod.	10/31/2006
Electrical Conductivity Saturated Paste	6.82	mmhos/cm	10-3.3	11/10/2006
pH Saturated Paste	8.3	S.U.	21a	11/01/2006
Saturation	92.7	%	27a	11/07/2006
Calcium saturated paste	28.2	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	16.6	meq/l	3-5.4	11/02/2006
Sodium saturated paste	137	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	28.9	—	20b	11/02/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-1	Description: SHMW-12D @ 0-5'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	0	%	42b mod.	11/02/2006
Silt	70.0	%	42b mod.	11/02/2006
Clay	30.0	%	42b mod.	11/02/2006
Texture	Si Cl Lo	—	42b mod.	11/02/2006
Electrical Conductivity Saturated Paste	13.9	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	7.5	S.U.	21a	11/02/2006
Saturation	116	%	27a	11/01/2006
Calcium saturated paste	17.7	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	35.8	meq/l	3-5.4	11/07/2006
Sodium saturated paste	181	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	35.0	—	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-3	Description: SHMW-12D @ 8-11'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	130 (1)	%	27a	11/07/2006
Sand	2.5	%	42b mod.	11/02/2006
Silt	57.5	%	42b mod.	11/02/2006
Clay	40.0	%	42b mod.	11/02/2006
Texture	Si Cl Lo	---	42b mod.	11/02/2006
Electrical Conductivity Saturated Paste	4.17 (1)	mmhos/cm	10-3.3	11/10/2006
pH Saturated Paste	8.4	S.U.	21a	11/02/2006
Saturation	109	%	27a	11/01/2006
Calcium saturated paste	1.31 (1)	meq/l	3-5.4	11/09/2006
Magnesium saturated paste	3.92 (1)	meq/l	3-5.4	11/09/2006
Sodium saturated paste	46.3 (1)	meq/l	3-5.4	11/09/2006
Sodium Adsorption Ratio	28.6 (1)	---	20b	11/09/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-2	Description: SHMW-12D @ 5-8'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	42b mod.	11/02/2006
Silt	60.0	%	42b mod.	11/02/2006
Clay	27.5	%	42b mod.	11/02/2006
Texture	Si Cl Lo	—	42b mod.	11/02/2006
Electrical Conductivity Saturated Paste	6.42	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	7.6	S.U.	21a	11/02/2006
Saturation	110	%	27a	11/01/2006
Calcium saturated paste	4.81	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	11.5	meq/l	3-5.4	11/07/2006
Sodium saturated paste	66.9	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	23.4	----	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-4	Description: SHMW-12D @ 11-14 1/2'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	131 (1)	%	27a	11/07/2006
Sand	42.5	%	42b mod.	11/02/2006
Silt	35.0	%	42b mod.	11/02/2006
Clay	22.5	%	42b mod.	11/02/2006
Texture	Loam	---	42b mod.	11/02/2006
Electrical Conductivity Saturated Paste	4.72 (1)	mmhos/cm	10-3.3	11/10/2006
pH Saturated Paste	8.6	S.U.	21a	11/02/2006
Saturation	89.7	%	27a	11/01/2006
Calcium saturated paste	2.25 (1)	meq/l	3-5.4	11/09/2006
Magnesium saturated paste	3.28 (1)	meq/l	3-5.4	11/09/2006
Sodium saturated paste	52.4 (1)	meq/l	3-5.4	11/09/2006
Sodium Adsorption Ratio	31.5 (1)	---	20b	11/09/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDR ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-5	Description: SHMW-12D @ 14 1/2-19'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	42b mod.	11/02/2006
Silt	56.2	%	42b mod.	11/02/2006
Clay	32.5	%	42b mod.	11/02/2006
Texture	Si Cl Lo	---	42b mod.	11/02/2006
Electrical Conductivity Saturated Paste	4.05	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	8.6	S.U.	21a	11/02/2006
Saturation	107	%	27a	11/01/2006
Calcium saturated paste	0.97	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	2.01	meq/l	3-5.4	11/07/2006
Sodium saturated paste	46.4	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	38.0	---	20b	11/07/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-6	Description: SHMW-12D @ 19-24'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	42b mod.	11/02/2006
Silt	60.0	%	42b mod.	11/02/2006
Clay	32.5	%	42b mod.	11/02/2006
Texture	Si Cl Lo	----	42b mod.	11/02/2006
Electrical Conductivity Saturated Paste	2.53	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	9.0	S.U.	21a	11/02/2006
Saturation	132	%	27a	11/01/2006
Calcium saturated paste	0.58	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.66	meq/l	3-5.4	11/07/2006
Sodium saturated paste	23.4	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	29.6	—	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-7	Description: SHMW-12D @ 24-29'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	42b mod.	11/02/2006
Silt	63.7	%	42b mod.	11/02/2006
Clay	33.8	%	42b mod.	11/02/2006
Texture	Si Cl Lo	---	42b mod.	11/02/2006
Electrical Conductivity Saturated Paste	1.86	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	9.0	S.U.	21a	11/02/2006
Saturation	132	%	27a	11/01/2006
Calcium saturated paste	0.48	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.53	meq/l	3-5.4	11/07/2006
Sodium saturated paste	17.6	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	24.9	---	20b	11/07/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-8	Description: SHMW-12D @ 29-33'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	42b mod.	11/02/2006
Silt	58.7	%	42b mod.	11/02/2006
Clay	36.3	%	42b mod.	11/02/2006
Texture	Si Cl Lo	---	42b mod.	11/02/2006
Electrical Conductivity Saturated Paste	1.93	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	8.9	S.U.	21a	11/02/2006
Saturation	125	%	27a	11/01/2006
Calcium saturated paste	0.51	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.50	meq/l	3-5.4	11/07/2006
Sodium saturated paste	20.7	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	29.0	---	20b	11/07/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-9	Description: SHMW-12D @ 33-35'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	27.5	%	42b mod.	11/02/2006
Silt	35.0	%	42b mod.	11/02/2006
Clay	37.5	%	42b mod.	11/02/2006
Texture	Clay Loam	---	42b mod.	11/02/2006
Electrical Conductivity Saturated Paste	1.46	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	8.6	S.U.	21a	11/02/2006
Saturation	55.4	%	27a	11/01/2006
Calcium saturated paste	0.31	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.15	meq/l	3-5.4	11/07/2006
Sodium saturated paste	14.4	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	29.9	---	20b	11/07/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-10	Description: SHMW-12D @ 35 1/2-39'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	80.0	%	42b mod.	11/02/2006
Silt	8.7	%	42b mod.	11/02/2006
Clay	11.3	%	42b mod.	11/02/2006
Texture	Sandy Loam	---	42b mod.	11/02/2006
Electrical Conductivity Saturated Paste	4.07	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	6.8	S.U.	21a	11/02/2006
Saturation	84.8	%	27a	11/01/2006
Calcium saturated paste	1.07	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	1.20	meq/l	3-5.4	11/07/2006
Sodium saturated paste	44.8	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	41.9	----	20b	11/07/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-11	Description: SHMW-12D @ 39-44'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	42b mod.	11/02/2006
Silt	55.0	%	42b mod.	11/02/2006
Clay	37.5	%	42b mod.	11/02/2006
Texture	Si Cl Lo	---	42b mod.	11/02/2006
Electrical Conductivity Saturated Paste	1.90	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	8.9	S.U.	21a	11/02/2006
Saturation	100	%	27a	11/01/2006
Calcium saturated paste	0.39	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.49	meq/l	3-5.4	11/07/2006
Sodium saturated paste	19.0	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	28.6	---	20b	11/07/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-12	Description: SHMW-12D @ 44-49'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	42b mod.	11/02/2006
Silt	48.7	%	42b mod.	11/02/2006
Clay	45.0	%	42b mod.	11/02/2006
Texture	Silty Clay	----	42b mod.	11/02/2006
Electrical Conductivity Saturated Paste	1.57	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	9.0	S.U.	21a	11/02/2006
Saturation	136	%	27a	11/01/2006
Calcium saturated paste	0.18	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.22	meq/l	3-5.4	11/07/2006
Sodium saturated paste	15.2	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	33.9	—	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-13 Description: SHMW-12D @ 49-54' Matrix: SOIL
 Date Received: 10/18/2006
 Date Collected: 10/12/2006 Collected by: ANA VARGO

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	42b mod.	11/02/2006
Silt	42.5	%	42b mod.	11/02/2006
Clay	40.0	%	42b mod.	11/02/2006
Texture	Si Cl Lo	---	42b mod.	11/02/2006
Electrical Conductivity Saturated Paste	1.20	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	9.0	S.U.	21a	11/02/2006
Saturation	138	%	27a	11/01/2006
Calcium saturated paste	0.29	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.32	meq/l	3-5.4	11/07/2006
Sodium saturated paste	11.3	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	20.3	----	20b	11/07/2006
Sample Preparation	----	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-14	Description: SHMW-12D @ 54-59'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	42b mod.	11/02/2006
Silt	48.7	%	42b mod.	11/02/2006
Clay	26.3	%	42b mod.	11/02/2006
Texture	Loam	—	42b mod.	11/02/2006
Electrical Conductivity Saturated Paste	3.07	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	8.5	S.U.	21a	11/02/2006
Saturation	88.0	%	27a	11/01/2006
Calcium saturated paste	0.54	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.84	meq/l	3-5.4	11/07/2006
Sodium saturated paste	35.2	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	42.3	----	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDR ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-15	Description: SHMW-12D @ 59-64'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	1.3	%	42b mod.	11/02/2006
Silt	36.2	%	42b mod.	11/02/2006
Clay	62.5	%	42b mod.	11/02/2006
Texture	Clay	—	42b mod.	11/02/2006
Electrical Conductivity Saturated Paste	1.32	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	9.3	S.U.	21a	11/02/2006
Saturation	195	%	27a	11/01/2006
Calcium saturated paste	0.32	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.33	meq/l	3-5.4	11/07/2006
Sodium saturated paste	13.6	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	23.9	—	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-16	Description: SHMW-12D @ 64-66'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	42b mod.	11/02/2006
Silt	32.5	%	42b mod.	11/02/2006
Clay	55.0	%	42b mod.	11/02/2006
Texture	Clay	---	42b mod.	11/02/2006
Electrical Conductivity Saturated Paste	1.25	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	8.8	S.U.	21a	11/02/2006
Saturation	158	%	27a	11/01/2006
Calcium saturated paste	0.28	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.37	meq/l	3-5.4	11/07/2006
Sodium saturated paste	12.0	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	21.0	---	20b	11/07/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-17	Description: SHMW-12D @ 66-70'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	80.0	%	42b mod.	11/02/2006
Silt	15.0	%	42b mod.	11/02/2006
Clay	5.0	%	42b mod.	11/02/2006
Texture	Loamy Sand	—	42b mod.	11/02/2006
Electrical Conductivity Saturated Paste	3.13	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	7.2	S.U.	21a	11/02/2006
Saturation	99.1	%	27a	11/01/2006
Calcium saturated paste	0.46	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.60	meq/l	3-5.4	11/07/2006
Sodium saturated paste	32.5	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	44.6	—	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-18	Description: SHMW-12D @ 70-75'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	42b mod.	11/02/2006
Silt	58.7	%	42b mod.	11/02/2006
Clay	35.0	%	42b mod.	11/02/2006
Texture	Si Cl Lo	---	42b mod.	11/02/2006
Electrical Conductivity Saturated Paste	1.18	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	9.0	S.U.	21a	11/02/2006
Saturation	107	%	27a	11/01/2006
Calcium saturated paste	0.27	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.39	meq/l	3-5.4	11/07/2006
Sodium saturated paste	11.4	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	19.9	---	20b	11/07/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-19	Description: SHMW-12D @ 75-80'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	42b mod.	11/02/2006
Silt	62.5	%	42b mod.	11/02/2006
Clay	22.5	%	42b mod.	11/02/2006
Texture	Silt Loam	—	42b mod.	11/02/2006
Electrical Conductivity Saturated Paste	2.28	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	8.9	S.U.	21a	11/02/2006
Saturation	72.9	%	27a	11/01/2006
Calcium saturated paste	0.43	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.50	meq/l	3-5.4	11/07/2006
Sodium saturated paste	25.6	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	37.4	----	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-20	Description: SHMW-12D @ 80-81 1/2'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	67.5	%	42b mod.	11/02/2006
Silt	21.2	%	42b mod.	11/02/2006
Clay	11.3	%	42b mod.	11/02/2006
Texture	Sandy Loam	—	42b mod.	11/02/2006
Electrical Conductivity Saturated Paste	15.5	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	6.9	S.U.	21a	11/02/2006
Saturation	94.9	%	27a	11/01/2006
Calcium saturated paste	135	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	92.8	meq/l	3-5.4	11/07/2006
Sodium saturated paste	325	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	30.5	—	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-21	Description: SHMW-12D @ 81 1/2-86'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	0.0	%	42b mod.	11/03/2006
Silt	62.5	%	42b mod.	11/03/2006
Clay	37.5	%	42b mod.	11/03/2006
Texture	Si Cl Lo	---	42b mod.	11/03/2006
Electrical Conductivity Saturated Paste	1.33	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	8.9	S.U.	21a	11/03/2006
Saturation	152	%	27a	11/03/2006
Calcium saturated paste	0.35	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.35	meq/l	3-5.4	11/07/2006
Sodium saturated paste	12.8	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	21.7	---	20b	11/07/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-22	Description: SHMW-12D @ 86-90'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	42b mod.	11/03/2006
Silt	47.5	%	42b mod.	11/03/2006
Clay	50.0	%	42b mod.	11/03/2006
Texture	Silt Clay	—	42b mod.	11/03/2006
Electrical Conductivity Saturated Paste	1.19	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	9.1	S.U.	21a	11/03/2006
Saturation	175	%	27a	11/03/2006
Calcium saturated paste	0.36	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.33	meq/l	3-5.4	11/07/2006
Sodium saturated paste	12.1	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	20.5	—	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-23	Description: SHMW-12D @ 90-95'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	71.3	%	42b mod.	11/03/2006
Silt	13.7	%	42b mod.	11/03/2006
Clay	15.0	%	42b mod.	11/03/2006
Texture	Sandy Loam	—	42b mod.	11/03/2006
Electrical Conductivity Saturated Paste	1.49	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	9.5	S.U.	21a	11/03/2006
Saturation	83.9	%	27a	11/03/2006
Calcium saturated paste	0.28	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.30	meq/l	3-5.4	11/07/2006
Sodium saturated paste	15.2	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	28.1	—	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-24	Description: SHMW-12D @ 95-100'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	66.3	%	42b mod.	11/03/2006
Silt	17.4	%	42b mod.	11/03/2006
Clay	16.3	%	42b mod.	11/03/2006
Texture	Sandy Loam	----	42b mod.	11/03/2006
Electrical Conductivity Saturated Paste	1.49	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	9.4	S.U.	21a	11/03/2006
Saturation	72.3	%	27a	11/03/2006
Calcium saturated paste	0.37	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.36	meq/l	3-5.4	11/07/2006
Sodium saturated paste	16.7	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	27.6	---	20b	11/07/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-25	Description: SHMD-12D @ 100-105'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	71.3	%	42b mod.	11/03/2006
Silt	14.9	%	42b mod.	11/03/2006
Clay	13.8	%	42b mod.	11/03/2006
Texture	Sandy Loam	---	42b mod.	11/03/2006
Electrical Conductivity Saturated Paste	1.60	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	9.4	S.U.	21a	11/03/2006
Saturation	57.3	%	27a	11/03/2006
Calcium saturated paste	0.42	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.48	meq/l	3-5.4	11/07/2006
Sodium saturated paste	15.9	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	23.6	---	20b	11/07/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-26	Description: SHMD-12D @ 105-110'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	68.8	%	42b mod.	11/03/2006
Silt	16.2	%	42b mod.	11/03/2006
Clay	15.0	%	42b mod.	11/03/2006
Texture	Sandy Loam	—	42b mod.	11/03/2006
Electrical Conductivity Saturated Paste	0.66	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	9.4	S.U.	21a	11/03/2006
Saturation	58.5	%	27a	11/03/2006
Calcium saturated paste	0.42	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.81	meq/l	3-5.4	11/07/2006
Sodium saturated paste	7.65	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	9.78	—	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-27	Description: SHMD-12D @ 110-115'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: ANA VARGO	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	66.3	%	42b mod.	11/03/2006
Silt	18.7	%	42b mod.	11/03/2006
Clay	15.0	%	42b mod.	11/03/2006
Texture	Sandy Loam	—	42b mod.	11/03/2006
Electrical Conductivity Saturated Paste	0.58	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	9.3	S.U.	21a	11/03/2006
Saturation	60.7	%	27a	11/03/2006
Calcium saturated paste	0.47	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.90	meq/l	3-5.4	11/07/2006
Sodium saturated paste	6.15	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	7.43	—	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-28	Description: SHMD-12D @ 115-120'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RUSSELL J. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	71.3	%	42b mod.	11/03/2006
Silt	16.2	%	42b mod.	11/03/2006
Clay	12.5	%	42b mod.	11/03/2006
Texture	Sandy Loam	----	42b mod.	11/03/2006
Electrical Conductivity Saturated Paste	2.68	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	8.5	S.U.	21a	11/03/2006
Saturation	50.1	%	27a	11/03/2006
Calcium saturated paste	2.34	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	3.22	meq/l	3-5.4	11/07/2006
Sodium saturated paste	27.9	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	16.7	---	20b	11/07/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-29	Description: SHMD-12D @ 120-122'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RUSSELL J. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	42b mod.	11/03/2006
Silt	56.2	%	42b mod.	11/03/2006
Clay	37.5	%	42b mod.	11/03/2006
Texture	Si Cl Lo	—	42b mod.	11/03/2006
Electrical Conductivity Saturated Paste	0.57	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	8.7	S.U.	21a	11/03/2006
Saturation	129	%	27a	11/03/2006
Calcium saturated paste	0.22	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.33	meq/l	3-5.4	11/07/2006
Sodium saturated paste	5.57	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	10.6	—	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-30	Description: SHMD-12D @ 138-143'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RUSSELL J. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	42b mod.	11/03/2006
Silt	37.5	%	42b mod.	11/03/2006
Clay	60.0	%	42b mod.	11/03/2006
Texture	Clay	—	42b mod.	11/03/2006
Electrical Conductivity Saturated Paste	1.42	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	7.1	S.U.	21a	11/03/2006
Saturation	103	%	27a	11/03/2006
Calcium saturated paste	4.64	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	11.9	meq/l	3-5.4	11/07/2006
Sodium saturated paste	20.4	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	7.10	—	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-31	Description: SHMD-12D @ 143-148'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RUSSELL J. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	42b mod.	11/03/2006
Silt	61.2	%	42b mod.	11/03/2006
Clay	25.0	%	42b mod.	11/03/2006
Texture	Silt Loam	—	42b mod.	11/03/2006
Electrical Conductivity Saturated Paste	0.98	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	9.3	S.U.	21a	11/03/2006
Saturation	108	%	27a	11/03/2006
Calcium saturated paste	0.43	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.44	meq/l	3-5.4	11/07/2006
Sodium saturated paste	10.1	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	15.2	—	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-32	Description: SHMD-12D @ 148-153'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RUSSELL J. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	26.3	%	42b mod.	11/03/2006
Silt	47.4	%	42b mod.	11/03/2006
Clay	26.3	%	42b mod.	11/03/2006
Texture	Loam	—	42b mod.	11/03/2006
Electrical Conductivity Saturated Paste	0.80	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	9.6	S.U.	21a	11/03/2006
Saturation	119	%	27a	11/03/2006
Calcium saturated paste	0.28	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.36	meq/l	3-5.4	11/07/2006
Sodium saturated paste	8.34	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	14.7	—	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-33	Description: SHMD-12D @ 153-156'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006		
Collected by: RUSSELL J. MARCHESE		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	0.0	%	42b mod.	11/03/2006
Silt	25.0	%	42b mod.	11/03/2006
Clay	75.0	%	42b mod.	11/03/2006
Texture	Clay	—	42b mod.	11/03/2006
Electrical Conductivity Saturated Paste	0.94	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	8.9	S.U.	21a	11/03/2006
Saturation	163	%	27a	11/03/2006
Calcium saturated paste	0.20	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.39	meq/l	3-5.4	11/07/2006
Sodium saturated paste	9.91	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	18.3	—	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDR ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-34	Description: SHMD-12D @ 158-163'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RUSSELL J. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	42b mod.	11/03/2006
Silt	45.0	%	42b mod.	11/03/2006
Clay	52.5	%	42b mod.	11/03/2006
Texture	Silty Clay	---	42b mod.	11/03/2006
Electrical Conductivity Saturated Paste	0.97	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	9.2	S.U.	21a	11/03/2006
Saturation	156	%	27a	11/03/2006
Calcium saturated paste	0.22	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.49	meq/l	3-5.4	11/07/2006
Sodium saturated paste	10.7	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	18.0	---	20b	11/07/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-35	Description: SHMD-12D @ 163-168'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RUSSELL J. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	37.5	%	42b mod.	11/03/2006
Silt	46.2	%	42b mod.	11/03/2006
Clay	16.3	%	42b mod.	11/03/2006
Texture	Loam	—	42b mod.	11/03/2006
Electrical Conductivity Saturated Paste	1.66	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	8.6	S.U.	21a	11/03/2006
Saturation	132	%	27a	11/03/2006
Calcium saturated paste	0.39	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.49	meq/l	3-5.4	11/07/2006
Sodium saturated paste	16.6	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	24.8	—	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-36	Description: SHMD-12D @ 168-173'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RUSSELL J. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	46.3	%	42b mod.	11/03/2006
Silt	48.7	%	42b mod.	11/03/2006
Clay	5.0	%	42b mod.	11/03/2006
Texture	Sandy Loam	—	42b mod.	11/03/2006
Electrical Conductivity Saturated Paste	1.24	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	9.3	S.U.	21a	11/03/2006
Saturation	94.2	%	27a	11/03/2006
Calcium saturated paste	0.38	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.37	meq/l	3-5.4	11/07/2006
Sodium saturated paste	12.2	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	19.9	—	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-37	Description: SHMW-12D @ 173-178'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RUSSELL J. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	61.3	%	42b mod.	11/03/2006
Silt	36.2	%	42b mod.	11/03/2006
Clay	2.5	%	42b mod.	11/03/2006
Texture	Sandy Loam	—	42b mod.	11/03/2006
Electrical Conductivity Saturated Paste	1.02	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	9.6	S.U.	21a	11/03/2006
Saturation	95.8	%	27a	11/03/2006
Calcium saturated paste	0.28	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.30	meq/l	3-5.4	11/07/2006
Sodium saturated paste	10.0	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	18.6	—	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-38	Description: SHMW-12D @ 178-182'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RUSSELL J. MARCHESI	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	42b mod.	11/03/2006
Silt	65.0	%	42b mod.	11/03/2006
Clay	17.5	%	42b mod.	11/03/2006
Texture	Silt Loam	—	42b mod.	11/03/2006
Electrical Conductivity Saturated Paste	1.01	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	9.2	S.U.	21a	11/03/2006
Saturation	121	%	27a	11/03/2006
Calcium saturated paste	0.27	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.29	meq/l	3-5.4	11/07/2006
Sodium saturated paste	9.45	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	17.9	—	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-39	Description: SHMW-12D @ 182.5-187.5'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RUSSELL J. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	42b mod.	11/03/2006
Silt	64.9	%	42b mod.	11/03/2006
Clay	28.8	%	42b mod.	11/03/2006
Texture	Si Cl Lo	—	42b mod.	11/03/2006
Electrical Conductivity Saturated Paste	0.82	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	9.3	S.U.	21a	11/03/2006
Saturation	135	%	27a	11/03/2006
Calcium saturated paste	0.33	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.36	meq/l	3-5.4	11/07/2006
Sodium saturated paste	8.06	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	13.8	—	20b	11/07/2006
Sample Preparation	—	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-42	Description: SHMW-12D @ 191-195.5'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RUSSELL J. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	1.3	%	42b mod.	11/08/2006
Silt	58.7	%	42b mod.	11/08/2006
Clay	40.0	%	42b mod.	11/08/2006
Texture	Silty Clay		42b mod.	11/08/2006
Electrical Conductivity Saturated Paste	1.23	mmhos/cm	10-3.3	11/10/2006
pH Saturated Paste	9.0	S.U.	21a	11/08/2006
Saturation	130	%	27a	11/08/2006
Calcium saturated paste	0.47	meq/l	3-5.4	11/09/2006
Magnesium saturated paste	0.24	meq/l	3-5.4	11/09/2006
Sodium saturated paste	14.3	meq/l	3-5.4	11/09/2006
Sodium Adsorption Ratio	24.0	---	20b	11/09/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-41 Description: SHMW-12D @ 196.5-202.5' Matrix: SOIL
 Date Received: 10/18/2006
 Date Collected: 10/13/2006 Collected by: RUSSELL J. MARCHESE

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	42b mod.	11/08/2006
Silt	38.7	%	42b mod.	11/08/2006
Clay	58.8	%	42b mod.	11/08/2006
Texture	Clay		42b mod.	11/08/2006
Electrical Conductivity Saturated Paste	1.05	mmhos/cm	10-3.3	11/10/2006
pH Saturated Paste	8.6	S.U.	21a	11/08/2006
Saturation	153	%	21a	11/13/2006
Calcium saturated paste	0.52	meq/l	3-5.4	11/09/2006
Magnesium saturated paste	0.28	meq/l	3-5.4	11/09/2006
Sodium saturated paste	10.3	meq/l	3-5.4	11/09/2006
Sodium Adsorption Ratio	16.3	---	20b	11/09/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-40	Description: SHMW-12D @ 203.5-207'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RUSSELL J. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	42b mod.	11/03/2006
Silt	53.7	%	42b mod.	11/03/2006
Clay	32.5	%	42b mod.	11/03/2006
Texture	Si Cl Lo	—	42b mod.	11/03/2006
Electrical Conductivity Saturated Paste	0.69	mmhos/cm	10-3.3	11/06/2006
pH Saturated Paste	9.4	S.U.	21a	11/03/2006
Saturation	91.0	%	27a	11/03/2006
Calcium saturated paste	0.39	meq/l	3-5.4	11/07/2006
Magnesium saturated paste	0.72	meq/l	3-5.4	11/07/2006
Sodium saturated paste	8.42	meq/l	3-5.4	11/07/2006
Sodium Adsorption Ratio	11.3	----	20b	11/07/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-44	Description: SHMW-12D @ 213-216.5'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RUSSELL J. MARCHESI	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	42b mod.	11/08/2006
Silt	52.5	%	42b mod.	11/08/2006
Clay	25.0	%	42b mod.	11/08/2006
Texture	Silt Loam		42b mod.	11/08/2006
Electrical Conductivity Saturated Paste	0.89	mmhos/cm	10-3.3	11/10/2006
pH Saturated Paste	9.0	S.U.	21a	11/08/2006
Saturation	140	%	27a	11/08/2006
Calcium saturated paste	0.64	meq/l	3-5.4	11/09/2006
Magnesium saturated paste	0.34	meq/l	3-5.4	11/09/2006
Sodium saturated paste	9.42	meq/l	3-5.4	11/09/2006
Sodium Adsorption Ratio	13.4	---	20b	11/09/2006
Sample Preparation	----	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-45 Description: SHMW-12D @ 216.5-220' Matrix: SOIL
 Date Received: 10/18/2006
 Date Collected: 10/14/2006 Collected by: RUSSELL J. MARCHESE

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	38.8	%	42b mod.	11/08/2006
Silt	41.2	%	42b mod.	11/08/2006
Clay	20.0	%	42b mod.	11/08/2006
Texture	Loam		42b mod.	11/08/2006
Electrical Conductivity Saturated Paste	0.91	mmhos/cm	10-3.3	11/10/2006
pH Saturated Paste	9.5	S.U.	21a	11/08/2006
Saturation	148	%	27a	11/08/2006
Calcium saturated paste	0.79	meq/l	3-5.4	11/09/2006
Magnesium saturated paste	1.75	meq/l	3-5.4	11/09/2006
Sodium saturated paste	10.6	meq/l	3-5.4	11/09/2006
Sodium Adsorption Ratio	9.39	—	20b	11/09/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-46	Description: SHMW-12D @ 220-225'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RUSSELL J. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	42b mod.	11/08/2006
Silt	63.7	%	42b mod.	11/08/2006
Clay	30.0	%	42b mod.	11/08/2006
Texture	Si Cl Lo		42b mod.	11/08/2006
Electrical Conductivity Saturated Paste	0.91	mmhos/cm	10-3.3	11/10/2006
pH Saturated Paste	9.1	S.U.	21a	11/08/2006
Saturation	125	%	27a	11/08/2006
Calcium saturated paste	0.48	meq/l	3-5.4	11/09/2006
Magnesium saturated paste	0.32	meq/l	3-5.4	11/09/2006
Sodium saturated paste	10.2	meq/l	3-5.4	11/09/2006
Sodium Adsorption Ratio	16.2	----	20b	11/09/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-47 Description: SHMW-12D @ 225-230' Matrix: SOIL
 Date Received: 10/18/2006
 Date Collected: 10/14/2006 Collected by: RUSSELL J. MARCHESE

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	0.0	%	42b mod.	11/08/2006
Silt	50.0	%	42b mod.	11/08/2006
Clay	50.0	%	42b mod.	11/08/2006
Texture	Silty Clay		42b mod.	11/08/2006
Electrical Conductivity Saturated Paste	1.16	mmhos/cm	10-3.3	11/10/2006
pH Saturated Paste	8.8	S.U.	21a	11/08/2006
Saturation	113	%	21a	11/13/2006
Calcium saturated paste	0.63	meq/l	3-5.4	11/09/2006
Magnesium saturated paste	0.61	meq/l	3-5.4	11/09/2006
Sodium saturated paste	11.8	meq/l	3-5.4	11/09/2006
Sodium Adsorption Ratio	15.0	---	20b	11/09/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-48	Description: SHMW-12D @ 230-235'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RUSSELL J. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	42b mod.	11/08/2006
Silt	52.5	%	42b mod.	11/08/2006
Clay	42.5	%	42b mod.	11/08/2006
Texture	Silty Clay		42b mod.	11/08/2006
Electrical Conductivity Saturated Paste	0.93	mmhos/cm	10-3.3	11/10/2006
pH Saturated Paste	9.0	S.U.	21a	11/08/2006
Saturation	127	%	27a	11/08/2006
Calcium saturated paste	0.72	meq/l	3-5.4	11/09/2006
Magnesium saturated paste	0.46	meq/l	3-5.4	11/09/2006
Sodium saturated paste	9.02	meq/l	3-5.4	11/09/2006
Sodium Adsorption Ratio	11.8	---	20b	11/09/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-49	Description: SHMW-12D @ 235-240'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RUSSELL J. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	0.0	%	42b mod.	11/08/2006
Silt	57.5	%	42b mod.	11/08/2006
Clay	42.5	%	42b mod.	11/08/2006
Texture	Silty Clay		42b mod.	11/08/2006
Electrical Conductivity Saturated Paste	1.07	mmhos/cm	10-3.3	11/10/2006
pH Saturated Paste	8.8	S.U.	21a	11/08/2006
Saturation	124	%	27a	11/08/2006
Calcium saturated paste	0.56	meq/l	3-5.4	11/09/2006
Magnesium saturated paste	0.42	meq/l	3-5.4	11/09/2006
Sodium saturated paste	10.5	meq/l	3-5.4	11/09/2006
Sodium Adsorption Ratio	14.9	----	20b	11/09/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-50	Description: SHMW-12D @ 240-245'	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RUSSELL J. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	0.0	%	42b mod.	11/08/2006
Silt	42.5	%	42b mod.	11/08/2006
Clay	57.5	%	42b mod.	11/08/2006
Texture	Silty Clay		42b mod.	11/08/2006
Electrical Conductivity Saturated Paste	1.03	mmhos/cm	10-3.3	11/10/2006
pH Saturated Paste	8.8	S.U.	21a	11/08/2006
Saturation	136	%	27a	11/08/2006
Calcium saturated paste	0.61	meq/l	3-5.4	11/09/2006
Magnesium saturated paste	0.98	meq/l	3-5.4	11/09/2006
Sodium saturated paste	11.8	meq/l	3-5.4	11/09/2006
Sodium Adsorption Ratio	13.3	---	20b	11/09/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-51 Description: SHMW-12D @ 245-250' Matrix: SOIL
 Date Received: 10/18/2006
 Date Collected: 10/14/2006 Collected by: RUSSELL J. MARCHESE

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	3.8	%	42b mod.	11/08/2006
Silt	47.4	%	42b mod.	11/08/2006
Clay	48.8	%	42b mod.	11/08/2006
Texture	Silty Clay		42b mod.	11/08/2006
Electrical Conductivity Saturated Paste	0.98	mmhos/cm	10-3.3	11/10/2006
pH Saturated Paste	8.2	S.U.	21a	11/08/2006
Saturation	106	%	27a	11/08/2006
Calcium saturated paste	22.0	meq/l	3-5.4	11/09/2006
Magnesium saturated paste	22.9	meq/l	3-5.4	11/09/2006
Sodium saturated paste	10.1	meq/l	3-5.4	11/09/2006
Sodium Adsorption Ratio	2.14	—	20b	11/09/2006
Sample Preparation	---	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-12	Description: SHOB-01, 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	15-5 Mod.	01/04/2007
Silt	52.5	%	15-5 Mod.	01/04/2007
Clay	45.0	%	15-5 Mod.	01/04/2007
Texture	Silty Clay	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	9.58	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	7.5	S.U.	21a	01/04/2007
Saturation	115	%	27b	01/04/2007
Calcium saturated paste	22.2	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	39.6	meq/l	3-5.4	01/25/2007
Sodium saturated paste	96.3	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	17.3	----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-13	Description: SHOB-01, 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	01/04/2007
Silt	50.0	%	15-5 Mod.	01/04/2007
Clay	45.0	%	15-5 Mod.	01/04/2007
Texture	Silty Clay	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	9.14	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.0	S.U.	21a	01/04/2007
Saturation	129	%	27b	01/04/2007
Calcium saturated paste	21.2	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	43.5	meq/l	3-5.4	01/25/2007
Sodium saturated paste	89.7	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	15.8	----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-14	Description: SHOB-01, 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	15-5 Mod.	01/04/2007
Silt	37.5	%	15-5 Mod.	01/04/2007
Clay	60.0	%	15-5 Mod.	01/04/2007
Texture	Clay	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	8.00	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	6.3	S.U.	21a	01/04/2007
Saturation	122	%	27b	01/04/2007
Calcium saturated paste	23.4	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	86.0	meq/l	3-5.4	01/25/2007
Sodium saturated paste	69.5	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	9.39	----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-15	Description: SHOB-01, 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	27.5	%	15-5 Mod.	01/04/2007
Silt	45.0	%	15-5 Mod.	01/04/2007
Clay	27.5	%	15-5 Mod.	01/04/2007
Texture	Clay Loam	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	6.19	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	6.5	S.U.	21a	01/04/2007
Saturation	80.4	%	27b	01/04/2007
Calcium saturated paste	18.0	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	46.6	meq/l	3-5.4	01/25/2007
Sodium saturated paste	73.5	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	12.9	----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-16	Description: SHOB-01, 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	15-5 Mod.	01/04/2007
Silt	55.0	%	15-5 Mod.	01/04/2007
Clay	42.5	%	15-5 Mod.	01/04/2007
Texture	Silty Clay	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	2.90	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.1	S.U.	21a	01/04/2007
Saturation	102	%	27b	01/04/2007
Calcium saturated paste	4.52	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	7.52	meq/l	3-5.4	01/25/2007
Sodium saturated paste	26.1	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	10.6	----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-17	Description: SHOB-01, 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	01/04/2007
Silt	53.7	%	15-5 Mod.	01/04/2007
Clay	41.3	%	15-5 Mod.	01/04/2007
Texture	Silty Clay	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	2.47	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.3	S.U.	21a	01/04/2007
Saturation	143	%	27b	01/04/2007
Calcium saturated paste	2.30	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	3.25	meq/l	3-5.4	01/25/2007
Sodium saturated paste	25.3	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	15.2	----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-18	Description: SHOB-01, 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	42.5	%	15-5 Mod.	01/04/2007
Silt	33.7	%	15-5 Mod.	01/04/2007
Clay	23.8	%	15-5 Mod.	01/04/2007
Texture	Loam	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	2.55	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.9	S.U.	21a	01/04/2007
Saturation	112	%	27b	01/04/2007
Calcium saturated paste	2.25	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	3.09	meq/l	3-5.4	01/25/2007
Sodium saturated paste	34.4	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	21.1	-----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-19	Description: SHOB-01, 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	01/04/2007
Silt	52.5	%	15-5 Mod.	01/04/2007
Clay	27.5	%	15-5 Mod.	01/04/2007
Texture	Si Cl Lo	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	2.73	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	9.0	S.U.	21a	01/04/2007
Saturation	131	%	27b	01/04/2007
Calcium saturated paste	0.98	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	0.93	meq/l	3-5.4	01/25/2007
Sodium saturated paste	21.5	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	21.9	----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-20	Description: SHOB-01, 40-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	01/04/2007
Silt	50.0	%	15-5 Mod.	01/04/2007
Clay	27.5	%	15-5 Mod.	01/04/2007
Texture	Clay Loam	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	4.22	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	9.0	S.U.	21a	01/04/2007
Saturation	102	%	27b	01/04/2007
Calcium saturated paste	2.29	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	3.22	meq/l	3-5.4	01/25/2007
Sodium saturated paste	78.8	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	47.5	----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-21	Description: SHOB-01, 45-50	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	55.0	%	15-5 Mod.	01/04/2007
Silt	23.7	%	15-5 Mod.	01/04/2007
Clay	21.3	%	15-5 Mod.	01/04/2007
Texture	Sa Cl Lo	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	4.01	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	9.0	S.U.	21a	01/04/2007
Saturation	88.2	%	27b	01/04/2007
Calcium saturated paste	1.38	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	1.53	meq/l	3-5.4	01/25/2007
Sodium saturated paste	41.1	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	34.1	----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-22	Description: SHOB-01, 50-55	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	41.3	%	15-5 Mod.	01/05/2007
Silt	31.2	%	15-5 Mod.	01/05/2007
Clay	27.5	%	15-5 Mod.	01/05/2007
Texture	Clay Loam	----	USDA	01/05/2007
Electrical Conductivity Saturated Paste	2.13	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	9.1	S.U.	21a	01/04/2007
Saturation	119	%	27b	01/04/2007
Calcium saturated paste	1.39	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	1.73	meq/l	3-5.4	01/25/2007
Sodium saturated paste	39.1	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	31.3	-----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-23	Description: SHOB-01, 75-80	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod.	01/05/2007
Silt	51.2	%	15-5 Mod.	01/05/2007
Clay	40.0	%	15-5 Mod.	01/05/2007
Texture	Si Cl Lo	----	USDA	01/05/2007
Electrical Conductivity Saturated Paste	2.00	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.4	S.U.	21a	01/04/2007
Saturation	149	%	27b	01/04/2007
Calcium saturated paste	1.03	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	1.04	meq/l	3-5.4	01/25/2007
Sodium saturated paste	21.9	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	21.6	----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-24	Description: SHOB-01, 80-85	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	01/05/2007
Silt	55.0	%	15-5 Mod.	01/05/2007
Clay	37.5	%	15-5 Mod.	01/05/2007
Texture	Si Cl Lo	----	USDA	01/05/2007
Electrical Conductivity Saturated Paste	1.52	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	9.2	S.U.	21a	01/04/2007
Saturation	161	%	27b	01/04/2007
Calcium saturated paste	0.64	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	0.49	meq/l	3-5.4	01/25/2007
Sodium saturated paste	14.1	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	18.8	----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-20	Description: SHOB-02; 0-5'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	11/30/2006
Silt	43.7	%	15-5 Mod.	11/30/2006
Clay	43.8	%	15-5 Mod.	11/30/2006
Texture	Silty Clay	----	USDA	11/30/2006
Electrical Conductivity Saturated Paste	1.43	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.3	S.U.	21a	11/28/2006
Saturation	84.9	%	27b	11/28/2006
Calcium saturated paste	3.96	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	3.37	meq/l	3-5.4	12/14/2006
Sodium saturated paste	9.29	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	4.85	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.:	2006100195-21	Description:	SHOB-02; 5-10'	Matrix:	OVERBURDEN
Date Received:	10/19/2006	Date Collected:	10/16/2006	Collected by:	RYAN TOLENE

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	12/01/2006
Silt	37.5	%	15-5 Mod.	12/01/2006
Clay	42.5	%	15-5 Mod.	12/01/2006
Texture	Clay	----	USDA	12/01/2006
Electrical Conductivity Saturated Paste	5.28	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	7.7	S.U.	21a	11/29/2006
Saturation	99.0	%	27b	11/29/2006
Calcium saturated paste	17.4	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	19.8	meq/l	3-5.4	12/14/2006
Sodium saturated paste	33.6	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	7.79	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-22	Description: SHOB-02; 10-15'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	23.8	%	15-5 Mod.	12/01/2006
Silt	42.4	%	15-5 Mod.	12/01/2006
Clay	33.8	%	15-5 Mod.	12/01/2006
Texture	Clay Loam	----	USDA	12/01/2006
Electrical Conductivity Saturated Paste	6.11	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	7.6	S.U.	21a	11/29/2006
Saturation	83.0	%	27b	11/29/2006
Calcium saturated paste	20.4	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	29.3	meq/l	3-5.4	12/14/2006
Sodium saturated paste	38.9	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	7.81	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-23	Description: SHOB-02; 15-20'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/01/2006
Silt	55.0	%	15-5 Mod.	12/01/2006
Clay	35.0	%	15-5 Mod.	12/01/2006
Texture	Si Cl Lo	----	USDA	12/01/2006
Electrical Conductivity Saturated Paste	5.85	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	7.6	S.U.	21a	11/29/2006
Saturation	103	%	27b	11/29/2006
Calcium saturated paste	16.2	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	34.6	meq/l	3-5.4	12/14/2006
Sodium saturated paste	31.0	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	6.15	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-24	Description: SHOB-02; 20-25'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/01/2006
Silt	58.7	%	15-5 Mod.	12/01/2006
Clay	36.3	%	15-5 Mod.	12/01/2006
Texture	Si Cl Lo	----	USDA	12/01/2006
Electrical Conductivity Saturated Paste	4.35	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	7.4	S.U.	21a	11/29/2006
Saturation	98.6	%	27b	11/29/2006
Calcium saturated paste	16.4	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	25.8	meq/l	3-5.4	12/14/2006
Sodium saturated paste	18.0	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	3.92	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-25	Description: SHOB-02; 25-30'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	45.0	%	15-5 Mod.	12/01/2006
Silt	26.2	%	15-5 Mod.	12/01/2006
Clay	28.8	%	15-5 Mod.	12/01/2006
Texture	Sa Cl Lo	----	USDA	12/01/2006
Electrical Conductivity Saturated Paste	3.66	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	4.8	S.U.	21a	11/29/2006
Saturation	59.7	%	27b	11/29/2006
Calcium saturated paste	15.7	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	20.8	meq/l	3-5.4	12/14/2006
Sodium saturated paste	13.7	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	3.21	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-26	Description: SHOB-02; 45-50'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	23.8	%	15-5 Mod.	12/01/2006
Silt	38.7	%	15-5 Mod.	12/01/2006
Clay	37.5	%	15-5 Mod.	12/01/2006
Texture	Clay Loam	----	USDA	12/01/2006
Electrical Conductivity Saturated Paste	1.05	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.3	S.U.	21a	11/29/2006
Saturation	174	%	27b	11/29/2006
Calcium saturated paste	0.25	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.23	meq/l	3-5.4	12/14/2006
Sodium saturated paste	10.3	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	21.1	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-27	Description: SHOB-02; 50-55'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	12/01/2006
Silt	58.7	%	15-5 Mod.	12/01/2006
Clay	26.3	%	15-5 Mod.	12/01/2006
Texture	Silt Loam	----	USDA	12/01/2006
Electrical Conductivity Saturated Paste	1.04	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.0	S.U.	21a	11/29/2006
Saturation	126	%	27b	11/29/2006
Calcium saturated paste	0.37	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.37	meq/l	3-5.4	12/14/2006
Sodium saturated paste	10.2	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	16.9	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-28	Description: SHOB-02; 55-60'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	12/01/2006
Silt	60.0	%	15-5 Mod.	12/01/2006
Clay	22.5	%	15-5 Mod.	12/01/2006
Texture	Silt Loam	----	USDA	12/01/2006
Electrical Conductivity Saturated Paste	1.21	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.2	S.U.	21a	11/29/2006
Saturation	110	%	27b	11/29/2006
Calcium saturated paste	0.59	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.36	meq/l	3-5.4	12/14/2006
Sodium saturated paste	13.6	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	19.8	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-29	Description: SHOB-02; 60-65'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15-5 Mod.	12/01/2006
Silt	21.3	%	15-5 Mod.	12/01/2006
Clay	62.4	%	15-5 Mod.	12/01/2006
Texture	Silt Loam	----	USDA	12/01/2006
Electrical Conductivity Saturated Paste	1.95	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.0	S.U.	21a	11/29/2006
Saturation	103	%	27b	11/29/2006
Calcium saturated paste	0.37	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.32	meq/l	3-5.4	12/14/2006
Sodium saturated paste	20.4	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	34.9	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-30	Description: SHOB-02; 65-70'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	12/01/2006
Silt	57.5	%	15-5 Mod.	12/01/2006
Clay	22.5	%	15-5 Mod.	12/01/2006
Texture	Silt Loam	----	USDA	12/01/2006
Electrical Conductivity Saturated Paste	1.89	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.2	S.U.	21a	11/29/2006
Saturation	101	%	27b	11/29/2006
Calcium saturated paste	0.44	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.40	meq/l	3-5.4	12/14/2006
Sodium saturated paste	19.7	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	30.3	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-31 **Description:** SHOB-02; 70-75' **Matrix:** OVERBURDEN
Date Received: 10/19/2006
Date Collected: 10/16/2006 **Collected by:** RYAN TOLENE

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	1.3	%	15-5 Mod.	12/01/2006
Silt	57.4	%	15-5 Mod.	12/01/2006
Clay	41.3	%	15-5 Mod.	12/01/2006
Texture	Silty Clay	----	USDA	12/01/2006
Electrical Conductivity Saturated Paste	1.37	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.9	S.U.	21a	11/29/2006
Saturation	139	%	27b	11/29/2006
Calcium saturated paste	0.26	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.18	meq/l	3-5.4	12/14/2006
Sodium saturated paste	14.4	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	30.6	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-32	Description: SHOB-02; 75-80'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/01/2006
Silt	40.0	%	15-5 Mod.	12/01/2006
Clay	55.0	%	15-5 Mod.	12/01/2006
Texture	Silty Clay	----	USDA	12/01/2006
Electrical Conductivity Saturated Paste	1.28	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.9	S.U.	21a	11/29/2006
Saturation	156	%	27b	11/29/2006
Calcium saturated paste	0.53	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.37	meq/l	3-5.4	12/14/2006
Sodium saturated paste	12.5	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	18.6	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-33	Description: SHOB-02; 80-85'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/01/2006
Silt	48.7	%	15-5 Mod.	12/01/2006
Clay	46.3	%	15-5 Mod.	12/01/2006
Texture	Silty Clay	----	USDA	12/01/2006
Electrical Conductivity Saturated Paste	0.72	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.2	S.U.	21a	11/29/2006
Saturation	176	%	27b	11/29/2006
Calcium saturated paste	0.66	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.47	meq/l	3-5.4	12/14/2006
Sodium saturated paste	7.74	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	10.3	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-34	Description: SHOB-02; 85-90'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/01/2006
Silt	62.5	%	15-5 Mod.	12/01/2006
Clay	30.0	%	15-5 Mod.	12/01/2006
Texture	Si Cl Lo	----	USDA	12/01/2006
Electrical Conductivity Saturated Paste	0.93	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.1	S.U.	21a	11/29/2006
Saturation	131	%	27b	11/29/2006
Calcium saturated paste	0.56	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.45	meq/l	3-5.4	12/14/2006
Sodium saturated paste	9.15	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	12.9	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-35	Description: SHOB-02; 90-95'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod.	12/01/2006
Silt	61.2	%	15-5 Mod.	12/01/2006
Clay	30.0	%	15-5 Mod.	12/01/2006
Texture	Si Cl Lo	----	USDA	12/01/2006
Electrical Conductivity Saturated Paste	1.07	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.0	S.U.	21a	11/29/2006
Saturation	136	%	27b	11/29/2006
Calcium saturated paste	0.61	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.32	meq/l	3-5.4	12/14/2006
Sodium saturated paste	11.2	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	16.4	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-36	Description: SHOB-02; 95-100'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/01/2006
Silt	32.5	%	15-5 Mod.	12/01/2006
Clay	60.0	%	15-5 Mod.	12/01/2006
Texture	Si Cl Lo	----	USDA	12/01/2006
Electrical Conductivity Saturated Paste	0.88	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.1	S.U.	21a	12/01/2006
Saturation	121	%	27b	12/01/2006
Calcium saturated paste	NA	----	----	----
Magnesium saturated paste	NA	----	----	----
Sodium saturated paste	NA	----	----	----
Sodium Adsorption Ratio	NA	----	----	----
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-39	Description: SHOB-02; 100-105'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/01/2006
Silt	60.0	%	15-5 Mod.	12/01/2006
Clay	32.5	%	15-5 Mod.	12/01/2006
Texture	Si Cl Lo	----	USDA	12/01/2006
Electrical Conductivity Saturated Paste	0.91	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.9	S.U.	21a	11/29/2006
Saturation	140	%	27b	11/29/2006
Calcium saturated paste	0.51	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.40	meq/l	3-5.4	12/14/2006
Sodium saturated paste	8.90	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	13.2	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-40	Description: SHOB-02; 105-110'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/01/2006
Silt	57.5	%	15-5 Mod.	12/01/2006
Clay	37.5	%	15-5 Mod.	12/01/2006
Texture	Si Cl Lo	----	USDA	12/01/2006
Electrical Conductivity Saturated Paste	1.06	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.0	S.U.	21a	11/29/2006
Saturation	131	%	27b	11/29/2006
Calcium saturated paste	0.77	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.65	meq/l	3-5.4	12/14/2006
Sodium saturated paste	11.0	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	13.1	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-41	Description: SHOB-02; 110-115'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	15-5 Mod.	12/02/2006
Silt	51.2	%	15-5 Mod.	12/02/2006
Clay	46.3	%	15-5 Mod.	12/02/2006
Texture	Silty Clay	----	USDA	12/02/2006
Electrical Conductivity Saturated Paste	0.99	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.9	S.U.	21a	11/29/2006
Saturation	121	%	27b	11/29/2006
Calcium saturated paste	0.68	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.48	meq/l	3-5.4	12/14/2006
Sodium saturated paste	9.75 J	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	12.8	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-42	Description: SHOB-02; 115-120'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	0.0	%	15-5 Mod.	12/02/2006
Silt	56.2	%	15-5 Mod.	12/02/2006
Clay	43.8	%	15-5 Mod.	12/02/2006
Texture	Silty Clay	----	USDA	12/02/2006
Electrical Conductivity Saturated Paste	1.55	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.9	S.U.	21a	11/29/2006
Saturation	122	%	27b	11/29/2006
Calcium saturated paste	0.41	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.33	meq/l	3-5.4	12/14/2006
Sodium saturated paste	15.9	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	26.1	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-43	Description: SHOB-02; 120-125'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	41.3	%	15-5 Mod.	12/02/2006
Silt	34.9	%	15-5 Mod.	12/02/2006
Clay	23.8	%	15-5 Mod.	12/02/2006
Texture	Loam	----	USDA	12/02/2006
Electrical Conductivity Saturated Paste	1.23	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.4	S.U.	21a	11/29/2006
Saturation	131	%	27b	11/29/2006
Calcium saturated paste	0.31	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.37	meq/l	3-5.4	12/14/2006
Sodium saturated paste	12.8 J	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	22.0	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-44	Description: SHOB-02; 125-130'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 Mod.	12/02/2006
Silt	49.9	%	15-5 Mod.	12/02/2006
Clay	36.3	%	15-5 Mod.	12/02/2006
Texture	Si Cl Lo	----	USDA	12/02/2006
Electrical Conductivity Saturated Paste	1.33	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.1	S.U.	21a	11/29/2006
Saturation	115	%	27b	11/29/2006
Calcium saturated paste	0.25	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.26	meq/l	3-5.4	12/14/2006
Sodium saturated paste	13.7 J	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	27.2	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-45	Description: SHOB-02; 130-135'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/02/2006
Silt	52.5	%	15-5 Mod.	12/02/2006
Clay	37.5	%	15-5 Mod.	12/02/2006
Texture	Si Cl Lo	----	USDA	12/02/2006
Electrical Conductivity Saturated Paste	1.68	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.1	S.U.	21a	11/29/2006
Saturation	121	%	27b	11/29/2006
Calcium saturated paste	0.31	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.39	meq/l	3-5.4	12/14/2006
Sodium saturated paste	17.2	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	29.1	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-46	Description: SHOB-02; 135-140'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	12/02/2006
Silt	42.5	%	15-5 Mod.	12/02/2006
Clay	40.0	%	15-5 Mod.	12/02/2006
Texture	Silty Clay	----	USDA	12/02/2006
Electrical Conductivity Saturated Paste	1.68	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.1	S.U.	21a	11/29/2006
Saturation	136	%	27b	11/29/2006
Calcium saturated paste	0.44	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.38	meq/l	3-5.4	12/14/2006
Sodium saturated paste	17.5	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	27.2	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-47	Description: SHOB-02; 140-145'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	15-5 Mod.	12/02/2006
Silt	32.4	%	15-5 Mod.	12/02/2006
Clay	61.3	%	15-5 Mod.	12/02/2006
Texture	Clay	----	USDA	12/02/2006
Electrical Conductivity Saturated Paste	1.33	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.3	S.U.	21a	11/29/2006
Saturation	130	%	27b	11/29/2006
Calcium saturated paste	0.36	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.21	meq/l	3-5.4	12/14/2006
Sodium saturated paste	14.6 J	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	27.3	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-48	Description: SHOB-02; 145-150'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/02/2006
Silt	43.7	%	15-5 Mod.	12/02/2006
Clay	43.8	%	15-5 Mod.	12/02/2006
Texture	Silty Clay	----	USDA	12/02/2006
Electrical Conductivity Saturated Paste	1.41	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.1	S.U.	21a	11/29/2006
Saturation	157	%	27b	11/29/2006
Calcium saturated paste	0.31	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.23	meq/l	3-5.4	12/14/2006
Sodium saturated paste	14.8 J	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	28.6	----	20b	01/11/2007
Sample Preparation	---	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-49	Description: SHOB-02; 150-155'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	65.0	%	15-5 Mod.	12/02/2006
Silt	7.5	%	15-5 Mod.	12/02/2006
Clay	27.5	%	15-5 Mod.	12/02/2006
Texture	Sa Cl Lo	----	USDA	12/02/2006
Electrical Conductivity Saturated Paste	1.62	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	7.6	S.U.	21a	11/29/2006
Saturation	121	%	27b	11/29/2006
Calcium saturated paste	0.41	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.20	meq/l	3-5.4	12/14/2006
Sodium saturated paste	18.1	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	30.9	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-50	Description: SHOB-02; 155-160'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/02/2006
Silt	45.0	%	15-5 Mod.	12/02/2006
Clay	50.0	%	15-5 Mod.	12/02/2006
Texture	Silty Clay	----	USDA	12/02/2006
Electrical Conductivity Saturated Paste	1.78	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.4	S.U.	21a	11/29/2006
Saturation	144	%	27b	11/29/2006
Calcium saturated paste	0.45	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.67	meq/l	3-5.4	12/14/2006
Sodium saturated paste	20.3	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	27.6	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-51	Description: SHOB-02; 160-165'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	15-5 Mod.	12/02/2006
Silt	38.7	%	15-5 Mod.	12/02/2006
Clay	58.8	%	15-5 Mod.	12/02/2006
Texture	Clay	----	USDA	12/02/2006
Electrical Conductivity Saturated Paste	1.28	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.9	S.U.	21a	11/29/2006
Saturation	152	%	27b	11/29/2006
Calcium saturated paste	0.28	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.41	meq/l	3-5.4	12/14/2006
Sodium saturated paste	13.5 J	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	20.7	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-52	Description: SHOB-02; 165-170'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	12/02/2006
Silt	37.5	%	15-5 Mod.	12/02/2006
Clay	45.0	%	15-5 Mod.	12/02/2006
Texture	Clay	----	USDA	12/02/2006
Electrical Conductivity Saturated Paste	1.13	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.2	S.U.	21a	11/29/2006
Saturation	156	%	27b	11/29/2006
Calcium saturated paste	0.28	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.20	meq/l	3-5.4	12/14/2006
Sodium saturated paste	11.2 J	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	22.7	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-53	Description: SHOB-02; 170-175'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/02/2006
Silt	51.2	%	15-5 Mod.	12/02/2006
Clay	38.8	%	15-5 Mod.	12/02/2006
Texture	Si Cl Lo	----	USDA	12/02/2006
Electrical Conductivity Saturated Paste	1.32	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.2	S.U.	21a	11/29/2006
Saturation	174	%	27b	11/29/2006
Calcium saturated paste	0.32	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.20	meq/l	3-5.4	12/14/2006
Sodium saturated paste	13.8 J	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	27.1	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-54	Description: SHOB-02; 175-180'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/02/2006
Silt	53.7	%	15-5 Mod.	12/02/2006
Clay	41.3	%	15-5 Mod.	12/02/2006
Texture	Silty Clay	----	USDA	12/02/2006
Electrical Conductivity Saturated Paste	1.18	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.2	S.U.	21a	11/29/2006
Saturation	175	%	27b	11/29/2006
Calcium saturated paste	0.25	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.18	meq/l	3-5.4	12/14/2006
Sodium saturated paste	12.4 J	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	26.8	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-55	Description: SHOB-02; 180-185'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	12/02/2006
Silt	35.0	%	15-5 Mod.	12/02/2006
Clay	42.5	%	15-5 Mod.	12/02/2006
Texture	Clay	----	USDA	12/02/2006
Electrical Conductivity Saturated Paste	1.93	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	7.8	S.U.	21a	11/29/2006
Saturation	145	%	27b	11/29/2006
Calcium saturated paste	0.41	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.23	meq/l	3-5.4	12/14/2006
Sodium saturated paste	21.2	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	37.4	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-56	Description: SHOB-02; 195-200'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	26.3	%	15-5 Mod.	12/02/2006
Silt	24.9	%	15-5 Mod.	12/02/2006
Clay	48.8	%	15-5 Mod.	12/02/2006
Texture	Clay	---	USDA	12/02/2006
Electrical Conductivity Saturated Paste	1.73	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	7.9	S.U.	21a	11/29/2006
Saturation	165	%	27b	11/29/2006
Calcium saturated paste	0.45	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.29	meq/l	3-5.4	12/14/2006
Sodium saturated paste	18.1	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	29.8	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-57	Description: SHOB-02; 200-205'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/02/2006
Silt	61.2	%	15-5 Mod.	12/02/2006
Clay	28.8	%	15-5 Mod.	12/02/2006
Texture	Si Cl Lo	----	USDA	12/02/2006
Electrical Conductivity Saturated Paste	0.85	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.3	S.U.	21a	11/29/2006
Saturation	217	%	27b	11/29/2006
Calcium saturated paste	0.29	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.18	meq/l	3-5.4	12/14/2006
Sodium saturated paste	8.56 J	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	17.6	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-58	Description: SHOB-02; 205-210'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/02/2006
Silt	22.5	%	15-5 Mod.	12/02/2006
Clay	67.5	%	15-5 Mod.	12/02/2006
Texture	Clay	----	USDA	12/02/2006
Electrical Conductivity Saturated Paste	1.56	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.5	S.U.	21a	11/29/2006
Saturation	182	%	27b	11/29/2006
Calcium saturated paste	0.35	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.21	meq/l	3-5.4	12/14/2006
Sodium saturated paste	16.4	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	31.0	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-1	Description: SHOB-03, 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 mod.	12/19/2006
Silt	49.9	%	15-5mod.	12/19/2006
Clay	31.3	%	15.5mod.	12/19/2006
Texture	Si Cl Lo	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	2.54	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.0	S.U.	21a	12/19/2006
Saturation	80.3	%	27b	12/19/2006
Calcium saturated paste	4.17	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	7.15	meq/l	3-5.4	01/08/2007
Sodium saturated paste	19.3	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	8.12	---	20b	01/17/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-2	Description: SHOB-03, 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 mod.	12/19/2006
Silt	51.2	%	15-5mod.	12/19/2006
Clay	37.5	%	15.5mod.	12/19/2006
Texture	Si Cl Lo	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	8.72	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.0	S.U.	21a	12/19/2006
Saturation	98.3	%	27b	12/19/2006
Calcium saturated paste	19.8	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	39.0	meq/l	3-5.4	01/08/2007
Sodium saturated paste	83.9	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	15.5	---	20b	01/17/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-3	Description: SHOB-03, 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	3.8	%	15-5 mod.	12/19/2006
Silt	37.4	%	15-5mod.	12/19/2006
Clay	58.8	%	15.5mod.	12/19/2006
Texture	Clay	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	6.32	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	7.4	S.U.	21a	12/19/2006
Saturation	139	%	27b	12/19/2006
Calcium saturated paste	12.5	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	24.4	meq/l	3-5.4	01/08/2007
Sodium saturated paste	58.4	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	13.6	----	20b	01/17/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-4	Description: SHOB-03, 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	21.3	%	15-5 mod.	12/19/2006
Silt	29.9	%	15-5mod.	12/19/2006
Clay	48.8	%	15.5mod.	12/19/2006
Texture	Clay	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	7.10	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	4.7	S.U.	21a	12/19/2006
Saturation	94.2	%	27b	12/19/2006
Calcium saturated paste	19.1	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	25.9	meq/l	3-5.4	01/08/2007
Sodium saturated paste	89.7	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	18.9	---	20b	01/17/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-5	Description: SHOB-03, 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 mod.	12/19/2006
Silt	43.7	%	15-5mod.	12/19/2006
Clay	42.5	%	15.5mod.	12/19/2006
Texture	Silty Clay	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	6.26	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	6.1	S.U.	21a	12/19/2006
Saturation	85.8	%	27b	12/19/2006
Calcium saturated paste	16.1	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	22.4	meq/l	3-5.4	01/08/2007
Sodium saturated paste	46.7	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	10.6	---	20b	01/17/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-6	Description: SHOB-03, 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 mod.	12/19/2006
Silt	62.4	%	15-5mod.	12/19/2006
Clay	18.8	%	15.5mod.	12/19/2006
Texture	Silt Loam	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	2.99	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	7.6	S.U.	21a	12/19/2006
Saturation	58.3	%	27b	12/19/2006
Calcium saturated paste	4.73	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	4.72	meq/l	3-5.4	01/08/2007
Sodium saturated paste	33.1	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	15.2	---	20b	01/17/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-7	Description: SHOB-03, 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 mod.	12/19/2006
Silt	51.2	%	15-5mod.	12/19/2006
Clay	35.0	%	15.5mod.	12/19/2006
Texture	Si Cl Lo	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	2.21	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.2	S.U.	21a	12/19/2006
Saturation	98.3	%	27b	12/19/2006
Calcium saturated paste	1.22	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	1.63	meq/l	3-5.4	01/08/2007
Sodium saturated paste	15.1	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	12.7	---	20b	01/17/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-8	Description: SHOB-03, 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 mod.	12/19/2006
Silt	51.2	%	15-5mod.	12/19/2006
Clay	41.3	%	15.5mod.	12/19/2006
Texture	Silty Clay	----	USDA	12/19/2006
Electrical Conductivity Saturated Paste	1.46	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.6	S.U.	21a	12/19/2006
Saturation	122	%	27b	12/19/2006
Calcium saturated paste	0.41	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.47	meq/l	3-5.4	01/08/2007
Sodium saturated paste	39.9	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	60.4	----	20b	01/17/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-9	Description: SHOB-03, 40-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 mod.	12/19/2006
Silt	57.5	%	15-5mod.	12/19/2006
Clay	35.0	%	15.5mod.	12/19/2006
Texture	Si Cl Lo	----	USDA	12/19/2006
Electrical Conductivity Saturated Paste	2.41	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.8	S.U.	21a	12/19/2006
Saturation	143	%	27b	12/19/2006
Calcium saturated paste	0.61	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.71	meq/l	3-5.4	01/08/2007
Sodium saturated paste	21.5	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	26.4	---	20b	01/17/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-10	Description: SHOB-03, 45-50	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 mod.	12/19/2006
Silt	58.7	%	15-5mod.	12/19/2006
Clay	30.0	%	15.5mod.	12/19/2006
Texture	Si Cl Lo	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	1.60	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	9.1	S.U.	21a	12/19/2006
Saturation	137	%	27b	12/19/2006
Calcium saturated paste	0.35	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.32	meq/l	3-5.4	01/08/2007
Sodium saturated paste	21.8	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	37.7	---	20b	01/17/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-11	Description: SHOB-03, 50-55	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 mod.	12/19/2006
Silt	47.5	%	15-5mod.	12/19/2006
Clay	42.5	%	15.5mod.	12/19/2006
Texture	Silty Clay	----	USDA	12/19/2006
Electrical Conductivity Saturated Paste	1.52	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	9.1	S.U.	21a	12/19/2006
Saturation	160	%	27b	12/19/2006
Calcium saturated paste	0.33	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.23	meq/l	3-5.4	01/08/2007
Sodium saturated paste	18.4	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	34.7	---	20b	01/17/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-12	Description: SHOB-03, 55-60	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	60.0	%	15-5 mod.	12/19/2006
Silt	21.2	%	15-5mod.	12/19/2006
Clay	18.8	%	15.5mod.	12/19/2006
Texture	Sandy Loam	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	2.45	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	7.4	S.U.	21a	12/19/2006
Saturation	115	%	27b	12/19/2006
Calcium saturated paste	0.39	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.36	meq/l	3-5.4	01/08/2007
Sodium saturated paste	22.9	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	37.4	---	20b	01/17/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-13	Description: SHOB-03, 75-80	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	55.0	%	15-5 mod.	12/19/2006
Silt	26.2	%	15-5mod.	12/19/2006
Clay	18.8	%	15.5mod.	12/19/2006
Texture	Sandy Loam	----	USDA	12/19/2006
Electrical Conductivity Saturated Paste	1.29	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	7.9	S.U.	21a	12/19/2006
Saturation	107	%	27b	12/19/2006
Calcium saturated paste	0.22	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.15	meq/l	3-5.4	01/08/2007
Sodium saturated paste	21.7	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	50.8	----	20b	01/17/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-14	Description: SHOB-03, 80-85	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	62.5	%	15-5 mod.	12/19/2006
Silt	20.0	%	15-5mod.	12/19/2006
Clay	17.5	%	15.5mod.	12/19/2006
Texture	Sandy Loam	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	3.66	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.3	S.U.	21a	12/19/2006
Saturation	113	%	27b	12/19/2006
Calcium saturated paste	0.69	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.89	meq/l	3-5.4	01/08/2007
Sodium saturated paste	38.5 J	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	43.2 J	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-15	Description: SHOB-03, 85-90	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	71.3	%	15-5 mod.	12/19/2006
Silt	16.2	%	15-5mod.	12/19/2006
Clay	12.5	%	15.5mod.	12/19/2006
Texture	Sandy Loam	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	3.09	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.8	S.U.	21a	12/19/2006
Saturation	98.9	%	27b	12/19/2006
Calcium saturated paste	0.50	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.53	meq/l	3-5.4	01/08/2007
Sodium saturated paste	38.8	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	54.0	---	20b	01/17/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-1	Description: SHOB-04, 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 Mod.	01/04/2007
Silt	34.9	%	15-5 Mod.	01/04/2007
Clay	51.3	%	15-5 Mod.	01/04/2007
Texture	Clay	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	6.37	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	7.7	S.U.	21a	01/04/2007
Saturation	97.1	%	27b	01/04/2007
Calcium saturated paste	25.3	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	41.5	meq/l	3-5.4	01/25/2007
Sodium saturated paste	37.5	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	6.50	----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-2	Description: SHOB-04, 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	15-5 Mod.	01/04/2007
Silt	48.7	%	15-5 Mod.	01/04/2007
Clay	45.0	%	15-5 Mod.	01/04/2007
Texture	Silty Clay	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	4.93	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	7.7	S.U.	21a	01/04/2007
Saturation	107	%	27b	01/04/2007
Calcium saturated paste	25.6	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	38.7	meq/l	3-5.4	01/25/2007
Sodium saturated paste	25.5	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	4.50	----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-3	Description: SHOB-04, 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	01/04/2007
Silt	48.7	%	15-5 Mod.	01/04/2007
Clay	33.8	%	15-5 Mod.	01/04/2007
Texture	Si Cl Lo	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	5.29	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	7.9	S.U.	21a	01/04/2007
Saturation	100	%	27b	01/04/2007
Calcium saturated paste	17.1	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	28.4	meq/l	3-5.4	01/25/2007
Sodium saturated paste	38.5	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	8.07	----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-4	Description: SHOB-04, 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	01/04/2007
Silt	50.0	%	15-5 Mod.	01/04/2007
Clay	37.5	%	15-5 Mod.	01/04/2007
Texture	Si Cl Lo	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	2.89	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.4	S.U.	21a	01/04/2007
Saturation	120	%	27b	01/04/2007
Calcium saturated paste	4.46	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	6.67	meq/l	3-5.4	01/25/2007
Sodium saturated paste	20.2	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	8.55	----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-5	Description: SHOB-04, 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	43.8	%	15-5 Mod.	01/04/2007
Silt	33.7	%	15-5 Mod.	01/04/2007
Clay	22.5	%	15-5 Mod.	01/04/2007
Texture	Loam	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	5.70	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.4	S.U.	21a	01/04/2007
Saturation	57.1	%	27b	01/04/2007
Calcium saturated paste	6.11	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	15.2	meq/l	3-5.4	01/25/2007
Sodium saturated paste	33.8	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	10.4	----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-6	Description: SHOB-04, 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	60.0	%	15-5 Mod.	01/04/2007
Silt	21.2	%	15-5 Mod.	01/04/2007
Clay	18.8	%	15-5 Mod.	01/04/2007
Texture	Sandy Loam	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	4.52	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.3	S.U.	21a	01/04/2007
Saturation	73.3	%	27b	01/04/2007
Calcium saturated paste	9.05	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	24.4	meq/l	3-5.4	01/25/2007
Sodium saturated paste	33.1	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	8.09	----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-7	Description: SHOB-04, 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	01/04/2007
Silt	50.0	%	15-5 Mod.	01/04/2007
Clay	32.5	%	15-5 Mod.	01/04/2007
Texture	Si Cl Lo	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	2.62	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.7	S.U.	21a	01/04/2007
Saturation	133	%	27b	01/04/2007
Calcium saturated paste	2.86	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	6.23	meq/l	3-5.4	01/25/2007
Sodium saturated paste	18.8	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	8.82	----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-8	Description: SHOB-04, 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	37.5	%	15-5 Mod.	01/04/2007
Silt	37.5	%	15-5 Mod.	01/04/2007
Clay	25.0	%	15-5 Mod.	01/04/2007
Texture	Loam	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	2.89	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	7.5	S.U.	21a	01/04/2007
Saturation	128	%	27b	01/04/2007
Calcium saturated paste	5.31	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	11.1	meq/l	3-5.4	01/25/2007
Sodium saturated paste	42.6	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	14.9	----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-9	Description: SHOB-04, 55-60	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	01/04/2007
Silt	37.5	%	15-5 Mod.	01/04/2007
Clay	42.5	%	15-5 Mod.	01/04/2007
Texture	Clay	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	4.13	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.6	S.U.	21a	01/04/2007
Saturation	134	%	27b	01/04/2007
Calcium saturated paste	0.70	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	0.69	meq/l	3-5.4	01/25/2007
Sodium saturated paste	23.9	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	28.6	----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-10	Description: SHOB-04, 60-65	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	01/04/2007
Silt	66.2	%	15-5 Mod.	01/04/2007
Clay	28.8	%	15-5 Mod.	01/04/2007
Texture	Si Cl Lo	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	2.39	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.9	S.U.	21a	01/04/2007
Saturation	138	%	27b	01/04/2007
Calcium saturated paste	0.62	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	0.54	meq/l	3-5.4	01/25/2007
Sodium saturated paste	23.2	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	30.4	----	20b	01/25/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110091-11	Description: SHOB-04, 65-70	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod.	01/04/2007
Silt	46.2	%	15-5 Mod.	01/04/2007
Clay	28.8	%	15-5 Mod.	01/04/2007
Texture	Clay Loam	-----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	2.15	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	9.3	S.U.	21a	01/04/2007
Saturation	150	%	27b	01/04/2007
Calcium saturated paste	0.71	meq/l	3-5.4	01/25/2007
Magnesium saturated paste	0.66	meq/l	3-5.4	01/25/2007
Sodium saturated paste	24.5	meq/l	3-5.4	01/25/2007
Sodium Adsorption Ratio	29.7	-----	20b	01/25/2007
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-8	Description: SHOB-05, 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 Mod	12/14/2006
Silt	38.7	%	15-5 Mod	12/14/2006
Clay	47.5	%	15-5 Mod	12/14/2006
Texture	Clay	---	USDA	12/14/2006
Electrical Conductivity Saturated Paste	2.00	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.4	S.U.	21a	12/13/2006
Saturation	100	%	27b	12/13/2006
Calcium saturated paste	17.8	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	7.95	meq/l	3-5.4	01/03/2007
Sodium saturated paste	1.77	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	0.49	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-9	Description: SHOB-05, 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod	12/14/2006
Silt	47.5	%	15-5 Mod	12/14/2006
Clay	47.5	%	15-5 Mod	12/14/2006
Texture	Silty Clay	---	USDA	12/14/2006
Electrical Conductivity Saturated Paste	3.62	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.6	S.U.	21a	12/13/2006
Saturation	93.3	%	27b	12/13/2006
Calcium saturated paste	27.2	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	24.9	meq/l	3-5.4	01/03/2007
Sodium saturated paste	6.41	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	1.26	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-10	Description: SHOB-05, 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod	12/14/2006
Silt	30.0	%	15-5 Mod	12/14/2006
Clay	57.5	%	15-5 Mod	12/14/2006
Texture	Clay	---	USDA	12/14/2006
Electrical Conductivity Saturated Paste	5.80	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.4	S.U.	21a	12/13/2006
Saturation	103	%	27b	12/13/2006
Calcium saturated paste	28.4	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	41.6	meq/l	3-5.4	01/03/2007
Sodium saturated paste	25.9	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	4.37	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-11	Description: SHOB-05, 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod	12/14/2006
Silt	58.7	%	15-5 Mod	12/14/2006
Clay	23.8	%	15-5 Mod	12/14/2006
Texture	Silt Loam	---	USDA	12/14/2006
Electrical Conductivity Saturated Paste	8.30	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.8	S.U.	21a	12/13/2006
Saturation	55.8	%	27b	12/13/2006
Calcium saturated paste	23.8	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	58.0	meq/l	3-5.4	01/03/2007
Sodium saturated paste	53.5	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	8.36	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-12	Description: SHOB-05, 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	52.5	%	15-5 Mod	12/14/2006
Silt	35.0	%	15-5 Mod	12/14/2006
Clay	12.5	%	15-5 Mod	12/14/2006
Texture	Sandy Loam	---	USDA	12/14/2006
Electrical Conductivity Saturated Paste	8.72	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.0	S.U.	21a	12/13/2006
Saturation	48.9	%	27b	12/13/2006
Calcium saturated paste	22.5	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	59.8	meq/l	3-5.4	01/03/2007
Sodium saturated paste	59.5	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	9.28	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-13	Description: SHOB-05, 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod	12/14/2006
Silt	42.5	%	15-5 Mod	12/14/2006
Clay	35.0	%	15-5 Mod	12/14/2006
Texture	Clay Loam	---	USDA	12/14/2006
Electrical Conductivity Saturated Paste	6.89	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.2	S.U.	21a	12/13/2006
Saturation	96.9	%	27b	12/13/2006
Calcium saturated paste	10.7	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	23.5	meq/l	3-5.4	01/03/2007
Sodium saturated paste	61.9	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	15.0	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-14	Description: SHOB-05, 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	30.0	%	15-5 Mod	12/14/2006
Silt	42.5	%	15-5 Mod	12/14/2006
Clay	27.5	%	15-5 Mod	12/14/2006
Texture	Clay Loam	---	USDA	12/14/2006
Electrical Conductivity Saturated Paste	4.18	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.6	S.U.	21a	12/13/2006
Saturation	113	%	27b	12/13/2006
Calcium saturated paste	2.77	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	6.02	meq/l	3-5.4	01/03/2007
Sodium saturated paste	39.7	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	18.9	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-15	Description: SHOB-05, 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 Mod	12/14/2006
Silt	58.7	%	15-5 Mod	12/14/2006
Clay	27.5	%	15-5 Mod	12/14/2006
Texture	Si Cl Lo	---	USDA	12/14/2006
Electrical Conductivity Saturated Paste	4.51	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.7	S.U.	21a	12/13/2006
Saturation	125	%	27b	12/13/2006
Calcium saturated paste	1.34	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	2.45	meq/l	3-5.4	01/03/2007
Sodium saturated paste	47.9	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	34.8	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-16	Description: SHOB-05, 40-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	27.5	%	15-5 Mod	12/14/2006
Silt	37.5	%	15-5 Mod	12/14/2006
Clay	35.0	%	15-5 Mod	12/14/2006
Texture	Clay Loam	---	USDA	12/14/2006
Electrical Conductivity Saturated Paste	4.43	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.2	S.U.	21a	12/13/2006
Saturation	148	%	27b	12/13/2006
Calcium saturated paste	1.87	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	2.99	meq/l	3-5.4	01/03/2007
Sodium saturated paste	45.6	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	29.3	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-17	Description: SHOB-05, 65-70	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod	12/14/2006
Silt	43.7	%	15-5 Mod	12/14/2006
Clay	46.3	%	15-5 Mod	12/14/2006
Texture	Silty Clay	---	USDA	12/14/2006
Electrical Conductivity Saturated Paste	2.78	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.1	S.U.	21a	12/13/2006
Saturation	182	%	27b	12/13/2006
Calcium saturated paste	0.47	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.49	meq/l	3-5.4	01/03/2007
Sodium saturated paste	30.1	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	43.5	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-18	Description: SHOB-05, 70-75	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	0.0	%	15-5 Mod	12/14/2006
Silt	60.0	%	15-5 Mod	12/14/2006
Clay	40.0	%	15-5 Mod	12/14/2006
Texture	Si Cl Lo	---	USDA	12/14/2006
Electrical Conductivity Saturated Paste	3.72	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.6	S.U.	21a	12/13/2006
Saturation	161	%	27b	12/13/2006
Calcium saturated paste	0.70	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.66	meq/l	3-5.4	01/03/2007
Sodium saturated paste	40.2	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	48.8	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-35	Description: SHOB-06B, 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	12/12/2006
Silt	33.7	%	15-5 Mod.	12/12/2006
Clay	46.3	%	15-5 Mod.	12/12/2006
Texture	Clay	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	3.11	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.8	S.U.	21a	12/08/2006
Saturation	113	%	27b	12/08/2006
Calcium saturated paste	10.8	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	10.9	meq/l	3-5.4	01/05/2007
Sodium saturated paste	15.3	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	4.64	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-36	Description: SHOB-06B, 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	31.3	%	15-5 Mod.	12/12/2006
Silt	18.7	%	15-5 Mod.	12/12/2006
Clay	50.0	%	15-5 Mod.	12/12/2006
Texture	Clay	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	4.26	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.8	S.U.	21a	12/08/2006
Saturation	120	%	27b	12/08/2006
Calcium saturated paste	12.5	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	12.2	meq/l	3-5.4	01/05/2007
Sodium saturated paste	27.9	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	7.95	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-37	Description: SHOB-06B, 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/12/2006
Silt	41.2	%	15-5 Mod.	12/12/2006
Clay	48.8	%	15-5 Mod.	12/12/2006
Texture	Silty Clay	—	USDA	12/12/2006
Electrical Conductivity Saturated Paste	4.57	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.9	S.U.	21a	12/08/2006
Saturation	130	%	27b	12/08/2006
Calcium saturated paste	8.16	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	8.77	meq/l	3-5.4	01/05/2007
Sodium saturated paste	36.3	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	12.5	—	20b	01/05/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-38	Description: SHOB-06B, 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/12/2006
Silt	31.2	%	15-5 Mod.	12/12/2006
Clay	58.8	%	15-5 Mod.	12/12/2006
Texture	Clay	—	USDA	12/12/2006
Electrical Conductivity Saturated Paste	5.85	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.7	S.U.	21a	12/08/2006
Saturation	135	%	27b	12/08/2006
Calcium saturated paste	20.4	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	18.6	meq/l	3-5.4	01/05/2007
Sodium saturated paste	41.1	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	9.31	—	20b	01/05/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-39	Description: SHOB-06B, 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	28.8	%	15-5 Mod.	12/12/2006
Silt	31.2	%	15-5 Mod.	12/12/2006
Clay	40.0	%	15-5 Mod.	12/12/2006
Texture	Clay Loam	----	USDA	12/12/2006
Electrical Conductivity Saturated Paste	6.37	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.8	S.U.	21a	12/08/2006
Saturation	86.3	%	27b	12/08/2006
Calcium saturated paste	18.2	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	33.8	meq/l	3-5.4	01/05/2007
Sodium saturated paste	40.8	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	8.00	—	20b	01/05/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-40	Description: SHOB-06B, 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	35.0	%	15-5 Mod.	12/12/2006
Silt	32.5	%	15-5 Mod.	12/12/2006
Clay	32.5	%	15-5 Mod.	12/12/2006
Texture	Clay Loam	----	USDA	12/12/2006
Electrical Conductivity Saturated Paste	6.52	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.9	S.U.	21a	12/08/2006
Saturation	91.0	%	27b	12/08/2006
Calcium saturated paste	17.3	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	26.8	meq/l	3-5.4	01/05/2007
Sodium saturated paste	44.6	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	9.50	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-41	Description: SHOB-06B, 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	32.5	%	15-5 Mod.	12/13/2006
Silt	45.0	%	15-5 Mod.	12/13/2006
Clay	22.5	%	15-5 Mod.	12/13/2006
Texture	Loam	—	USDA	12/12/2006
Electrical Conductivity Saturated Paste	5.59	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.9	S.U.	21a	12/11/2006
Saturation	92.0	%	27b	12/11/2006
Calcium saturated paste	9.75	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	13.4	meq/l	3-5.4	01/05/2007
Sodium saturated paste	49.0	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	14.4	—	20b	01/05/2007
Sample Preparation	—	—	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-42	Description: SHOB-06B, 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	52.5	%	15-5 Mod.	12/13/2006
Silt	27.5	%	15-5 Mod.	12/13/2006
Clay	20.0	%	15-5 Mod.	12/13/2006
Texture	Sa Cl Lo	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	4.89	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.2	S.U.	21a	12/11/2006
Saturation	99.9	%	27b	12/11/2006
Calcium saturated paste	4.18	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	6.67	meq/l	3-5.4	01/05/2007
Sodium saturated paste	48.4	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	20.8	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-43	Description: SHOB-06B, 40-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	31.3	%	15-5 Mod.	12/13/2006
Silt	41.2	%	15-5 Mod.	12/13/2006
Clay	27.5	%	15-5 Mod.	12/13/2006
Texture	Clay Loam	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	7.17	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.8	S.U.	21a	12/11/2006
Saturation	86.0	%	27b	12/11/2006
Calcium saturated paste	21.8	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	21.9	meq/l	3-5.4	01/05/2007
Sodium saturated paste	61.6	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	13.2	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-46	Description: SHOB-06B, 45-50	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15-5 Mod.	12/13/2006
Silt	48.7	%	15-5 Mod.	12/13/2006
Clay	35.0	%	15-5 Mod.	12/13/2006
Texture	Si Cl Lo	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	5.34	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.4	S.U.	21a	12/11/2006
Saturation	135	%	27b	12/11/2006
Calcium saturated paste	11.8	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	12.5	meq/l	3-5.4	01/05/2007
Sodium saturated paste	48.2	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	13.8	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-44	Description: SHOB-06B, 65-70	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	35.0	%	15-5 Mod.	12/13/2006
Silt	32.5	%	15-5 Mod.	12/13/2006
Clay	32.5	%	15-5 Mod.	12/13/2006
Texture	Clay Loam	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	7.59	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.0	S.U.	21a	12/11/2006
Saturation	131	%	27b	12/11/2006
Calcium saturated paste	11.7	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	11.5	meq/l	3-5.4	01/05/2007
Sodium saturated paste	80.1	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	23.5	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-45	Description: SHOB-06B, 70-75	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	30.0	%	15-5 Mod.	12/13/2006
Silt	43.7	%	15-5 Mod.	12/13/2006
Clay	26.3	%	15-5 Mod.	12/13/2006
Texture	Loam	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	5.46	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.4	S.U.	21a	12/11/2006
Saturation	156	%	27b	12/11/2006
Calcium saturated paste	6.98	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	6.81	meq/l	3-5.4	01/05/2007
Sodium saturated paste	57.8	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	22.0	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-35	Description: SHOB-07, 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	27.5	%	15-5 Mod	12/14/2006
Silt	31.2	%	15-5 Mod	12/14/2006
Clay	41.3	%	15-5 Mod	12/14/2006
Texture	Clay	---	USDA	12/14/2006
Electrical Conductivity Saturated Paste	2.86	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.6	S.U.	21a	12/13/2006
Saturation	112	%	27b	12/13/2006
Calcium saturated paste	10.3	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	9.1	meq/l	3-5.4	01/03/2007
Sodium saturated paste	15.6	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	5.01	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-36	Description: SHOB-07, 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod	12/14/2006
Silt	32.5	%	15-5 Mod	12/14/2006
Clay	42.5	%	15-5 Mod	12/14/2006
Texture	Clay	---	USDA	12/14/2006
Electrical Conductivity Saturated Paste	7.03	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.6	S.U.	21a	12/13/2006
Saturation	94.5	%	27b	12/13/2006
Calcium saturated paste	24.9	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	29.3	meq/l	3-5.4	01/03/2007
Sodium saturated paste	48.8	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	9.38	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-37	Description: SHOB-07, 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod	12/14/2006
Silt	35.0	%	15-5 Mod	12/14/2006
Clay	50.0	%	15-5 Mod	12/14/2006
Texture	Clay	---	USDA	12/14/2006
Electrical Conductivity Saturated Paste	6.35	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.8	S.U.	21a	12/13/2006
Saturation	113	%	27b	12/13/2006
Calcium saturated paste	24.4	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	27.5	meq/l	3-5.4	01/03/2007
Sodium saturated paste	41.0	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	8.05	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-38	Description: SHOB-07, 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod	12/14/2006
Silt	71.2	%	15-5 Mod	12/14/2006
Clay	21.3	%	15-5 Mod	12/14/2006
Texture	Silt Loam	---	USDA	12/14/2006
Electrical Conductivity Saturated Paste	6.32	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.7	S.U.	21a	12/13/2006
Saturation	66.9	%	27b	12/13/2006
Calcium saturated paste	23.6	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	28.7	meq/l	3-5.4	01/03/2007
Sodium saturated paste	37.7	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	7.37	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-39	Description: SHOB-07, 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod	12/14/2006
Silt	57.5	%	15-5 Mod	12/14/2006
Clay	35.0	%	15-5 Mod	12/14/2006
Texture	Si Cl Lo	—	USDA	12/14/2006
Electrical Conductivity Saturated Paste	5.38	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.7	S.U.	21a	12/13/2006
Saturation	85.0	%	27b	12/13/2006
Calcium saturated paste	22.3	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	26.0	meq/l	3-5.4	01/03/2007
Sodium saturated paste	36.5	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	7.43	—	20b	01/03/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-40	Description: SHOB-07, 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod	12/14/2006
Silt	42.5	%	15-5 Mod	12/14/2006
Clay	40.0	%	15-5 Mod	12/14/2006
Texture	Si Cl Lo	---	USDA	12/14/2006
Electrical Conductivity Saturated Paste	7.04	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	6.9	S.U.	21a	12/13/2006
Saturation	88.3	%	27b	12/13/2006
Calcium saturated paste	20.4	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	29.5	meq/l	3-5.4	01/03/2007
Sodium saturated paste	52.6	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	10.5	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-41	Description: SHOB-07, 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod	12/15/2006
Silt	50.0	%	15-5 Mod	12/15/2006
Clay	32.5	%	15-5 Mod	12/15/2006
Texture	Si Cl Lo	---	USDA	12/15/2006
Electrical Conductivity Saturated Paste	3.04	mmhos/cm	10-3.3	12/29/2007
pH Saturated Paste	8.4	S.U.	21a	12/19/2006
Saturation	142	%	27b	12/19/2006
Calcium saturated paste	2.55	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	5.30	meq/l	3-5.4	01/03/2007
Sodium saturated paste	25.8	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	13.0	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-42	Description: SHOB-07, 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod	12/15/2006
Silt	45.0	%	15-5 Mod	12/15/2006
Clay	35.0	%	15-5 Mod	12/15/2006
Texture	Si Cl Lo	—	USDA	12/15/2006
Electrical Conductivity Saturated Paste	2.44	mmhos/cm	10-3.3	12/29/2007
pH Saturated Paste	8.5	S.U.	21a	12/19/2006
Saturation	151	%	27b	12/19/2006
Calcium saturated paste	1.16	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	1.87	meq/l	3-5.4	01/03/2007
Sodium saturated paste	22.7	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	18.5	—	20b	01/03/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-43	Description: SHOB-07, 40-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	40.0	%	15-5 Mod	12/15/2006
Silt	30.0	%	15-5 Mod	12/15/2006
Clay	30.0	%	15-5 Mod	12/15/2006
Texture	Clay Loam	—	USDA	12/15/2006
Electrical Conductivity Saturated Paste	5.19	mmhos/cm	10-3.3	12/29/2007
pH Saturated Paste	7.8	S.U.	21a	12/19/2006
Saturation	105	%	27b	12/19/2006
Calcium saturated paste	11.0	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	12.5	meq/l	3-5.4	01/03/2007
Sodium saturated paste	43.9	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	12.8	—	20b	01/03/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-44	Description: SHOB-07, 65-70	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod	12/15/2006
Silt	42.5	%	15-5 Mod	12/15/2006
Clay	32.5	%	15-5 Mod	12/15/2006
Texture	Clay Loam	---	USDA	12/15/2006
Electrical Conductivity Saturated Paste	1.56	mmhos/cm	10-3.3	12/29/2007
pH Saturated Paste	8.4	S.U.	21a	12/19/2006
Saturation	157	%	27b	12/19/2006
Calcium saturated paste	0.34	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.31	meq/l	3-5.4	01/03/2007
Sodium saturated paste	15.4	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	27.0	----	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-45	Description: SHOB-07, 70-75	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod	12/15/2006
Silt	52.5	%	15-5 Mod	12/15/2006
Clay	25.0	%	15-5 Mod	12/15/2006
Texture	Silt Loam	---	USDA	12/15/2006
Electrical Conductivity Saturated Paste	1.02	mmhos/cm	10-3.3	12/29/2007
pH Saturated Paste	8.9	S.U.	21a	12/19/2006
Saturation	136	%	27b	12/19/2006
Calcium saturated paste	0.28	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.39	meq/l	3-5.4	01/03/2007
Sodium saturated paste	9.93	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	17.1	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-1	Description: SHOB-08, 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15.5 mod.	12/21/2006
Silt	47.4	%	15.5 mod.	12/21/2006
Clay	41.3	%	15.5 mod.	12/21/2006
Texture	Silty Clay	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	1.29	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	7.7	S.U.	21a	12/21/2006
Saturation	80.6	%	27b	12/21/2006
Calcium saturated paste	5.01	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	5.21	meq/l	3-5.4	01/08/2007
Sodium saturated paste	5.51	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	2.44	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-2	Description: SHOB-08, 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	3.8	%	15.5 mod.	12/21/2006
Silt	38.7	%	15.5 mod.	12/21/2006
Clay	57.5	%	15.5 mod.	12/21/2006
Texture	Clay	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	5.54	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	7.7	S.U.	21a	12/21/2006
Saturation	126	%	27b	12/21/2006
Calcium saturated paste	17.3	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	24.5	meq/l	3-5.4	01/08/2007
Sodium saturated paste	33.6	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	7.35	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-3	Description: SHOB-08, 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	21.3	%	15.5 mod.	12/21/2006
Silt	43.7	%	15.5 mod.	12/21/2006
Clay	35.0	%	15.5 mod.	12/21/2006
Texture	Clay Loam	----	USDA	12/21/2006
Electrical Conductivity Saturated Paste	3.80	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	6.0	S.U.	21a	12/21/2006
Saturation	61.5	%	27b	12/21/2006
Calcium saturated paste	3.40	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	5.98	meq/l	3-5.4	01/08/2007
Sodium saturated paste	34.9	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	16.1	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-4	Description: SHOB-08, 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15.5 mod.	12/21/2006
Silt	53.7	%	15.5 mod.	12/21/2006
Clay	36.3	%	15.5 mod.	12/21/2006
Texture	Si Cl Lo	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.50	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	8.5	S.U.	21a	12/21/2006
Saturation	123	%	27b	12/21/2006
Calcium saturated paste	1.95	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	2.25	meq/l	3-5.4	01/08/2007
Sodium saturated paste	26.4	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	18.3	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-5	Description: SHOB-08, 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15.5 mod.	12/21/2006
Silt	56.2	%	15.5 mod.	12/21/2006
Clay	38.8	%	15.5 mod.	12/21/2006
Texture	Si Cl Lo	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.67	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	8.5	S.U.	21a	12/21/2006
Saturation	135	%	27b	12/21/2006
Calcium saturated paste	1.59	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	2.01	meq/l	3-5.4	01/08/2007
Sodium saturated paste	24.0	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	17.9	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-6	Description: SHOB-08, 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15.5 mod.	12/21/2006
Silt	32.5	%	15.5 mod.	12/21/2006
Clay	60.0	%	15.5 mod.	12/21/2006
Texture	Clay	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	3.14	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	8.0	S.U.	21a	12/21/2006
Saturation	160	%	27b	12/21/2006
Calcium saturated paste	1.58	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	2.23	meq/l	3-5.4	01/08/2007
Sodium saturated paste	30.0	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	21.7	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-7	Description: SHOB-08, 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15.5 mod.	12/21/2006
Silt	45.0	%	15.5 mod.	12/21/2006
Clay	32.5	%	15.5 mod.	12/21/2006
Texture	Clay Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	4.88	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	7.1	S.U.	21a	12/21/2006
Saturation	103	%	27b	12/21/2006
Calcium saturated paste	2.80	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	4.05	meq/l	3-5.4	01/08/2007
Sodium saturated paste	51.2	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	27.7	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-8	Description: SHOB-08, 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	21.3	%	15.5 mod.	12/21/2006
Silt	53.7	%	15.5 mod.	12/21/2006
Clay	25.0	%	15.5 mod.	12/21/2006
Texture	Silt Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	4.09	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	7.8	S.U.	21a	12/21/2006
Saturation	94.3	%	27b	12/21/2006
Calcium saturated paste	1.64	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	1.99	meq/l	3-5.4	01/08/2007
Sodium saturated paste	48.5	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	36.0	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-9	Description: SHOB-08, 40-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	3.8	%	15.5 mod.	12/21/2006
Silt	61.2	%	15.5 mod.	12/21/2006
Clay	35.0	%	15.5 mod.	12/21/2006
Texture	Si Cl Lo	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.78	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	8.8	S.U.	21a	12/21/2006
Saturation	108	%	27b	12/21/2006
Calcium saturated paste	0.68	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.76	meq/l	3-5.4	01/08/2007
Sodium saturated paste	27.4	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	32.3	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-10	Description: SHOB-08, 45-50	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	36.3	%	15.5 mod.	12/21/2006
Silt	38.7	%	15.5 mod.	12/21/2006
Clay	25.0	%	15.5 mod.	12/21/2006
Texture	Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	3.11	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	8.6	S.U.	21a	12/21/2006
Saturation	80.0	%	27b	12/21/2006
Calcium saturated paste	0.75	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.89	meq/l	3-5.4	01/08/2007
Sodium saturated paste	30.6	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	33.8	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-11	Description: SHOB-08, 50-55	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15.5 mod.	12/21/2006
Silt	52.4	%	15.5 mod.	12/21/2006
Clay	38.8	%	15.5 mod.	12/21/2006
Texture	Si CL Lo	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.98	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	8.8	S.U.	21a	12/21/2006
Saturation	126	%	27b	12/21/2006
Calcium saturated paste	0.70	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.63	meq/l	3-5.4	01/08/2007
Sodium saturated paste	31.1	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	38.1	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-12	Description: SHOB-08, 55-60	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15.5 mod.	12/21/2006
Silt	57.4	%	15.5 mod.	12/21/2006
Clay	23.8	%	15.5 mod.	12/21/2006
Texture	Silt Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.91	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	8.9	S.U.	21a	12/21/2006
Saturation	131	%	27b	12/21/2006
Calcium saturated paste	0.52	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.52	meq/l	3-5.4	01/08/2007
Sodium saturated paste	29.8	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	41.5	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-13	Description: SHOB-08, 60-65	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15.5 mod.	12/21/2006
Silt	61.2	%	15.5 mod.	12/21/2006
Clay	27.5	%	15.5 mod.	12/21/2006
Texture	Si Cl Lo	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.02	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.1	S.U.	21a	12/21/2006
Saturation	123	%	27b	12/21/2006
Calcium saturated paste	0.44	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.33	meq/l	3-5.4	01/08/2007
Sodium saturated paste	19.9	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	32.1	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-14	Description: SHOB-08, 65-70	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15.5 mod.	12/21/2006
Silt	51.2	%	15.5 mod.	12/21/2006
Clay	40.0	%	15.5 mod.	12/21/2006
Texture	Si Cl Lo	----	USDA	12/21/2006
Electrical Conductivity Saturated Paste	1.87	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	8.8	S.U.	21a	12/21/2006
Saturation	157	%	27b	12/21/2006
Calcium saturated paste	0.35	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.28	meq/l	3-5.4	01/09/2007
Sodium saturated paste	18.2	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	32.5	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-15	Description: SHOB-08, 85-90	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	58.8	%	15.5 mod.	12/21/2006
Silt	21.2	%	15.5 mod.	12/21/2006
Clay	20.0	%	15.5 mod.	12/21/2006
Texture	Sandy Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.37	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	7.5	S.U.	21a	12/21/2006
Saturation	104	%	27b	12/21/2006
Calcium saturated paste	0.51	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.41	meq/l	3-5.4	01/09/2007
Sodium saturated paste	26.1	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	38.5	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-16	Description: SHOB-08, 90-95	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15.5 mod.	12/21/2006
Silt	62.4	%	15.5 mod.	12/21/2006
Clay	26.3	%	15.5 mod.	12/21/2006
Texture	Silt Loam	----	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.61	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	8.7	S.U.	21a	12/21/2006
Saturation	112	%	27b	12/21/2006
Calcium saturated paste	0.47	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.43	meq/l	3-5.4	01/09/2007
Sodium saturated paste	30.8	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	45.9	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-17	Description: SHOB-08, 95-100	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15.5 mod.	12/21/2006
Silt	59.9	%	15.5 mod.	12/21/2006
Clay	26.3	%	15.5 mod.	12/21/2006
Texture	Silt Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	1.73	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.1	S.U.	21a	12/21/2006
Saturation	124	%	27b	12/21/2006
Calcium saturated paste	0.36	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.30	meq/l	3-5.4	01/09/2007
Sodium saturated paste	18.7	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	32.4	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-18	Description: SHOB-08, 100-105	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	51.3	%	15.5 mod.	12/21/2006
Silt	36.2	%	15.5 mod.	12/21/2006
Clay	12.5	%	15.5 mod.	12/21/2006
Texture	Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.11	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.4	S.U.	21a	12/21/2006
Saturation	97.4	%	27b	12/21/2006
Calcium saturated paste	0.42	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.30	meq/l	3-5.4	01/09/2007
Sodium saturated paste	24.2	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	40.4	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-19	Description: SHOB-08, 105-110	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	68.8	%	15.5 mod.	12/21/2006
Silt	22.4	%	15.5 mod.	12/21/2006
Clay	8.8	%	15.5 mod.	12/21/2006
Texture	Sandy Loam	----	USDA	12/21/2006
Electrical Conductivity Saturated Paste	3.07	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.3	S.U.	21a	12/21/2006
Saturation	74.5	%	27b	12/21/2006
Calcium saturated paste	0.53	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.53	meq/l	3-5.4	01/09/2007
Sodium saturated paste	35.6	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	49.0	----	20b	01/09/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-20	Description: SHOB-08, 110-115	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	61.3	%	15.5 mod.	12/21/2006
Silt	37.4	%	15.5 mod.	12/21/2006
Clay	1.3	%	15.5 mod.	12/21/2006
Texture	Sandy Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.54	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.1	S.U.	21a	12/21/2006
Saturation	86.6	%	27b	12/21/2006
Calcium saturated paste	0.49	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.40	meq/l	3-5.4	01/09/2007
Sodium saturated paste	29.5	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	44.4	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-21	Description: SHOB-08, 115-120	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	60.0	%	15.5 mod.	12/21/2006
Silt	27.5	%	15.5 mod.	12/21/2006
Clay	12.5	%	15.5 mod.	12/21/2006
Texture	Sandy Loam	----	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.58	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.2	S.U.	21a	12/21/2006
Saturation	75.4	%	27b	12/21/2006
Calcium saturated paste	0.50	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.38	meq/l	3-5.4	01/09/2007
Sodium saturated paste	27.9	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	42.2	----	20b	01/09/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-22	Description: SHOB-08, 120-125	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	36.3	%	15.5 mod.	12/21/2006
Silt	48.7	%	15.5 mod.	12/21/2006
Clay	15.0	%	15.5 mod.	12/21/2006
Texture	Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	1.75	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.3	S.U.	21a	12/21/2006
Saturation	112	%	27b	12/21/2006
Calcium saturated paste	0.32	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.20	meq/l	3-5.4	01/09/2007
Sodium saturated paste	18.0	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	35.3	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-23	Description: SHOB-08, 125-130	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	26.3	%	15.5 mod.	12/21/2006
Silt	56.2	%	15.5 mod.	12/21/2006
Clay	17.5	%	15.5 mod.	12/21/2006
Texture	Silt Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	1.80	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.2	S.U.	21a	12/21/2006
Saturation	129	%	27b	12/21/2006
Calcium saturated paste	0.36	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.24	meq/l	3-5.4	01/09/2007
Sodium saturated paste	17.6	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	32.2	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-24	Description: SHOB-08, 130-135	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	38.8	%	15.5 mod.	12/21/2006
Silt	46.2	%	15.5 mod.	12/21/2006
Clay	15.0	%	15.5 mod.	12/21/2006
Texture	Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	3.04	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.3	S.U.	21a	12/21/2006
Saturation	116	%	27b	12/21/2006
Calcium saturated paste	0.42	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.29	meq/l	3-5.4	01/09/2007
Sodium saturated paste	31.4	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	52.8	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-25	Description: SHOB-08, 135-140	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	33.8	%	15.5 mod.	12/21/2006
Silt	49.9	%	15.5 mod.	12/21/2006
Clay	16.3	%	15.5 mod.	12/21/2006
Texture	Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	3.19	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.3	S.U.	21a	12/21/2006
Saturation	112	%	27b	12/21/2006
Calcium saturated paste	0.55	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.41	meq/l	3-5.4	01/09/2007
Sodium saturated paste	35.2	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	50.8	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-26	Description: SHOB-08, 140-145	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	41.3	%	15.5 mod.	12/21/2006
Silt	43.7	%	15.5 mod.	12/21/2006
Clay	15.0	%	15.5 mod.	12/21/2006
Texture	Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.36	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.2	S.U.	21a	12/21/2006
Saturation	101	%	27b	12/21/2006
Calcium saturated paste	0.21	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.29	meq/l	3-5.4	01/09/2007
Sodium saturated paste	24.7	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	49.6	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-27	Description: SHOB-08, 145-150	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	66.3	%	15.5 mod.	12/21/2006
Silt	23.7	%	15.5 mod.	12/21/2006
Clay	10.0	%	15.5 mod.	12/21/2006
Texture	Sandy Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	4.29	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.2	S.U.	21a	12/21/2006
Saturation	73.0	%	27b	12/21/2006
Calcium saturated paste	0.60	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.61	meq/l	3-5.4	01/09/2007
Sodium saturated paste	50.5	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	65.0	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-28	Description: SHOB-08, 150-155	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	71.3	%	15.5 mod.	12/21/2006
Silt	21.2	%	15.5 mod.	12/21/2006
Clay	7.5	%	15.5 mod.	12/21/2006
Texture	Sandy Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.05	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.3	S.U.	21a	12/21/2006
Saturation	72.7	%	27b	12/21/2006
Calcium saturated paste	0.24	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.20	meq/l	3-5.4	01/09/2007
Sodium saturated paste	22.0	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	46.8	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-29	Description: SHOB-08, 155-160	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	66.3	%	15.5 mod.	12/21/2006
Silt	23.7	%	15.5 mod.	12/21/2006
Clay	10.0	%	15.5 mod.	12/21/2006
Texture	Sandy Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.90	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.2	S.U.	21a	12/21/2006
Saturation	75.2	%	27b	12/21/2006
Calcium saturated paste	0.40	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.36	meq/l	3-5.4	01/09/2007
Sodium saturated paste	33.5	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	54.5	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-30	Description: SHOB-08, 160-165	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	23.8	%	15.5 mod.	12/21/2006
Silt	49.9	%	15.5 mod.	12/21/2006
Clay	26.3	%	15.5 mod.	12/21/2006
Texture	Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	1.89	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.1	S.U.	21a	12/21/2006
Saturation	128	%	27b	12/21/2006
Calcium saturated paste	0.35	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.25	meq/l	3-5.4	01/09/2007
Sodium saturated paste	20.1	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	36.6	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-31	Description: SHOB-08, 165-170	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	66.3	%	15.5 mod.	12/21/2006
Silt	22.4	%	15.5 mod.	12/21/2006
Clay	11.3	%	15.5 mod.	12/21/2006
Texture	Sandy Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	3.20	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	8.7	S.U.	21a	12/21/2006
Saturation	64.5	%	27b	12/21/2006
Calcium saturated paste	0.54	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.58	meq/l	3-5.4	01/09/2007
Sodium saturated paste	41.0	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	54.9	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-32	Description: SHOB-08, 170-175	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	75.0	%	15.5 mod.	12/21/2006
Silt	16.2	%	15.5 mod.	12/21/2006
Clay	8.8	%	15.5 mod.	12/21/2006
Texture	Sandy Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.96	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.3	S.U.	21a	12/21/2006
Saturation	58.3	%	27b	12/21/2006
Calcium saturated paste	0.45	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.40	meq/l	3-5.4	01/09/2007
Sodium saturated paste	34.4	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	52.9	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-33	Description: SHOB-08, 175-180	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	71.3	%	15.5 mod.	12/21/2006
Silt	18.7	%	15.5 mod.	12/21/2006
Clay	10.0	%	15.5 mod.	12/21/2006
Texture	Sandy Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	3.02	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.4	S.U.	21a	12/21/2006
Saturation	69.1	%	27b	12/21/2006
Calcium saturated paste	0.52	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.43	meq/l	3-5.4	01/09/2007
Sodium saturated paste	39.5	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	57.2	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-34	Description: SHOB-08, 180-185	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	36.3	%	15.5 mod.	12/21/2006
Silt	41.2	%	15.5 mod.	12/21/2006
Clay	22.5	%	15.5 mod.	12/21/2006
Texture	Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	NA	---	---	
pH Saturated Paste	NA	---	---	
Saturation	NA	---	---	
Calcium saturated paste	NA	---	---	
Magnesium saturated paste	NA	---	---	
Sodium saturated paste	NA	---	---	
Sodium Adsorption Ratio	NA	---	---	
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-35	Description: SHOB-08, 185-190	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	76.3	%	15.5 mod.	12/21/2006
Silt	14.9	%	15.5 mod.	12/21/2006
Clay	8.8	%	15.5 mod.	12/21/2006
Texture	Sandy Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.36	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.3	S.U.	21a	12/21/2006
Saturation	54.9	%	27b	12/21/2006
Calcium saturated paste	0.38	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.35	meq/l	3-5.4	01/09/2007
Sodium saturated paste	26.0	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	43.0	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-36	Description: SHOB-08, 190-195	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	75.0	%	15.5 mod.	12/21/2006
Silt	17.5	%	15.5 mod.	12/21/2006
Clay	7.5	%	15.5 mod.	12/21/2006
Texture	Sandy Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	3.39	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.4	S.U.	21a	12/21/2006
Saturation	57.5	%	27b	12/21/2006
Calcium saturated paste	0.48	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.56	meq/l	3-5.4	01/09/2007
Sodium saturated paste	43.8	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	60.7	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-37	Description: SHOB-08, 195-200	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	76.3	%	15.5 mod.	12/21/2006
Silt	16.2	%	15.5 mod.	12/21/2006
Clay	7.5	%	15.5 mod.	12/21/2006
Texture	Sandy Loam	----	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.41	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.5	S.U.	21a	12/21/2006
Saturation	55.7	%	27b	12/21/2006
Calcium saturated paste	0.35	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.35	meq/l	3-5.4	01/09/2007
Sodium saturated paste	27.1	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	45.9	----	20b	01/09/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-38	Description: SHOB-08, 200-205	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	76.3	%	15.5 mod.	12/21/2006
Silt	16.2	%	15.5 mod.	12/21/2006
Clay	7.5	%	15.5 mod.	12/21/2006
Texture	Sandy Loam	----	USDA	12/21/2006
Electrical Conductivity Saturated Paste	NA	----	----	
pH Saturated Paste	NA	----	----	----
Saturation	NA	----	----	
Calcium saturated paste	NA	----	----	
Magnesium saturated paste	NA	----	----	
Sodium saturated paste	NA	----	----	
Sodium Adsorption Ratio	NA	----	----	
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-39	Description: SHOB-08, 205-210	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	73.8	%	15.5 mod.	12/21/2006
Silt	14.9	%	15.5 mod.	12/21/2006
Clay	11.3	%	15.5 mod.	12/21/2006
Texture	Sandy Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	4.60	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.7	S.U.	21a	12/21/2006
Saturation	71.5	%	27b	12/21/2006
Calcium saturated paste	0.60	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.90	meq/l	3-5.4	01/09/2007
Sodium saturated paste	63.5	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	73.4	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-40	Description: SHOB-08, 210-215	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	33.8	%	15.5 mod.	12/21/2006
Silt	28.7	%	15.5 mod.	12/21/2006
Clay	37.5	%	15.5 mod.	12/21/2006
Texture	Clay Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.24	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	8.9	S.U.	21a	12/21/2006
Saturation	126	%	27b	12/21/2006
Calcium saturated paste	0.46	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.33	meq/l	3-5.4	01/09/2007
Sodium saturated paste	29.1	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	46.2	----	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-41	Description: SHOB-08, 215-220	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15.5 mod.	12/21/2006
Silt	42.5	%	15.5 mod.	12/21/2006
Clay	47.5	%	15.5 mod.	12/21/2006
Texture	Silty Clay	---	USDA	12/22/2006
Electrical Conductivity Saturated Paste	1.34	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.0	S.U.	21a	12/22/2006
Saturation	152	%	27b	12/22/2006
Calcium saturated paste	0.36	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.23	meq/l	3-5.4	01/09/2007
Sodium saturated paste	15.4	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	28.6	----	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-42	Description: SHOB-08, 220-225	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15.5 mod.	12/21/2006
Silt	38.7	%	15.5 mod.	12/21/2006
Clay	52.5	%	15.5 mod.	12/21/2006
Texture	Clay	---	USDA	12/22/2006
Electrical Conductivity Saturated Paste	1.70	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.0	S.U.	21a	12/22/2006
Saturation	154	%	27b	12/22/2006
Calcium saturated paste	0.34	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.22	meq/l	3-5.4	01/09/2007
Sodium saturated paste	18.0	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	34.1	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-43	Description: SHOB-08, 225-230	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15.5 mod.	12/21/2006
Silt	42.5	%	15.5 mod.	12/21/2006
Clay	52.5	%	15.5 mod.	12/21/2006
Texture	Silty Clay	----	USDA	12/22/2006
Electrical Conductivity Saturated Paste	1.41	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.1	S.U.	21a	12/22/2006
Saturation	163	%	27b	12/22/2006
Calcium saturated paste	0.62	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	1.58	meq/l	3-5.4	01/09/2007
Sodium saturated paste	17.4	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	16.6	----	20b	01/09/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-44	Description: SHOB-08, 230-235	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15.5 mod.	12/21/2006
Silt	32.5	%	15.5 mod.	12/21/2006
Clay	60.0	%	15.5 mod.	12/21/2006
Texture	Clay	---	USDA	12/22/2006
Electrical Conductivity Saturated Paste	1.51	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.1	S.U.	21a	12/22/2006
Saturation	160	%	27b	12/22/2006
Calcium saturated paste	0.58	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.48	meq/l	3-5.4	01/09/2007
Sodium saturated paste	17.7	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	24.3	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-45	Description: SHOB-08, 235-240	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15.5 mod.	12/21/2006
Silt	48.7	%	15.5 mod.	12/21/2006
Clay	43.8	%	15.5 mod.	12/21/2006
Texture	Silty Clay	---	USDA	12/22/2006
Electrical Conductivity Saturated Paste	2.08	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.0	S.U.	21a	12/22/2006
Saturation	138	%	27b	12/22/2006
Calcium saturated paste	0.72	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.49	meq/l	3-5.4	01/09/2007
Sodium saturated paste	25.1	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	32.4	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-46	Description: SHOB-08, 240-245	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15.5 mod.	12/21/2006
Silt	50.0	%	15.5 mod.	12/21/2006
Clay	42.5	%	15.5 mod.	12/21/2006
Texture	Silty Clay	---	USDA	12/22/2006
Electrical Conductivity Saturated Paste	1.43	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.0	S.U.	21a	12/22/2006
Saturation	132	%	27b	12/22/2006
Calcium saturated paste	0.27	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.23	meq/l	3-5.4	01/09/2007
Sodium saturated paste	14.9	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	29.8	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-47	Description: SHOB-08, 245-250	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15.5 mod.	12/21/2006
Silt	35.0	%	15.5 mod.	12/21/2006
Clay	42.5	%	15.5 mod.	12/21/2006
Texture	Clay	---	USDA	12/22/2006
Electrical Conductivity Saturated Paste	1.34	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	8.2	S.U.	21a	12/22/2006
Saturation	142	%	27b	12/22/2006
Calcium saturated paste	0.33	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.29	meq/l	3-5.4	01/09/2007
Sodium saturated paste	15.9	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	28.6	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-48	Description: SHOB-08, 260-265	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15.5 mod.	12/21/2006
Silt	45.0	%	15.5 mod.	12/21/2006
Clay	42.5	%	15.5 mod.	12/21/2006
Texture	Silty Clay	---	USDA	12/22/2006
Electrical Conductivity Saturated Paste	1.54	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	8.9	S.U.	21a	12/22/2006
Saturation	145	%	27b	12/22/2006
Calcium saturated paste	0.40	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.34	meq/l	3-5.4	01/09/2007
Sodium saturated paste	18.5	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	30.6	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-49	Description: SHOB-08, 265-270	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15.5 mod.	12/21/2006
Silt	50.0	%	15.5 mod.	12/21/2006
Clay	37.5	%	15.5 mod.	12/21/2006
Texture	Si Cl Lo	----	USDA	12/22/2006
Electrical Conductivity Saturated Paste	1.51	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.2	S.U.	21a	12/22/2006
Saturation	160	%	27b	12/22/2006
Calcium saturated paste	0.38	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.31	meq/l	3-5.4	01/09/2007
Sodium saturated paste	16.0	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	27.4	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-50	Description: SHOB-08, 270-275	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15.5 mod.	12/21/2006
Silt	53.7	%	15.5 mod.	12/21/2006
Clay	30.0	%	15.5 mod.	12/21/2006
Texture	Si Cl Lo	---	USDA	12/22/2006
Electrical Conductivity Saturated Paste	0.95	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.4	S.U.	21a	12/22/2006
Saturation	161	%	27b	12/22/2006
Calcium saturated paste	0.24	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.20	meq/l	3-5.4	01/09/2007
Sodium saturated paste	9.67	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	20.6	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110086-51	Description: SHOB-08, 275-280	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15.5 mod.	12/21/2006
Silt	56.2	%	15.5 mod.	12/21/2006
Clay	32.5	%	15.5 mod.	12/21/2006
Texture	Si Cl Lo	---	USDA	12/22/2006
Electrical Conductivity Saturated Paste	1.45	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.2	S.U.	21a	12/22/2006
Saturation	148	%	27b	12/22/2006
Calcium saturated paste	0.33	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.29	meq/l	3-5.4	01/09/2007
Sodium saturated paste	15.3	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	27.4	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-22	Description: SHOB-09, 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	01/04/2007
Silt	30.0	%	15-5 Mod.	01/04/2007
Clay	55.0	%	15-5 Mod.	01/04/2007
Texture	Clay	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	4.26	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	7.8	S.U.	21a	01/04/2007
Saturation	111	%	27b	01/04/2007
Calcium saturated paste	21.7	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	24.0	meq/l	3-5.4	01/11/2007
Sodium saturated paste	16.1	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	3.37	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-23	Description: SHOB-09, 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	15-5 Mod.	01/04/2007
Silt	40.0	%	15-5 Mod.	01/04/2007
Clay	57.5	%	15-5 Mod.	01/04/2007
Texture	Silty Clay	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	7.37	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	5.7	S.U.	21a	01/04/2007
Saturation	128	%	27b	01/04/2007
Calcium saturated paste	22.5	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	40.7	meq/l	3-5.4	01/11/2007
Sodium saturated paste	48.0	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	8.54	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-24	Description: SHOB-09, 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	75.0	%	15-5 Mod.	01/04/2007
Silt	12.5	%	15-5 Mod.	01/04/2007
Clay	12.5	%	15-5 Mod.	01/04/2007
Texture	Sandy Loam	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	12.3	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	3.4	S.U.	21a	01/04/2007
Saturation	101	%	27b	01/04/2007
Calcium saturated paste	22.1	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	66.7	meq/l	3-5.4	01/11/2007
Sodium saturated paste	93.5	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	14.0	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-25	Description: SHOB-09, 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	01/04/2007
Silt	37.5	%	15-5 Mod.	01/04/2007
Clay	52.5	%	15-5 Mod.	01/04/2007
Texture	Clay	-----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	5.60	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	5.8	S.U.	21a	01/04/2007
Saturation	106	%	27b	01/04/2007
Calcium saturated paste	6.15	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	17.4	meq/l	3-5.4	01/11/2007
Sodium saturated paste	40.5	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	11.8	-----	20b	01/11/2007
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-26	Description: SHOB-09, 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	01/04/2007
Silt	32.5	%	15-5 Mod.	01/04/2007
Clay	62.5	%	15-5 Mod.	01/04/2007
Texture	Clay	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	4.02	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	6.4	S.U.	21a	01/04/2007
Saturation	128	%	27b	01/04/2007
Calcium saturated paste	3.76	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	7.87	meq/l	3-5.4	01/11/2007
Sodium saturated paste	33.4	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	13.8	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-27	Description: SHOB-09, 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	40.0	%	15-5 Mod.	01/04/2007
Silt	22.5	%	15-5 Mod.	01/04/2007
Clay	37.5	%	15-5 Mod.	01/04/2007
Texture	Clay Loam	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	5.30	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	6.5	S.U.	21a	01/04/2007
Saturation	106	%	27b	01/04/2007
Calcium saturated paste	4.41	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	6.63	meq/l	3-5.4	01/11/2007
Sodium saturated paste	50.1	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	21.3	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-28	Description: SHOB-09, 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	01/04/2007
Silt	62.5	%	15-5 Mod.	01/04/2007
Clay	32.5	%	15-5 Mod.	01/04/2007
Texture	Si Cl Lo	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	2.20	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.5	S.U.	21a	01/04/2007
Saturation	117	%	27b	01/04/2007
Calcium saturated paste	0.89	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.08	meq/l	3-5.4	01/11/2007
Sodium saturated paste	21.6	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	21.7	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-29	Description: SHOB-09, 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	01/04/2007
Silt	50.0	%	15-5 Mod.	01/04/2007
Clay	45.0	%	15-5 Mod.	01/04/2007
Texture	Silty Clay	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	2.98	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.7	S.U.	21a	01/04/2007
Saturation	119	%	27b	01/04/2007
Calcium saturated paste	1.07	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.46	meq/l	3-5.4	01/11/2007
Sodium saturated paste	28.7	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	25.5	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-30	Description: SHOB-09, 40-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod.	01/04/2007
Silt	58.7	%	15-5 Mod.	01/04/2007
Clay	32.5	%	15-5 Mod.	01/04/2007
Texture	Si Cl Lo	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	2.33	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.7	S.U.	21a	01/04/2007
Saturation	134	%	27b	01/04/2007
Calcium saturated paste	0.59	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.61	meq/l	3-5.4	01/11/2007
Sodium saturated paste	21.8	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	28.1	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-31	Description: SHOB-09, 45-50	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	01/04/2007
Silt	52.5	%	15-5 Mod.	01/04/2007
Clay	42.5	%	15-5 Mod.	01/04/2007
Texture	Silty Clay	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	2.49	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.8	S.U.	21a	01/04/2007
Saturation	153	%	27b	01/04/2007
Calcium saturated paste	0.48	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.49	meq/l	3-5.4	01/11/2007
Sodium saturated paste	22.7	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	32.5	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-32	Description: SHOB-09, 50-55	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	01/04/2007
Silt	55.0	%	15-5 Mod.	01/04/2007
Clay	27.5	%	15-5 Mod.	01/04/2007
Texture	Si Cl Lo	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	2.22	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	9.1	S.U.	21a	01/04/2007
Saturation	142	%	27b	01/04/2007
Calcium saturated paste	0.97	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.25	meq/l	3-5.4	01/11/2007
Sodium saturated paste	57.5	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	54.6	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-33	Description: SHOB-09, 55-60	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	37.5	%	15-5 Mod.	01/04/2007
Silt	37.5	%	15-5 Mod.	01/04/2007
Clay	25.0	%	15-5 Mod.	01/04/2007
Texture	Loam	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	2.82	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	9.2	S.U.	21a	01/04/2007
Saturation	120	%	27b	01/04/2007
Calcium saturated paste	0.51	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.62	meq/l	3-5.4	01/11/2007
Sodium saturated paste	28.4	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	37.8	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-34	Description: SHOB-09, 60-65	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	65.0	%	15-5 Mod.	01/04/2007
Silt	17.5	%	15-5 Mod.	01/04/2007
Clay	17.5	%	15-5 Mod.	01/04/2007
Texture	Sandy Loam	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	4.61	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	9.0	S.U.	21a	01/04/2007
Saturation	87.0	%	27b	01/04/2007
Calcium saturated paste	0.84	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.07	meq/l	3-5.4	01/11/2007
Sodium saturated paste	53.8	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	55.1	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-35	Description: SHOB-09, 65-70	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	80.0	%	15-5 Mod.	01/04/2007
Silt	5.0	%	15-5 Mod.	01/04/2007
Clay	15.0	%	15-5 Mod.	01/04/2007
Texture	Sandy Loam	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	4.08	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	9.2	S.U.	21a	01/04/2007
Saturation	54.9	%	27b	01/04/2007
Calcium saturated paste	0.59	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.68	meq/l	3-5.4	01/11/2007
Sodium saturated paste	42.5	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	53.4	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-36	Description: SHOB-09, 70-75	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	77.5	%	15-5 Mod.	01/04/2007
Silt	7.5	%	15-5 Mod.	01/04/2007
Clay	15.0	%	15-5 Mod.	01/04/2007
Texture	Sandy Loam	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	5.09	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	9.2	S.U.	21a	01/04/2007
Saturation	66.0	%	27b	01/04/2007
Calcium saturated paste	0.82	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.91	meq/l	3-5.4	01/11/2007
Sodium saturated paste	53.7	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	57.8	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-37	Description: SHOB-09, 75-80	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	70.0	%	15-5 Mod.	01/04/2007
Silt	17.5	%	15-5 Mod.	01/04/2007
Clay	12.5	%	15-5 Mod.	01/04/2007
Texture	Sandy Loam	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	7.65	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	7.6	S.U.	21a	01/04/2007
Saturation	68.2	%	27b	01/04/2007
Calcium saturated paste	2.16	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	2.30	meq/l	3-5.4	01/11/2007
Sodium saturated paste	97.0	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	65.0	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-38	Description: SHOB-09, 95-100	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	01/04/2007
Silt	52.5	%	15-5 Mod.	01/04/2007
Clay	32.5	%	15-5 Mod.	01/04/2007
Texture	Si Cl Lo	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	2.73	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.1	S.U.	21a	01/04/2007
Saturation	140	%	27b	01/04/2007
Calcium saturated paste	0.36	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.35	meq/l	3-5.4	01/11/2007
Sodium saturated paste	28.9	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	48.5	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-39	Description: SHOB-09, 100-105	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod.	01/04/2007
Silt	52.4	%	15-5 Mod.	01/04/2007
Clay	36.3	%	15-5 Mod.	01/04/2007
Texture	Si Cl Lo	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	2.20	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.5	S.U.	21a	01/04/2007
Saturation	118	%	27b	01/04/2007
Calcium saturated paste	0.43	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.35	meq/l	3-5.4	01/11/2007
Sodium saturated paste	22.8	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	36.5	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-1	Description: SHOB-10 @ 0-5'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	30.0	%	15-5 Mod.	11/13/2006
Silt	36.2	%	15-5 Mod.	11/13/2006
Clay	33.8	%	15-5 Mod.	11/13/2006
Texture	Clay Loam	----	USDA	11/13/2006
Electrical Conductivity Saturated Paste	5.29	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	7.2	S.U.	21a	11/13/2006
Saturation	60.5	%	27b	11/11/2006
Calcium saturated paste	24.2	meq/l	3-5.4	11/15/2006
Magnesium saturated paste	42.6	meq/l	3-5.4	11/15/2006
Sodium saturated paste	15.2	meq/l	3-5.4	11/15/2006
Sodium Adsorption Ratio	2.62	----	20b	11/15/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-2	Description: SHOB-10 @ 5-10'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	11/13/2006
Silt	60.0	%	15-5 Mod.	11/13/2006
Clay	25.0	%	15-5 Mod.	11/13/2006
Texture	Silt Loam	----	USDA	11/13/2006
Electrical Conductivity Saturated Paste	7.18	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	7.7	S.U.	21a	11/13/2006
Saturation	60.8	%	27b	11/11/2006
Calcium saturated paste	21.5	meq/l	3-5.4	11/15/2006
Magnesium saturated paste	49.0	meq/l	3-5.4	11/15/2006
Sodium saturated paste	38.6	meq/l	3-5.4	11/15/2006
Sodium Adsorption Ratio	6.51	----	20b	11/15/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-3	Description: SHOB-10 @ 10-15'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	11/13/2006
Silt	61.2	%	15-5 Mod.	11/13/2006
Clay	16.3	%	15-5 Mod.	11/13/2006
Texture	Silt Loam	----	USDA	11/13/2006
Electrical Conductivity Saturated Paste	6.52	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	7.8	S.U.	21a	11/13/2006
Saturation	51.1	%	27b	11/11/2006
Calcium saturated paste	20.8	meq/l	3-5.4	11/15/2006
Magnesium saturated paste	38.6	meq/l	3-5.4	11/15/2006
Sodium saturated paste	35.1	meq/l	3-5.4	11/15/2006
Sodium Adsorption Ratio	6.43	----	20b	11/15/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-4	Description: SHOB-10 @ 15-20'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	11/13/2006
Silt	52.5	%	15-5 Mod.	11/13/2006
Clay	27.5	%	15-5 Mod.	11/13/2006
Texture	Clay Loam	----	USDA	11/13/2006
Electrical Conductivity Saturated Paste	5.96	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	7.5	S.U.	21a	11/13/2006
Saturation	71.4	%	27b	11/11/2006
Calcium saturated paste	19.7	meq/l	3-5.4	11/15/2006
Magnesium saturated paste	26.4	meq/l	3-5.4	11/15/2006
Sodium saturated paste	35.8	meq/l	3-5.4	11/15/2006
Sodium Adsorption Ratio	7.46	----	20b	11/15/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-5	Description: SHOB-10 @ 20-25'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	11/13/2006
Silt	50.0	%	15-5 Mod.	11/13/2006
Clay	27.5	%	15-5 Mod.	11/13/2006
Texture	Clay Loam	----	USDA	11/13/2006
Electrical Conductivity Saturated Paste	5.70	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	7.6	S.U.	21a	11/13/2006
Saturation	68.5	%	27b	11/11/2006
Calcium saturated paste	16.1	meq/l	3-5.4	11/15/2006
Magnesium saturated paste	19.4	meq/l	3-5.4	11/15/2006
Sodium saturated paste	37.3	meq/l	3-5.4	11/15/2006
Sodium Adsorption Ratio	8.85	----	20b	11/15/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-6	Description: SHOB-10 @ 25-30'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	11/13/2006
Silt	61.2	%	15-5 Mod.	11/13/2006
Clay	23.8	%	15-5 Mod.	11/13/2006
Texture	Silt Loam	----	USDA	11/13/2006
Electrical Conductivity Saturated Paste	5.24	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	7.7	S.U.	21a	11/13/2006
Saturation	87.4	%	27b	11/11/2006
Calcium saturated paste	7.49	meq/l	3-5.4	11/15/2006
Magnesium saturated paste	8.45	meq/l	3-5.4	11/15/2006
Sodium saturated paste	46.1	meq/l	3-5.4	11/15/2006
Sodium Adsorption Ratio	16.3	-----	20b	11/15/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-7	Description: SHOB-10 @ 30-35'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15-5 Mod.	11/13/2006
Silt	46.2	%	15-5 Mod.	11/13/2006
Clay	37.5	%	15-5 Mod.	11/13/2006
Texture	Si Cl Lo	----	USDA	11/13/2006
Electrical Conductivity Saturated Paste	3.40	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	8.1	S.U.	21a	11/13/2006
Saturation	141	%	27b	11/11/2006
Calcium saturated paste	2.32	meq/l	3-5.4	11/15/2006
Magnesium saturated paste	3.04	meq/l	3-5.4	11/15/2006
Sodium saturated paste	31.4	meq/l	3-5.4	11/15/2006
Sodium Adsorption Ratio	19.2	----	20b	11/15/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-8	Description: SHOB-10 @ 35-40'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	15-5 Mod.	11/13/2006
Silt	54.9	%	15-5 Mod.	11/13/2006
Clay	38.8	%	15-5 Mod.	11/13/2006
Texture	Si Cl Lo	---	USDA	11/13/2006
Electrical Conductivity Saturated Paste	2.58	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	8.7	S.U.	21a	11/13/2006
Saturation	165	%	27b	11/11/2006
Calcium saturated paste	0.83	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.99	meq/l	3-5.4	11/30/2006
Sodium saturated paste	23.4	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	24.5	---	20b	11/30/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-9	Description: SHOB-10 @ 40-45'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006		
Collected by: RYAN TOLENE		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 Mod.	11/13/2006
Silt	56.2	%	15-5 Mod.	11/13/2006
Clay	30.0	%	15-5 Mod.	11/13/2006
Texture	Si Cl Lo	----	USDA	11/13/2006
Electrical Conductivity Saturated Paste	2.55	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	8.7	S.U.	21a	11/13/2006
Saturation	132	%	27b	11/11/2006
Calcium saturated paste	0.70	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.71	meq/l	3-5.4	11/30/2006
Sodium saturated paste	23.6	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	28.0	----	20b	11/30/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-10	Description: SHOB-10 @ 45-50'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	60.0	%	15-5 Mod.	11/13/2006
Silt	22.5	%	15-5 Mod.	11/13/2006
Clay	17.5	%	15-5 Mod.	11/13/2006
Texture	Sandy Loam	----	USDA	11/13/2006
Electrical Conductivity Saturated Paste	2.63	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	9.0	S.U.	21a	11/13/2006
Saturation	76.2	%	27b	11/11/2006
Calcium saturated paste	0.68	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.60	meq/l	3-5.4	11/30/2006
Sodium saturated paste	24.8	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	31.0	----	20b	11/30/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-11	Description: SHOB-10 @ 50-55'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006		
Collected by: RYAN TOLENE		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	52.5	%	15-5 Mod.	11/13/2006
Silt	27.5	%	15-5 Mod.	11/13/2006
Clay	20.0	%	15-5 Mod.	11/13/2006
Texture	Sandy Loam	----	USDA	11/13/2006
Electrical Conductivity Saturated Paste	1.62	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	9.0	S.U.	21a	11/13/2006
Saturation	91.9	%	27b	11/11/2006
Calcium saturated paste	0.40	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.30	meq/l	3-5.4	11/30/2006
Sodium saturated paste	13.8	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	23.2	----	20b	11/30/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-12	Description: SHOB-10 @ 55-60'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	62.5	%	15-5 Mod.	11/13/2006
Silt	20.0	%	15-5 Mod.	11/13/2006
Clay	17.5	%	15-5 Mod.	11/13/2006
Texture	Sandy Loam	----	USDA	11/13/2006
Electrical Conductivity Saturated Paste	3.00	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	8.8	S.U.	21a	11/13/2006
Saturation	82.9	%	27b	11/11/2006
Calcium saturated paste	1.22	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	1.30	meq/l	3-5.4	11/30/2006
Sodium saturated paste	27.4	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	24.4	----	20b	11/30/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-25	Description: SHOB-10 @ 80-85'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	11/15/2006
Silt	35.0	%	15-5 Mod.	11/15/2006
Clay	52.5	%	15-5 Mod.	11/15/2006
Texture	Clay	----	USDA	11/15/2006
Electrical Conductivity Saturated Paste	2.38	mmhos/cm	10-3.3	11/15/2006
pH Saturated Paste	8.6	S.U.	21a	11/14/2006
Saturation	173	%	27b	11/11/2006
Calcium saturated paste	0.30	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.25	meq/l	3-5.4	01/03/2007
Sodium saturated paste	14.8	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	28.1	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-26	Description: SHOB-10 @ 85-90'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	11/15/2006
Silt	52.5	%	15-5 Mod.	11/15/2006
Clay	35.0	%	15-5 Mod.	11/15/2006
Texture	Si Cl Lo	----	USDA	11/15/2006
Electrical Conductivity Saturated Paste	2.43	mmhos/cm	10-3.3	11/15/2006
pH Saturated Paste	9.1	S.U.	21a	11/14/2006
Saturation	161	%	27b	11/11/2006
Calcium saturated paste	0.57	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.43	meq/l	3-5.4	01/03/2007
Sodium saturated paste	21.4	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	30.4	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-26	Description: SHOB-10; 90-95'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	11/28/2006
Silt	57.5	%	15-5 Mod.	11/28/2006
Clay	32.5	%	15-5 Mod.	11/28/2006
Texture	Si Cl Lo	—	USDA	11/28/2006
Electrical Conductivity Saturated Paste	1.92	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.3	S.U.	21a	11/27/2006
Saturation	153	%	27b	11/27/2006
Calcium saturated paste	0.36	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.30	meq/l	3-5.4	12/13/2006
Sodium saturated paste	19.6 J	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	34.4	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-27	Description: SHOB-10; 95-100'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 Mod.	11/28/2006
Silt	56.2	%	15-5 Mod.	11/28/2006
Clay	25.0	%	15-5 Mod.	11/28/2006
Texture	Silt Loam	—	USDA	11/28/2006
Electrical Conductivity Saturated Paste	3.96	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.4	S.U.	21a	11/27/2006
Saturation	144	%	27b	11/27/2006
Calcium saturated paste	1.04	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.89	meq/l	3-5.4	12/13/2006
Sodium saturated paste	56.8	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	57.9	—	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-28	Description: SHOB-10; 100-105'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	11/28/2006
Silt	58.7	%	15-5 Mod.	11/28/2006
Clay	23.8	%	15-5 Mod.	11/28/2006
Texture	Silt Loam	—	USDA	11/28/2006
Electrical Conductivity Saturated Paste	2.40	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.4	S.U.	21a	11/27/2006
Saturation	143	%	27b	11/27/2006
Calcium saturated paste	0.48	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.31	meq/l	3-5.4	12/13/2006
Sodium saturated paste	24.4 J	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	38.8	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-29	Description: SHOB-10; 105-110'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	11/28/2006
Silt	60.0	%	15-5 Mod.	11/28/2006
Clay	20.0	%	15-5 Mod.	11/28/2006
Texture	Silt Loam	---	USDA	11/28/2006
Electrical Conductivity Saturated Paste	3.27	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.6	S.U.	21a	11/27/2006
Saturation	126	%	27b	11/27/2006
Calcium saturated paste	0.59	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.52	meq/l	3-5.4	12/13/2006
Sodium saturated paste	34.6	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	46.6	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-30	Description: SHOB-10; 110-115'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	11/28/2006
Silt	56.2	%	15-5 Mod.	11/28/2006
Clay	21.3	%	15-5 Mod.	11/28/2006
Texture	Silt Loam	—	USDA	11/28/2006
Electrical Conductivity Saturated Paste	2.80	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.3	S.U.	21a	11/27/2006
Saturation	138	%	27b	11/27/2006
Calcium saturated paste	0.43	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.43	meq/l	3-5.4	12/13/2006
Sodium saturated paste	27.5 J	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	42.1	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDR ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-31	Description: SHOB-10; 115-120'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	11/28/2006
Silt	52.5	%	15-5 Mod.	11/28/2006
Clay	37.5	%	15-5 Mod.	11/28/2006
Texture	Si Cl Lo	---	USDA	11/28/2006
Electrical Conductivity Saturated Paste	2.45	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.2	S.U.	21a	11/27/2006
Saturation	155	%	27b	11/27/2006
Calcium saturated paste	0.45	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.30	meq/l	3-5.4	12/13/2006
Sodium saturated paste	25.6 J	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	41.8	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-32	Description: SHOB-10; 120-125'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod.	11/28/2006
Silt	53.7	%	15-5 Mod.	11/28/2006
Clay	35.0	%	15-5 Mod.	11/28/2006
Texture	Si Cl Lo	—	USDA	11/28/2006
Electrical Conductivity Saturated Paste	1.67	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.4	S.U.	21a	11/27/2006
Saturation	148	%	27b	11/27/2006
Calcium saturated paste	0.26	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.20	meq/l	3-5.4	12/13/2006
Sodium saturated paste	16.2	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	33.8	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-33	Description: SHOB-10; 125-130'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	11/28/2006
Silt	61.2	%	15-5 Mod.	11/28/2006
Clay	26.3	%	15-5 Mod.	11/28/2006
Texture	Silt Loam	—	USDA	11/28/2006
Electrical Conductivity Saturated Paste	2.69	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.5	S.U.	21a	11/27/2006
Saturation	151	%	27b	11/27/2006
Calcium saturated paste	0.44	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.35	meq/l	3-5.4	12/13/2006
Sodium saturated paste	33.5	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	53.6	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-34	Description: SHOB-10; 130-135'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	11/28/2006
Silt	50.0	%	15-5 Mod.	11/28/2006
Clay	40.0	%	15-5 Mod.	11/28/2006
Texture	Silty Clay	—	USDA	11/28/2006
Electrical Conductivity Saturated Paste	4.68	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	8.6	S.U.	21a	11/27/2006
Saturation	154	%	27b	11/27/2006
Calcium saturated paste	0.84	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.81	meq/l	3-5.4	12/13/2006
Sodium saturated paste	61.4	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	67.6	—	20b	12/13/2006
Sample Preparation	—	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-35	Description: SHOB-10; 135-140'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	11/28/2006
Silt	56.2	%	15-5 Mod.	11/28/2006
Clay	26.3	%	15-5 Mod.	11/28/2006
Texture	Silt Loam	—	USDA	11/28/2006
Electrical Conductivity Saturated Paste	2.92	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.0	S.U.	21a	11/27/2006
Saturation	132	%	27b	11/27/2006
Calcium saturated paste	0.47	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.34	meq/l	3-5.4	12/13/2006
Sodium saturated paste	31.1	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	48.7	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-36	Description: SHOB-10; 140-145'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	37.5	%	15-5 Mod.	11/28/2006
Silt	40.0	%	15-5 Mod.	11/28/2006
Clay	22.5	%	15-5 Mod.	11/28/2006
Texture	Loam	—	USDA	11/28/2006
Electrical Conductivity Saturated Paste	2.13	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	8.8	S.U.	21a	11/27/2006
Saturation	120	%	27b	11/27/2006
Calcium saturated paste	0.34	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.27	meq/l	3-5.4	12/13/2006
Sodium saturated paste	21.4 J	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	38.8	---	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-37	Description: SHOB-10; 145-150'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	35.0	%	15-5 Mod.	11/28/2006
Silt	47.5	%	15-5 Mod.	11/28/2006
Clay	17.5	%	15-5 Mod.	11/28/2006
Texture	Loam	—	USDA	11/28/2006
Electrical Conductivity Saturated Paste	2.16	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.0	S.U.	21a	11/27/2006
Saturation	102	%	27b	11/27/2006
Calcium saturated paste	0.31	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.29	meq/l	3-5.4	12/13/2006
Sodium saturated paste	22.2 J	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	40.4	—	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-38	Description: SHOB-10; 150-155'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	50.0	%	15-5 Mod.	11/28/2006
Silt	35.0	%	15-5 Mod.	11/28/2006
Clay	15.0	%	15-5 Mod.	11/28/2006
Texture	Loam	—	USDA	11/28/2006
Electrical Conductivity Saturated Paste	3.02	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	8.9	S.U.	21a	11/27/2006
Saturation	101	%	27b	11/27/2006
Calcium saturated paste	0.39	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.45	meq/l	3-5.4	12/13/2006
Sodium saturated paste	30.6	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	47.4	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-39	Description: SHOB-10; 155-160'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	60.0	%	15-5 Mod.	11/28/2006
Silt	23.7	%	15-5 Mod.	11/28/2006
Clay	16.3	%	15-5 Mod.	11/28/2006
Texture	Sandy Loam	—	USDA	11/28/2006
Electrical Conductivity Saturated Paste	2.61	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.0	S.U.	21a	11/27/2006
Saturation	72.2	%	27b	11/27/2006
Calcium saturated paste	0.30	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.34	meq/l	3-5.4	12/13/2006
Sodium saturated paste	26.3 J	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	46.6	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-40	Description: SHOB-10; 160-165'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	67.5	%	15-5 Mod.	11/28/2006
Silt	23.7	%	15-5 Mod.	11/28/2006
Clay	8.8	%	15-5 Mod.	11/28/2006
Texture	Sandy Loam	---	USDA	11/28/2006
Electrical Conductivity Saturated Paste	4.59	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	8.4	S.U.	21a	11/27/2006
Saturation	48.8	%	27b	11/27/2006
Calcium saturated paste	1.11	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	1.29	meq/l	3-5.4	12/13/2006
Sodium saturated paste	50.7	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	46.2	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-41	Description: SHOB-10; 165-170'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	NA	---	---	---
Silt	NA	---	---	---
Clay	NA	---	---	---
Texture	NA	----	---	----
Electrical Conductivity Saturated Paste	NA	---	----	---
pH Saturated Paste	NA	---	---	---
Saturation	NA	----	---	----
Calcium saturated paste	NA	---	---	---
Magnesium saturated paste	NA	---	---	---
Sodium saturated paste	NA	----	---	----
Sodium Adsorption Ratio	NA	---	---	---
Sample Preparation	---	---	3-5.1	---

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-42	Description: SHOB-10; 170-175'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	65.0	%	15-5 Mod.	11/29/2006
Silt	17.5	%	15-5 Mod.	11/29/2006
Clay	17.5	%	15-5 Mod.	11/29/2006
Texture	Sandy Loam	—	USDA	11/29/2006
Electrical Conductivity Saturated Paste	1.79	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.4	S.U.	21a	11/28/2006
Saturation	106	%	27b	11/28/2006
Calcium saturated paste	0.46	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.29	meq/l	3-5.4	12/13/2006
Sodium saturated paste	17.6	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	28.7	—	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-43	Description: SHOB-10; 175-180'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	65.0	%	15-5 Mod.	11/29/2006
Silt	16.2	%	15-5 Mod.	11/29/2006
Clay	18.8	%	15-5 Mod.	11/29/2006
Texture	Sandy Loam	---	USDA	11/29/2006
Electrical Conductivity Saturated Paste	1.25	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.6	S.U.	21a	11/28/2006
Saturation	131	%	27b	11/28/2006
Calcium saturated paste	0.31	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.18	meq/l	3-5.4	12/13/2006
Sodium saturated paste	12.2	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	24.5	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-44	Description: SHOB-10; 180-185'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	11/29/2006
Silt	31.2	%	15-5 Mod.	11/29/2006
Clay	51.3	%	15-5 Mod.	11/29/2006
Texture	Clay	—	USDA	11/29/2006
Electrical Conductivity Saturated Paste	1.56	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.0	S.U.	21a	11/28/2006
Saturation	136	%	27b	11/28/2006
Calcium saturated paste	0.38	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.22	meq/l	3-5.4	12/13/2006
Sodium saturated paste	15.2	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	27.8	---	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-45	Description: SHOB-10; 185-190'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	11/29/2006
Silt	58.7	%	15-5 Mod.	11/29/2006
Clay	31.3	%	15-5 Mod.	11/29/2006
Texture	Si Cl Lo	—	USDA	11/29/2006
Electrical Conductivity Saturated Paste	1.72	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.1	S.U.	21a	11/28/2006
Saturation	107	%	27b	11/28/2006
Calcium saturated paste	0.27	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.22	meq/l	3-5.4	12/13/2006
Sodium saturated paste	17.0	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	34.2	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-46	Description: SHOB-10; 190-195'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	15-5 Mod.	11/29/2006
Silt	54.9	%	15-5 Mod.	11/29/2006
Clay	38.8	%	15-5 Mod.	11/29/2006
Texture	Si Cl Lo	---	USDA	11/29/2006
Electrical Conductivity Saturated Paste	2.01	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.9	S.U.	21a	11/28/2006
Saturation	105	%	27b	11/28/2006
Calcium saturated paste	0.47	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.32	meq/l	3-5.4	12/13/2006
Sodium saturated paste	23.1	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	36.8	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-47	Description: SHOB-10; 195-200'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	11/29/2006
Silt	48.7	%	15-5 Mod.	11/29/2006
Clay	46.3	%	15-5 Mod.	11/29/2006
Texture	Silty Clay	—	USDA	11/29/2006
Electrical Conductivity Saturated Paste	2.36	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.2	S.U.	21a	11/28/2006
Saturation	112	%	27b	11/28/2006
Calcium saturated paste	0.46	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.34	meq/l	3-5.4	12/13/2006
Sodium saturated paste	25.6	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	40.4	---	20b	12/13/2006
Sample Preparation	---	—	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-31	Description: SHOB-11, 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/28/2006
Silt	42.5	%	15-5 Mod.	12/28/2006
Clay	50.0	%	15-5 Mod.	12/28/2006
Texture	Silty Clay	----	USDA	12/28/2006
Electrical Conductivity Saturated Paste	7.33	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.1	S.U.	21a	12/28/2006
Saturation	107	%	27b	12/28/2006
Calcium saturated paste	18.9	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	27.8	meq/l	3-5.4	01/11/2007
Sodium saturated paste	61.1	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	12.7	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-32	Description: SHOB-11, 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/28/2006
Silt	40.0	%	15-5 Mod.	12/28/2006
Clay	50.0	%	15-5 Mod.	12/28/2006
Texture	Silty Clay	----	USDA	12/28/2006
Electrical Conductivity Saturated Paste	11.2	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.2	S.U.	21a	12/28/2006
Saturation	102	%	27b	12/28/2006
Calcium saturated paste	22.0	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	44.0	meq/l	3-5.4	01/11/2007
Sodium saturated paste	98.1	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	17.1	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-33	Description: SHOB-11, 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/28/2006
Silt	37.5	%	15-5 Mod.	12/28/2006
Clay	50.0	%	15-5 Mod.	12/28/2006
Texture	Clay	----	USDA	12/28/2006
Electrical Conductivity Saturated Paste	11.5	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.1	S.U.	21a	12/28/2006
Saturation	109	%	27b	12/28/2006
Calcium saturated paste	19.3	meq/l	3-5.4	01/17/2007
Magnesium saturated paste	43.9	meq/l	3-5.4	01/17/2007
Sodium saturated paste	115	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	20.5	----	20b	01/17/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-34	Description: SHOB-11, 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	12/28/2006
Silt	27.5	%	15-5 Mod.	12/28/2006
Clay	57.5	%	15-5 Mod.	12/28/2006
Texture	Clay	-----	USDA	12/28/2006
Electrical Conductivity Saturated Paste	11.2	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	6.4	S.U.	21a	12/28/2006
Saturation	107	%	27b	12/28/2006
Calcium saturated paste	21.0	meq/l	3-5.4	01/17/2007
Magnesium saturated paste	38.3	meq/l	3-5.4	01/17/2007
Sodium saturated paste	115	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	21.1	-----	20b	01/17/2007
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-35	Description: SHOB-11, 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod.	12/28/2006
Silt	42.5	%	15-5 Mod.	12/28/2006
Clay	32.5	%	15-5 Mod.	12/28/2006
Texture	Clay Loam	----	USDA	12/28/2006
Electrical Conductivity Saturated Paste	11.1	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	7.7	S.U.	21a	12/28/2006
Saturation	73.4	%	27b	12/28/2006
Calcium saturated paste	19.0	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	40.0	meq/l	3-5.4	01/11/2007
Sodium saturated paste	103	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	18.9	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-36	Description: SHOB-11, 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	42.5	%	15-5 Mod.	12/28/2006
Silt	37.5	%	15-5 Mod.	12/28/2006
Clay	20.0	%	15-5 Mod.	12/28/2006
Texture	Loam	----	USDA	12/28/2006
Electrical Conductivity Saturated Paste	10.8	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.0	S.U.	21a	12/28/2006
Saturation	51.6	%	27b	12/28/2006
Calcium saturated paste	19.5	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	36.0	meq/l	3-5.4	01/11/2007
Sodium saturated paste	102	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	19.3	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-37	Description: SHOB-11, 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/28/2006
Silt	37.5	%	15-5 Mod.	12/28/2006
Clay	50.0	%	15-5 Mod.	12/28/2006
Texture	Clay	----	USDA	12/28/2006
Electrical Conductivity Saturated Paste	7.26	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	7.5	S.U.	21a	12/28/2006
Saturation	98.6	%	27b	12/28/2006
Calcium saturated paste	10.7	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	17.0	meq/l	3-5.4	01/11/2007
Sodium saturated paste	70.3	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	18.9	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-38	Description: SHOB-11, 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/28/2006
Silt	50.0	%	15-5 Mod.	12/28/2006
Clay	42.5	%	15-5 Mod.	12/28/2006
Texture	Silty Clay	----	USDA	12/28/2006
Electrical Conductivity Saturated Paste	6.53	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.1	S.U.	21a	12/28/2006
Saturation	108	%	27b	12/28/2006
Calcium saturated paste	7.32	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	11.7	meq/l	3-5.4	01/11/2007
Sodium saturated paste	62.9	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	20.4	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-39	Description: SHOB-11, 40-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/28/2006
Silt	55.0	%	15-5 Mod.	12/28/2006
Clay	40.0	%	15-5 Mod.	12/28/2006
Texture	Si Cl Lo	----	USDA	12/28/2006
Electrical Conductivity Saturated Paste	3.53	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.4	S.U.	21a	12/28/2006
Saturation	171	%	27b	12/28/2006
Calcium saturated paste	1.79	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	2.58	meq/l	3-5.4	01/11/2007
Sodium saturated paste	33.8	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	22.8	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-40	Description: SHOB-11, 45-50	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/28/2006
Silt	60.0	%	15-5 Mod.	12/28/2006
Clay	32.5	%	15-5 Mod.	12/28/2006
Texture	Si Cl Lo	----	USDA	12/28/2006
Electrical Conductivity Saturated Paste	4.35	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.7	S.U.	21a	12/28/2006
Saturation	179	%	27b	12/28/2006
Calcium saturated paste	1.55	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	2.14	meq/l	3-5.4	01/11/2007
Sodium saturated paste	45.4	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	33.4	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-41	Description: SHOB-11, 50-55	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	01/03/2007
Silt	42.5	%	15-5 Mod.	01/03/2007
Clay	47.5	%	15-5 Mod.	01/03/2007
Texture	Silty Clay	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	2.56 J	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	9.0	S.U.	21a	12/29/2006
Saturation	186	%	27b	12/29/2006
Calcium saturated paste	0.52	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.61	meq/l	3-5.4	01/11/2007
Sodium saturated paste	24.7 J	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	33.0	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-42	Description: SHOB-11, 55-60	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	01/03/2007
Silt	50.0	%	15-5 Mod.	01/03/2007
Clay	37.5	%	15-5 Mod.	01/03/2007
Texture	Si Cl Lo	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	3.67	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	9.0	S.U.	21a	12/29/2006
Saturation	159	%	27b	12/29/2006
Calcium saturated paste	0.74	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.13	meq/l	3-5.4	01/11/2007
Sodium saturated paste	39.5	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	40.8	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-43	Description: SHOB-11, 60-65	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	51.3	%	15-5 Mod.	01/03/2007
Silt	21.2	%	15-5 Mod.	01/03/2007
Clay	27.5	%	15-5 Mod.	01/03/2007
Texture	Sa Cl Lo	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	9.24	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	7.1	S.U.	21a	12/29/2006
Saturation	97.9	%	27b	12/29/2006
Calcium saturated paste	5.50	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	7.59	meq/l	3-5.4	01/11/2007
Sodium saturated paste	103	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	40.2	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-44	Description: SHOB-11, 80-85	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	01/03/2007
Silt	47.5	%	15-5 Mod.	01/03/2007
Clay	32.5	%	15-5 Mod.	01/03/2007
Texture	Si Cl Lo	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	4.12	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.3	S.U.	21a	12/29/2006
Saturation	137	%	27b	12/29/2006
Calcium saturated paste	1.16	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.66	meq/l	3-5.4	01/11/2007
Sodium saturated paste	42.6	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	35.9	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-45	Description: SHOB-11, 85-90	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	01/03/2007
Silt	52.5	%	15-5 Mod.	01/03/2007
Clay	37.5	%	15-5 Mod.	01/03/2007
Texture	Si Cl Lo	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	3.33	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.9	S.U.	21a	12/29/2006
Saturation	152	%	27b	12/29/2006
Calcium saturated paste	0.50	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.73	meq/l	3-5.4	01/11/2007
Sodium saturated paste	34.7	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	44.1	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-1	Description: SHOB-12; 0-5'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	11/30/2006
Silt	30.0	%	15-5 Mod.	11/30/2006
Clay	50.0	%	15-5 Mod.	11/30/2006
Texture	Clay	----	USDA	11/30/2006
Electrical Conductivity Saturated Paste	7.78	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.3	S.U.	21a	11/28/2006
Saturation	90.5	%	27b	11/28/2006
Calcium saturated paste	22.7	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	66.6	meq/l	3-5.4	12/14/2006
Sodium saturated paste	44.2	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	6.62	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.:	2006100195-2	Description:	SHOB-12; 5-10'	Matrix:	OVERBURDEN
Date Received:	10/19/2006	Date Collected:	10/16/2006	Collected by:	RYAN TOLENE

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	30.0	%	15-5 Mod.	11/30/2006
Silt	52.5	%	15-5 Mod.	11/30/2006
Clay	17.5	%	15-5 Mod.	11/30/2006
Texture	Silt Loam	-----	USDA	11/30/2006
Electrical Conductivity Saturated Paste	7.38	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	4.3	S.U.	21a	11/28/2006
Saturation	63.1	%	27b	11/28/2006
Calcium saturated paste	22.2	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	53.4	meq/l	3-5.4	12/14/2006
Sodium saturated paste	46.8	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	7.62	-----	20b	12/14/2006
Sample Preparation	-----	-----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-3	Description: SHOB-12; 10-15'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006		
Collected by: RYAN TOLENE		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	73.8	%	15-5 Mod.	11/30/2006
Silt	6.2	%	15-5 Mod.	11/30/2006
Clay	20.0	%	15-5 Mod.	11/30/2006
Texture	Sa Cl Lo	---	USDA	11/30/2006
Electrical Conductivity Saturated Paste	4.28	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	4.8	S.U.	21a	11/28/2006
Saturation	50.4	%	27b	11/28/2006
Calcium saturated paste	8.73	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	12.6	meq/l	3-5.4	12/14/2006
Sodium saturated paste	35.2	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	10.8	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-4	Description: SHOB-12; 15-20'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	11/30/2006
Silt	35.0	%	15-5 Mod.	11/30/2006
Clay	52.5	%	15-5 Mod.	11/30/2006
Texture	Clay	----	USDA	11/30/2006
Electrical Conductivity Saturated Paste	3.73	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	6.2	S.U.	21a	11/28/2006
Saturation	90.9	%	27b	11/28/2006
Calcium saturated paste	7.77	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	10.8	meq/l	3-5.4	12/14/2006
Sodium saturated paste	31.5	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	10.4	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-5	Description: SHOB-12; 20-25'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	11/30/2006
Silt	42.5	%	15-5 Mod.	11/30/2006
Clay	45.0	%	15-5 Mod.	11/30/2006
Texture	Silty Clay	----	USDA	11/30/2006
Electrical Conductivity Saturated Paste	1.38	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.9	S.U.	21a	11/28/2006
Saturation	141	%	27b	11/28/2006
Calcium saturated paste	0.96	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	1.61	meq/l	3-5.4	12/14/2006
Sodium saturated paste	12.4	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	10.9	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-6	Description: SHOB-12; 25-30'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	11/30/2006
Silt	50.0	%	15-5 Mod.	11/30/2006
Clay	42.5	%	15-5 Mod.	11/30/2006
Texture	Silty Clay	----	USDA	11/30/2006
Electrical Conductivity Saturated Paste	1.28	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.4	S.U.	21a	11/28/2006
Saturation	159	%	27b	11/28/2006
Calcium saturated paste	0.99	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.86	meq/l	3-5.4	12/14/2006
Sodium saturated paste	11.2	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	11.6	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-7	Description: SHOB-12; 30-35'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	3.8	%	15-5 Mod.	11/30/2006
Silt	48.7	%	15-5 Mod.	11/30/2006
Clay	47.5	%	15-5 Mod.	11/30/2006
Texture	Silty Clay	----	USDA	11/30/2006
Electrical Conductivity Saturated Paste	1.13	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.6	S.U.	21a	11/28/2006
Saturation	160	%	27b	11/28/2006
Calcium saturated paste	0.89	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.86	meq/l	3-5.4	12/14/2006
Sodium saturated paste	10.1	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	10.7	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-8	Description: SHOB-12; 35-40'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	45.0	%	15-5 Mod.	11/30/2006
Silt	13.7	%	15-5 Mod.	11/30/2006
Clay	41.3	%	15-5 Mod.	11/30/2006
Texture	Sandy Clay	----	USDA	11/30/2006
Electrical Conductivity Saturated Paste	1.94	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	7.1	S.U.	21a	11/28/2006
Saturation	101	%	27b	11/28/2006
Calcium saturated paste	2.38	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	3.24	meq/l	3-5.4	12/14/2006
Sodium saturated paste	18.4	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	11.0	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-9	Description: SHOB-12; 40-45'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	11/30/2006
Silt	41.2	%	15-5 Mod.	11/30/2006
Clay	53.8	%	15-5 Mod.	11/30/2006
Texture	Silty Clay	----	USDA	11/30/2006
Electrical Conductivity Saturated Paste	1.40	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.4	S.U.	21a	11/28/2006
Saturation	107	%	27b	11/28/2006
Calcium saturated paste	1.03	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	1.14	meq/l	3-5.4	12/14/2006
Sodium saturated paste	14.2	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	13.6	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-10	Description: SHOB-12; 45-50'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	11/30/2006
Silt	47.5	%	15-5 Mod.	11/30/2006
Clay	35.0	%	15-5 Mod.	11/30/2006
Texture	Si Cl Lo	----	USDA	11/30/2006
Electrical Conductivity Saturated Paste	1.21	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.9	S.U.	21a	11/28/2006
Saturation	116	%	27b	11/28/2006
Calcium saturated paste	0.47	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.39	meq/l	3-5.4	12/14/2006
Sodium saturated paste	12.0	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	18.2	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-11	Description: SHOB-12; 50-55'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	11/30/2006
Silt	52.5	%	15-5 Mod.	11/30/2006
Clay	30.0	%	15-5 Mod.	11/30/2006
Texture	Si Cl Lo	----	USDA	11/30/2006
Electrical Conductivity Saturated Paste	1.46	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.3	S.U.	21a	11/28/2006
Saturation	118	%	27b	11/28/2006
Calcium saturated paste	0.72J	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.57	meq/l	3-5.4	12/14/2006
Sodium saturated paste	16.5	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	20.5	-----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-12	Description: SHOB-12; 55-60'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	15-5 Mod.	11/30/2006
Silt	63.7	%	15-5 Mod.	11/30/2006
Clay	33.8	%	15-5 Mod.	11/30/2006
Texture	Si Cl Lo	---	USDA	11/30/2006
Electrical Conductivity Saturated Paste	1.58	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.0	S.U.	21a	11/28/2006
Saturation	125	%	27b	11/28/2006
Calcium saturated paste	0.54	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.54	meq/l	3-5.4	12/14/2006
Sodium saturated paste	17.0	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	23.1	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-13	Description: SHOB-12; 60-65'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	11/30/2006
Silt	57.5	%	15-5 Mod.	11/30/2006
Clay	27.5	%	15-5 Mod.	11/30/2006
Texture	Si Cl Lo	----	USDA	11/30/2006
Electrical Conductivity Saturated Paste	1.71	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.3	S.U.	21a	11/28/2006
Saturation	122	%	27b	11/28/2006
Calcium saturated paste	0.76	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.53	meq/l	3-5.4	12/14/2006
Sodium saturated paste	17.2	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	21.4	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-14	Description: SHOB-12; 65-70'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	32.5	%	15-5 Mod.	11/30/2006
Silt	45.0	%	15-5 Mod.	11/30/2006
Clay	22.5	%	15-5 Mod.	11/30/2006
Texture	Loam	----	USDA	11/30/2006
Electrical Conductivity Saturated Paste	1.43	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.6	S.U.	21a	11/28/2006
Saturation	119	%	27b	11/28/2006
Calcium saturated paste	0.29	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.35	meq/l	3-5.4	12/14/2006
Sodium saturated paste	14.2	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	25.0	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-16	Description: SHOB-12; 70-75'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	3.8	%	15-5 Mod.	11/30/2006
Silt	36.2	%	15-5 Mod.	11/30/2006
Clay	60.0	%	15-5 Mod.	11/30/2006
Texture	Clay	----	USDA	11/30/2006
Electrical Conductivity Saturated Paste	1.71	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.2	S.U.	21a	11/28/2006
Saturation	167	%	27b	11/28/2006
Calcium saturated paste	0.37	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.32	meq/l	3-5.4	12/14/2006
Sodium saturated paste	18.3	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	31.2	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-17	Description: SHOB-12; 75-80'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006		
Collected by: RYAN TOLENE		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	11/30/2006
Silt	51.2	%	15-5 Mod.	11/30/2006
Clay	41.3	%	15-5 Mod.	11/30/2006
Texture	Silty Clay	----	USDA	11/30/2006
Electrical Conductivity Saturated Paste	1.82	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.0	S.U.	21a	11/28/2006
Saturation	138	%	27b	11/28/2006
Calcium saturated paste	0.41	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.35	meq/l	3-5.4	12/14/2006
Sodium saturated paste	19.1	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	31.1	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-18	Description: SHOB-12; 100-105'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	62.5	%	15-5 Mod.	12/02/2006
Silt	21.2	%	15-5 Mod.	12/02/2006
Clay	16.3	%	15-5 Mod.	12/02/2006
Texture	Sandy Loam	----	USDA	12/02/2006
Electrical Conductivity Saturated Paste	2.75	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.0	S.U.	21a	11/28/2006
Saturation	85.1	%	27b	11/28/2006
Calcium saturated paste	0.45	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.42	meq/l	3-5.4	12/14/2006
Sodium saturated paste	28.6	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	43.3	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-19	Description: SHOB-12; 105-110'	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	67.5	%	15-5 Mod.	11/30/2006
Silt	20.0	%	15-5 Mod.	11/30/2006
Clay	12.5	%	15-5 Mod.	11/30/2006
Texture	Sandy Loam	----	USDA	11/30/2006
Electrical Conductivity Saturated Paste	3.60	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.3	S.U.	21a	11/28/2006
Saturation	73.4	%	27b	11/28/2006
Calcium saturated paste	0.85	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.98	meq/l	3-5.4	12/14/2006
Sodium saturated paste	40.4	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	42.3	----	20b	12/14/2006
Sample Preparation	----	----	3-5.1	12/14/2006

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-12	Description: SHOB-13, 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	01/03/2007
Silt	43.7	%	15-5 Mod.	01/03/2007
Clay	41.3	%	15-5 Mod.	01/03/2007
Texture	Silty Clay	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	1.34	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.2	S.U.	21a	01/03/2007
Saturation	93.2	%	27b	01/03/2007
Calcium saturated paste	1.15	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.53	meq/l	3-5.4	01/11/2007
Sodium saturated paste	11.8	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	10.2	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-13	Description: SHOB-13, 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	01/03/2007
Silt	53.7	%	15-5 Mod.	01/03/2007
Clay	38.8	%	15-5 Mod.	01/03/2007
Texture	Si Cl Lo	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	6.11	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	7.7	S.U.	21a	01/03/2007
Saturation	79.3	%	27b	01/03/2007
Calcium saturated paste	22.1	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	23.4	meq/l	3-5.4	01/11/2007
Sodium saturated paste	40.6	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	8.51	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-14	Description: SHOB-13, 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	45.0	%	15-5 Mod.	01/03/2007
Silt	31.2	%	15-5 Mod.	01/03/2007
Clay	23.8	%	15-5 Mod.	01/03/2007
Texture	Loam	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	3.42	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.0	S.U.	21a	01/03/2007
Saturation	90.2	%	27b	01/03/2007
Calcium saturated paste	4.82	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	6.26	meq/l	3-5.4	01/11/2007
Sodium saturated paste	27.8	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	11.8	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-15	Description: SHOB-13, 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	55.0	%	15-5 Mod.	01/03/2007
Silt	23.7	%	15-5 Mod.	01/03/2007
Clay	21.3	%	15-5 Mod.	01/03/2007
Texture	Sa Cl Lo	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	4.00	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.0	S.U.	21a	01/03/2007
Saturation	75.7	%	27b	01/03/2007
Calcium saturated paste	4.60	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	6.42	meq/l	3-5.4	01/11/2007
Sodium saturated paste	35.9	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	15.3	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-16	Description: SHOB-13, 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	63.8	%	15-5 Mod.	01/03/2007
Silt	17.4	%	15-5 Mod.	01/03/2007
Clay	18.8	%	15-5 Mod.	01/03/2007
Texture	Sandy Loam	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	6.51	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	7.8	S.U.	21a	01/03/2007
Saturation	54.1	%	27b	01/03/2007
Calcium saturated paste	11.7	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	15.4	meq/l	3-5.4	01/11/2007
Sodium saturated paste	56.4	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	15.3	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-17	Description: SHOB-13, 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	55.0	%	15-5 Mod.	01/03/2007
Silt	21.2	%	15-5 Mod.	01/03/2007
Clay	23.8	%	15-5 Mod.	01/03/2007
Texture	Sa Cl Lo	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	7.68	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	7.8	S.U.	21a	01/03/2007
Saturation	111	%	27b	01/03/2007
Calcium saturated paste	19.9	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	22.7	meq/l	3-5.4	01/11/2007
Sodium saturated paste	63.0	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	13.7	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-18	Description: SHOB-13, 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	32.5	%	15-5 Mod.	01/03/2007
Silt	41.2	%	15-5 Mod.	01/03/2007
Clay	26.3	%	15-5 Mod.	01/03/2007
Texture	Loam	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	5.14	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	6.8	S.U.	21a	01/03/2007
Saturation	137	%	27b	01/03/2007
Calcium saturated paste	5.43	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	10.1	meq/l	3-5.4	01/11/2007
Sodium saturated paste	46.2	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	16.6	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-19	Description: SHOB-13, 45-50	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	72.5	%	15-5 Mod.	01/03/2007
Silt	13.7	%	15-5 Mod.	01/03/2007
Clay	13.8	%	15-5 Mod.	01/03/2007
Texture	Sandy Loam	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	2.48	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	7.2	S.U.	21a	01/03/2007
Saturation	104	%	27b	01/03/2007
Calcium saturated paste	0.55	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.58	meq/l	3-5.4	01/11/2007
Sodium saturated paste	25.9	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	34.4	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-20	Description: SHOB-13, 50-55	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 Mod.	01/03/2007
Silt	57.4	%	15-5 Mod.	01/03/2007
Clay	28.8	%	15-5 Mod.	01/03/2007
Texture	Si Cl Lo	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	1.27	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.9	S.U.	21a	01/03/2007
Saturation	114	%	27b	01/03/2007
Calcium saturated paste	0.40	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.29	meq/l	3-5.4	01/11/2007
Sodium saturated paste	13.9	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	23.6	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-21	Description: SHOB-13, 55-60	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	01/04/2007
Silt	58.7	%	15-5 Mod.	01/04/2007
Clay	26.3	%	15-5 Mod.	01/04/2007
Texture	Silt Loam	----	USDA	01/04/2007
Electrical Conductivity Saturated Paste	1.78	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	9.2	S.U.	21a	01/04/2007
Saturation	135	%	27b	01/04/2007
Calcium saturated paste	0.37	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.29	meq/l	3-5.4	01/11/2007
Sodium saturated paste	17.8	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	30.9	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-13	Description: SHOB-14 @ 0-5'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	11/13/2006
Silt	27.5	%	15-5 Mod.	11/13/2006
Clay	52.5	%	15-5 Mod.	11/13/2006
Texture	Clay	----	USDA	11/13/2006
Electrical Conductivity Saturated Paste	3.25	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	7.4	S.U.	21a	11/13/2006
Saturation	90.8	%	27b	11/11/2006
Calcium saturated paste	22.1	meq/l	3-5.4	11/15/2006
Magnesium saturated paste	23.3	meq/l	3-5.4	11/15/2006
Sodium saturated paste	2.31	meq/l	3-5.4	11/15/2006
Sodium Adsorption Ratio	0.49	----	20b	11/15/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-14	Description: SHOB-14 @ 5-10'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	11/13/2006
Silt	32.5	%	15-5 Mod.	11/13/2006
Clay	50.0	%	15-5 Mod.	11/13/2006
Texture	Clay	----	USDA	11/13/2006
Electrical Conductivity Saturated Paste	6.43	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	4.1	S.U.	21a	11/13/2006
Saturation	68.9	%	27b	11/11/2006
Calcium saturated paste	23.6	meq/l	3-5.4	11/15/2006
Magnesium saturated paste	45.3	meq/l	3-5.4	11/15/2006
Sodium saturated paste	25.7	meq/l	3-5.4	11/15/2006
Sodium Adsorption Ratio	4.37	----	20b	11/15/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-15	Description: SHOB-14 @ 10-15'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod.	11/13/2006
Silt	43.7	%	15-5 Mod.	11/13/2006
Clay	31.3	%	15-5 Mod.	11/13/2006
Texture	Clay Loam	----	USDA	11/13/2006
Electrical Conductivity Saturated Paste	5.65	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	5.4	S.U.	21a	11/13/2006
Saturation	69.2	%	27b	11/11/2006
Calcium saturated paste	22.4	meq/l	3-5.4	11/15/2006
Magnesium saturated paste	50.9	meq/l	3-5.4	11/15/2006
Sodium saturated paste	25.1	meq/l	3-5.4	11/15/2006
Sodium Adsorption Ratio	4.15	----	20b	11/15/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-16	Description: SHOB-14 @ 15-20'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	11/13/2006
Silt	56.2	%	15-5 Mod.	11/13/2006
Clay	31.3	%	15-5 Mod.	11/13/2006
Texture	Si Cl Lo	----	USDA	11/13/2006
Electrical Conductivity Saturated Paste	2.59	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	7.5	S.U.	21a	11/13/2006
Saturation	86.4	%	27b	11/11/2006
Calcium saturated paste	6.49	meq/l	3-5.4	11/15/2006
Magnesium saturated paste	9.60	meq/l	3-5.4	11/15/2006
Sodium saturated paste	11.5	meq/l	3-5.4	11/15/2006
Sodium Adsorption Ratio	4.06	----	20b	11/15/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-17	Description: SHOB-14 @ 20-25'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	27.5	%	15-5 Mod.	11/13/2006
Silt	46.2	%	15-5 Mod.	11/13/2006
Clay	26.3	%	15-5 Mod.	11/13/2006
Texture	Loam	----	USDA	11/13/2006
Electrical Conductivity Saturated Paste	3.47	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	7.3	S.U.	21a	11/13/2006
Saturation	68.2	%	27b	11/11/2006
Calcium saturated paste	12.4	meq/l	3-5.4	11/15/2006
Magnesium saturated paste	14.4	meq/l	3-5.4	11/15/2006
Sodium saturated paste	16.6	meq/l	3-5.4	11/15/2006
Sodium Adsorption Ratio	4.53	----	20b	11/15/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-18	Description: SHOB-14 @ 25-30'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 Mod.	11/13/2006
Silt	61.2	%	15-5 Mod.	11/13/2006
Clay	25.0	%	15-5 Mod.	11/13/2006
Texture	Silt Loam	----	USDA	11/13/2006
Electrical Conductivity Saturated Paste	1.62	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	8.2	S.U.	21a	11/13/2006
Saturation	111	%	27b	11/11/2006
Calcium saturated paste	1.48	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	2.08	meq/l	3-5.4	11/30/2006
Sodium saturated paste	12.6	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	9.42	----	20b	11/30/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-19	Description: SHOB-14 @ 30-35'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	55.0	%	15-5 Mod.	11/13/2006
Silt	30.0	%	15-5 Mod.	11/13/2006
Clay	15.0	%	15-5 Mod.	11/13/2006
Texture	Sandy Loam	----	USDA	11/13/2006
Electrical Conductivity Saturated Paste	2.60	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	8.2	S.U.	21a	11/13/2006
Saturation	62.3	%	27b	11/11/2006
Calcium saturated paste	2.88	meq/l	3-5.4	11/15/2006
Magnesium saturated paste	3.91	meq/l	3-5.4	11/15/2006
Sodium saturated paste	21.4	meq/l	3-5.4	11/15/2006
Sodium Adsorption Ratio	11.6	----	20b	11/15/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-20	Description: SHOB-14 @ 35-40'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	60.0	%	15-5 Mod.	11/13/2006
Silt	27.5	%	15-5 Mod.	11/13/2006
Clay	12.5	%	15-5 Mod.	11/13/2006
Texture	Sandy Loam	----	USDA	11/13/2006
Electrical Conductivity Saturated Paste	2.24	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	8.5	S.U.	21a	11/13/2006
Saturation	54.4	%	27b	11/11/2006
Calcium saturated paste	1.49	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	1.74	meq/l	3-5.4	11/30/2006
Sodium saturated paste	18.6	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	14.6	----	20b	11/30/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-21	Description: SHOB-14 @ 40-45'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	60.0	%	15-5 Mod.	11/15/2006
Silt	23.7	%	15-5 Mod.	11/15/2006
Clay	16.3	%	15-5 Mod.	11/15/2006
Texture	Sandy Loam	----	USDA	11/15/2006
Electrical Conductivity Saturated Paste	2.21	mmhos/cm	10-3.3	11/15/2006
pH Saturated Paste	8.5	S.U.	21a	11/14/2006
Saturation	69.9	%	27b	11/11/2006
Calcium saturated paste	0.83	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.88	meq/l	3-5.4	01/03/2007
Sodium saturated paste	18.8	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	20.3	----	20b	01/03/2007
Sample Preparation	---	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-22	Description: SHOB-14 @ 45-50'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	37.5	%	15-5 Mod.	11/15/2006
Silt	45.0	%	15-5 Mod.	11/15/2006
Clay	17.5	%	15-5 Mod.	11/15/2006
Texture	Loam	----	USDA	11/15/2006
Electrical Conductivity Saturated Paste	2.20	mmhos/cm	10-3.3	11/15/2006
pH Saturated Paste	8.6	S.U.	21a	11/14/2006
Saturation	76.4	%	27b	11/11/2006
Calcium saturated paste	NA	----	----	----
Magnesium saturated paste	NA	----	----	----
Sodium saturated paste	NA	----	----	----
Sodium Adsorption Ratio	NA	----	----	----
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-23	Description: SHOB-14 @ 50-55'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	47.5	%	15-5 Mod.	11/15/2006
Silt	35.0	%	15-5 Mod.	11/15/2006
Clay	17.5	%	15-5 Mod.	11/15/2006
Texture	Loam	----	USDA	11/15/2006
Electrical Conductivity Saturated Paste	1.82	mmhos/cm	10-3.3	11/15/2006
pH Saturated Paste	8.7	S.U.	21a	11/14/2006
Saturation	80.7	%	27b	11/11/2006
Calcium saturated paste	0.46	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.41	meq/l	3-5.4	01/03/2007
Sodium saturated paste	14.6	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	22.3	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-24	Description: SHOB-14 @ 55-60'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	60.0	%	15-5 Mod.	11/15/2006
Silt	22.5	%	15-5 Mod.	11/15/2006
Clay	17.5	%	15-5 Mod.	11/15/2006
Texture	Sandy Loam	----	USDA	11/15/2006
Electrical Conductivity Saturated Paste	1.87	mmhos/cm	10-3.3	11/15/2006
pH Saturated Paste	8.8	S.U.	21a	11/14/2006
Saturation	80.9	%	27b	11/11/2006
Calcium saturated paste	0.48	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.39	meq/l	3-5.4	01/03/2007
Sodium saturated paste	17.7	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	26.9	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-28	Description: SHOB-14 @ 60-65'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	57.5	%	15-5 Mod.	11/15/2006
Silt	25.0	%	15-5 Mod.	11/15/2006
Clay	17.5	%	15-5 Mod.	11/15/2006
Texture	Sandy Loam	----	USDA	11/15/2006
Electrical Conductivity Saturated Paste	1.98	mmhos/cm	10-3.3	11/15/2006
pH Saturated Paste	8.9	S.U.	21a	11/14/2006
Saturation	91.2	%	27b	11/11/2006
Calcium saturated paste	0.67	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.54	meq/l	3-5.4	01/03/2007
Sodium saturated paste	25.7	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	33.1	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-29	Description: SHOB-14 @ 65-70'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	57.5	%	15-5 Mod.	11/15/2006
Silt	22.5	%	15-5 Mod.	11/15/2006
Clay	20.0	%	15-5 Mod.	11/15/2006
Texture	Sandy Loam	----	USDA	11/15/2006
Electrical Conductivity Saturated Paste	2.59	mmhos/cm	10-3.3	11/15/2006
pH Saturated Paste	7.5	S.U.	21a	11/14/2006
Saturation	94.6	%	27b	11/11/2006
Calcium saturated paste	0.79	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.73	meq/l	3-5.4	01/03/2007
Sodium saturated paste	30.6	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	35.0	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-21	Description: SHOB-14; 70-75'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	77.5	%	15-5 Mod.	11/28/2006
Silt	17.5	%	15-5 Mod.	11/28/2006
Clay	5.0	%	15-5 Mod.	11/28/2006
Texture	Loamy Sand	---	USDA	11/28/2006
Electrical Conductivity Saturated Paste	3.52	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	7.2	S.U.	21a	11/27/2006
Saturation	91.9	%	27b	11/27/2006
Calcium saturated paste	1.10	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	1.28	meq/l	3-5.4	12/13/2006
Sodium saturated paste	37.8	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	34.6	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-22	Description: SHOB-14; 75-80'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	77.5	%	15-5 Mod.	11/28/2006
Silt	15.0	%	15-5 Mod.	11/28/2006
Clay	7.5	%	15-5 Mod.	11/28/2006
Texture	Loamy Sand	—	USDA	11/28/2006
Electrical Conductivity Saturated Paste	3.70	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	7.3	S.U.	21a	11/27/2006
Saturation	78.9	%	27b	11/27/2006
Calcium saturated paste	1.38	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	1.89	meq/l	3-5.4	12/13/2006
Sodium saturated paste	40.3	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	31.5	---	20b	12/13/2006
Sample Preparation	---	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-20	Description: SHOB-14; 80-85'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	81.3	%	15-5 Mod.	11/27/2006
Silt	11.2	%	15-5 Mod.	11/27/2006
Clay	7.5	%	15-5 Mod.	11/27/2006
Texture	Loamy Sand	—	USDA	11/27/2006
Electrical Conductivity Saturated Paste	5.43	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	7.2	S.U.	21a	11/24/2006
Saturation	83.9	%	27b	11/24/2006
Calcium saturated paste	1.77	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	2.08	meq/l	3-5.4	12/13/2006
Sodium saturated paste	59.7	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	43.0	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-30	Description: SHOB-14 @ 85-90'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod.	11/15/2006
Silt	58.7	%	15-5 Mod.	11/15/2006
Clay	32.5	%	15-5 Mod.	11/15/2006
Texture	Si Cl Lo	----	USDA	11/15/2006
Electrical Conductivity Saturated Paste	1.54	mmhos/cm	10-3.3	11/15/2006
pH Saturated Paste	8.8	S.U.	21a	11/14/2006
Saturation	153	%	27b	11/11/2006
Calcium saturated paste	0.40	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.30	meq/l	3-5.4	01/03/2007
Sodium saturated paste	18.4	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	31.2	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-31	Description: SHOB-14 @ 90-95'	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	11/15/2006
Silt	47.5	%	15-5 Mod.	11/15/2006
Clay	47.5	%	15-5 Mod.	11/15/2006
Texture	Silty Clay	----	USDA	11/15/2006
Electrical Conductivity Saturated Paste	1.71	mmhos/cm	10-3.3	11/15/2006
pH Saturated Paste	8.9	S.U.	21a	11/14/2006
Saturation	174	%	27b	11/11/2006
Calcium saturated paste	0.33	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.23	meq/l	3-5.4	01/03/2007
Sodium saturated paste	15.6	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	29.6	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-1	Description: SHOB-14; 95-100'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod.	11/27/2006
Silt	61.2	%	15-5 Mod.	11/27/2006
Clay	30.0	%	15-5 Mod.	11/27/2006
Texture	Si Cl Lo	—	USDA	11/27/2006
Electrical Conductivity Saturated Paste	2.28	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.3	S.U.	21a	11/24/2006
Saturation	174	%	27b	11/24/2006
Calcium saturated paste	0.63	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.53	meq/l	3-5.4	12/13/2006
Sodium saturated paste	28.7	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	37.7	—	20b	12/13/2006
Sample Preparation	—	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-2	Description: SHOB-14; 100-105'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	11/27/2006
Silt	57.5	%	15-5 Mod.	11/27/2006
Clay	32.5	%	15-5 Mod.	11/27/2006
Texture	Si Cl Lo	---	USDA	11/27/2006
Electrical Conductivity Saturated Paste	2.66	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.0	S.U.	21a	11/24/2006
Saturation	195	%	27b	11/24/2006
Calcium saturated paste	0.36	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.31	meq/l	3-5.4	12/13/2006
Sodium saturated paste	26.4	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	45.7	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-3	Description: SHOB-14; 105-110'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	26.3	%	15-5 Mod.	11/27/2006
Silt	36.2	%	15-5 Mod.	11/27/2006
Clay	37.5	%	15-5 Mod.	11/27/2006
Texture	Clay Loam	—	USDA	11/27/2006
Electrical Conductivity Saturated Paste	1.22	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.6	S.U.	21a	11/24/2006
Saturation	268	%	27b	11/24/2006
Calcium saturated paste	0.27	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.15	meq/l	3-5.4	12/13/2006
Sodium saturated paste	12.0	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	26.3	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-4	Description: SHOB-14; 110-115'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15-5 Mod.	11/27/2006
Silt	36.2	%	15-5 Mod.	11/27/2006
Clay	47.5	%	15-5 Mod.	11/27/2006
Texture	Clay	—	USDA	11/27/2006
Electrical Conductivity Saturated Paste	1.36	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.6	S.U.	21a	11/24/2006
Saturation	240	%	27b	11/24/2006
Calcium saturated paste	0.17	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.10	meq/l	3-5.4	12/13/2006
Sodium saturated paste	13.8	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	38.0	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-5	Description: SHOB-14; 115-120'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	11/27/2006
Silt	30.0	%	15-5 Mod.	11/27/2006
Clay	62.5	%	15-5 Mod.	11/27/2006
Texture	Clay	---	USDA	11/27/2006
Electrical Conductivity Saturated Paste	1.88	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.2	S.U.	21a	11/24/2006
Saturation	195	%	27b	11/24/2006
Calcium saturated paste	0.22	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.19	meq/l	3-5.4	12/13/2006
Sodium saturated paste	19.7	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	43.1	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-6	Description: SHOB-14; 120-125'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	15-5 Mod.	11/27/2006
Silt	36.2	%	15-5 Mod.	11/27/2006
Clay	57.5	%	15-5 Mod.	11/27/2006
Texture	Clay	---	USDA	11/27/2006
Electrical Conductivity Saturated Paste	2.52	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.4	S.U.	21a	11/24/2006
Saturation	215	%	27b	11/24/2006
Calcium saturated paste	0.32	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.30	meq/l	3-5.4	12/13/2006
Sodium saturated paste	26.4	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	47.4	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-7	Description: SHOB-14; 125-130'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	11/27/2006
Silt	40.0	%	15-5 Mod.	11/27/2006
Clay	40.0	%	15-5 Mod.	11/27/2006
Texture	Si Cl Lo	---	USDA	11/27/2006
Electrical Conductivity Saturated Paste	2.80	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	8.8	S.U.	21a	11/24/2006
Saturation	154	%	27b	11/24/2006
Calcium saturated paste	0.51	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.41	meq/l	3-5.4	12/13/2006
Sodium saturated paste	32.0	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	47.1	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-8	Description: SHOB-14; 130-135'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	15-5 Mod.	11/27/2006
Silt	48.7	%	15-5 Mod.	11/27/2006
Clay	45.0	%	15-5 Mod.	11/27/2006
Texture	Silty Clay	---	USDA	11/27/2006
Electrical Conductivity Saturated Paste	1.57	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.1	S.U.	21a	11/24/2006
Saturation	152	%	27b	11/24/2006
Calcium saturated paste	0.25	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.16	meq/l	3-5.4	12/13/2006
Sodium saturated paste	16.2	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	35.9	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-9	Description: SHOB-14; 135-140'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	15-5 Mod.	11/27/2006
Silt	53.7	%	15-5 Mod.	11/27/2006
Clay	40.0	%	15-5 Mod.	11/27/2006
Texture	Si Cl Lo	—	USDA	11/27/2006
Electrical Conductivity Saturated Paste	1.48	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	8.8	S.U.	21a	11/24/2006
Saturation	162	%	27b	11/24/2006
Calcium saturated paste	0.28	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.18	meq/l	3-5.4	12/13/2006
Sodium saturated paste	15.3	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	31.8	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-10	Description: SHOB-14; 140-145'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	3.8	%	15-5 Mod.	11/27/2006
Silt	52.4	%	15-5 Mod.	11/27/2006
Clay	43.8	%	15-5 Mod.	11/27/2006
Texture	Silty Clay	—	USDA	11/27/2006
Electrical Conductivity Saturated Paste	2.83	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	8.7	S.U.	21a	11/24/2006
Saturation	172	%	27b	11/24/2006
Calcium saturated paste	0.62	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.66	meq/l	3-5.4	12/13/2006
Sodium saturated paste	36.4	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	45.4	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-11	Description: SHOB-14; 145-150'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	11/27/2006
Silt	60.0	%	15-5 Mod.	11/27/2006
Clay	32.5	%	15-5 Mod.	11/27/2006
Texture	Si Cl Lo	---	USDA	11/27/2006
Electrical Conductivity Saturated Paste	1.72	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.1	S.U.	21a	11/24/2006
Saturation	158	%	27b	11/24/2006
Calcium saturated paste	0.33	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.21	meq/l	3-5.4	12/13/2006
Sodium saturated paste	19.1	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	36.6	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-12	Description: SHOB-14; 150-155'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod.	11/27/2006
Silt	58.7	%	15-5 Mod.	11/27/2006
Clay	30.0	%	15-5 Mod.	11/27/2006
Texture	Si Cl Lo	—	USDA	11/27/2006
Electrical Conductivity Saturated Paste	1.48	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.0	S.U.	21a	11/24/2006
Saturation	131	%	27b	11/24/2006
Calcium saturated paste	0.28	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.17	meq/l	3-5.4	12/13/2006
Sodium saturated paste	15.5	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	32.7	---	20b	12/13/2006
Sample Preparation	---	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-13	Description: SHOB-14; 155-160'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	11/27/2006
Silt	62.5	%	15-5 Mod.	11/27/2006
Clay	32.5	%	15-5 Mod.	11/27/2006
Texture	Si Cl Lo	---	USDA	11/27/2006
Electrical Conductivity Saturated Paste	1.16	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.0	S.U.	21a	11/24/2006
Saturation	131	%	27b	11/24/2006
Calcium saturated paste	0.25	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.15	meq/l	3-5.4	12/13/2006
Sodium saturated paste	11.7	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	26.1	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-14	Description: SHOB-14; 160-165'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	1.3	%	15-5 Mod.	11/27/2006
Silt	61.2	%	15-5 Mod.	11/27/2006
Clay	37.5	%	15-5 Mod.	11/27/2006
Texture	Si Cl Lo	—	USDA	11/27/2006
Electrical Conductivity Saturated Paste	3.72	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.1	S.U.	21a	11/24/2006
Saturation	142	%	27b	11/24/2006
Calcium saturated paste	0.67	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.56	meq/l	3-5.4	12/13/2006
Sodium saturated paste	42.8	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	54.5	—	20b	12/13/2006
Sample Preparation	—	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-15	Description: SHOB-14; 165-170'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	3.8	%	15-5 Mod.	11/27/2006
Silt	56.2	%	15-5 Mod.	11/27/2006
Clay	40.0	%	15-5 Mod.	11/27/2006
Texture	Si Cl Lo	---	USDA	11/27/2006
Electrical Conductivity Saturated Paste	2.91	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	8.9	S.U.	21a	11/24/2006
Saturation	132	%	27b	11/24/2006
Calcium saturated paste	0.70	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.50	meq/l	3-5.4	12/13/2006
Sodium saturated paste	39.1	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	50.4	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-16	Description: SHOB-14; 170-175'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod.	11/27/2006
Silt	53.7	%	15-5 Mod.	11/27/2006
Clay	37.5	%	15-5 Mod.	11/27/2006
Texture	Si Cl Lo	—	USDA	11/27/2006
Electrical Conductivity Saturated Paste	3.31	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.2	S.U.	21a	11/24/2006
Saturation	134	%	27b	11/24/2006
Calcium saturated paste	0.71	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.67	meq/l	3-5.4	12/13/2006
Sodium saturated paste	39.9	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	48.1	---	20b	12/13/2006
Sample Preparation	---	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-17	Description: SHOB-14; 175-180'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	3.8	%	15-5 Mod.	11/27/2006
Silt	59.9	%	15-5 Mod.	11/27/2006
Clay	36.3	%	15-5 Mod.	11/27/2006
Texture	Si Cl Lo	—	USDA	11/27/2006
Electrical Conductivity Saturated Paste	1.88	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.2	S.U.	21a	11/24/2006
Saturation	143	%	27b	11/24/2006
Calcium saturated paste	0.36	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.25	meq/l	3-5.4	12/13/2006
Sodium saturated paste	19.8	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	36.0	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-18	Description: SHOB-14; 180-185'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	11/27/2006
Silt	50.0	%	15-5 Mod.	11/27/2006
Clay	32.5	%	15-5 Mod.	11/27/2006
Texture	Si Cl Lo	---	USDA	11/27/2006
Electrical Conductivity Saturated Paste	1.73	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.0	S.U.	21a	11/24/2006
Saturation	142	%	27b	11/24/2006
Calcium saturated paste	0.34	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.22	meq/l	3-5.4	12/13/2006
Sodium saturated paste	17.3	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	32.6	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-19	Description: SHOB-14; 185-190'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	11/27/2006
Silt	52.5	%	15-5 Mod.	11/27/2006
Clay	30.0	%	15-5 Mod.	11/27/2006
Texture	Si Cl Lo	—	USDA	11/27/2006
Electrical Conductivity Saturated Paste	2.06	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	9.0	S.U.	21a	11/24/2006
Saturation	146	%	27b	11/24/2006
Calcium saturated paste	0.38	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.26	meq/l	3-5.4	12/13/2006
Sodium saturated paste	21.8	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	38.4	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-1	Description: SHOB-15; 0-3'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	11/22/2006
Silt	41.2	%	15-5 Mod.	11/22/2006
Clay	36.3	%	15-5 Mod.	11/22/2006
Texture	Clay Loam	----	USDA	11/22/2006
Electrical Conductivity Saturated Paste	5.83	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	7.8	S.U.	21a	11/20/2006
Saturation	95.0	%	27b	11/20/2006
Calcium saturated paste	20.5	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	17.5	meq/l	3-5.4	11/22/2006
Sodium saturated paste	44.0	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	10.1	—	20b	11/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-2	Description: SHOB-15; 3-8'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	32.5	%	15-5 Mod.	11/22/2006
Silt	40.0	%	15-5 Mod.	11/22/2006
Clay	27.5	%	15-5 Mod.	11/22/2006
Texture	Clay Loam	----	USDA	11/22/2006
Electrical Conductivity Saturated Paste	5.27	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.1	S.U.	21a	11/20/2006
Saturation	126	%	27b	11/20/2006
Calcium saturated paste	8.12	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	11.9	meq/l	3-5.4	11/22/2006
Sodium saturated paste	44.0	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	13.9	—	20b	11/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-5	Description: SHOB-15; 9-13'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	42.5	%	15-5 Mod.	11/22/2006
Silt	33.7	%	15-5 Mod.	11/22/2006
Clay	23.8	%	15-5 Mod.	11/22/2006
Texture	Loam	---	USDA	11/22/2006
Electrical Conductivity Saturated Paste	6.29	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	7.7	S.U.	21a	11/20/2006
Saturation	88.8	%	27b	11/20/2006
Calcium saturated paste	10.7	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	14.7	meq/l	3-5.4	11/22/2006
Sodium saturated paste	53.5	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	15.0	---	20b	11/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-6	Description: SHOB-15; 25-30'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 Mod.	11/22/2006
Silt	66.2	%	15-5 Mod.	11/22/2006
Clay	15.0	%	15-5 Mod.	11/22/2006
Texture	Silt Loam	—	USDA	11/22/2006
Electrical Conductivity Saturated Paste	1.84	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.0	S.U.	21a	11/20/2006
Saturation	108	%	27b	11/20/2006
Calcium saturated paste	0.79 J	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.57	meq/l	3-5.4	11/22/2006
Sodium saturated paste	17.2	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	20.8	—	20b	11/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-7	Description: SHOB-15; 30-34.5'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	38.8	%	15-5 Mod.	11/22/2006
Silt	43.7	%	15-5 Mod.	11/22/2006
Clay	17.5	%	15-5 Mod.	11/22/2006
Texture	Loam	—	USDA	11/22/2006
Electrical Conductivity Saturated Paste	1.98	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.7	S.U.	21a	11/20/2006
Saturation	96.1	%	27b	11/20/2006
Calcium saturated paste	0.61 J	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.52	meq/l	3-5.4	11/22/2006
Sodium saturated paste	19.9	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	26.6	—	20b	11/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-8	Description: SHOB-15; 38.5-43.5'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 Mod.	11/22/2006
Silt	66.2	%	15-5 Mod.	11/22/2006
Clay	20.0	%	15-5 Mod.	11/22/2006
Texture	Silt Loam	—	USDA	11/22/2006
Electrical Conductivity Saturated Paste	2.15	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.3	S.U.	21a	11/20/2006
Saturation	83.2	%	27b	11/20/2006
Calcium saturated paste	0.89 J	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.65	meq/l	3-5.4	11/22/2006
Sodium saturated paste	21.7	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	24.7	---	20b	11/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-9	Description: SHOB-15; 44-49'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	11/22/2006
Silt	55.0	%	15-5 Mod.	11/22/2006
Clay	35.0	%	15-5 Mod.	11/22/2006
Texture	Si Cl Lo	—	USDA	11/22/2006
Electrical Conductivity Saturated Paste	2.00	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.1	S.U.	21a	11/20/2006
Saturation	106	%	27b	11/20/2006
Calcium saturated paste	1.17	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.80	meq/l	3-5.4	11/22/2006
Sodium saturated paste	19.6	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	19.8	—	20b	11/22/2006
Sample Preparation	—	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-10	Description: SHOB-15; 50-55'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	11/22/2006
Silt	60.0	%	15-5 Mod.	11/22/2006
Clay	27.5	%	15-5 Mod.	11/22/2006
Texture	Si Cl Lo	----	USDA	11/22/2006
Electrical Conductivity Saturated Paste	1.22	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.3	S.U.	21a	11/20/2006
Saturation	137	%	27b	11/20/2006
Calcium saturated paste	0.39 J	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.26	meq/l	3-5.4	11/22/2006
Sodium saturated paste	12.1	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	21.3	—	20b	11/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-11	Description: SHOB-15; 55-60'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	11/22/2006
Silt	57.5	%	15-5 Mod.	11/22/2006
Clay	35.0	%	15-5 Mod.	11/22/2006
Texture	Si Cl Lo	---	USDA	11/22/2006
Electrical Conductivity Saturated Paste	1.16	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.2	S.U.	21a	11/20/2006
Saturation	131	%	27b	11/20/2006
Calcium saturated paste	0.39 J	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.24	meq/l	3-5.4	11/22/2006
Sodium saturated paste	11.3	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	20.2	---	20b	11/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-12	Description: SHOB-15; 62.5-65'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	NA	---	---	---
Silt	NA	---	---	---
Clay	NA	---	---	---
Texture	NA	---	---	---
Electrical Conductivity Saturated Paste	NA	---	---	---
pH Saturated Paste	NA	---	---	---
Saturation	NA	---	---	---
Calcium saturated paste	NA	---	---	---
Magnesium saturated paste	NA	---	---	---
Sodium saturated paste	NA	---	---	---
Sodium Adsorption Ratio	NA	---	---	---
Sample Preparation	NA	---	---	---

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-13	Description: SHOB-15; 66.5-71.5'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	36.3	%	15-5 Mod.	11/22/2006
Silt	46.2	%	15-5 Mod.	11/22/2006
Clay	17.5	%	15-5 Mod.	11/22/2006
Texture	Loam	—	USDA	11/22/2006
Electrical Conductivity Saturated Paste	1.56	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.3	S.U.	21a	11/20/2006
Saturation	108	%	27b	11/20/2006
Calcium saturated paste	0.52 J	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.35	meq/l	3-5.4	11/22/2006
Sodium saturated paste	15.9	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	24.1	---	20b	11/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-14	Description: SHOB-15; 75-79'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	65.0	%	15-5 Mod.	11/22/2006
Silt	18.7	%	15-5 Mod.	11/22/2006
Clay	16.3	%	15-5 Mod.	11/22/2006
Texture	Sandy Loam	—	USDA	11/22/2006
Electrical Conductivity Saturated Paste	1.30	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.2	S.U.	21a	11/20/2006
Saturation	65.9	%	27b	11/20/2006
Calcium saturated paste	0.71 J	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.42	meq/l	3-5.4	11/22/2006
Sodium saturated paste	13.2	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	17.5	—	20b	11/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-15	Description: SHOB-15; 81-86'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	72.5	%	15-5 Mod.	11/22/2006
Silt	12.5	%	15-5 Mod.	11/22/2006
Clay	15.0	%	15-5 Mod.	11/22/2006
Texture	Sandy Loam	—	USDA	11/22/2006
Electrical Conductivity Saturated Paste	1.34	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.1	S.U.	21a	11/20/2006
Saturation	73.1	%	27b	11/20/2006
Calcium saturated paste	0.85 J	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.58	meq/l	3-5.4	11/22/2006
Sodium saturated paste	13.0	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	15.4	—	20b	11/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-16	Description: SHOB-15; 103-108'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	11/22/2006
Silt	58.7	%	15-5 Mod.	11/22/2006
Clay	31.3	%	15-5 Mod.	11/22/2006
Texture	Si Cl Lo	----	USDA	11/22/2006
Electrical Conductivity Saturated Paste	1.03	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.2	S.U.	21a	11/20/2006
Saturation	141	%	27b	11/20/2006
Calcium saturated paste	0.43 J	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.29	meq/l	3-5.4	11/22/2006
Sodium saturated paste	10.2	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	17.1	—	20b	11/22/2006
Sample Preparation	----	—	3-5.1	

Client Name: GOLDR ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-1	Description: SHOB -16; 0-5'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	35.0	%	15-5 Mod.	11/16/2006
Silt	37.5	%	15-5 Mod.	11/16/2006
Clay	27.5	%	15-5 Mod.	11/16/2006
Texture	Clay Loam	—	USDA	11/16/2006
Electrical Conductivity Saturated Paste	0.91	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	7.6	S.U.	21a	11/15/2006
Saturation	73.5	%	27b	11/14/2006
Calcium saturated paste	2.17	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	2.10	meq/l	3-5.4	11/20/2006
Sodium saturated paste	5.06	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	3.47	----	20b	11/20/2006
Sample Preparation	----	—	3-5.1	

Client Name: GOLDR ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-2	Description: SHOB -16; 5-10'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	40.0	%	15-5 Mod.	11/16/2006
Silt	30.0	%	15-5 Mod.	11/16/2006
Clay	30.0	%	15-5 Mod.	11/16/2006
Texture	Clay Loam	—	USDA	11/16/2006
Electrical Conductivity Saturated Paste	5.93	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	7.8	S.U.	21a	11/15/2006
Saturation	98.2	%	27b	11/14/2006
Calcium saturated paste	22.3	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	30.1	meq/l	3-5.4	11/20/2006
Sodium saturated paste	29.9	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	5.84	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-3	Description: SHOB -16; 10-15'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	38.8	%	15-5 Mod.	11/16/2006
Silt	26.2	%	15-5 Mod.	11/16/2006
Clay	35.0	%	15-5 Mod.	11/16/2006
Texture	Clay Loam	----	USDA	11/16/2006
Electrical Conductivity Saturated Paste	7.88	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	7.8	S.U.	21a	11/15/2006
Saturation	98.3	%	27b	11/14/2006
Calcium saturated paste	23.5	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	43.5	meq/l	3-5.4	11/20/2006
Sodium saturated paste	45.8	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	7.91	---	20b	11/20/2006
Sample Preparation	----	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-4	Description: SHOB -16; 15-20'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	11/16/2006
Silt	50.0	%	15-5 Mod.	11/16/2006
Clay	27.5	%	15-5 Mod.	11/16/2006
Texture	Clay Loam	—	USDA	11/16/2006
Electrical Conductivity Saturated Paste	8.02	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	8.1	S.U.	21a	11/15/2006
Saturation	66.0	%	27b	11/14/2006
Calcium saturated paste	23.6	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	39.8	meq/l	3-5.4	11/20/2006
Sodium saturated paste	46.4	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	8.25	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-5	Description: SHOB -16; 20-25'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	30.0	%	15-5 Mod.	11/16/2006
Silt	42.5	%	15-5 Mod.	11/16/2006
Clay	27.5	%	15-5 Mod.	11/16/2006
Texture	Clay Loam	—	USDA	11/16/2006
Electrical Conductivity Saturated Paste	6.17	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	8.0	S.U.	21a	11/15/2006
Saturation	72.5	%	27b	11/14/2006
Calcium saturated paste	18.1	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	27.4	meq/l	3-5.4	11/20/2006
Sodium saturated paste	37.4	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	7.84	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-6	Description: SHOB -16; 25-30'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	11/16/2006
Silt	55.0	%	15-5 Mod.	11/16/2006
Clay	30.0	%	15-5 Mod.	11/16/2006
Texture	Si Cl Lo	---	USDA	11/16/2006
Electrical Conductivity Saturated Paste	2.57	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	8.1	S.U.	21a	11/15/2006
Saturation	128	%	27b	11/14/2006
Calcium saturated paste	2.08	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	3.05	meq/l	3-5.4	11/20/2006
Sodium saturated paste	20.3	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	12.7	---	20b	11/20/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-7	Description: SHOB -16; 30-35'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 Mod.	11/16/2006
Silt	56.2	%	15-5 Mod.	11/16/2006
Clay	30.0	%	15-5 Mod.	11/16/2006
Texture	Si Cl Lo	---	USDA	11/16/2006
Electrical Conductivity Saturated Paste	2.00	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	8.6	S.U.	21a	11/15/2006
Saturation	149	%	27b	11/14/2006
Calcium saturated paste	1.11	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	1.57	meq/l	3-5.4	11/20/2006
Sodium saturated paste	16.4	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	14.2	---	20b	11/20/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-8	Description: SHOB -16; 35-40'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 Mod.	11/16/2006
Silt	53.7	%	15-5 Mod.	11/16/2006
Clay	27.5	%	15-5 Mod.	11/16/2006
Texture	Si Cl Lo	---	USDA	11/16/2006
Electrical Conductivity Saturated Paste	2.22	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	8.8	S.U.	21a	11/15/2006
Saturation	143	%	27b	11/14/2006
Calcium saturated paste	1.06	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	1.31	meq/l	3-5.4	11/20/2006
Sodium saturated paste	18.9	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	17.4	---	20b	11/20/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-9	Description: SHOB -16; 40-45'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	28.8	%	15-5 Mod.	11/17/2006
Silt	46.2	%	15-5 Mod.	11/17/2006
Clay	25.0	%	15-5 Mod.	11/17/2006
Texture	Loam	—	USDA	11/17/2006
Electrical Conductivity Saturated Paste	2.85	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	8.5	S.U.	21a	11/15/2006
Saturation	125	%	27b	11/14/2006
Calcium saturated paste	1.79	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	2.38	meq/l	3-5.4	11/20/2006
Sodium saturated paste	24.6	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	17.1	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-10	Description: SHOB -16; 45-50'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	65.0	%	15-5 Mod.	11/16/2006
Silt	22.5	%	15-5 Mod.	11/16/2006
Clay	12.5	%	15-5 Mod.	11/16/2006
Texture	Sandy Loam	---	USDA	11/16/2006
Electrical Conductivity Saturated Paste	7.49	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	8.2	S.U.	21a	11/15/2006
Saturation	51.9	%	27b	11/14/2006
Calcium saturated paste	16.6	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	26.7	meq/l	3-5.4	11/20/2006
Sodium saturated paste	55.2	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	11.8	---	20b	11/20/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-11	Description: SHOB -16; 50-55'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	71.3	%	15-5 Mod.	11/17/2006
Silt	16.2	%	15-5 Mod.	11/17/2006
Clay	12.5	%	15-5 Mod.	11/17/2006
Texture	Sandy Loam	—	USDA	11/17/2006
Electrical Conductivity Saturated Paste	5.67	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	8.6	S.U.	21a	11/15/2006
Saturation	54.3	%	27b	11/14/2006
Calcium saturated paste	5.03	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	7.97	meq/l	3-5.4	11/20/2006
Sodium saturated paste	49.2	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	19.3	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-12	Description: SHOB -16; 55-60'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	67.5	%	15-5 Mod.	11/16/2006
Silt	18.7	%	15-5 Mod.	11/16/2006
Clay	13.8	%	15-5 Mod.	11/16/2006
Texture	Sandy Loam	---	USDA	11/16/2006
Electrical Conductivity Saturated Paste	3.82	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	8.8	S.U.	21a	11/15/2006
Saturation	63.8	%	27b	11/14/2006
Calcium saturated paste	1.55	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	2.17	meq/l	3-5.4	11/20/2006
Sodium saturated paste	33.8	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	24.8	---	20b	11/20/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-13	Description: SHOB -16; 60-65'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	72.5	%	15-5 Mod.	11/16/2006
Silt	17.5	%	15-5 Mod.	11/16/2006
Clay	10.0	%	15-5 Mod.	11/16/2006
Texture	Sandy Loam	----	USDA	11/16/2006
Electrical Conductivity Saturated Paste	8.08	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	7.8	S.U.	21a	11/15/2006
Saturation	43.7	%	27b	11/14/2006
Calcium saturated paste	21.2	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	22.3	meq/l	3-5.4	11/20/2006
Sodium saturated paste	62.2	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	13.4	---	20b	11/20/2006
Sample Preparation	----	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-14	Description: SHOB -16; 65-70'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	75.0	%	15-5 Mod.	11/16/2006
Silt	16.2	%	15-5 Mod.	11/16/2006
Clay	8.8	%	15-5 Mod.	11/16/2006
Texture	Sandy Loam	---	USDA	11/16/2006
Electrical Conductivity Saturated Paste	5.31	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	7.4	S.U.	21a	11/15/2006
Saturation	43.4	%	27b	11/14/2006
Calcium saturated paste	10.8	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	14.5	meq/l	3-5.4	11/20/2006
Sodium saturated paste	39.7	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	11.2	---	20b	11/20/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-23	Description: SHOB-16; 70-75'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	80.0	%	15-5 Mod.	11/28/2006
Silt	12.5	%	15-5 Mod.	11/28/2006
Clay	7.5	%	15-5 Mod.	11/28/2006
Texture	Loamy Sand	---	USDA	11/28/2006
Electrical Conductivity Saturated Paste	9.63	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	7.0	S.U.	21a	11/27/2006
Saturation	47.0	%	27b	11/27/2006
Calcium saturated paste	21.3	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	26.3	meq/l	3-5.4	12/13/2006
Sodium saturated paste	83.2	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	17.0	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-24	Description: SHOB-16; 75-80'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	80.0	%	15-5 Mod.	11/28/2006
Silt	13.7	%	15-5 Mod.	11/28/2006
Clay	6.3	%	15-5 Mod.	11/28/2006
Texture	Loamy Sand	---	USDA	11/28/2006
Electrical Conductivity Saturated Paste	7.20	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	6.9	S.U.	21a	11/27/2006
Saturation	69.0	%	27b	11/27/2006
Calcium saturated paste	17.2	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	19.1	meq/l	3-5.4	12/13/2006
Sodium saturated paste	62.2	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	14.6	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100194-25	Description: SHOB-16; 80-85'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	75.0	%	15-5 Mod.	11/28/2006
Silt	15.0	%	15-5 Mod.	11/28/2006
Clay	10.0	%	15-5 Mod.	11/28/2006
Texture	Sandy Loam	—	USDA	11/28/2006
Electrical Conductivity Saturated Paste	8.94	mmhos/cm	10-3.3	11/30/2006
pH Saturated Paste	6.9	S.U.	21a	11/27/2006
Saturation	64.7	%	27b	11/27/2006
Calcium saturated paste	21.1	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	25.6	meq/l	3-5.4	12/13/2006
Sodium saturated paste	82.7	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	17.1	—	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-15	Description: SHOB -16; 85-90'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	21.3	%	15-5 Mod.	11/16/2006
Silt	33.7	%	15-5 Mod.	11/16/2006
Clay	45.0	%	15-5 Mod.	11/16/2006
Texture	Clay	—	USDA	11/16/2006
Electrical Conductivity Saturated Paste	3.73	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	8.0	S.U.	21a	11/15/2006
Saturation	149	%	27b	11/14/2006
Calcium saturated paste	2.10	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	2.26	meq/l	3-5.4	11/20/2006
Sodium saturated paste	33.4	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	22.6	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-16	Description: SHOB -16; 90-95'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	11/16/2006
Silt	42.5	%	15-5 Mod.	11/16/2006
Clay	47.5	%	15-5 Mod.	11/16/2006
Texture	Silly Clay	—	USDA	11/16/2006
Electrical Conductivity Saturated Paste	2.38	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	8.4	S.U.	21a	11/15/2006
Saturation	161	%	27b	11/14/2006
Calcium saturated paste	0.74	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	0.74	meq/l	3-5.4	11/20/2006
Sodium saturated paste	21.5	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	25.0	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-17	Description: SHOB -16; 95-100'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	11/16/2006
Silt	38.7	%	15-5 Mod.	11/16/2006
Clay	48.8	%	15-5 Mod.	11/16/2006
Texture	Clay	—	USDA	11/16/2006
Electrical Conductivity Saturated Paste	2.51	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	8.6	S.U.	21a	11/15/2006
Saturation	159	%	27b	11/14/2006
Calcium saturated paste	0.66	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	0.58	meq/l	3-5.4	11/20/2006
Sodium saturated paste	22.2	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	28.2	----	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-1	Description: SHOB-17, 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	27.5	%	15-5 Mod.	12/20/2006
Silt	43.7	%	15-5 Mod.	12/20/2006
Clay	28.8	%	15-5 Mod.	12/20/2006
Texture	Clay Loam		USDA	12/20/2006
Electrical Conductivity Saturated Paste	9.08	mmhos/cm	10-5.3	01/16/2007
pH Saturated Paste	6.6	S.U.	21a	12/20/2006
Saturation	57.1	%	27b	12/20/2006
Calcium saturated paste	27.5	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	56.8	meq/l	3-5.4	01/08/2007
Sodium saturated paste	65.2	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	10.0	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-2	Description: SHOB-17, 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	12/20/2006
Silt	38.7	%	15-5 Mod.	12/20/2006
Clay	38.8	%	15-5 Mod.	12/20/2006
Texture	Clay Loam		USDA	12/20/2006
Electrical Conductivity Saturated Paste	8.69	mmhos/cm	10-5.3	01/16/2007
pH Saturated Paste	4.6	S.U.	21a	12/20/2006
Saturation	58.1	%	27b	12/20/2006
Calcium saturated paste	21.2	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	39.7	meq/l	3-5.4	01/08/2007
Sodium saturated paste	80.9	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	14.7	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-3	Description: SHOB-17, 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod.	12/20/2006
Silt	39.9	%	15-5 Mod.	12/20/2006
Clay	51.3	%	15-5 Mod.	12/20/2006
Texture	Clay		USDA	12/20/2006
Electrical Conductivity Saturated Paste	8.73	mmhos/cm	10-5.3	01/16/2007
pH Saturated Paste	4.6	S.U.	21a	12/20/2006
Saturation	88.1	%	27b	12/20/2006
Calcium saturated paste	22.8	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	39.9	meq/l	3-5.4	01/08/2007
Sodium saturated paste	67.9	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	12.1	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-4	Description: SHOB-17, 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	12/20/2006
Silt	47.5	%	15-5 Mod.	12/20/2006
Clay	32.5	%	15-5 Mod.	12/20/2006
Texture	Si Cl Lo		USDA	12/20/2006
Electrical Conductivity Saturated Paste	10.2	mmhos/cm	10-5.3	01/16/2007
pH Saturated Paste	4.5	S.U.	21a	12/20/2006
Saturation	64.2	%	27b	12/20/2006
Calcium saturated paste	22.9	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	45.2	meq/l	3-5.4	01/08/2007
Sodium saturated paste	85.2	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	14.6	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-5	Description: SHOB-17, 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/20/2006
Silt	53.7	%	15-5 Mod.	12/20/2006
Clay	33.8	%	15-5 Mod.	12/20/2006
Texture	Si Cl Lo		USDA	12/20/2006
Electrical Conductivity Saturated Paste	4.54	mmhos/cm	10-5.3	01/16/2007
pH Saturated Paste	7.7	S.U.	21a	12/20/2006
Saturation	143	%	27b	12/20/2006
Calcium saturated paste	5.21	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	14.1	meq/l	3-5.4	01/08/2007
Sodium saturated paste	32.5	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	10.5	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-6	Description: SHOB-17, 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod.	12/20/2006
Silt	56.2	%	15-5 Mod.	12/20/2006
Clay	18.8	%	15-5 Mod.	12/20/2006
Texture	Silt Loam		USDA	12/20/2006
Electrical Conductivity Saturated Paste	8.60	mmhos/cm	10-5.3	01/16/2007
pH Saturated Paste	4.4	S.U.	21a	12/20/2006
Saturation	62.0	%	27b	12/20/2006
Calcium saturated paste	20.8	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	41.0	meq/l	3-5.4	01/08/2007
Sodium saturated paste	63.7	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	11.5	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-7	Description: SHOB-17, 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	60.0	%	15-5 Mod.	12/20/2006
Silt	33.7	%	15-5 Mod.	12/20/2006
Clay	6.3	%	15-5 Mod.	12/20/2006
Texture	Sandy Loam		USDA	12/20/2006
Electrical Conductivity Saturated Paste	5.84	mmhos/cm	10-5.3	01/16/2007
pH Saturated Paste	7.7	S.U.	21a	12/20/2006
Saturation	46.4	%	27b	12/20/2006
Calcium saturated paste	7.50	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	18.2	meq/l	3-5.4	01/08/2007
Sodium saturated paste	47.5	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	13.2	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-8	Description: SHOB-17, 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	80.0	%	15-5 Mod.	12/20/2006
Silt	16.2	%	15-5 Mod.	12/20/2006
Clay	3.8	%	15-5 Mod.	12/20/2006
Texture	Loamy Sand		USDA	12/20/2006
Electrical Conductivity Saturated Paste	4.50	mmhos/cm	10-5.3	01/16/2007
pH Saturated Paste	7.9	S.U.	21a	12/20/2006
Saturation	40.0	%	27b	12/20/2006
Calcium saturated paste	3.45	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	7.61	meq/l	3-5.4	01/08/2007
Sodium saturated paste	40.5	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	17.2	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-9	Description: SHOB-17, 40-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	87.5	%	15-5 Mod.	12/20/2006
Silt	8.7	%	15-5 Mod.	12/20/2006
Clay	3.8	%	15-5 Mod.	12/20/2006
Texture	Sand		USDA	12/20/2006
Electrical Conductivity Saturated Paste	4.70	mmhos/cm	10-5.3	01/16/2007
pH Saturated Paste	8.0	S.U.	21a	12/20/2006
Saturation	39.2	%	27b	12/20/2006
Calcium saturated paste	5.83	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	6.94	meq/l	3-5.4	01/08/2007
Sodium saturated paste	41.5	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	16.4	—	20b	01/08/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-10	Description: SHOB-17, 45-50	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	90.0	%	15-5 Mod.	12/20/2006
Silt	8.7	%	15-5 Mod.	12/20/2006
Clay	1.3	%	15-5 Mod.	12/20/2006
Texture	Sand		USDA	12/20/2006
Electrical Conductivity Saturated Paste	2.84	mmhos/cm	10-5.3	01/16/2007
pH Saturated Paste	8.2	S.U.	21a	12/20/2006
Saturation	34.9	%	27b	12/20/2006
Calcium saturated paste	2.65	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	3.07	meq/l	3-5.4	01/08/2007
Sodium saturated paste	23.6	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	13.9	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-11	Description: SHOB-17, 50-55	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	90.0	%	15-5 Mod.	12/20/2006
Silt	7.5	%	15-5 Mod.	12/20/2006
Clay	2.5	%	15-5 Mod.	12/20/2006
Texture	Sand		USDA	12/20/2006
Electrical Conductivity Saturated Paste	4.46	mmhos/cm	10-5.3	01/16/2007
pH Saturated Paste	8.0	S.U.	21a	12/20/2006
Saturation	36.0	%	27b	12/20/2006
Calcium saturated paste	6.56	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	7.11	meq/l	3-5.4	01/08/2007
Sodium saturated paste	36.6	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	14.0	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-12	Description: SHOB-17, 55-60	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	90.0	%	15-5 Mod.	12/20/2006
Silt	8.7	%	15-5 Mod.	12/20/2006
Clay	1.3	%	15-5 Mod.	12/20/2006
Texture	Sand		USDA	12/20/2006
Electrical Conductivity Saturated Paste	3.81	mmhos/cm	10-5.3	01/16/2007
pH Saturated Paste	8.2	S.U.	21a	12/20/2006
Saturation	35.1	%	27b	12/20/2006
Calcium saturated paste	3.81	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	5.42	meq/l	3-5.4	01/08/2007
Sodium saturated paste	32.8	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	15.3	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-13	Description: SHOB-17, 60-65	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	90.0	%	15-5 Mod.	12/20/2006
Silt	6.2	%	15-5 Mod.	12/20/2006
Clay	3.8	%	15-5 Mod.	12/20/2006
Texture	Sand		USDA	12/20/2006
Electrical Conductivity Saturated Paste	4.49	mmhos/cm	10-5.3	01/16/2007
pH Saturated Paste	8.1	S.U.	21a	12/20/2006
Saturation	37.6	%	27b	12/20/2006
Calcium saturated paste	8.46	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	10.0	meq/l	3-5.4	01/08/2007
Sodium saturated paste	35.5	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	11.7	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-14	Description: SHOB-17, 65-70	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	91.3	%	15-5 Mod.	12/20/2006
Silt	6.2	%	15-5 Mod.	12/20/2006
Clay	2.5	%	15-5 Mod.	12/20/2006
Texture	Sand		USDA	12/20/2006
Electrical Conductivity Saturated Paste	2.89	mmhos/cm	10-5.3	01/16/2007
pH Saturated Paste	8.3	S.U.	21a	12/20/2006
Saturation	38.6	%	27b	12/20/2006
Calcium saturated paste	2.39	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	4.50	meq/l	3-5.4	01/08/2007
Sodium saturated paste	22.6	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	12.2	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-15	Description: SHOB-17, 70-75	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006		
Collected by: JOSH ELLIOTT		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	90.0	%	15-5 Mod.	12/20/2006
Silt	6.2	%	15-5 Mod.	12/20/2006
Clay	3.8	%	15-5 Mod.	12/20/2006
Texture	Sand		USDA	12/20/2006
Electrical Conductivity Saturated Paste	3.20	mmhos/cm	10-5.3	01/16/2007
pH Saturated Paste	8.2	S.U.	21a	12/20/2006
Saturation	37.6	%	27b	12/20/2006
Calcium saturated paste	4.53	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	8.27	meq/l	3-5.4	01/08/2007
Sodium saturated paste	23.1	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	9.13	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-16	Description: SHOB-17, 75-80	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	72.5	%	15-5 Mod.	12/20/2006
Silt	17.5	%	15-5 Mod.	12/20/2006
Clay	10.0	%	15-5 Mod.	12/20/2006
Texture	Sandy Loam		USDA	12/20/2006
Electrical Conductivity Saturated Paste	2.43	mmhos/cm	10-5.3	01/16/2007
pH Saturated Paste	7.8	S.U.	21a	12/20/2006
Saturation	42.6	%	27b	12/20/2006
Calcium saturated paste	3.81	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	4.79	meq/l	3-5.4	01/08/2007
Sodium saturated paste	20.8	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	10.0	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-17	Description: SHOB-17, 80-85	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	67.5	%	15-5 Mod.	12/20/2006
Silt	21.2	%	15-5 Mod.	12/20/2006
Clay	11.3	%	15-5 Mod.	12/20/2006
Texture	Sandy Loam		USDA	12/20/2006
Electrical Conductivity Saturated Paste	3.35	mmhos/cm	10-5.3	01/16/2007
pH Saturated Paste	7.7	S.U.	21a	12/20/2006
Saturation	44.0	%	27b	12/20/2006
Calcium saturated paste	8.15	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	9.84	meq/l	3-5.4	01/08/2007
Sodium saturated paste	22.7	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	7.56	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-18	Description: SHOB-17, 85-90	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	50.0	%	15-5 Mod.	12/20/2006
Silt	28.7	%	15-5 Mod.	12/20/2006
Clay	21.3	%	15-5 Mod.	12/20/2006
Texture	Loam		USDA	12/20/2006
Electrical Conductivity Saturated Paste	1.69	mmhos/cm	10-5.3	01/16/2007
pH Saturated Paste	8.3	S.U.	21a	12/20/2006
Saturation	94.3	%	27b	12/20/2006
Calcium saturated paste	1.73	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	1.87	meq/l	3-5.4	01/08/2007
Sodium saturated paste	13.7	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	10.2	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-19	Description: SHOB-17, 90-95	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006		
Collected by: JOSH ELLIOTT		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	27.5	%	15-5 Mod.	12/20/2006
Silt	43.7	%	15-5 Mod.	12/20/2006
Clay	28.8	%	15-5 Mod.	12/20/2006
Texture	Clay Loam		USDA	12/20/2006
Electrical Conductivity Saturated Paste	1.38	mmhos/cm	10-5.3	01/16/2007
pH Saturated Paste	8.2	S.U.	21a	12/20/2006
Saturation	129	%	27b	12/20/2006
Calcium saturated paste	1.83	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	2.11	meq/l	3-5.4	01/08/2007
Sodium saturated paste	10.2	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	7.29	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-20	Description: SHOB-17, 95-100	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	47.5	%	15-5 Mod.	12/20/2006
Silt	31.2	%	15-5 Mod.	12/20/2006
Clay	21.3	%	15-5 Mod.	12/20/2006
Texture	Loam		USDA	12/20/2006
Electrical Conductivity Saturated Paste	1.63	mmhos/cm	10-5.3	01/16/2007
pH Saturated Paste	8.7	S.U.	21a	12/20/2006
Saturation	129	%	27b	12/20/2006
Calcium saturated paste	0.65	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.61	meq/l	3-5.4	01/08/2007
Sodium saturated paste	14.3	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	18.0	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-21	Description: SHOB-17, 100-105	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	62.5	%	15-5 Mod.	12/20/2006
Silt	20.0	%	15-5 Mod.	12/20/2006
Clay	17.5	%	15-5 Mod.	12/20/2006
Texture	Sandy Loam		USDA	12/20/2006
Electrical Conductivity Saturated Paste	2.76	mmhos/cm	10-5.3	01/02/2007
pH Saturated Paste	7.4	S.U.	21a	12/20/2006
Saturation	107	%	27b	12/20/2006
Calcium saturated paste	1.24	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	1.42	meq/l	3-5.4	01/05/2007
Sodium saturated paste	26.2	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	22.7	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-22	Description: SHOB-17, 120-125	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006		
Collected by: JOSH ELLIOTT		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	32.5	%	15-5 Mod.	12/20/2006
Silt	25.0	%	15-5 Mod.	12/20/2006
Clay	42.5	%	15-5 Mod.	12/20/2006
Texture	Clay		USDA	12/20/2006
Electrical Conductivity Saturated Paste	3.29	mmhos/cm	10-5.3	01/02/2007
pH Saturated Paste	8.0	S.U.	21a	12/20/2006
Saturation	170	%	27b	12/20/2006
Calcium saturated paste	0.51	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.60	meq/l	3-5.4	01/05/2007
Sodium saturated paste	36.1	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	48.5	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-23	Description: SHOB-17, 125-130	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod.	12/20/2006
Silt	28.7	%	15-5 Mod.	12/20/2006
Clay	60.0	%	15-5 Mod.	12/20/2006
Texture	Clay		USDA	12/20/2006
Electrical Conductivity Saturated Paste	1.22	mmhos/cm	10-5.3	01/02/2007
pH Saturated Paste	9.0	S.U.	21a	12/20/2006
Saturation	177	%	27b	12/20/2006
Calcium saturated paste	0.34	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.21	meq/l	3-5.4	01/05/2007
Sodium saturated paste	12.5	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	23.9	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110087-24	Description: SHOB-17, 130-135	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	32.5	%	15-5 Mod.	12/20/2006
Silt	38.7	%	15-5 Mod.	12/20/2006
Clay	28.8	%	15-5 Mod.	12/20/2006
Texture	Clay Loam		USDA	12/20/2006
Electrical Conductivity Saturated Paste	1.55	mmhos/cm	10-5.3	01/02/2007
pH Saturated Paste	9.4	S.U.	21a	12/20/2006
Saturation	153	%	27b	12/20/2006
Calcium saturated paste	0.44	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.34	meq/l	3-5.4	01/08/2007
Sodium saturated paste	15.6	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	24.9	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-9	Description: SHOB-18, 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	12/29/2006
Silt	37.5	%	15-5 Mod.	12/29/2006
Clay	45.0	%	15-5 Mod.	12/29/2006
Texture	Clay	----	USDA	12/29/2006
Electrical Conductivity Saturated Paste	3.23	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	7.6	S.U.	21a	12/27/2006
Saturation	110	%	27b	12/27/2006
Calcium saturated paste	22.8	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	14.4	meq/l	3-5.4	01/11/2007
Sodium saturated paste	9.63	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	2.24	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-10	Description: SHOB-18, 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/29/2006
Silt	50.0	%	15-5 Mod.	12/29/2006
Clay	45.0	%	15-5 Mod.	12/29/2006
Texture	Silty Clay	----	USDA	12/29/2006
Electrical Conductivity Saturated Paste	6.33	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	7.8	S.U.	21a	12/27/2006
Saturation	138	%	27b	12/27/2006
Calcium saturated paste	19.2	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	23.0	meq/l	3-5.4	01/11/2007
Sodium saturated paste	49.4	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	10.7	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-11	Description: SHOB-18, 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	12/29/2006
Silt	47.5	%	15-5 Mod.	12/29/2006
Clay	37.5	%	15-5 Mod.	12/29/2006
Texture	Si Cl Lo	----	USDA	12/29/2006
Electrical Conductivity Saturated Paste	7.15	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	7.5	S.U.	21a	12/27/2006
Saturation	133	%	27b	12/27/2006
Calcium saturated paste	15.5	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	22.3	meq/l	3-5.4	01/11/2007
Sodium saturated paste	61.3	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	14.1	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-12	Description: SHOB-18, 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	50.0	%	15-5 Mod.	12/29/2006
Silt	22.5	%	15-5 Mod.	12/29/2006
Clay	27.5	%	15-5 Mod.	12/29/2006
Texture	Sa Cl Lo	----	USDA	12/29/2006
Electrical Conductivity Saturated Paste	13.1	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	5.7	S.U.	21a	12/27/2006
Saturation	101	%	27b	12/27/2006
Calcium saturated paste	20.9	meq/l	3-5.4	01/17/2007
Magnesium saturated paste	40.1	meq/l	3-5.4	01/17/2007
Sodium saturated paste	136	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	24.6	----	20b	01/17/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-13	Description: SHOB-18, 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/29/2006
Silt	35.0	%	15-5 Mod.	12/29/2006
Clay	55.0	%	15-5 Mod.	12/29/2006
Texture	Clay	----	USDA	12/29/2006
Electrical Conductivity Saturated Paste	7.53	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	7.0	S.U.	21a	12/27/2006
Saturation	142	%	27b	12/27/2006
Calcium saturated paste	10.5	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	16.5	meq/l	3-5.4	01/11/2007
Sodium saturated paste	74.7	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	20.4	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-14	Description: SHOB-18, 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/29/2006
Silt	47.5	%	15-5 Mod.	12/29/2006
Clay	40.0	%	15-5 Mod.	12/29/2006
Texture	Si Cl Lo	----	USDA	12/29/2006
Electrical Conductivity Saturated Paste	6.48	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	7.8	S.U.	21a	12/27/2006
Saturation	169	%	27b	12/27/2006
Calcium saturated paste	6.02	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	9.18	meq/l	3-5.4	01/11/2007
Sodium saturated paste	64.9	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	23.5	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-15	Description: SHOB-18, 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/29/2006
Silt	52.5	%	15-5 Mod.	12/29/2006
Clay	40.0	%	15-5 Mod.	12/29/2006
Texture	Si Cl Lo	----	USDA	12/29/2006
Electrical Conductivity Saturated Paste	4.50	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.7	S.U.	21a	12/27/2006
Saturation	205	%	27b	12/27/2006
Calcium saturated paste	2.44	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	3.36	meq/l	3-5.4	01/11/2007
Sodium saturated paste	45.9	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	27.0	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-16	Description: SHOB-18, 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/29/2006
Silt	60.0	%	15-5 Mod.	12/29/2006
Clay	32.5	%	15-5 Mod.	12/29/2006
Texture	Si Cl Lo	----	USDA	12/29/2006
Electrical Conductivity Saturated Paste	5.33	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.3	S.U.	21a	12/27/2006
Saturation	154	%	27b	12/27/2006
Calcium saturated paste	3.81	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	5.55	meq/l	3-5.4	01/11/2007
Sodium saturated paste	52.3	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	24.2	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-17	Description: SHOB-18, 40-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/29/2006
Silt	50.0	%	15-5 Mod.	12/29/2006
Clay	37.5	%	15-5 Mod.	12/29/2006
Texture	Si Cl Lo	----	USDA	12/29/2006
Electrical Conductivity Saturated Paste	6.76	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	7.4	S.U.	21a	12/27/2006
Saturation	140	%	27b	12/27/2006
Calcium saturated paste	6.28	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	8.16	meq/l	3-5.4	01/11/2007
Sodium saturated paste	68.9	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	25.6	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-18	Description: SHOB-18, 45-50	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	12/29/2006
Silt	40.0	%	15-5 Mod.	12/29/2006
Clay	42.5	%	15-5 Mod.	12/29/2006
Texture	Silty Clay	----	USDA	12/29/2006
Electrical Conductivity Saturated Paste	6.85	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	7.5	S.U.	21a	12/27/2006
Saturation	123	%	27b	12/27/2006
Calcium saturated paste	5.43	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	8.16	meq/l	3-5.4	01/11/2007
Sodium saturated paste	70.2	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	26.9	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-19	Description: SHOB-18, 50-55	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/29/2006
Silt	52.5	%	15-5 Mod.	12/29/2006
Clay	42.5	%	15-5 Mod.	12/29/2006
Texture	Silty Clay	----	USDA	12/29/2006
Electrical Conductivity Saturated Paste	6.53	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.1	S.U.	21a	12/27/2006
Saturation	114	%	27b	12/27/2006
Calcium saturated paste	4.29	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	6.66	meq/l	3-5.4	01/11/2007
Sodium saturated paste	64.7	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	27.7	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-20	Description: SHOB-18, 55-60	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	12/29/2006
Silt	45.0	%	15-5 Mod.	12/29/2006
Clay	37.5	%	15-5 Mod.	12/29/2006
Texture	Si Cl Lo	----	USDA	12/29/2006
Electrical Conductivity Saturated Paste	9.17	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	7.7	S.U.	21a	12/27/2006
Saturation	109	%	27b	12/27/2006
Calcium saturated paste	7.34	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	11.5	meq/l	3-5.4	01/11/2007
Sodium saturated paste	96.2	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	31.4	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-21	Description: SHOB-18, 60-65	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/28/2006
Silt	55.0	%	15-5 Mod.	12/28/2006
Clay	37.5	%	15-5 Mod.	12/28/2006
Texture	Si Cl Lo	----	USDA	12/28/2006
Electrical Conductivity Saturated Paste	6.44	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.5	S.U.	21a	12/28/2006
Saturation	125	%	27b	12/28/2006
Calcium saturated paste	2.74	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	4.86	meq/l	3-5.4	01/11/2007
Sodium saturated paste	68.2	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	35.0	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-22	Description: SHOB-18, 65-70	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/28/2006
Silt	45.0	%	15-5 Mod.	12/28/2006
Clay	42.5	%	15-5 Mod.	12/28/2006
Texture	Silty Clay	----	USDA	12/28/2006
Electrical Conductivity Saturated Paste	6.23	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.6	S.U.	21a	12/28/2006
Saturation	121	%	27b	12/28/2006
Calcium saturated paste	2.84	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	4.91	meq/l	3-5.4	01/11/2007
Sodium saturated paste	69.9	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	35.5	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-23	Description: SHOB-18, 70-75	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/28/2006
Silt	42.5	%	15-5 Mod.	12/28/2006
Clay	47.5	%	15-5 Mod.	12/28/2006
Texture	Silty Clay	----	USDA	12/28/2006
Electrical Conductivity Saturated Paste	5.87	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.3	S.U.	21a	12/28/2006
Saturation	185	%	27b	12/28/2006
Calcium saturated paste	2.67	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	4.10	meq/l	3-5.4	01/11/2007
Sodium saturated paste	63.0	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	34.2	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-24	Description: SHOB-18, 75-80	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/28/2006
Silt	52.5	%	15-5 Mod.	12/28/2006
Clay	35.0	%	15-5 Mod.	12/28/2006
Texture	Si Cl Lo	----	USDA	12/28/2006
Electrical Conductivity Saturated Paste	6.95	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.5	S.U.	21a	12/28/2006
Saturation	152	%	27b	12/28/2006
Calcium saturated paste	3.33	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	5.05	meq/l	3-5.4	01/11/2007
Sodium saturated paste	76.3	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	37.3	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-25	Description: SHOB-18, 80-85	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/28/2006
Silt	42.5	%	15-5 Mod.	12/28/2006
Clay	52.5	%	15-5 Mod.	12/28/2006
Texture	Silty Clay	----	USDA	12/28/2006
Electrical Conductivity Saturated Paste	5.46	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.2	S.U.	21a	12/28/2006
Saturation	160	%	27b	12/28/2006
Calcium saturated paste	1.84	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	2.91	meq/l	3-5.4	01/11/2007
Sodium saturated paste	61.1	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	39.7	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-26	Description: SHOB-18, 85-90	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	12/28/2006
Silt	35.0	%	15-5 Mod.	12/28/2006
Clay	42.5	%	15-5 Mod.	12/28/2006
Texture	Clay	-----	USDA	12/28/2006
Electrical Conductivity Saturated Paste	5.59	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.7	S.U.	21a	12/28/2006
Saturation	170	%	27b	12/28/2006
Calcium saturated paste	1.54	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	2.61	meq/l	3-5.4	01/11/2007
Sodium saturated paste	58.9	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	40.8	-----	20b	01/11/2007
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-27	Description: SHOB-18, 90-95	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	45.0	%	15-5 Mod.	12/28/2006
Silt	27.5	%	15-5 Mod.	12/28/2006
Clay	27.5	%	15-5 Mod.	12/28/2006
Texture	Sa Cl Lo	----	USDA	12/28/2006
Electrical Conductivity Saturated Paste	26.5	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.3	S.U.	21a	12/29/2006
Saturation	64.3	%	27b	12/29/2006
Calcium saturated paste	28.9	meq/l	3-5.4	01/17/2007
Magnesium saturated paste	93.7	meq/l	3-5.4	01/17/2007
Sodium saturated paste	345	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	44.1	----	20b	01/17/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-28	Description: SHOB-18, 115-120	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	12/28/2006
Silt	30.0	%	15-5 Mod.	12/28/2006
Clay	52.5	%	15-5 Mod.	12/28/2006
Texture	Clay	----	USDA	12/28/2006
Electrical Conductivity Saturated Paste	4.16	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.7	S.U.	21a	12/28/2006
Saturation	256	%	27b	12/28/2006
Calcium saturated paste	1.04	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.73	meq/l	3-5.4	01/11/2007
Sodium saturated paste	45.0	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	38.3	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-29	Description: SHOB-18, 120-125	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	12/28/2006
Silt	42.5	%	15-5 Mod.	12/28/2006
Clay	40.0	%	15-5 Mod.	12/28/2006
Texture	Si Cl Lo	----	USDA	12/28/2006
Electrical Conductivity Saturated Paste	4.96	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.5	S.U.	21a	12/28/2006
Saturation	186	%	27b	12/28/2006
Calcium saturated paste	1.54	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	2.42	meq/l	3-5.4	01/11/2007
Sodium saturated paste	53.5	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	38.1	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-30	Description: SHOB-18, 125-130	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	42.5	%	15-5 Mod.	12/28/2006
Silt	25.0	%	15-5 Mod.	12/28/2006
Clay	32.5	%	15-5 Mod.	12/28/2006
Texture	Clay Loam	----	USDA	12/28/2006
Electrical Conductivity Saturated Paste	41.2	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	7.3	S.U.	21a	12/28/2006
Saturation	86.2	%	27b	12/28/2006
Calcium saturated paste	27.7	meq/l	3-5.4	01/17/2007
Magnesium saturated paste	170	meq/l	3-5.4	01/17/2007
Sodium saturated paste	639	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	64.3	----	20b	01/17/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-46	Description: SHOB-19, 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	01/03/2007
Silt	37.5	%	15-5 Mod.	01/03/2007
Clay	42.5	%	15-5 Mod.	01/03/2007
Texture	Clay	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	9.67	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.2	S.U.	21a	12/29/2006
Saturation	77.8	%	27b	12/29/2006
Calcium saturated paste	20.8	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	47.2	meq/l	3-5.4	01/11/2007
Sodium saturated paste	78.3	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	13.4	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-47	Description: SHOB-19, 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod.	01/03/2007
Silt	38.7	%	15-5 Mod.	01/03/2007
Clay	50.0	%	15-5 Mod.	01/03/2007
Texture	Clay	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	10.8	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.1	S.U.	21a	12/29/2006
Saturation	81.6	%	27b	12/29/2006
Calcium saturated paste	20.2	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	49.5	meq/l	3-5.4	01/11/2007
Sodium saturated paste	95.6	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	16.2	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-48	Description: SHOB-19, 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	15-5 Mod.	01/03/2007
Silt	37.5	%	15-5 Mod.	01/03/2007
Clay	60.0	%	15-5 Mod.	01/03/2007
Texture	Clay	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	9.45	mmhos/cm	10-3.3.	01/18/2007
pH Saturated Paste	8.1	S.U.	21a	12/29/2006
Saturation	98.5	%	27b	12/29/2006
Calcium saturated paste	19.4	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	33.8	meq/l	3-5.4	01/11/2007
Sodium saturated paste	83.0	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	16.1	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-49	Description: SHOB-19, 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	15-5 Mod.	01/03/2007
Silt	50.0	%	15-5 Mod.	01/03/2007
Clay	47.5	%	15-5 Mod.	01/03/2007
Texture	Silty Clay	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	8.00	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.0	S.U.	21a	12/29/2006
Saturation	114	%	27b	12/29/2006
Calcium saturated paste	16.5	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	24.0	meq/l	3-5.4	01/11/2007
Sodium saturated paste	70.2	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	15.6	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-50	Description: SHOB-19, 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod.	01/03/2007
Silt	43.7	%	15-5 Mod.	01/03/2007
Clay	31.3	%	15-5 Mod.	01/03/2007
Texture	Clay Loam	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	4.40	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.0	S.U.	21a	12/29/2006
Saturation	121	%	27b	12/29/2006
Calcium saturated paste	4.14	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	6.08	meq/l	3-5.4	01/11/2007
Sodium saturated paste	41.1	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	18.2	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-51	Description: SHOB-19, 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 Mod.	01/03/2007
Silt	48.7	%	15-5 Mod.	01/03/2007
Clay	37.5	%	15-5 Mod.	01/03/2007
Texture	Si Cl Lo	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	2.83	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.5	S.U.	21a	12/29/2006
Saturation	138	%	27b	12/29/2006
Calcium saturated paste	1.02	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.30	meq/l	3-5.4	01/11/2007
Sodium saturated paste	27.1	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	25.2	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-52	Description: SHOB-19, 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	01/03/2007
Silt	35.0	%	15-5 Mod.	01/03/2007
Clay	42.5	%	15-5 Mod.	01/03/2007
Texture	Clay	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	1.95	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	9.0	S.U.	21a	12/29/2006
Saturation	226	%	27b	12/29/2006
Calcium saturated paste	0.30	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.41	meq/l	3-5.4	01/11/2007
Sodium saturated paste	18.8	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	31.5	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-53	Description: SHOB-19, 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	47.5	%	15-5 Mod.	01/03/2007
Silt	21.2	%	15-5 Mod.	01/03/2007
Clay	31.3	%	15-5 Mod.	01/03/2007
Texture	Sa Cl Lo	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	1.86	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	9.2	S.U.	21a	12/29/2006
Saturation	105	%	27b	12/29/2006
Calcium saturated paste	0.24	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.31	meq/l	3-5.4	01/11/2007
Sodium saturated paste	18.1	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	34.7	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-54	Description: SHOB-19, 40-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	80.0	%	15-5 Mod.	01/03/2007
Silt	7.5	%	15-5 Mod.	01/03/2007
Clay	12.5	%	15-5 Mod.	01/03/2007
Texture	Sandy Loam	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	3.16	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	7.4	S.U.	21a	12/29/2006
Saturation	69.9	%	27b	12/29/2006
Calcium saturated paste	0.61	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.69	meq/l	3-5.4	01/11/2007
Sodium saturated paste	33.7	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	41.9	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-55	Description: SHOB-19, 55-60	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	87.5	%	15-5 Mod.	01/03/2007
Silt	2.5	%	15-5 Mod.	01/03/2007
Clay	10.0	%	15-5 Mod.	01/03/2007
Texture	Loamy Sand	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	2.74	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	7.7	S.U.	21a	12/29/2006
Saturation	77.6	%	27b	12/29/2006
Calcium saturated paste	0.34	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.35	meq/l	3-5.4	01/11/2007
Sodium saturated paste	29.1	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	49.5 J	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-56	Description: SHOB-19, 60-65	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 Mod.	01/03/2007
Silt	33.7	%	15-5 Mod.	01/03/2007
Clay	52.5	%	15-5 Mod.	01/03/2007
Texture	Clay	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	1.03	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	9.4	S.U.	21a	12/29/2006
Saturation	227	%	27b	12/29/2006
Calcium saturated paste	0.38	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.21	meq/l	3-5.4	01/11/2007
Sodium saturated paste	10.0	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	18.4	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-57	Description: SHOB-19, 65-70	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006		
Collected by: JOSH ELLIOTT		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	01/03/2007
Silt	55.0	%	15-5 Mod.	01/03/2007
Clay	37.5	%	15-5 Mod.	01/03/2007
Texture	Si Cl Lo	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	1.08	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	9.5	S.U.	21a	12/29/2006
Saturation	169	%	27b	12/29/2006
Calcium saturated paste	0.42	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.23	meq/l	3-5.4	01/11/2007
Sodium saturated paste	10.5	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	18.5	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-1	Description: SHOB-20, 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	01/03/2007
Silt	41.2	%	15-5 Mod.	01/03/2007
Clay	38.8	%	15-5 Mod.	01/03/2007
Texture	Si Cl Lo	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	2.69	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	7.7	S.U.	21a	01/03/2007
Saturation	62.1	%	27b	01/03/2007
Calcium saturated paste	11.7	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	11.9	meq/l	3-5.4	01/11/2007
Sodium saturated paste	10.4	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	3.01	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-2	Description: SHOB-20, 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	40.0	%	15-5 Mod.	01/03/2007
Silt	42.5	%	15-5 Mod.	01/03/2007
Clay	17.5	%	15-5 Mod.	01/03/2007
Texture	Loam	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	5.84	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.5	S.U.	21a	01/03/2007
Saturation	42.1	%	27b	01/03/2007
Calcium saturated paste	4.65	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	13.2	meq/l	3-5.4	01/11/2007
Sodium saturated paste	56.0	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	18.7	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-3	Description: SHOB-20, 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006		
Collected by: JOSH ELLIOTT		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	01/03/2007
Silt	57.5	%	15-5 Mod.	01/03/2007
Clay	35.0	%	15-5 Mod.	01/03/2007
Texture	Si Cl Lo	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	1.98	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.5	S.U.	21a	01/03/2007
Saturation	164	%	27b	01/03/2007
Calcium saturated paste	0.90	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.08	meq/l	3-5.4	01/11/2007
Sodium saturated paste	18.8	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	18.9	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-4	Description: SHOB-20, 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	01/03/2007
Silt	61.2	%	15-5 Mod.	01/03/2007
Clay	31.3	%	15-5 Mod.	01/03/2007
Texture	Si Cl Lo	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	2.26	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.4	S.U.	21a	01/03/2007
Saturation	127	%	27b	01/03/2007
Calcium saturated paste	1.26	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.33	meq/l	3-5.4	01/11/2007
Sodium saturated paste	24.2	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	21.2	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-5	Description: SHOB-20, 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	55.0	%	15-5 Mod.	01/03/2007
Silt	21.2	%	15-5 Mod.	01/03/2007
Clay	23.8	%	15-5 Mod.	01/03/2007
Texture	Sa Cl Lo	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	4.27	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.3	S.U.	21a	01/03/2007
Saturation	116	%	27b	01/03/2007
Calcium saturated paste	4.26	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	4.35	meq/l	3-5.4	01/11/2007
Sodium saturated paste	39.8	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	19.2	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-6	Description: SHOB-20, 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod.	01/03/2007
Silt	43.7	%	15-5 Mod.	01/03/2007
Clay	31.3	%	15-5 Mod.	01/03/2007
Texture	Clay Loam	-----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	2.47	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.6	S.U.	21a	01/03/2007
Saturation	155	%	27b	01/03/2007
Calcium saturated paste	0.73	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.95	meq/l	3-5.4	01/11/2007
Sodium saturated paste	24.1	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	26.2	-----	20b	01/11/2007
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-7	Description: SHOB-20, 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	01/03/2007
Silt	56.2	%	15-5 Mod.	01/03/2007
Clay	38.8	%	15-5 Mod.	01/03/2007
Texture	Si Cl Lo	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	3.46	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.8	S.U.	21a	01/03/2007
Saturation	168	%	27b	01/03/2007
Calcium saturated paste	0.87	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.26	meq/l	3-5.4	01/11/2007
Sodium saturated paste	37.6	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	36.4	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-8	Description: SHOB-20, 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	01/03/2007
Silt	57.5	%	15-5 Mod.	01/03/2007
Clay	35.0	%	15-5 Mod.	01/03/2007
Texture	Si Cl Lo	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	2.42	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.9	S.U.	21a	01/03/2007
Saturation	142	%	27b	01/03/2007
Calcium saturated paste	0.72	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.75	meq/l	3-5.4	01/11/2007
Sodium saturated paste	27.6	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	32.1	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-9	Description: SHOB-20, 55-60	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	68.8	%	15-5 Mod.	01/03/2007
Silt	17.4	%	15-5 Mod.	01/03/2007
Clay	13.8	%	15-5 Mod.	01/03/2007
Texture	Sandy Loam	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	4.10	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	7.1	S.U.	21a	01/03/2007
Saturation	83.0	%	27b	01/03/2007
Calcium saturated paste	1.42	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.60	meq/l	3-5.4	01/11/2007
Sodium saturated paste	45.0	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	36.6	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-10	Description: SHOB-20, 60-65	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	01/03/2007
Silt	66.2	%	15-5 Mod.	01/03/2007
Clay	23.8	%	15-5 Mod.	01/03/2007
Texture	Silt Loam	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	2.75	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	8.7	S.U.	21a	01/03/2007
Saturation	109	%	27b	01/03/2007
Calcium saturated paste	0.50	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.51	meq/l	3-5.4	01/11/2007
Sodium saturated paste	29.1	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	41.0	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110090-11	Description: SHOB-20, 65-70	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	01/03/2007
Silt	63.7	%	15-5 Mod.	01/03/2007
Clay	26.3	%	15-5 Mod.	01/03/2007
Texture	Silt Loam	----	USDA	01/03/2007
Electrical Conductivity Saturated Paste	2.38	mmhos/cm	10-3.3	01/19/2007
pH Saturated Paste	9.1	S.U.	21a	01/03/2007
Saturation	140	%	27b	01/03/2007
Calcium saturated paste	0.50	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.37	meq/l	3-5.4	01/11/2007
Sodium saturated paste	26.3	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	39.7	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-17	Description: SHOB-21; 0-5'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	47.5	%	15-5 Mod.	11/22/2006
Silt	23.7	%	15-5 Mod.	11/22/2006
Clay	28.8	%	15-5 Mod.	11/22/2006
Texture	Sa Cl Lo	---	USDA	11/22/2006
Electrical Conductivity Saturated Paste	2.34	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.0	S.U.	21a	11/20/2006
Saturation	114	%	27b	11/20/2006
Calcium saturated paste	3.05	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	3.73	meq/l	3-5.4	11/22/2006
Sodium saturated paste	18.3	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	9.94	---	20b	11/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDR ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-18	Description: SHOB-21; 5-10'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	45.0	%	15-5 Mod.	11/22/2006
Silt	23.7	%	15-5 Mod.	11/22/2006
Clay	31.3	%	15-5 Mod.	11/22/2006
Texture	Sa Cl Lo	---	USDA	11/22/2006
Electrical Conductivity Saturated Paste	6.85	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	7.8	S.U.	21a	11/20/2006
Saturation	105	%	27b	11/20/2006
Calcium saturated paste	20.8	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	21.6	meq/l	3-5.4	11/22/2006
Sodium saturated paste	51.8	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	11.2	---	20b	11/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-19	Description: SHOB-21; 10-15'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	11/22/2006
Silt	47.5	%	15-5 Mod.	11/22/2006
Clay	30.0	%	15-5 Mod.	11/22/2006
Texture	Clay Loam	—	USDA	11/22/2006
Electrical Conductivity Saturated Paste	3.77	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.5	S.U.	21a	11/20/2006
Saturation	167	%	27b	11/20/2006
Calcium saturated paste	3.06	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	4.86	meq/l	3-5.4	11/22/2006
Sodium saturated paste	32.4	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	16.3	—	20b	11/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-20	Description: SHOB-21; 15-20'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod.	11/22/2006
Silt	59.9	%	15-5 Mod.	11/22/2006
Clay	31.3	%	15-5 Mod.	11/22/2006
Texture	Si Cl Lo	---	USDA	11/22/2006
Electrical Conductivity Saturated Paste	2.90	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.6	S.U.	21a	11/20/2006
Saturation	196	%	27b	11/20/2006
Calcium saturated paste	1.30	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	2.46	meq/l	3-5.4	11/22/2006
Sodium saturated paste	25.5	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	18.6	---	20b	11/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-21	Description: SHOB-21; 20-25'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	11/24/2006
Silt	56.2	%	15-5 Mod.	11/24/2006
Clay	33.8	%	15-5 Mod.	11/24/2006
Texture	Si Cl Lo	—	USDA	11/24/2006
Electrical Conductivity Saturated Paste	1.90	mmhos/cm	10-3.3	11/27/2006
pH Saturated Paste	8.0	S.U.	21a	11/21/2006
Saturation	182	%	27b	11/21/2006
Calcium saturated paste	0.65	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	1.00	meq/l	3-5.4	11/22/2006
Sodium saturated paste	16.5	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	18.1	—	20b	11/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-22	Description: SHOB-21; 25-30'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15-5 Mod.	11/24/2006
Silt	56.2	%	15-5 Mod.	11/24/2006
Clay	27.5	%	15-5 Mod.	11/24/2006
Texture	Si Cl Lo	---	USDA	11/24/2006
Electrical Conductivity Saturated Paste	1.70	mmhos/cm	10-3.3	11/27/2006
pH Saturated Paste	8.7	S.U.	21a	11/21/2006
Saturation	148	%	27b	11/21/2006
Calcium saturated paste	0.51	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.68	meq/l	3-5.4	11/22/2006
Sodium saturated paste	15.0	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	19.4	---	20b	11/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-23	Description: SHOB-21; 30-35'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	15-5 Mod.	11/24/2006
Silt	56.2	%	15-5 Mod.	11/24/2006
Clay	37.5	%	15-5 Mod.	11/24/2006
Texture	Si Cl Lo	---	USDA	11/24/2006
Electrical Conductivity Saturated Paste	1.46	mmhos/cm	10-3.3	11/27/2006
pH Saturated Paste	9.0	S.U.	21a	11/21/2006
Saturation	183	%	27b	11/21/2006
Calcium saturated paste	0.41	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.47	meq/l	3-5.4	11/22/2006
Sodium saturated paste	13.3	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	20.1	---	20b	11/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-24	Description: SHOB-21; 35-40'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	11/24/2006
Silt	63.7	%	15-5 Mod.	11/24/2006
Clay	31.3	%	15-5 Mod.	11/24/2006
Texture	Si Cl Lo	---	USDA	11/24/2006
Electrical Conductivity Saturated Paste	1.84	mmhos/cm	10-3.3	11/27/2006
pH Saturated Paste	8.9	S.U.	21a	11/21/2006
Saturation	182	%	27b	11/21/2006
Calcium saturated paste	0.69	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.60	meq/l	3-5.4	11/22/2006
Sodium saturated paste	16.8	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	20.9	---	20b	11/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-25	Description: SHOB-21; 40-45'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	68.8	%	15-5 Mod.	11/24/2006
Silt	16.2	%	15-5 Mod.	11/24/2006
Clay	15.0	%	15-5 Mod.	11/24/2006
Texture	Sandy Loam	—	USDA	11/24/2006
Electrical Conductivity Saturated Paste	2.54	mmhos/cm	10-3.3	11/27/2006
pH Saturated Paste	9.0	S.U.	21a	11/21/2006
Saturation	82.3	%	27b	11/21/2006
Calcium saturated paste	0.81	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.64	meq/l	3-5.4	11/22/2006
Sodium saturated paste	23.0	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	27.1	—	20b	11/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-26	Description: SHOB-21; 45-50'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	70.0	%	15-5 Mod.	11/24/2006
Silt	12.5	%	15-5 Mod.	11/24/2006
Clay	17.5	%	15-5 Mod.	11/24/2006
Texture	Sandy Loam	---	USDA	11/24/2006
Electrical Conductivity Saturated Paste	1.68	mmhos/cm	10-3.3	11/27/2006
pH Saturated Paste	9.0	S.U.	21a	11/21/2006
Saturation	92.4	%	27b	11/21/2006
Calcium saturated paste	0.54	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.41	meq/l	3-5.4	11/22/2006
Sodium saturated paste	14.8	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	21.5	---	20b	11/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-27	Description: SHOB-21; 75-80'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	30.0	%	15-5 Mod.	11/24/2006
Silt	48.7	%	15-5 Mod.	11/24/2006
Clay	21.3	%	15-5 Mod.	11/24/2006
Texture	Loam	—	USDA	11/24/2006
Electrical Conductivity Saturated Paste	1.46	mmhos/cm	10-3.3	11/27/2006
pH Saturated Paste	9.2	S.U.	21a	11/21/2006
Saturation	126	%	27b	11/21/2006
Calcium saturated paste	0.32	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.25	meq/l	3-5.4	11/22/2006
Sodium saturated paste	13.5	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	25.4	—	20b	11/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-28	Description: SHOB-21; 80-85'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	52.5	%	15-5 Mod.	11/24/2006
Silt	28.7	%	15-5 Mod.	11/24/2006
Clay	18.8	%	15-5 Mod.	11/24/2006
Texture	Sandy Loam	---	USDA	11/24/2006
Electrical Conductivity Saturated Paste	1.48	mmhos/cm	10-3.3	11/27/2006
pH Saturated Paste	8.9	S.U.	21a	11/21/2006
Saturation	119	%	27b	11/21/2006
Calcium saturated paste	0.30	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.26	meq/l	3-5.4	11/22/2006
Sodium saturated paste	13.9	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	26.2	---	20b	11/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-29	Description: SHOB-21; 85-90'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	72.5	%	15-5 Mod.	11/24/2006
Silt	15.0	%	15-5 Mod.	11/24/2006
Clay	12.5	%	15-5 Mod.	11/24/2006
Texture	Sandy Loam	---	USDA	11/24/2006
Electrical Conductivity Saturated Paste	1.99	mmhos/cm	10-3.3	11/27/2006
pH Saturated Paste	8.9	S.U.	21a	11/21/2006
Saturation	87.1	%	27b	11/21/2006
Calcium saturated paste	0.43	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.35	meq/l	3-5.4	11/22/2006
Sodium saturated paste	19.6	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	31.2	---	20b	11/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-31	Description: SHOB-21; 90-95'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	77.5	%	15-5 Mod.	11/24/2006
Silt	12.5	%	15-5 Mod.	11/24/2006
Clay	10.0	%	15-5 Mod.	11/24/2006
Texture	Sandy Loam	---	USDA	11/24/2006
Electrical Conductivity Saturated Paste	1.88	mmhos/cm	10-3.3	11/27/2006
pH Saturated Paste	9.2	S.U.	21a	11/21/2006
Saturation	74.0	%	27b	11/21/2006
Calcium saturated paste	0.46	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.35	meq/l	3-5.4	11/22/2006
Sodium saturated paste	18.8	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	29.5	---	20b	11/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-32	Description: SHOB-21; 95-100'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	52.5	%	15-5 Mod.	11/24/2006
Silt	26.2	%	15-5 Mod.	11/24/2006
Clay	21.3	%	15-5 Mod.	11/24/2006
Texture	Sa Cl Lo	---	USDA	11/24/2006
Electrical Conductivity Saturated Paste	1.48	mmhos/cm	10-3.3	11/27/2006
pH Saturated Paste	8.9	S.U.	21a	11/21/2006
Saturation	141	%	27b	11/21/2006
Calcium saturated paste	0.38	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.31	meq/l	3-5.4	11/22/2006
Sodium saturated paste	15.1	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	25.7	---	20b	11/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-33	Description: SHOB-21; 100-105'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	82.5	%	15-5 Mod.	11/24/2006
Silt	10.0	%	15-5 Mod.	11/24/2006
Clay	7.5	%	15-5 Mod.	11/24/2006
Texture	Loamy Sand	---	USDA	11/24/2006
Electrical Conductivity Saturated Paste	1.92	mmhos/cm	10-3.3	11/27/2006
pH Saturated Paste	8.8	S.U.	21a	11/21/2006
Saturation	73.9	%	27b	11/21/2006
Calcium saturated paste	0.37	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.36	meq/l	3-5.4	11/22/2006
Sodium saturated paste	18.8	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	31.2	---	20b	11/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-34	Description: SHOB-21; 105-110'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	75.0	%	15-5 Mod.	11/24/2006
Silt	11.2	%	15-5 Mod.	11/24/2006
Clay	13.8	%	15-5 Mod.	11/24/2006
Texture	Sandy Loam	—	USDA	11/24/2006
Electrical Conductivity Saturated Paste	1.63	mmhos/cm	10-3.3	11/27/2006
pH Saturated Paste	9.2	S.U.	21a	11/21/2006
Saturation	60.3	%	27b	11/21/2006
Calcium saturated paste	0.31	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.34	meq/l	3-5.4	11/22/2006
Sodium saturated paste	16.8	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	29.5	—	20b	11/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-35	Description: SHOB-21; 110-115'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	82.5	%	15-5 Mod.	11/24/2006
Silt	10.0	%	15-5 Mod.	11/24/2006
Clay	7.5	%	15-5 Mod.	11/24/2006
Texture	Loamy Sand	---	USDA	11/24/2006
Electrical Conductivity Saturated Paste	2.16	mmhos/cm	10-3.3	11/27/2006
pH Saturated Paste	9.6	S.U.	21a	11/21/2006
Saturation	71.8	%	27b	11/21/2006
Calcium saturated paste	0.21	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.30	meq/l	3-5.4	11/22/2006
Sodium saturated paste	22.2	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	44.0	---	20b	11/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-36	Description: SHOB-21; 115-120'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	87.5	%	15-5 Mod.	11/24/2006
Silt	5.0	%	15-5 Mod.	11/24/2006
Clay	7.5	%	15-5 Mod.	11/24/2006
Texture	Loamy Sand	---	USDA	11/24/2006
Electrical Conductivity Saturated Paste	2.05	mmhos/cm	10-3.3	11/27/2006
pH Saturated Paste	9.5	S.U.	21a	11/21/2006
Saturation	63.3	%	27b	11/21/2006
Calcium saturated paste	0.34	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.33	meq/l	3-5.4	11/22/2006
Sodium saturated paste	21.3	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	36.8	---	20b	11/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-37 Description: SHOB-21; 120-125' Matrix: OVERBURDEN
 Date Received: 10/18/2006
 Date Collected: 10/15/2006 Collected by: RYAN TOLENE

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	66.3	%	15-5 Mod.	11/24/2006
Silt	18.7	%	15-5 Mod.	11/24/2006
Clay	15.0	%	15-5 Mod.	11/24/2006
Texture	Sandy Loam	---	USDA	11/24/2006
Electrical Conductivity Saturated Paste	1.87	mmhos/cm	10-3.3	11/27/2006
pH Saturated Paste	8.6	S.U.	21a	11/21/2006
Saturation	75.0	%	27b	11/21/2006
Calcium saturated paste	0.46	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.45	meq/l	3-5.4	11/22/2006
Sodium saturated paste	17.2	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	25.6	---	20b	11/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-38	Description: SHOB-21; 125-130'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	68.8	%	15-5 Mod.	11/24/2006
Silt	17.4	%	15-5 Mod.	11/24/2006
Clay	13.8	%	15-5 Mod.	11/24/2006
Texture	Sandy Loam	—	USDA	11/24/2006
Electrical Conductivity Saturated Paste	1.45	mmhos/cm	10-3.3	11/27/2006
pH Saturated Paste	9.4	S.U.	21a	11/21/2006
Saturation	50.6	%	27b	11/21/2006
Calcium saturated paste	0.32	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.33	meq/l	3-5.4	11/22/2006
Sodium saturated paste	15.6	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	27.2	—	20b	11/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-39	Description: SHOB-21; 130-135'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	68.8	%	15-5 Mod.	11/24/2006
Silt	16.2	%	15-5 Mod.	11/24/2006
Clay	15.0	%	15-5 Mod.	11/24/2006
Texture	Sandy Loam	—	USDA	11/24/2006
Electrical Conductivity Saturated Paste	2.45	mmhos/cm	10-3.3	11/27/2006
pH Saturated Paste	8.9	S.U.	21a	11/21/2006
Saturation	75.1	%	27b	11/21/2006
Calcium saturated paste	0.47	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.53	meq/l	3-5.4	11/22/2006
Sodium saturated paste	23.9	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	33.8	—	20b	11/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.:	2006100193-40	Description:	SHOB-21; 135-140'	Matrix:	OVERBURDEN
Date Received:	10/18/2006	Date Collected:	10/15/2006	Collected by:	RYAN TOLENE

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	86.3	%	15-5 Mod.	11/24/2006
Silt	7.4	%	15-5 Mod.	11/24/2006
Clay	6.3	%	15-5 Mod.	11/24/2006
Texture	Loamy Sand	—	USDA	11/24/2006
Electrical Conductivity Saturated Paste	2.55	mmhos/cm	10-3.3	11/27/2006
pH Saturated Paste	9.4	S.U.	21a	11/21/2006
Saturation	66.3	%	27b	11/21/2006
Calcium saturated paste	0.36	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.38	meq/l	3-5.4	11/22/2006
Sodium saturated paste	24.4	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	40.3	—	20b	11/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-41	Description: SHOB-21; 140-145'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	40.0	%	15-5 Mod.	11/25/2006
Silt	33.7	%	15-5 Mod.	11/25/2006
Clay	26.3	%	15-5 Mod.	11/25/2006
Texture	Loam	—	USDA	11/25/2006
Electrical Conductivity Saturated Paste	3.18	mmhos/cm	10-3.3	11/29/2006
pH Saturated Paste	8.3	S.U.	21a	11/22/2006
Saturation	107	%	27b	11/22/2006
Calcium saturated paste	2.31	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	2.73	meq/l	3-5.4	11/22/2006
Sodium saturated paste	27.1 J	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	17.1	—	20b	11/30/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-42	Description: SHOB-21; 145-150'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	50.0	%	15-5 Mod.	11/25/2006
Silt	26.2	%	15-5 Mod.	11/25/2006
Clay	23.8	%	15-5 Mod.	11/25/2006
Texture	Sa Cl Lo	---	USDA	11/25/2006
Electrical Conductivity Saturated Paste	3.32	mmhos/cm	10-3.3	11/29/2006
pH Saturated Paste	8.2	S.U.	21a	11/22/2006
Saturation	114	%	27b	11/22/2006
Calcium saturated paste	1.23	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	1.14	meq/l	3-5.4	11/22/2006
Sodium saturated paste	33.7 J	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	31.0	---	20b	11/30/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDR ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-43	Description: SHOB-21; 150-155'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	30.0	%	15-5 Mod.	11/25/2006
Silt	43.7	%	15-5 Mod.	11/25/2006
Clay	26.3	%	15-5 Mod.	11/25/2006
Texture	Loam	—	USDA	11/25/2006
Electrical Conductivity Saturated Paste	2.69	mmhos/cm	10-3.3	11/29/2006
pH Saturated Paste	8.1	S.U.	21a	11/22/2006
Saturation	116	%	27b	11/22/2006
Calcium saturated paste	0.54	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.47	meq/l	3-5.4	11/22/2006
Sodium saturated paste	26.8 J	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	37.7	—	20b	11/30/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-44	Description: SHOB-21; 155-160'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	11/25/2006
Silt	61.2	%	15-5 Mod.	11/25/2006
Clay	28.8	%	15-5 Mod.	11/25/2006
Texture	Si CL Lo	---	USDA	11/25/2006
Electrical Conductivity Saturated Paste	1.38	mmhos/cm	10-3.3	11/29/2006
pH Saturated Paste	8.9	S.U.	21a	11/22/2006
Saturation	126	%	27b	11/22/2006
Calcium saturated paste	0.40	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.26	meq/l	3-5.4	11/22/2006
Sodium saturated paste	13.3 J	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	23.3	---	20b	11/30/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-45	Description: SHOB-21; 160-165'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	27.5	%	15-5 Mod.	11/25/2006
Silt	45.0	%	15-5 Mod.	11/25/2006
Clay	27.5	%	15-5 Mod.	11/25/2006
Texture	Clay Loam	—	USDA	11/25/2006
Electrical Conductivity Saturated Paste	2.72	mmhos/cm	10-3.3	11/29/2006
pH Saturated Paste	8.8	S.U.	21a	11/22/2006
Saturation	117	%	27b	11/22/2006
Calcium saturated paste	0.89	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.62	meq/l	3-5.4	11/22/2006
Sodium saturated paste	26.1 J	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	33.4	—	20b	11/30/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-46	Description: SHOB-21; 165-170'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	15-5 Mod.	11/25/2006
Silt	58.7	%	15-5 Mod.	11/25/2006
Clay	35.0	%	15-5 Mod.	11/25/2006
Texture	Si Cl Lo	—	USDA	11/25/2006
Electrical Conductivity Saturated Paste	1.18	mmhos/cm	10-3.3	11/29/2006
pH Saturated Paste	9.0	S.U.	21a	11/22/2006
Saturation	130	%	27b	11/22/2006
Calcium saturated paste	0.42	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.24	meq/l	3-5.4	11/22/2006
Sodium saturated paste	11.1 J	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	19.5	—	20b	11/30/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-47	Description: SHOB-21; 170-175'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	11/25/2006
Silt	52.5	%	15-5 Mod.	11/25/2006
Clay	42.5	%	15-5 Mod.	11/25/2006
Texture	Silty Clay	—	USDA	11/25/2006
Electrical Conductivity Saturated Paste	1.01	mmhos/cm	10-3.3	11/29/2006
pH Saturated Paste	9.0	S.U.	21a	11/22/2006
Saturation	141	%	27b	11/22/2006
Calcium saturated paste	0.37	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.23	meq/l	3-5.4	11/22/2006
Sodium saturated paste	9.19 J	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	16.8	—	20b	11/30/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-48	Description: SHOB-21; 175-180'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	11/25/2006
Silt	55.0	%	15-5 Mod.	11/25/2006
Clay	37.5	%	15-5 Mod.	11/25/2006
Texture	Si Cl Lo	---	USDA	11/25/2006
Electrical Conductivity Saturated Paste	0.84	mmhos/cm	10-3.3	11/29/2006
pH Saturated Paste	9.1	S.U.	21a	11/22/2006
Saturation	142	%	27b	11/22/2006
Calcium saturated paste	0.45	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.25	meq/l	3-5.4	11/22/2006
Sodium saturated paste	8.39 J	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	14.3	---	20b	11/30/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-49	Description: SHOB-21; 180-185'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod.	11/25/2006
Silt	42.5	%	15-5 Mod.	11/25/2006
Clay	32.5	%	15-5 Mod.	11/25/2006
Texture	Clay Loam	—	USDA	11/25/2006
Electrical Conductivity Saturated Paste	0.91	mmhos/cm	10-3.3	11/29/2006
pH Saturated Paste	9.1	S.U.	21a	11/22/2006
Saturation	121	%	27b	11/22/2006
Calcium saturated paste	0.50	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.29	meq/l	3-5.4	11/22/2006
Sodium saturated paste	8.69 J	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	13.8	—	20b	11/30/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-50 Description: SHOB-21; 185-190' Matrix: OVERBURDEN
 Date Received: 10/18/2006
 Date Collected: 10/15/2006 Collected by: RYAN TOLENE

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	32.5	%	15-5 Mod.	11/25/2006
Silt	37.5	%	15-5 Mod.	11/25/2006
Clay	30.0	%	15-5 Mod.	11/25/2006
Texture	Clay Loam	—	USDA	11/25/2006
Electrical Conductivity Saturated Paste	1.05	mmhos/cm	10-3.3	11/29/2006
pH Saturated Paste	9.2	S.U.	21a	11/22/2006
Saturation	119	%	27b	11/22/2006
Calcium saturated paste	0.35	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.23	meq/l	3-5.4	11/22/2006
Sodium saturated paste	9.36 J	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	17.5	—	20b	11/30/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-51	Description: SHOB-21; 190-195'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	11/25/2006
Silt	38.7	%	15-5 Mod.	11/25/2006
Clay	43.8	%	15-5 Mod.	11/25/2006
Texture	Clay	---	USDA	11/25/2006
Electrical Conductivity Saturated Paste	1.19	mmhos/cm	10-3.3	11/29/2006
pH Saturated Paste	9.1	S.U.	21a	11/22/2006
Saturation	120	%	27b	11/22/2006
Calcium saturated paste	0.34	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.29	meq/l	3-5.4	11/22/2006
Sodium saturated paste	11.3 J	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	19.9	---	20b	11/30/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-52	Description: SHOB-21; 195-200'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod.	11/25/2006
Silt	33.7	%	15-5 Mod.	11/25/2006
Clay	57.5	%	15-5 Mod.	11/25/2006
Texture	Clay	—	USDA	11/25/2006
Electrical Conductivity Saturated Paste	3.08	mmhos/cm	10-3.3	11/29/2006
pH Saturated Paste	8.8	S.U.	21a	11/22/2006
Saturation	123	%	27b	11/22/2006
Calcium saturated paste	0.62	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.62	meq/l	3-5.4	11/22/2006
Sodium saturated paste	32.0 J	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	40.6	—	20b	11/30/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-53	Description: SHOB-21; 200-205'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	23.8	%	15-5 Mod.	11/25/2006
Silt	33.7	%	15-5 Mod.	11/25/2006
Clay	42.5	%	15-5 Mod.	11/25/2006
Texture	Clay	—	USDA	11/25/2006
Electrical Conductivity Saturated Paste	1.42	mmhos/cm	10-3.3	11/29/2006
pH Saturated Paste	8.9	S.U.	21a	11/22/2006
Saturation	124	%	27b	11/22/2006
Calcium saturated paste	0.32	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.26	meq/l	3-5.4	11/22/2006
Sodium saturated paste	13.0 J	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	24.2	—	20b	11/30/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-54	Description: SHOB-21; 205-210'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod.	11/25/2006
Silt	32.5	%	15-5 Mod.	11/25/2006
Clay	42.5	%	15-5 Mod.	11/25/2006
Texture	Clay	—	USDA	11/25/2006
Electrical Conductivity Saturated Paste	1.02	mmhos/cm	10-3.3	11/29/2006
pH Saturated Paste	8.3	S.U.	21a	11/22/2006
Saturation	134	%	27b	11/22/2006
Calcium saturated paste	0.44	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.35	meq/l	3-5.4	11/22/2006
Sodium saturated paste	9.44 J	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	15.0	—	20b	11/30/2006
Sample Preparation	—	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-55	Description: SHOB-21; 210-215'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	40.0	%	15-5 Mod.	11/25/2006
Silt	27.5	%	15-5 Mod.	11/25/2006
Clay	32.5	%	15-5 Mod.	11/25/2006
Texture	Clay Loam	—	USDA	11/25/2006
Electrical Conductivity Saturated Paste	3.47	mmhos/cm	10-3.3	11/29/2006
pH Saturated Paste	7.6	S.U.	21a	11/22/2006
Saturation	102	%	27b	11/22/2006
Calcium saturated paste	0.67	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.54	meq/l	3-5.4	11/22/2006
Sodium saturated paste	36.4 J	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	46.9	—	20b	11/30/2006
Sample Preparation	—	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-56	Description: SHOB-21; 215-220'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod.	11/25/2006
Silt	37.5	%	15-5 Mod.	11/25/2006
Clay	37.5	%	15-5 Mod.	11/25/2006
Texture	Clay Loam	—	USDA	11/25/2006
Electrical Conductivity Saturated Paste	1.91	mmhos/cm	10-3.3	11/29/2006
pH Saturated Paste	8.2	S.U.	21a	11/22/2006
Saturation	115	%	27b	11/22/2006
Calcium saturated paste	0.54	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.36	meq/l	3-5.4	11/22/2006
Sodium saturated paste	18.8 J	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	28.1	—	20b	11/30/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-57	Description: SHOB-21; 220-225'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	37.5	%	15-5 Mod.	11/25/2006
Silt	30.0	%	15-5 Mod.	11/25/2006
Clay	32.5	%	15-5 Mod.	11/25/2006
Texture	Clay Loam	---	USDA	11/25/2006
Electrical Conductivity Saturated Paste	1.46	mmhos/cm	10-3.3	11/29/2006
pH Saturated Paste	7.9	S.U.	21a	11/22/2006
Saturation	110	%	27b	11/22/2006
Calcium saturated paste	0.45	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.29	meq/l	3-5.4	11/22/2006
Sodium saturated paste	15.1 J	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	24.8	---	20b	11/30/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-58	Description: SHOB-21; 235-240'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	11/25/2006
Silt	45.0	%	15-5 Mod.	11/25/2006
Clay	42.5	%	15-5 Mod.	11/25/2006
Texture	Silty Clay	----	USDA	11/25/2006
Electrical Conductivity Saturated Paste	2.44	mmhos/cm	10-3.3	11/29/2006
pH Saturated Paste	8.3	S.U.	21a	11/22/2006
Saturation	129	%	27b	11/22/2006
Calcium saturated paste	0.36	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.51	meq/l	3-5.4	11/22/2006
Sodium saturated paste	28.0 J	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	42.5	---	20b	11/30/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-59	Description: SHOB-21; 240-245'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	11/25/2006
Silt	45.0	%	15-5 Mod.	11/25/2006
Clay	42.5	%	15-5 Mod.	11/25/2006
Texture	Silty Clay	---	USDA	11/25/2006
Electrical Conductivity Saturated Paste	2.10	mmhos/cm	10-3.3	11/29/2006
pH Saturated Paste	8.7	S.U.	21a	11/22/2006
Saturation	148	%	27b	11/22/2006
Calcium saturated paste	0.49	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.37	meq/l	3-5.4	11/22/2006
Sodium saturated paste	22.6 J	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	34.5	---	20b	11/30/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-60	Description: SHOB-21; 245-250'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	11/25/2006
Silt	37.5	%	15-5 Mod.	11/25/2006
Clay	47.5	%	15-5 Mod.	11/25/2006
Texture	Clay	---	USDA	11/25/2006
Electrical Conductivity Saturated Paste	1.21	mmhos/cm	10-3.3	11/29/2006
pH Saturated Paste	8.7	S.U.	21a	11/22/2006
Saturation	162	%	27b	11/22/2006
Calcium saturated paste	0.38	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.30	meq/l	3-5.4	11/30/2006
Sodium saturated paste	11.0 J	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	18.8	---	20b	11/30/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-46	Description: SHOB-22, 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	37.5	%	15-5 Mod	12/15/2006
Silt	27.5	%	15-5 Mod	12/15/2006
Clay	35.0	%	15-5 Mod	12/15/2006
Texture	Clay Loam	—	USDA	12/15/2006
Electrical Conductivity Saturated Paste	9.21	mmhos/cm	10-3.3	12/29/2007
pH Saturated Paste	8.2	S.U.	21a	12/19/2006
Saturation	81.3	%	27b	12/19/2006
Calcium saturated paste	13.7	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	62.3	meq/l	3-5.4	01/03/2007
Sodium saturated paste	74.6	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	12.1	—	20b	01/03/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-47	Description: SHOB-22, 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	27.5	%	15-5 Mod	12/15/2006
Silt	52.5	%	15-5 Mod	12/15/2006
Clay	20.0	%	15-5 Mod	12/15/2006
Texture	Silt Loam	—	USDA	12/15/2006
Electrical Conductivity Saturated Paste	0.85 J	mmhos/cm	10-3.3	12/29/2007
pH Saturated Paste	8.3	S.U.	21a	12/19/2006
Saturation	92.5	%	27b	12/19/2006
Calcium saturated paste	0.44	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.92	meq/l	3-5.4	01/03/2007
Sodium saturated paste	7.15 J	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	8.64	—	20b	01/03/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-48	Description: SHOB-22, 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod	12/15/2006
Silt	50.0	%	15-5 Mod	12/15/2006
Clay	40.0	%	15-5 Mod	12/15/2006
Texture	Si Cl Lo	---	USDA	12/15/2006
Electrical Conductivity Saturated Paste	0.79 J	mmhos/cm	10-3.3	12/29/2007
pH Saturated Paste	7.7	S.U.	21a	12/19/2006
Saturation	137	%	27b	12/19/2006
Calcium saturated paste	1.05	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	1.69	meq/l	3-5.4	01/03/2007
Sodium saturated paste	5.67 J	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	4.84	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-49	Description: SHOB-22, 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod	12/15/2006
Silt	57.5	%	15-5 Mod	12/15/2006
Clay	30.0	%	15-5 Mod	12/15/2006
Texture	Si Cl Lo	—	USDA	12/15/2006
Electrical Conductivity Saturated Paste	0.60 J	mmhos/cm	10-3.3	12/29/2007
pH Saturated Paste	7.9	S.U.	21a	12/19/2006
Saturation	109	%	27b	12/19/2006
Calcium saturated paste	0.58	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.70	meq/l	3-5.4	01/03/2007
Sodium saturated paste	4.47 J	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	5.57	—	20b	01/03/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-50	Description: SHOB-22, 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod	12/15/2006
Silt	52.5	%	15-5 Mod	12/15/2006
Clay	40.0	%	15-5 Mod	12/15/2006
Texture	Si Cl Lo	—	USDA	12/15/2006
Electrical Conductivity Saturated Paste	0.58 J	mmhos/cm	10-3.3	12/29/2007
pH Saturated Paste	8.0	S.U.	21a	12/19/2006
Saturation	142	%	27b	12/19/2006
Calcium saturated paste	0.44	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.47	meq/l	3-5.4	01/03/2007
Sodium saturated paste	5.03 J	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	7.43	—	20b	01/03/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-51	Description: SHOB-22, 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod	12/15/2006
Silt	50.0	%	15-5 Mod	12/15/2006
Clay	42.5	%	15-5 Mod	12/15/2006
Texture	Silty Clay	---	USDA	12/15/2006
Electrical Conductivity Saturated Paste	0.63 J	mmhos/cm	10-3.3	12/29/2007
pH Saturated Paste	8.1	S.U.	21a	12/19/2006
Saturation	137	%	27b	12/19/2006
Calcium saturated paste	0.68	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.66	meq/l	3-5.4	01/03/2007
Sodium saturated paste	5.11 J	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	6.25	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-52	Description: SHOB-22, 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	62.5	%	15-5 Mod	12/15/2006
Silt	20.0	%	15-5 Mod	12/15/2006
Clay	17.5	%	15-5 Mod	12/15/2006
Texture	Sandy Loam	—	USDA	12/15/2006
Electrical Conductivity Saturated Paste	0.63 J	mmhos/cm	10-3.3	12/29/2007
pH Saturated Paste	7.8	S.U.	21a	12/19/2006
Saturation	53.6	%	27b	12/19/2006
Calcium saturated paste	0.94	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	1.01	meq/l	3-5.4	01/03/2007
Sodium saturated paste	4.65 J	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	4.71	—	20b	01/03/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-53	Description: SHOB-22, 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	62.5	%	15-5 Mod	12/15/2006
Silt	20.0	%	15-5 Mod	12/15/2006
Clay	17.5	%	15-5 Mod	12/15/2006
Texture	Sandy Loam	---	USDA	12/15/2006
Electrical Conductivity Saturated Paste	1.54	mmhos/cm	10-3.3	12/29/2007
pH Saturated Paste	6.7	S.U.	21a	12/19/2006
Saturation	78.3	%	27b	12/19/2006
Calcium saturated paste	3.34	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	4.35	meq/l	3-5.4	01/03/2007
Sodium saturated paste	10.3	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	5.27	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-54	Description: SHOB-22, 55-60	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod	12/15/2006
Silt	52.5	%	15-5 Mod	12/15/2006
Clay	35.0	%	15-5 Mod	12/15/2006
Texture	Si Cl Lo	---	USDA	12/15/2006
Electrical Conductivity Saturated Paste	1.34	mmhos/cm	10-3.3	12/29/2007
pH Saturated Paste	8.7	S.U.	21a	12/19/2006
Saturation	147	%	27b	12/19/2006
Calcium saturated paste	0.45	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.40	meq/l	3-5.4	01/03/2007
Sodium saturated paste	14.6	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	22.4	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-55	Description: SHOB-22, 60-65	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod	12/15/2006
Silt	60.0	%	15-5 Mod	12/15/2006
Clay	27.5	%	15-5 Mod	12/15/2006
Texture	Si Cl Lo	---	USDA	12/15/2006
Electrical Conductivity Saturated Paste	1.24	mmhos/cm	10-3.3	12/29/2007
pH Saturated Paste	8.9	S.U.	21a	12/19/2006
Saturation	125	%	27b	12/19/2006
Calcium saturated paste	0.32	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.23	meq/l	3-5.4	01/03/2007
Sodium saturated paste	12.8	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	24.5	----	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-56	Description: SHOB-22, 65-70	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod	12/15/2006
Silt	65.0	%	15-5 Mod	12/15/2006
Clay	25.0	%	15-5 Mod	12/15/2006
Texture	Silt Loam	---	USDA	12/15/2006
Electrical Conductivity Saturated Paste	1.91	mmhos/cm	10-3.3	12/29/2007
pH Saturated Paste	9.2	S.U.	21a	12/19/2006
Saturation	143	%	27b	12/19/2006
Calcium saturated paste	0.63	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.47	meq/l	3-5.4	01/03/2007
Sodium saturated paste	21.4	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	29.0	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-1	Description: SHOB-23, 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/11/2006
Silt	33.7	%	15-5 Mod.	12/11/2006
Clay	53.8	%	15-5 Mod.	12/11/2006
Texture	Clay	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	4.35	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.6	S.U.	21a	12/07/2006
Saturation	122	%	27b	12/07/2006
Calcium saturated paste	24.4	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	26.4	meq/l	3-5.4	01/05/2007
Sodium saturated paste	12.9	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	2.56	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-2	Description: SHOB-23, 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod.	12/11/2006
Silt	43.7	%	15-5 Mod.	12/11/2006
Clay	45.0	%	15-5 Mod.	12/11/2006
Texture	Silty Clay	—	USDA	12/12/2006
Electrical Conductivity Saturated Paste	6.16	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.5	S.U.	21a	12/07/2006
Saturation	112	%	27b	12/07/2006
Calcium saturated paste	25.4	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	40.2	meq/l	3-5.4	01/05/2007
Sodium saturated paste	31.2	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	5.45	—	20b	01/05/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-3	Description: SHOB-23, 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/11/2006
Silt	47.5	%	15-5 Mod.	12/11/2006
Clay	42.5	%	15-5 Mod.	12/11/2006
Texture	Silty Clay	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	5.15	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.8	S.U.	21a	12/07/2006
Saturation	108	%	27b	12/07/2006
Calcium saturated paste	19.9	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	35.2	meq/l	3-5.4	01/05/2007
Sodium saturated paste	23.7	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	4.52	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-4	Description: SHOB-23, 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/11/2006
Silt	45.0	%	15-5 Mod.	12/11/2006
Clay	47.5	%	15-5 Mod.	12/11/2006
Texture	Silty Clay	—	USDA	12/12/2006
Electrical Conductivity Saturated Paste	7.09	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	6.0	S.U.	21a	12/07/2006
Saturation	102	%	27b	12/07/2006
Calcium saturated paste	26.3	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	50.4	meq/l	3-5.4	01/05/2007
Sodium saturated paste	36.5	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	5.89	—	20b	01/05/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-5	Description: SHOB-23, 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/11/2006
Silt	43.7	%	15-5 Mod.	12/11/2006
Clay	46.3	%	15-5 Mod.	12/11/2006
Texture	Silty Clay	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	5.06	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.0	S.U.	21a	12/07/2006
Saturation	114	%	27b	12/07/2006
Calcium saturated paste	15.9	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	28.7	meq/l	3-5.4	01/05/2007
Sodium saturated paste	24.5	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	5.19	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-6	Description: SHOB-23, 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod.	12/11/2006
Silt	56.2	%	15-5 Mod.	12/11/2006
Clay	35.0	%	15-5 Mod.	12/11/2006
Texture	Si Cl Lo	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	1.83	mmhos/cm	10-3.3	12/16/2006
pH Saturated Paste	8.2	S.U.	21a	12/07/2006
Saturation	125	%	27b	12/07/2006
Calcium saturated paste	3.85	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	7.18	meq/l	3-5.4	01/05/2007
Sodium saturated paste	9.87	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	4.20	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-7	Description: SHOB-23, 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod.	12/11/2006
Silt	61.2	%	15-5 Mod.	12/11/2006
Clay	27.5	%	15-5 Mod.	12/11/2006
Texture	Si Cl Lo	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	2.10	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.0	S.U.	21a	12/07/2006
Saturation	95.9	%	27b	12/07/2006
Calcium saturated paste	4.34	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	6.87	meq/l	3-5.4	01/05/2007
Sodium saturated paste	11.1	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	4.68	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-8	Description: SHOB-23, 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/11/2006
Silt	57.5	%	15-5 Mod.	12/11/2006
Clay	30.0	%	15-5 Mod.	12/11/2006
Texture	Si Cl Lo	—	USDA	12/12/2006
Electrical Conductivity Saturated Paste	1.65	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.3	S.U.	21a	12/07/2006
Saturation	109	%	27b	12/07/2006
Calcium saturated paste	1.95	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	3.26	meq/l	3-5.4	01/05/2007
Sodium saturated paste	12.2	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	7.57	—	20b	01/05/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-9	Description: SHOB-23, 40-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/11/2006
Silt	52.5	%	15-5 Mod.	12/11/2006
Clay	37.5	%	15-5 Mod.	12/11/2006
Texture	Si Cl Lo	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	2.48	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.6	S.U.	21a	12/07/2006
Saturation	151	%	27b	12/07/2006
Calcium saturated paste	1.63	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	2.98	meq/l	3-5.4	01/05/2007
Sodium saturated paste	21.0	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	13.9	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-10	Description: SHOB-23, 45-50	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod.	12/11/2006
Silt	57.4	%	15-5 Mod.	12/11/2006
Clay	33.8	%	15-5 Mod.	12/11/2006
Texture	SI Cl Lo	—	USDA	12/12/2006
Electrical Conductivity Saturated Paste	1.66	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	9.0	S.U.	21a	12/07/2006
Saturation	149	%	27b	12/07/2006
Calcium saturated paste	0.54	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.68	meq/l	3-5.4	01/05/2007
Sodium saturated paste	15.0	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	19.2	—	20b	01/05/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-11	Description: SHOB-23, 50-55	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	12/11/2006
Silt	42.5	%	15-5 Mod.	12/11/2006
Clay	37.5	%	15-5 Mod.	12/11/2006
Texture	Si Cl Lo	—	USDA	12/12/2006
Electrical Conductivity Saturated Paste	1.58	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	9.1	S.U.	21a	12/07/2006
Saturation	159	%	27b	12/07/2006
Calcium saturated paste	0.28	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.32	meq/l	3-5.4	01/05/2007
Sodium saturated paste	15.1	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	27.7	—	20b	01/05/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-12	Description: SHOB-23, 55-60	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/11/2006
Silt	50.0	%	15-5 Mod.	12/11/2006
Clay	40.0	%	15-5 Mod.	12/11/2006
Texture	Si Cl Lo	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	3.31	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.9	S.U.	21a	12/07/2006
Saturation	145	%	27b	12/07/2006
Calcium saturated paste	0.83	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	1.12	meq/l	3-5.4	01/05/2007
Sodium saturated paste	36.8	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	37.3	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-13	Description: SHOB-23, 60-65	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/11/2006
Silt	55.0	%	15-5 Mod.	12/11/2006
Clay	32.5	%	15-5 Mod.	12/11/2006
Texture	Si Cl Lo	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	2.05	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	9.1	S.U.	21a	12/07/2006
Saturation	135	%	27b	12/07/2006
Calcium saturated paste	0.44	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.46	meq/l	3-5.4	01/05/2007
Sodium saturated paste	20.4	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	30.4	----	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-14	Description: SHOB-23, 65-70	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/11/2006
Silt	55.0	%	15-5 Mod.	12/11/2006
Clay	37.5	%	15-5 Mod.	12/11/2006
Texture	Si Cl Lo	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	4.79	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.8	S.U.	21a	12/07/2006
Saturation	184	%	27b	12/07/2006
Calcium saturated paste	2.91	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	3.74	meq/l	3-5.4	01/05/2007
Sodium saturated paste	51.3	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	28.1	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-15	Description: SHOB-23, 70-75	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/11/2006
Silt	47.5	%	15-5 Mod.	12/11/2006
Clay	40.0	%	15-5 Mod.	12/11/2006
Texture	Si Cl Lo	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	5.22	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.8	S.U.	21a	12/07/2006
Saturation	154	%	27b	12/07/2006
Calcium saturated paste	2.83	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	4.09	meq/l	3-5.4	01/05/2007
Sodium saturated paste	56.2	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	30.2	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-16	Description: SHOB-23, 90-95	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/11/2006
Silt	47.5	%	15-5 Mod.	12/11/2006
Clay	42.5	%	15-5 Mod.	12/11/2006
Texture	Silty Clay	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	2.62	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.8	S.U.	21a	12/07/2006
Saturation	181	%	27b	12/07/2006
Calcium saturated paste	0.59	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.85	meq/l	3-5.4	01/05/2007
Sodium saturated paste	26.8	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	31.6	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-17	Description: SHOB-23, 95-100	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/11/2006
Silt	50.0	%	15-5 Mod.	12/11/2006
Clay	42.5	%	15-5 Mod.	12/11/2006
Texture	Silty Clay	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	3.26	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	9.1	S.U.	21a	12/07/2006
Saturation	179	%	27b	12/07/2006
Calcium saturated paste	0.57	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.95	meq/l	3-5.4	01/05/2007
Sodium saturated paste	34.6	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	39.7	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-18	Description: SHOB-23, 100-105	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/11/2006
Silt	35.0	%	15-5 Mod.	12/11/2006
Clay	52.5	%	15-5 Mod.	12/11/2006
Texture	Clay	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	4.16	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.8	S.U.	21a	12/07/2006
Saturation	175	%	27b	12/07/2006
Calcium saturated paste	1.35	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	1.46	meq/l	3-5.4	01/05/2007
Sodium saturated paste	45.4	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	38.3	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-19	Description: SHOB-24, 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/11/2006
Silt	37.5	%	15-5 Mod.	12/11/2006
Clay	50.0	%	15-5 Mod.	12/11/2006
Texture	Clay	—	USDA	12/12/2006
Electrical Conductivity Saturated Paste	0.66	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.2	S.U.	21a	12/07/2006
Saturation	122	%	27b	12/07/2006
Calcium saturated paste	0.93	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.73	meq/l	3-5.4	01/05/2007
Sodium saturated paste	4.92	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	5.40	—	20b	01/05/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-20	Description: SHOB-24, 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	12/11/2006
Silt	45.0	%	15-5 Mod.	12/11/2006
Clay	40.0	%	15-5 Mod.	12/11/2006
Texture	Si Cl Lo	—	USDA	12/12/2006
Electrical Conductivity Saturated Paste	3.33	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.0	S.U.	21a	12/07/2006
Saturation	138	%	27b	12/07/2006
Calcium saturated paste	6.71	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	6.51	meq/l	3-5.4	01/05/2007
Sodium saturated paste	26.8	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	10.4	—	20b	01/05/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-21	Description: SHOB-24, 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/12/2006
Silt	47.5	%	15-5 Mod.	12/12/2006
Clay	42.5	%	15-5 Mod.	12/12/2006
Texture	Silty Clay	----	USDA	12/12/2006
Electrical Conductivity Saturated Paste	5.72	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.7	S.U.	21a	12/08/2006
Saturation	114	%	27b	12/08/2006
Calcium saturated paste	18.0	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	18.2	meq/l	3-5.4	01/05/2007
Sodium saturated paste	42.9	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	10.1	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-22	Description: SHOB-24, 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	50.0	%	15-5 Mod.	12/12/2006
Silt	26.2	%	15-5 Mod.	12/12/2006
Clay	23.8	%	15-5 Mod.	12/12/2006
Texture	Sa Cl Lo	----	USDA	12/12/2006
Electrical Conductivity Saturated Paste	5.98	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.9	S.U.	21a	12/08/2006
Saturation	55.9	%	27b	12/08/2006
Calcium saturated paste	20.0	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	27.3	meq/l	3-5.4	01/05/2007
Sodium saturated paste	41.5	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	8.54	----	20b	01/05/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-23	Description: SHOB-24, 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	70.0	%	15-5 Mod.	12/12/2006
Silt	10.0	%	15-5 Mod.	12/12/2006
Clay	20.0	%	15-5 Mod.	12/12/2006
Texture	Sa Cl Lo	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	1.86	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.9	S.U.	21a	12/08/2006
Saturation	101	%	27b	12/08/2006
Calcium saturated paste	7.34	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	6.72	meq/l	3-5.4	01/05/2007
Sodium saturated paste	9.52	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	3.59	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-24	Description: SHOB-24, 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	62.5	%	15-5 Mod.	12/12/2006
Silt	21.2	%	15-5 Mod.	12/12/2006
Clay	16.3	%	15-5 Mod.	12/12/2006
Texture	Sandy Loam	—	USDA	12/12/2006
Electrical Conductivity Saturated Paste	1.54	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.0	S.U.	21a	12/08/2006
Saturation	39.1	%	27b	12/08/2006
Calcium saturated paste	6.03	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	4.89	meq/l	3-5.4	01/05/2007
Sodium saturated paste	6.58	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	2.82	—	20b	01/05/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-25	Description: SHOB-24, 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	30.0	%	15-5 Mod.	12/12/2006
Silt	47.5	%	15-5 Mod.	12/12/2006
Clay	22.5	%	15-5 Mod.	12/12/2006
Texture	Loam	—	USDA	12/12/2006
Electrical Conductivity Saturated Paste	0.84	mmhos/cm	10-3.3	12/08/2006
pH Saturated Paste	8.2	S.U.	21a	12/08/2006
Saturation	105	%	27b	12/08/2006
Calcium saturated paste	1.29	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	1.19	meq/l	3-5.4	01/05/2007
Sodium saturated paste	6.28	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	5.64	—	20b	01/05/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-26	Description: SHOB-24, 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/12/2006
Silt	53.7	%	15-5 Mod.	12/12/2006
Clay	33.8	%	15-5 Mod.	12/12/2006
Texture	Si Cl Lo	—	USDA	12/12/2006
Electrical Conductivity Saturated Paste	0.62	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.8	S.U.	21a	12/08/2006
Saturation	136	%	27b	12/08/2006
Calcium saturated paste	0.31	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.23	meq/l	3-5.4	01/05/2007
Sodium saturated paste	5.78	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	11.1	—	20b	01/05/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-27	Description: SHOB-24, 40-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	12/12/2006
Silt	45.0	%	15-5 Mod.	12/12/2006
Clay	37.5	%	15-5 Mod.	12/12/2006
Texture	Si Cl Lo	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	0.74	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	9.3	S.U.	21a	12/08/2006
Saturation	164	%	27b	12/08/2006
Calcium saturated paste	0.26	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.18	meq/l	3-5.4	01/05/2007
Sodium saturated paste	7.19	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	15.4	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-28	Description: SHOB-24, 45-50	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/12/2006
Silt	57.5	%	15-5 Mod.	12/12/2006
Clay	32.5	%	15-5 Mod.	12/12/2006
Texture	Si Cl Lo	—	USDA	12/12/2006
Electrical Conductivity Saturated Paste	1.04	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	9.0	S.U.	21a	12/08/2006
Saturation	159	%	27b	12/08/2006
Calcium saturated paste	0.35	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.30	meq/l	3-5.4	01/05/2007
Sodium saturated paste	9.77	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	17.1	—	20b	01/05/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-29	Description: SHOB-24, 50-55	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/12/2006
Silt	50.0	%	15-5 Mod.	12/12/2006
Clay	42.5	%	15-5 Mod.	12/12/2006
Texture	Silty Clay	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	1.04	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.9	S.U.	21a	12/08/2006
Saturation	153	%	27b	12/08/2006
Calcium saturated paste	0.29	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.28	meq/l	3-5.4	01/05/2007
Sodium saturated paste	10.5	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	19.7	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-30	Description: SHOB-24, 55-60	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	12/12/2006
Silt	47.5	%	15-5 Mod.	12/12/2006
Clay	37.5	%	15-5 Mod.	12/12/2006
Texture	Si Cl Lo	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	1.06	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	9.1	S.U.	21a	12/08/2006
Saturation	153	%	27b	12/08/2006
Calcium saturated paste	0.40	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.34	meq/l	3-5.4	01/05/2007
Sodium saturated paste	10.4	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	17.0	----	20b	01/05/2007
Sample Preparation	----	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-31	Description: SHOB-24, 60-65	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/12/2006
Silt	52.5	%	15-5 Mod.	12/12/2006
Clay	35.0	%	15-5 Mod.	12/12/2006
Texture	Si Cl Lo	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	0.94	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.8	S.U.	21a	12/08/2006
Saturation	144	%	27b	12/08/2006
Calcium saturated paste	0.31	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.31	meq/l	3-5.4	01/05/2007
Sodium saturated paste	9.22	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	16.6	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-32	Description: SHOB-24, 80-85	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	12/12/2006
Silt	40.0	%	15-5 Mod.	12/12/2006
Clay	40.0	%	15-5 Mod.	12/12/2006
Texture	Si Cl Lo	—	USDA	12/12/2006
Electrical Conductivity Saturated Paste	1.20	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.8	S.U.	21a	12/08/2006
Saturation	159	%	27b	12/08/2006
Calcium saturated paste	0.45	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.45	meq/l	3-5.4	01/05/2007
Sodium saturated paste	11.4	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	17.1	—	20b	01/05/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-33	Description: SHOB-24, 85-90	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod.	12/12/2006
Silt	33.7	%	15-5 Mod.	12/12/2006
Clay	57.5	%	15-5 Mod.	12/12/2006
Texture	Clay	—	USDA	12/12/2006
Electrical Conductivity Saturated Paste	1.13	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.5	S.U.	21a	12/08/2006
Saturation	163	%	27b	12/08/2006
Calcium saturated paste	0.38	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.35	meq/l	3-5.4	01/05/2007
Sodium saturated paste	11.0	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	18.1	—	20b	01/05/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110029-34	Description: SHOB-24, 90-95	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	12/12/2006
Silt	48.7	%	15-5 Mod.	12/12/2006
Clay	33.8	%	15-5 Mod.	12/12/2006
Texture	Si Cl Lo	---	USDA	12/12/2006
Electrical Conductivity Saturated Paste	0.94	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.9	S.U.	21a	12/08/2006
Saturation	135	%	27b	12/08/2006
Calcium saturated paste	0.33	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.29	meq/l	3-5.4	01/05/2007
Sodium saturated paste	8.77	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	15.8	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-1	Description: SHOB-25, 0-5'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/19/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	12/04/2006
Silt	41.2	%	15-5 Mod.	12/04/2006
Clay	43.8	%	15-5 Mod.	12/04/2006
Texture	Silty Clay	---	USDA	12/04/2006
Electrical Conductivity Saturated Paste	1.36	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.2	S.U.	21a	11/30/2006
Saturation	79.9	%	27b	11/30/2006
Calcium saturated paste	1.52	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	2.81	meq/l	3-5.4	12/22/2006
Sodium saturated paste	11.9	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	8.10	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-2	Description: SHOB-25, 6-11'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/19/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/04/2006
Silt	48.7	%	15-5 Mod.	12/04/2006
Clay	43.8	%	15-5 Mod.	12/04/2006
Texture	Silty Clay	---	USDA	12/04/2006
Electrical Conductivity Saturated Paste	5.81	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.0	S.U.	21a	11/30/2006
Saturation	91.4	%	27b	11/30/2006
Calcium saturated paste	15.3	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	23.0	meq/l	3-5.4	12/22/2006
Sodium saturated paste	41.9	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	9.57	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-3	Description: SHOB-25, 20-23.5'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/19/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	31.3	%	15-5 Mod.	12/04/2006
Silt	56.2	%	15-5 Mod.	12/04/2006
Clay	12.5	%	15-5 Mod.	12/04/2006
Texture	Silt Loam	---	USDA	12/04/2006
Electrical Conductivity Saturated Paste	2.29	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.0	S.U.	21a	11/30/2006
Saturation	40.6	%	27b	11/30/2006
Calcium saturated paste	4.71	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	5.23	meq/l	3-5.4	12/22/2006
Sodium saturated paste	15.9	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	7.12	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-4	Description: SHOB-25, 26-31'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/19/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	21.3	%	15-5 Mod.	12/04/2006
Silt	62.4	%	15-5 Mod.	12/04/2006
Clay	16.3	%	15-5 Mod.	12/04/2006
Texture	Silt Loam	---	USDA	12/04/2006
Electrical Conductivity Saturated Paste	1.78	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.0	S.U.	21a	11/30/2006
Saturation	64.1	%	27b	11/30/2006
Calcium saturated paste	4.76	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	5.78	meq/l	3-5.4	12/22/2006
Sodium saturated paste	9.45	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	4.12	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-5	Description: SHOB-25, 31-36'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/19/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	41.3	%	15-5 Mod.	12/04/2006
Silt	46.2	%	15-5 Mod.	12/04/2006
Clay	12.5	%	15-5 Mod.	12/04/2006
Texture	Loam	---	USDA	12/04/2006
Electrical Conductivity Saturated Paste	1.48	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.1	S.U.	21a	11/30/2006
Saturation	55.4	%	27b	11/30/2006
Calcium saturated paste	4.49	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	4.86	meq/l	3-5.4	12/22/2006
Sodium saturated paste	6.69	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	3.10	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-6	Description: SHOB-25, 36-40'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/19/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	56.3	%	15-5 Mod.	12/04/2006
Silt	36.2	%	15-5 Mod.	12/04/2006
Clay	7.5	%	15-5 Mod.	12/04/2006
Texture	Sandy Loam	---	USDA	12/04/2006
Electrical Conductivity Saturated Paste	1.46	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.0	S.U.	21a	11/30/2006
Saturation	52.6	%	27b	11/30/2006
Calcium saturated paste	4.34	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	6.88	meq/l	3-5.4	12/22/2006
Sodium saturated paste	5.10	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	2.15	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-7	Description: SHOB-25, 44-49'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/19/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	48.8	%	15-5 Mod.	12/04/2006
Silt	38.7	%	15-5 Mod.	12/04/2006
Clay	12.5	%	15-5 Mod.	12/04/2006
Texture	Loam	---	USDA	12/04/2006
Electrical Conductivity Saturated Paste	3.23	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.0	S.U.	21a	11/30/2006
Saturation	54.8	%	27b	11/30/2006
Calcium saturated paste	9.33	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	27.51	meq/l	3-5.4	12/22/2006
Sodium saturated paste	7.40	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	1.72	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-8	Description: SHOB-25, 55-60'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/19/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	76.3	%	15-5 Mod.	12/04/2006
Silt	16.2	%	15-5 Mod.	12/04/2006
Clay	7.5	%	15-5 Mod.	12/04/2006
Texture	Sandy Loam	—	USDA	12/04/2006
Electrical Conductivity Saturated Paste	5.43	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.0	S.U.	21a	11/30/2006
Saturation	43.6	%	27b	11/30/2006
Calcium saturated paste	20.2	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	54.3	meq/l	3-5.4	12/22/2006
Sodium saturated paste	12.0	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	1.97	—	20b	12/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-9	Description: SHOB-25, 75.5-80'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/19/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	23.8	%	15-5 Mod.	12/04/2006
Silt	57.4	%	15-5 Mod.	12/04/2006
Clay	18.8	%	15-5 Mod.	12/04/2006
Texture	Silt Loam	—	USDA	12/04/2006
Electrical Conductivity Saturated Paste	0.85	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.3	S.U.	21a	11/30/2006
Saturation	145	%	27b	11/30/2006
Calcium saturated paste	0.63	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	0.87	meq/l	3-5.4	12/22/2006
Sodium saturated paste	8.63	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	9.95	----	20b	12/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-1	Description: SHOB-26, 0-5'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006		
Collected by: RYAN TOLENE		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	81.3	%	15-5 Mod.	12/11/2006
Silt	12.4	%	15-5 Mod.	12/11/2006
Clay	6.3	%	15-5 Mod.	12/11/2006
Texture	Loamy Sand	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	0.35	mmhos/cm	10-3.3	12/15/2006
pH Saturated Paste	8.0	S.U.	21a	12/06/2006
Saturation	85.9	%	27b	12/06/2006
Calcium saturated paste	1.68	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	2.16	meq/l	3-5.4	12/28/2006
Sodium saturated paste	0.32	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	0.23	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-2	Description: SHOB-26, 5-10'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	45.0	%	15-5 Mod.	12/11/2006
Silt	45.0	%	15-5 Mod.	12/11/2006
Clay	10.0	%	15-5 Mod.	12/11/2006
Texture	Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	0.43	mmhos/cm	10-3.3	12/15/2006
pH Saturated Paste	8.4	S.U.	21a	12/06/2006
Saturation	60.8	%	27b	12/06/2006
Calcium saturated paste	0.46	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	3.20	meq/l	3-5.4	12/28/2006
Sodium saturated paste	0.91	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	0.68	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-3	Description: SHOB-26, 10-15'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006		
Collected by: RYAN TOLENE		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	71.3	%	15-5 Mod.	12/11/2006
Silt	22.4	%	15-5 Mod.	12/11/2006
Clay	6.3	%	15-5 Mod.	12/11/2006
Texture	Sandy Loam	---	USDA	12/11/2006
Electrical Conductivity Saturated Paste	0.43	mmhos/cm	10-3.3	12/15/2006
pH Saturated Paste	8.2	S.U.	21a	12/06/2006
Saturation	54.9	%	27b	12/06/2006
Calcium saturated paste	0.87	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	2.17	meq/l	3-5.4	12/28/2006
Sodium saturated paste	1.31	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	1.06	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-4	Description: SHOB-26, 15-20'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	67.5	%	15-5 Mod.	12/11/2006
Silt	22.5	%	15-5 Mod.	12/11/2006
Clay	10.0	%	15-5 Mod.	12/11/2006
Texture	Sandy Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	0.55	mmhos/cm	10-3.3	12/15/2006
pH Saturated Paste	8.1	S.U.	21a	12/06/2006
Saturation	48.0	%	27b	12/06/2006
Calcium saturated paste	1.74	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	2.33	meq/l	3-5.4	12/28/2006
Sodium saturated paste	1.32	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	0.92	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-5	Description: SHOB-26, 20-25'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	67.5	%	15-5 Mod.	12/11/2006
Silt	26.2	%	15-5 Mod.	12/11/2006
Clay	6.3	%	15-5 Mod.	12/11/2006
Texture	Sandy Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	0.78	mmhos/cm	10-3.3	12/15/2006
pH Saturated Paste	8.0	S.U.	21a	12/06/2006
Saturation	49.2	%	27b	12/06/2006
Calcium saturated paste	3.58	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	3.47	meq/l	3-5.4	12/28/2006
Sodium saturated paste	1.54	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	0.82	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-6	Description: SHOB-26, 25-30'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	82.5	%	15-5 Mod.	12/11/2006
Silt	16.2	%	15-5 Mod.	12/11/2006
Clay	1.3	%	15-5 Mod.	12/11/2006
Texture	Loamy Sand	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	0.35	mmhos/cm	10-3.3	12/15/2006
pH Saturated Paste	8.2	S.U.	21a	12/06/2006
Saturation	45.5	%	27b	12/06/2006
Calcium saturated paste	1.38	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	1.18	meq/l	3-5.4	12/28/2006
Sodium saturated paste	0.88	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	0.78	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-7	Description: SHOB-26, 30-35'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	75.0	%	15-5 Mod.	12/11/2006
Silt	18.7	%	15-5 Mod.	12/11/2006
Clay	6.3	%	15-5 Mod.	12/11/2006
Texture	Sandy Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	0.45	mmhos/cm	10-3.3	12/15/2006
pH Saturated Paste	8.2	S.U.	21a	12/06/2006
Saturation	50.6	%	27b	12/06/2006
Calcium saturated paste	1.89	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	1.63	meq/l	3-5.4	12/28/2006
Sodium saturated paste	1.19	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	0.90	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-8	Description: SHOB-26, 35-40'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	87.5	%	15-5 Mod.	12/11/2006
Silt	8.7	%	15-5 Mod.	12/11/2006
Clay	3.8	%	15-5 Mod.	12/11/2006
Texture	Sand	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	0.76	mmhos/cm	10-3.3	12/15/2006
pH Saturated Paste	8.0	S.U.	21a	12/06/2006
Saturation	43.7	%	27b	12/06/2006
Calcium saturated paste	3.43	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	2.93	meq/l	3-5.4	12/28/2006
Sodium saturated paste	1.99	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	1.12	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-9	Description: SHOB-26, 40-45'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	72.5	%	15-5 Mod.	12/11/2006
Silt	18.7	%	15-5 Mod.	12/11/2006
Clay	8.8	%	15-5 Mod.	12/11/2006
Texture	Sandy Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	1.96	mmhos/cm	10-3.3	12/15/2006
pH Saturated Paste	7.9	S.U.	21a	12/06/2006
Saturation	53.1	%	27b	12/06/2006
Calcium saturated paste	5.65	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	5.05	meq/l	3-5.4	12/28/2006
Sodium saturated paste	11.6	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	5.01	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-10	Description: SHOB-26, 45-50'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15-5 Mod.	12/11/2006
Silt	46.2	%	15-5 Mod.	12/11/2006
Clay	37.5	%	15-5 Mod.	12/11/2006
Texture	Si Cl Lo	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	1.28	mmhos/cm	10-3.3	12/15/2006
pH Saturated Paste	8.3	S.U.	21a	12/06/2006
Saturation	161	%	27b	12/06/2006
Calcium saturated paste	1.88	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	2.76	meq/l	3-5.4	12/28/2006
Sodium saturated paste	8.90	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	5.85	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-11	Description: SHOB-26, 50-55'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	12/11/2006
Silt	51.2	%	15-5 Mod.	12/11/2006
Clay	28.8	%	15-5 Mod.	12/11/2006
Texture	Clay Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	1.36	mmhos/cm	10-3.3	12/15/2006
pH Saturated Paste	8.4	S.U.	21a	12/06/2006
Saturation	128	%	27b	12/06/2006
Calcium saturated paste	1.75	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	2.80	meq/l	3-5.4	12/28/2006
Sodium saturated paste	9.64	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	6.39	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-12	Description: SHOB-26, 55-60'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	70.0	%	15-5 Mod.	12/11/2006
Silt	15.0	%	15-5 Mod.	12/11/2006
Clay	15.0	%	15-5 Mod.	12/11/2006
Texture	Sandy Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	4.90	mmhos/cm	10-3.3	12/15/2006
pH Saturated Paste	6.5	S.U.	21a	12/06/2006
Saturation	60.8	%	27b	12/06/2006
Calcium saturated paste	25.7	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	30.0	meq/l	3-5.4	12/28/2006
Sodium saturated paste	18.5	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	3.51	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-13	Description: SHOB-26, 75-80'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	87.5	%	15-5 Mod.	12/11/2006
Silt	11.2	%	15-5 Mod.	12/11/2006
Clay	1.3	%	15-5 Mod.	12/11/2006
Texture	Sand	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	3.14	mmhos/cm	10-3.3	12/15/2006
pH Saturated Paste	6.9	S.U.	21a	12/06/2006
Saturation	106	%	27b	12/06/2006
Calcium saturated paste	3.08	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	3.75	meq/l	3-5.4	12/28/2006
Sodium saturated paste	29.2	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	15.8	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-14	Description: SHOB-26, 80-85'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	12/11/2006
Silt	60.0	%	15-5 Mod.	12/11/2006
Clay	20.0	%	15-5 Mod.	12/11/2006
Texture	Silt Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	1.58	mmhos/cm	10-3.3	12/15/2006
pH Saturated Paste	8.8	S.U.	21a	12/06/2006
Saturation	128	%	27b	12/06/2006
Calcium saturated paste	0.54	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.67	meq/l	3-5.4	12/28/2006
Sodium saturated paste	14.7	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	18.9	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-15	Description: SHOB-26, 85-90'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 Mod.	12/11/2006
Silt	61.2	%	15-5 Mod.	12/11/2006
Clay	20.0	%	15-5 Mod.	12/11/2006
Texture	Silt Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	1.46	mmhos/cm	10-3.3	12/15/2006
pH Saturated Paste	8.8	S.U.	21a	12/06/2006
Saturation	159	%	27b	12/06/2006
Calcium saturated paste	0.48	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.60	meq/l	3-5.4	12/28/2006
Sodium saturated paste	13.7	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	18.7	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-1	Description: SHOB-27, 0-5'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	36.3	%	15-5 Mod.	12/08/2006
Silt	26.2	%	15-5 Mod.	12/08/2006
Clay	37.5	%	15-5 Mod.	12/08/2006
Texture	Clay Loam	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	2.69	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.3	S.U.	21a	12/05/2006
Saturation	84.0	%	27b	12/05/2006
Calcium saturated paste	26.1	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	14.7	meq/l	3-5.4	01/12/2007
Sodium saturated paste	6.56	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	1.45	----	20b	01/12/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-2	Description: SHOB-27, 5-10'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	36.3	%	15-5 Mod.	12/08/2006
Silt	22.4	%	15-5 Mod.	12/08/2006
Clay	41.3	%	15-5 Mod.	12/08/2006
Texture	Clay	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	3.25	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.6	S.U.	21a	12/05/2006
Saturation	69.8	%	27b	12/05/2006
Calcium saturated paste	24.2	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	20.4	meq/l	3-5.4	01/12/2007
Sodium saturated paste	8.82	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	1.87	----	20b	01/12/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-3	Description: SHOB-27, 10-15'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	56.3	%	15-5 Mod.	12/08/2006
Silt	19.9	%	15-5 Mod.	12/08/2006
Clay	23.8	%	15-5 Mod.	12/08/2006
Texture	Sa Cl Lo	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	3.39	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.5	S.U.	21a	12/05/2006
Saturation	55.0	%	27b	12/05/2006
Calcium saturated paste	23.8	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	10.5	meq/l	3-5.4	01/12/2007
Sodium saturated paste	19.5	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	4.72	----	20b	01/12/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-4	Description: SHOB-27, 15-20'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	71.3	%	15-5 Mod.	12/08/2006
Silt	16.2	%	15-5 Mod.	12/08/2006
Clay	12.5	%	15-5 Mod.	12/08/2006
Texture	Sandy Loam	-----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	3.24	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.7	S.U.	21a	12/05/2006
Saturation	44.2	%	27b	12/05/2006
Calcium saturated paste	18.0	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	4.85	meq/l	3-5.4	01/12/2007
Sodium saturated paste	27.7	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	8.19	-----	20b	01/12/2007
Sample Preparation	-----	-----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-5	Description: SHOB-27, 20-25'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	86.3	%	15-5 Mod.	12/08/2006
Silt	11.2	%	15-5 Mod.	12/08/2006
Clay	2.5	%	15-5 Mod.	12/08/2006
Texture	Sand	-----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	3.75	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.0	S.U.	21a	12/05/2006
Saturation	44.2	%	27b	12/05/2006
Calcium saturated paste	13.4	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	6.22	meq/l	3-5.4	01/12/2007
Sodium saturated paste	29.3	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	9.35	----	20b	01/12/2007
Sample Preparation	-----	-----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-6	Description: SHOB-27, 25-30'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	88.8	%	15-5 Mod.	12/08/2006
Silt	9.9	%	15-5 Mod.	12/08/2006
Clay	1.3	%	15-5 Mod.	12/08/2006
Texture	Sand	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	1.79	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.5	S.U.	21a	12/05/2006
Saturation	48.1	%	27b	12/05/2006
Calcium saturated paste	1.54	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	1.14	meq/l	3-5.4	01/12/2007
Sodium saturated paste	17.7	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	15.3	----	20b	01/12/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-7	Description: SHOB-27, 30-35'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	71.3	%	15-5 Mod.	12/08/2006
Silt	18.7	%	15-5 Mod.	12/08/2006
Clay	10.0	%	15-5 Mod.	12/08/2006
Texture	Sandy Loam	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	2.25	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.3	S.U.	21a	12/05/2006
Saturation	75.6	%	27b	12/05/2006
Calcium saturated paste	4.47	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	3.22	meq/l	3-5.4	01/12/2007
Sodium saturated paste	24.9	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	12.7	----	20b	01/12/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-8	Description: SHOB-27, 35-40'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	31.3	%	15-5 Mod.	12/08/2006
Silt	37.4	%	15-5 Mod.	12/08/2006
Clay	31.3	%	15-5 Mod.	12/08/2006
Texture	Clay Loam	-----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	2.27	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.8	S.U.	21a	12/05/2006
Saturation	188	%	27b	12/05/2006
Calcium saturated paste	2.40	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	2.25	meq/l	3-5.4	01/12/2007
Sodium saturated paste	21.2	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	14.0	-----	20b	01/12/2007
Sample Preparation	-----	-----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-9	Description: SHOB-27, 40-45'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	23.8	%	15-5 Mod.	12/08/2006
Silt	49.9	%	15-5 Mod.	12/08/2006
Clay	26.3	%	15-5 Mod.	12/08/2006
Texture	Loam	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	2.38	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.7	S.U.	21a	12/05/2006
Saturation	138	%	27b	12/05/2006
Calcium saturated paste	1.60	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	1.99	meq/l	3-5.4	01/12/2007
Sodium saturated paste	27.0	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	20.1	----	20b	01/12/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-10	Description: SHOB-27, 45-50'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	55.0	%	15-5 Mod.	12/08/2006
Silt	27.5	%	15-5 Mod.	12/08/2006
Clay	17.5	%	15-5 Mod.	12/08/2006
Texture	Sandy Loam	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	2.25	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.7	S.U.	21a	12/05/2006
Saturation	115	%	27b	12/05/2006
Calcium saturated paste	1.21	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	1.66	meq/l	3-5.4	01/12/2007
Sodium saturated paste	27.6	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	23.0	----	20b	01/12/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-11	Description: SHOB-27, 50-55'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	72.5	%	15-5 Mod.	12/08/2006
Silt	15.0	%	15-5 Mod.	12/08/2006
Clay	12.5	%	15-5 Mod.	12/08/2006
Texture	Sandy Loam	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	2.23	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	9.0	S.U.	21a	12/05/2006
Saturation	87.5	%	27b	12/05/2006
Calcium saturated paste	1.15	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	1.55	meq/l	3-5.4	01/12/2007
Sodium saturated paste	30.5	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	26.3	----	20b	01/12/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-12	Description: SHOB-27, 55-60'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	76.3	%	15-5 Mod.	12/08/2006
Silt	13.7	%	15-5 Mod.	12/08/2006
Clay	10.0	%	15-5 Mod.	12/08/2006
Texture	Sandy Loam	-----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	3.28	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.9	S.U.	21a	12/05/2006
Saturation	80.8	%	27b	12/05/2006
Calcium saturated paste	0.74	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	1.00	meq/l	3-5.4	01/12/2007
Sodium saturated paste	25.4	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	27.2	-----	20b	01/12/2007
Sample Preparation	-----	-----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-13	Description: SHOB-27, 75-80'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	48.8	%	15-5 Mod.	12/08/2006
Silt	27.4	%	15-5 Mod.	12/08/2006
Clay	23.8	%	15-5 Mod.	12/08/2006
Texture	Sa Cl Lo	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	2.58	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.8	S.U.	21a	12/05/2006
Saturation	148	%	27b	12/05/2006
Calcium saturated paste	0.91	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	1.13	meq/l	3-5.4	01/12/2007
Sodium saturated paste	28.2	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	27.9	----	20b	01/12/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-14	Description: SHOB-27, 80-85'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	12/08/2006
Silt	62.5	%	15-5 Mod.	12/08/2006
Clay	15.0	%	15-5 Mod.	12/08/2006
Texture	Silt Loam	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	1.91	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	9.1	S.U.	21a	12/05/2006
Saturation	139	%	27b	12/05/2006
Calcium saturated paste	0.69	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.68	meq/l	3-5.4	01/03/2007
Sodium saturated paste	20.3	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	24.5	----	20b	01/03/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-15	Description: SHOB-27, 85-90'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	60.0	%	15-5 Mod.	12/08/2006
Silt	27.5	%	15-5 Mod.	12/08/2006
Clay	12.5	%	15-5 Mod.	12/08/2006
Texture	Sandy Loam	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	NA	----	----	----
pH Saturated Paste	9.3	S.U.	21a	12/05/2006
Saturation	103	%	27b	12/05/2006
Calcium saturated paste	NA	----	----	----
Magnesium saturated paste	NA	----	----	----
Sodium saturated paste	NA	----	----	----
Sodium Adsorption Ratio	NA	----	----	----
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-34	Description: SHOB-28, 0-5'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/07/2006
Silt	41.2	%	15-5 Mod.	12/07/2006
Clay	48.8	%	15-5 Mod.	12/07/2006
Texture	Silty Clay	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	2.43	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.0	S.U.	21a	12/05/2006
Saturation	94.6	%	27b	12/04/2006
Calcium saturated paste	12.0	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	19.1	meq/l	3-5.4	01/12/2007
Sodium saturated paste	14.5	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	3.68	----	20b	01/12/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-35	Description: SHOB-28, 5-10'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod.	12/07/2006
Silt	49.9	%	15-5 Mod.	12/07/2006
Clay	41.3	%	15-5 Mod.	12/07/2006
Texture	Silty Clay	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	4.14	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.1	S.U.	21a	12/05/2006
Saturation	93.5	%	27b	12/04/2006
Calcium saturated paste	22.0	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	31.2	meq/l	3-5.4	01/12/2007
Sodium saturated paste	31.1	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	6.02	----	20b	01/12/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-36	Description: SHOB-28, 10-15'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	12/07/2006
Silt	45.0	%	15-5 Mod.	12/07/2006
Clay	40.0	%	15-5 Mod.	12/07/2006
Texture	Si Cl Lo	-----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	4.90	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	7.9	S.U.	21a	12/05/2006
Saturation	87.9	%	27b	12/04/2006
Calcium saturated paste	21.0	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	22.2	meq/l	3-5.4	01/12/2007
Sodium saturated paste	22.0	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	4.74	-----	20b	01/12/2007
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-37	Description: SHOB-28, 15-20'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	26.3	%	15-5 Mod.	12/07/2006
Silt	43.7	%	15-5 Mod.	12/07/2006
Clay	30.0	%	15-5 Mod.	12/07/2006
Texture	Clay Loam	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	4.60	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	7.9	S.U.	21a	12/05/2006
Saturation	64.4	%	27b	12/04/2006
Calcium saturated paste	24.3	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	23.7	meq/l	3-5.4	01/12/2007
Sodium saturated paste	21.1	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	4.31	----	20b	01/12/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-38	Description: SHOB-28, 20-25'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	28.8	%	15-5 Mod.	12/07/2006
Silt	58.7	%	15-5 Mod.	12/07/2006
Clay	12.5	%	15-5 Mod.	12/07/2006
Texture	Silt Loam	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	1.39	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.3	S.U.	21a	12/05/2006
Saturation	69.4	%	27b	12/04/2006
Calcium saturated paste	5.57	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	5.65	meq/l	3-5.4	01/12/2007
Sodium saturated paste	8.73	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	3.68	----	20b	01/12/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-39	Description: SHOB-28, 25-30'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	62.5	%	15-5 Mod.	12/07/2006
Silt	30.0	%	15-5 Mod.	12/07/2006
Clay	7.5	%	15-5 Mod.	12/07/2006
Texture	Sandy Loam	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	0.79	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.4	S.U.	21a	12/05/2006
Saturation	57.7	%	27b	12/04/2006
Calcium saturated paste	2.92	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	2.06	meq/l	3-5.4	01/12/2007
Sodium saturated paste	3.31	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	2.10	----	20b	01/12/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-40	Description: SHOB-28, 30-35'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	70.0	%	15-5 Mod.	12/07/2006
Silt	23.7	%	15-5 Mod.	12/07/2006
Clay	6.3	%	15-5 Mod.	12/07/2006
Texture	Sandy Loam	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	0.95	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.3	S.U.	21a	12/05/2006
Saturation	52.5	%	27b	12/04/2006
Calcium saturated paste	4.75	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	3.09	meq/l	3-5.4	01/12/2007
Sodium saturated paste	2.88	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	1.45	----	20b	01/12/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-41	Description: SHOB-28, 35-40'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	70.0	%	15-5 Mod.	12/07/2006
Silt	25.0	%	15-5 Mod.	12/07/2006
Clay	5.0	%	15-5 Mod.	12/07/2006
Texture	Sandy Loam	-----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	1.06	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.0	S.U.	21a	12/05/2006
Saturation	45.4	%	27b	12/05/2006
Calcium saturated paste	5.87	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	3.53	meq/l	3-5.4	12/28/2006
Sodium saturated paste	2.38	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	1.10	-----	20b	12/28/2006
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-42	Description: SHOB-28, 40-45'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	41.3	%	15-5 Mod.	12/07/2006
Silt	44.9	%	15-5 Mod.	12/07/2006
Clay	13.8	%	15-5 Mod.	12/07/2006
Texture	Loam	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	2.97	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.7	S.U.	21a	12/05/2006
Saturation	53.1	%	27b	12/05/2006
Calcium saturated paste	19.8	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	13.5	meq/l	3-5.4	12/28/2006
Sodium saturated paste	8.28	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	2.03	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-43	Description: SHOB-28, 45-50'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	72.5	%	15-5 Mod.	12/07/2006
Silt	23.7	%	15-5 Mod.	12/07/2006
Clay	3.8	%	15-5 Mod.	12/07/2006
Texture	Sandy Loam	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	0.72	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.1	S.U.	21a	12/05/2006
Saturation	46.4	%	27b	12/05/2006
Calcium saturated paste	3.39	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	2.47	meq/l	3-5.4	12/28/2006
Sodium saturated paste	1.38	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	0.81	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-44	Description: SHOB-28, 50-55'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	70.0	%	15-5 Mod.	12/07/2006
Silt	25.0	%	15-5 Mod.	12/07/2006
Clay	5.0	%	15-5 Mod.	12/07/2006
Texture	Sandy Loam	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	0.64	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.1	S.U.	21a	12/05/2006
Saturation	48.5	%	27b	12/05/2006
Calcium saturated paste	2.79	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	2.27	meq/l	3-5.4	12/28/2006
Sodium saturated paste	1.23	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	0.77	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-45	Description: SHOB-28, 55-60'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	46.3	%	15-5 Mod.	12/07/2006
Silt	42.4	%	15-5 Mod.	12/07/2006
Clay	11.3	%	15-5 Mod.	12/07/2006
Texture	Loam	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	0.56	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.0	S.U.	21a	12/05/2006
Saturation	60.5	%	27b	12/05/2006
Calcium saturated paste	2.41	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	2.06	meq/l	3-5.4	12/28/2006
Sodium saturated paste	1.11	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	0.75	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-46	Description: SHOB-28, 60-65'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	37.5	%	15-5 Mod.	12/07/2006
Silt	46.2	%	15-5 Mod.	12/07/2006
Clay	16.3	%	15-5 Mod.	12/07/2006
Texture	Loam	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	0.95	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.0	S.U.	21a	12/05/2006
Saturation	63.1	%	27b	12/05/2006
Calcium saturated paste	3.98	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	3.68	meq/l	3-5.4	12/28/2006
Sodium saturated paste	2.41	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	1.23	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-47	Description: SHOB-28, 65-70'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	40.0	%	15-5 Mod.	12/07/2006
Silt	50.0	%	15-5 Mod.	12/07/2006
Clay	10.0	%	15-5 Mod.	12/07/2006
Texture	Silt Loam	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	1.67	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.9	S.U.	21a	12/05/2006
Saturation	40.2	%	27b	12/05/2006
Calcium saturated paste	7.88	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	7.39	meq/l	3-5.4	12/28/2006
Sodium saturated paste	4.73	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	1.71	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-48	Description: SHOB-28, 70-75'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	81.3	%	15-5 Mod.	12/07/2006
Silt	14.9	%	15-5 Mod.	12/07/2006
Clay	3.8	%	15-5 Mod.	12/07/2006
Texture	Loamy Sand	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	1.93	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.7	S.U.	21a	12/05/2006
Saturation	41.5	%	27b	12/05/2006
Calcium saturated paste	9.22	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	8.83	meq/l	3-5.4	12/28/2006
Sodium saturated paste	6.20	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	2.06	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-49	Description: SHOB-28, 90-95'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	46.3	%	15-5 Mod.	12/07/2006
Silt	28.7	%	15-5 Mod.	12/07/2006
Clay	25.0	%	15-5 Mod.	12/07/2006
Texture	Loam	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	1.78	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.5	S.U.	21a	12/05/2006
Saturation	152	%	27b	12/05/2006
Calcium saturated paste	0.85	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.75	meq/l	3-5.4	12/28/2006
Sodium saturated paste	17.2	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	19.3	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-50	Description: SHOB-28, 95-100'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/07/2006
Silt	57.5	%	15-5 Mod.	12/07/2006
Clay	32.5	%	15-5 Mod.	12/07/2006
Texture	Si Cl Lo	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	1.18	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	9.2	S.U.	21a	12/05/2006
Saturation	147	%	27b	12/05/2006
Calcium saturated paste	0.42	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.27	meq/l	3-5.4	12/28/2006
Sodium saturated paste	11.3	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	19.2	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-51	Description: SHOB-28, 100-105'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	3.8	%	15-5 Mod.	12/07/2006
Silt	54.9	%	15-5 Mod.	12/07/2006
Clay	41.3	%	15-5 Mod.	12/07/2006
Texture	Silty Clay	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	1.13	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	9.0	S.U.	21a	12/05/2006
Saturation	172	%	27b	12/05/2006
Calcium saturated paste	0.29	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.24	meq/l	3-5.4	12/28/2006
Sodium saturated paste	11.2	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	21.9	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-12	Description: SHOB-29, 0-5'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	52.5	%	15-5 Mod.	12/06/2006
Silt	25.0	%	15-5 Mod.	12/06/2006
Clay	22.5	%	15-5 Mod.	12/06/2006
Texture	Sa Cl Lo	----	USDA	12/06/2006
Electrical Conductivity Saturated Paste	0.54	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.7	S.U.	21a	12/05/2006
Saturation	49.6	%	27b	12/04/2006
Calcium saturated paste	2.76	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	2.65	meq/l	3-5.4	12/28/2006
Sodium saturated paste	0.76	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	0.46	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-21	Description: SHOB-29, 5-10'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	86.3	%	15-5 Mod.	12/07/2006
Silt	7.4	%	15-5 Mod.	12/07/2006
Clay	6.3	%	15-5 Mod.	12/07/2006
Texture	Loamy Sand	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	0.38	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.0	S.U.	21a	12/05/2006
Saturation	100	%	27b	12/04/2006
Calcium saturated paste	0.44	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	2.89	meq/l	3-5.4	01/12/2007
Sodium saturated paste	0.98	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	0.76	----	20b	01/12/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-22	Description: SHOB-29, 10-15'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	82.5	%	15-5 Mod.	12/07/2006
Silt	11.2	%	15-5 Mod.	12/07/2006
Clay	6.3	%	15-5 Mod.	12/07/2006
Texture	Loamy Sand	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	0.58	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.7	S.U.	21a	12/05/2006
Saturation	46.9	%	27b	12/04/2006
Calcium saturated paste	0.73	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	2.47	meq/l	3-5.4	01/12/2007
Sodium saturated paste	2.16	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	1.71	----	20b	01/12/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-23	Description: SHOB-29, 15-20'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	88.8	%	15-5 Mod.	12/07/2006
Silt	4.9	%	15-5 Mod.	12/07/2006
Clay	6.3	%	15-5 Mod.	12/07/2006
Texture	Sand	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	0.57	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.9	S.U.	21a	12/05/2006
Saturation	42.4	%	27b	12/04/2006
Calcium saturated paste	0.47	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	0.97	meq/l	3-5.4	01/12/2007
Sodium saturated paste	4.28	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	5.04	----	20b	01/12/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-24	Description: SHOB-29, 20-25'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	88.8	%	15-5 Mod.	12/07/2006
Silt	7.4	%	15-5 Mod.	12/07/2006
Clay	3.8	%	15-5 Mod.	12/07/2006
Texture	Sand	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	0.42	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.0	S.U.	21a	12/05/2006
Saturation	33.8	%	27b	12/04/2006
Calcium saturated paste	0.39	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	0.62	meq/l	3-5.4	01/12/2007
Sodium saturated paste	3.31	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	4.67	----	20b	01/12/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-25	Description: SHOB-29, 25-30'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	56.3	%	15-5 Mod.	12/07/2006
Silt	23.7	%	15-5 Mod.	12/07/2006
Clay	20.0	%	15-5 Mod.	12/07/2006
Texture	Sandy Loam	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	0.88	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.2	S.U.	21a	12/05/2006
Saturation	81.0	%	27b	12/04/2006
Calcium saturated paste	1.10	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	1.12	meq/l	3-5.4	01/12/2007
Sodium saturated paste	5.44	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	5.16	----	20b	01/12/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-26	Description: SHOB-29, 30-35'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	30.0	%	15-5 Mod.	12/07/2006
Silt	41.7	%	15-5 Mod.	12/07/2006
Clay	28.8	%	15-5 Mod.	12/07/2006
Texture	Clay Loam	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	0.70	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.5	S.U.	21a	12/05/2006
Saturation	128	%	27b	12/04/2006
Calcium saturated paste	1.01	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	1.01	meq/l	3-5.4	01/12/2007
Sodium saturated paste	6.90	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	6.87	----	20b	01/12/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-27	Description: SHOB-29, 35-40'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	27.5	%	15-5 Mod.	12/07/2006
Silt	46.2	%	15-5 Mod.	12/07/2006
Clay	26.3	%	15-5 Mod.	12/07/2006
Texture	Loam	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	1.32	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.5	S.U.	21a	12/05/2006
Saturation	129	%	27b	12/04/2006
Calcium saturated paste	1.43	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	1.46	meq/l	3-5.4	01/12/2007
Sodium saturated paste	9.68	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	8.05	----	20b	01/12/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-28	Description: SHOB-29, 40-45'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod.	12/07/2006
Silt	37.5	%	15-5 Mod.	12/07/2006
Clay	37.5	%	15-5 Mod.	12/07/2006
Texture	Clay Loam	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	1.17	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.6	S.U.	21a	12/05/2006
Saturation	149	%	27b	12/04/2006
Calcium saturated paste	0.70	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	0.67	meq/l	3-5.4	01/12/2007
Sodium saturated paste	8.11	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	9.82	----	20b	01/12/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-29	Description: SHOB-29, 45-50'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	12/07/2006
Silt	43.7	%	15-5 Mod.	12/07/2006
Clay	33.8	%	15-5 Mod.	12/07/2006
Texture	Clay Loam	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	1.07	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.7	S.U.	21a	12/05/2006
Saturation	124	%	27b	12/04/2006
Calcium saturated paste	0.92	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	1.04	meq/l	3-5.4	01/12/2007
Sodium saturated paste	14.1	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	14.3	----	20b	01/12/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-30	Description: SHOB-29, 50-55'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	40.0	%	15-5 Mod.	12/07/2006
Silt	33.7	%	15-5 Mod.	12/07/2006
Clay	26.3	%	15-5 Mod.	12/07/2006
Texture	Loam	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	1.32	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	7.8	S.U.	21a	12/05/2006
Saturation	115	%	27b	12/04/2006
Calcium saturated paste	1.50	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	2.00	meq/l	3-5.4	01/12/2007
Sodium saturated paste	18.6	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	14.0	----	20b	01/12/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-31	Description: SHOB-29, 70-75'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15-5 Mod.	12/07/2006
Silt	47.4	%	15-5 Mod.	12/07/2006
Clay	36.3	%	15-5 Mod.	12/07/2006
Texture	Si Cl Lo	---	USDA	12/07/2006
Electrical Conductivity Saturated Paste	0.74	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.2	S.U.	21a	12/05/2006
Saturation	150	%	27b	12/04/2006
Calcium saturated paste	0.27	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	0.22	meq/l	3-5.4	01/12/2007
Sodium saturated paste	8.04	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	16.2	---	20b	01/12/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-32	Description: SHOB-29, 75-80'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/07/2006
Silt	43.7	%	15-5 Mod.	12/07/2006
Clay	46.3	%	15-5 Mod.	12/07/2006
Texture	Silty Clay	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	0.90	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.3	S.U.	21a	12/05/2006
Saturation	162	%	27b	12/04/2006
Calcium saturated paste	0.34	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	0.31	meq/l	3-5.4	01/12/2007
Sodium saturated paste	15.9	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	27.8	----	20b	01/12/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-33	Description: SHOB-29, 80-85'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/07/2006
Silt	56.2	%	15-5 Mod.	12/07/2006
Clay	31.3	%	15-5 Mod.	12/07/2006
Texture	Si Cl Lo	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	1.62	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.5	S.U.	21a	12/05/2006
Saturation	166	%	27b	12/04/2006
Calcium saturated paste	0.35	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	0.40	meq/l	3-5.4	01/12/2007
Sodium saturated paste	21.0	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	34.4	----	20b	01/12/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-11	Description: SHOB-30, 2-7'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/19/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	23.8	%	15-5 Mod.	12/04/2006
Silt	53.7	%	15-5 Mod.	12/04/2006
Clay	22.5	%	15-5 Mod.	12/04/2006
Texture	Clay	---	USDA	12/04/2006
Electrical Conductivity Saturated Paste	8.75	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.0	S.U.	21a	11/30/2006
Saturation	66.1	%	27b	11/30/2006
Calcium saturated paste	23.1	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	67.4	meq/l	3-5.4	12/22/2006
Sodium saturated paste	51.7	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	7.68	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-12	Description: SHOB-30, 9.5-14.5'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/19/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	15-5 Mod.	12/04/2006
Silt	56.2	%	15-5 Mod.	12/04/2006
Clay	37.5	%	15-5 Mod.	12/04/2006
Texture	Silt Loam	—	USDA	12/04/2006
Electrical Conductivity Saturated Paste	6.80	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	7.2	S.U.	21a	11/30/2006
Saturation	82.2	%	27b	11/30/2006
Calcium saturated paste	24.5	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	41.2	meq/l	3-5.4	12/22/2006
Sodium saturated paste	36.3	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	6.33	—	20b	12/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-14	Description: SHOB-30, 16-21'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/19/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod.	12/04/2006
Silt	59.9	%	15-5 Mod.	12/04/2006
Clay	31.3	%	15-5 Mod.	12/04/2006
Texture	Silt Loam	—	USDA	12/04/2006
Electrical Conductivity Saturated Paste	3.78	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	7.3	S.U.	21a	11/30/2006
Saturation	84.2	%	27b	11/30/2006
Calcium saturated paste	18.4	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	18.3	meq/l	3-5.4	12/22/2006
Sodium saturated paste	15.9	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	3.70	—	20b	12/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-15	Description: SHOB-30, 21-26'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/19/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/04/2006
Silt	61.2	%	15-5 Mod.	12/04/2006
Clay	26.3	%	15-5 Mod.	12/04/2006
Texture	Si Cl Lo	—	USDA	12/04/2006
Electrical Conductivity Saturated Paste	2.57	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	7.6	S.U.	21a	11/30/2006
Saturation	87.1	%	27b	11/30/2006
Calcium saturated paste	5.54	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	7.26	meq/l	3-5.4	12/22/2006
Sodium saturated paste	16.4	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	6.47	—	20b	12/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-16	Description: SHOB-30, 26-30'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/19/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/04/2006
Silt	57.5	%	15-5 Mod.	12/04/2006
Clay	32.5	%	15-5 Mod.	12/04/2006
Texture	Silt Loam	—	USDA	12/04/2006
Electrical Conductivity Saturated Paste	2.54	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	7.9	S.U.	21a	11/30/2006
Saturation	123	%	27b	11/30/2006
Calcium saturated paste	3.97	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	5.56	meq/l	3-5.4	12/22/2006
Sodium saturated paste	19.8	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	9.06	—	20b	12/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-17	Description: SHOB-30, 30-32.5'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/19/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	15-5 Mod.	12/04/2006
Silt	61.2	%	15-5 Mod.	12/04/2006
Clay	32.5	%	15-5 Mod.	12/04/2006
Texture	Si Cl Lo	---	USDA	12/04/2006
Electrical Conductivity Saturated Paste	1.20	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.4	S.U.	21a	11/30/2006
Saturation	151	%	27b	11/30/2006
Calcium saturated paste	0.94	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	1.01	meq/l	3-5.4	12/22/2006
Sodium saturated paste	10.5	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	10.6	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-18	Description: SHOB-30, 32.5-35'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/19/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	1.3	%	15-5 Mod.	12/04/2006
Silt	41.2	%	15-5 Mod.	12/04/2006
Clay	57.5	%	15-5 Mod.	12/04/2006
Texture	Si Cl Lo	---	USDA	12/04/2006
Electrical Conductivity Saturated Paste	1.63	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.3	S.U.	21a	11/30/2006
Saturation	194	%	27b	11/30/2006
Calcium saturated paste	1.17	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	1.52	meq/l	3-5.4	12/22/2006
Sodium saturated paste	14.9	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	12.8	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-19	Description: SHOB-30, 35-40'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/19/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	38.8	%	15-5 Mod.	12/04/2006
Silt	41.2	%	15-5 Mod.	12/04/2006
Clay	20.0	%	15-5 Mod.	12/04/2006
Texture	Clay	—	USDA	12/04/2006
Electrical Conductivity Saturated Paste	1.95	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.6	S.U.	21a	11/30/2006
Saturation	98.9	%	27b	11/30/2006
Calcium saturated paste	1.09	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	1.45	meq/l	3-5.4	12/22/2006
Sodium saturated paste	18.3	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	16.2	—	20b	12/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-20	Description: SHOB-30, 40-42.7	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	66.3	%	15-5 Mod.	12/04/2006
Silt	19.9	%	15-5 Mod.	12/04/2006
Clay	13.8	%	15-5 Mod.	12/04/2006
Texture	Sandy Loam	—	USDA	12/04/2006
Electrical Conductivity Saturated Paste	1.98	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.9	S.U.	21a	11/30/2006
Saturation	66.3	%	27b	11/30/2006
Calcium saturated paste	0.99	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	0.91	meq/l	3-5.4	12/22/2006
Sodium saturated paste	19.8	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	20.3	—	20b	12/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-21	Description: SHOB-30, 45-50'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	60.0	%	15-5 Mod.	12/05/2006
Silt	22.5	%	15-5 Mod.	12/05/2006
Clay	17.5	%	15-5 Mod.	12/05/2006
Texture	Sandy Loam	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	1.52	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.7	S.U.	21a	11/30/2006
Saturation	66.4	%	27b	11/30/2006
Calcium saturated paste	0.83	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	0.55	meq/l	3-5.4	12/22/2006
Sodium saturated paste	14.5	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	17.5	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-22	Description: SHOB-30, 50-53'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	62.5	%	15-5 Mod.	12/05/2006
Silt	16.2	%	15-5 Mod.	12/05/2006
Clay	21.3	%	15-5 Mod.	12/05/2006
Texture	Sa Cl Lo	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	0.98	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.2	S.U.	21a	11/30/2006
Saturation	91.1	%	27b	11/30/2006
Calcium saturated paste	0.60	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	0.35	meq/l	3-5.4	12/22/2006
Sodium saturated paste	10.0	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	14.6	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-23	Description: SHOB-30, 75-80'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	15-5 Mod.	12/05/2006
Silt	23.7	%	15-5 Mod.	12/05/2006
Clay	70.0	%	15-5 Mod.	12/05/2006
Texture	Clay	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	0.96	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.2	S.U.	21a	11/30/2006
Saturation	159	%	27b	11/30/2006
Calcium saturated paste	0.57	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	0.33	meq/l	3-5.4	12/22/2006
Sodium saturated paste	10.0	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	14.9	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-24	Description: SHOB-30, 80-85'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/05/2006
Silt	51.2	%	15-5 Mod.	12/05/2006
Clay	43.8	%	15-5 Mod.	12/05/2006
Texture	Silty Clay	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	1.71	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.5	S.U.	21a	11/30/2006
Saturation	194	%	27b	11/30/2006
Calcium saturated paste	1.15	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	0.71	meq/l	3-5.4	12/22/2006
Sodium saturated paste	16.3	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	16.9	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-25	Description: SHOB-30, 85-90'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	12/05/2006
Silt	36.2	%	15-5 Mod.	12/05/2006
Clay	43.8	%	15-5 Mod.	12/05/2006
Texture	Clay	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	1.60	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.3	S.U.	21a	11/30/2006
Saturation	155	%	27b	11/30/2006
Calcium saturated paste	0.59	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	0.41	meq/l	3-5.4	12/22/2006
Sodium saturated paste	16.5	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	23.4	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-26	Description: SHOB-30, 90-95'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/05/2006
Silt	56.2	%	15-5 Mod.	12/05/2006
Clay	33.8	%	15-5 Mod.	12/05/2006
Texture	Si Cl Lo	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	1.51	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.7	S.U.	21a	11/30/2006
Saturation	136	%	27b	11/30/2006
Calcium saturated paste	0.60	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	0.44	meq/l	3-5.4	12/22/2006
Sodium saturated paste	17.0	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	23.5	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-27	Description: SHOB-30, 95-100'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	31.3	%	15-5 Mod.	12/05/2006
Silt	46.2	%	15-5 Mod.	12/05/2006
Clay	22.5	%	15-5 Mod.	12/05/2006
Texture	Loam	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	1.54	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.9	S.U.	21a	11/30/2006
Saturation	124	%	27b	11/30/2006
Calcium saturated paste	0.83	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	0.68	meq/l	3-5.4	12/22/2006
Sodium saturated paste	14.6	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	16.8	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-28	Description: SHOB-30, 100-105'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/05/2006
Silt	60.0	%	15-5 Mod.	12/05/2006
Clay	30.0	%	15-5 Mod.	12/05/2006
Texture	Si Cl Lo	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	1.34	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.0	S.U.	21a	11/30/2006
Saturation	152	%	27b	11/30/2006
Calcium saturated paste	0.77	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	0.56	meq/l	3-5.4	12/22/2006
Sodium saturated paste	15.4	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	18.9	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-29	Description: SHOB-30, 105-110'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	15-5 Mod.	12/05/2006
Silt	49.9	%	15-5 Mod.	12/05/2006
Clay	43.8	%	15-5 Mod.	12/05/2006
Texture	Silty Clay	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	1.43	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.0	S.U.	21a	11/30/2006
Saturation	151	%	27b	11/30/2006
Calcium saturated paste	0.26	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	0.35	meq/l	3-5.4	12/22/2006
Sodium saturated paste	15.3	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	27.7	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-30	Description: SHOB-30, 110-115'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod.	12/05/2006
Silt	59.9	%	15-5 Mod.	12/05/2006
Clay	31.3	%	15-5 Mod.	12/05/2006
Texture	Si Cl Lo	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	2.23	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.7	S.U.	21a	11/30/2006
Saturation	154	%	27b	11/30/2006
Calcium saturated paste	0.68	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	0.51	meq/l	3-5.4	12/22/2006
Sodium saturated paste	26.5	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	34.3	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-31	Description: SHOB-30, 115-120'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	35.0	%	15-5 Mod.	12/05/2006
Silt	45.0	%	15-5 Mod.	12/05/2006
Clay	20.0	%	15-5 Mod.	12/05/2006
Texture	Loam	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	2.02	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.7	S.U.	21a	11/30/2006
Saturation	93.6	%	27b	11/30/2006
Calcium saturated paste	0.64	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	0.59	meq/l	3-5.4	12/22/2006
Sodium saturated paste	22.6	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	28.8	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-32	Description: SHOB-30, 120-125'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	70.0	%	15-5 Mod.	12/05/2006
Silt	21.2	%	15-5 Mod.	12/05/2006
Clay	8.8	%	15-5 Mod.	12/05/2006
Texture	Sandy Loam	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	6.22	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.7	S.U.	21a	11/30/2006
Saturation	58.5	%	27b	11/30/2006
Calcium saturated paste	2.50	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	3.76	meq/l	3-5.4	12/22/2006
Sodium saturated paste	74.6	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	42.2	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-33	Description: SHOB-30, 125-130'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	71.3	%	15-5 Mod.	12/05/2006
Silt	22.4	%	15-5 Mod.	12/05/2006
Clay	6.3	%	15-5 Mod.	12/05/2006
Texture	Sandy Loam	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	3.55	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.3	S.U.	21a	11/30/2006
Saturation	41.5	%	27b	11/30/2006
Calcium saturated paste	3.04	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	2.92	meq/l	3-5.4	12/22/2006
Sodium saturated paste	37.5	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	21.7	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-34	Description: SHOB-30, 130-135'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	71.3	%	15-5 Mod.	12/05/2006
Silt	22.4	%	15-5 Mod.	12/05/2006
Clay	6.3	%	15-5 Mod.	12/05/2006
Texture	Sandy Loam	—	USDA	12/05/2006
Electrical Conductivity Saturated Paste	4.85	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	7.9	S.U.	21a	11/30/2006
Saturation	40.8	%	27b	11/30/2006
Calcium saturated paste	6.18	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	4.92	meq/l	3-5.4	12/22/2006
Sodium saturated paste	48.9	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	20.7	—	20b	12/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-35	Description: SHOB-30, 135-140'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	86.3	%	15-5 Mod.	12/05/2006
Silt	8.7	%	15-5 Mod.	12/05/2006
Clay	5.0	%	15-5 Mod.	12/05/2006
Texture	Loamy Sand	----	USDA	12/05/2006
Electrical Conductivity Saturated Paste	3.02	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.6	S.U.	21a	11/30/2006
Saturation	44.5	%	27b	11/30/2006
Calcium saturated paste	0.74	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	0.85	meq/l	3-5.4	12/22/2006
Sodium saturated paste	32.9	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	36.8	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-36	Description: SHOB-30, 140-145'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	50.0	%	15-5 Mod.	12/05/2006
Silt	31.2	%	15-5 Mod.	12/05/2006
Clay	18.8	%	15-5 Mod.	12/05/2006
Texture	Loam	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	6.32	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	7.7	S.U.	21a	11/30/2006
Saturation	61.2	%	27b	11/30/2006
Calcium saturated paste	23.9	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	22.4	meq/l	3-5.4	12/22/2006
Sodium saturated paste	48.7	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	10.1	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-37	Description: SHOB-30, 145-150'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	50.0	%	15-5 Mod.	12/05/2006
Silt	30.0	%	15-5 Mod.	12/05/2006
Clay	20.0	%	15-5 Mod.	12/05/2006
Texture	Loam	—	USDA	12/05/2006
Electrical Conductivity Saturated Paste	5.39	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	7.8	S.U.	21a	11/30/2006
Saturation	68.7	%	27b	11/30/2006
Calcium saturated paste	10.0	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	10.1	meq/l	3-5.4	12/22/2006
Sodium saturated paste	52.8	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	16.6	—	20b	12/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-38	Description: SHOB-30, 150-155'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	86.3	%	15-5 Mod.	12/05/2006
Silt	8.7	%	15-5 Mod.	12/05/2006
Clay	5.0	%	15-5 Mod.	12/05/2006
Texture	Loamy Sand	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	3.36	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.8	S.U.	21a	11/30/2006
Saturation	42.1	%	27b	11/30/2006
Calcium saturated paste	1.05	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	1.10	meq/l	3-5.4	12/22/2006
Sodium saturated paste	36.0	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	34.7	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-39	Description: SHOB-30, 155-160'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	78.8	%	15-5 Mod.	12/05/2006
Silt	17.4	%	15-5 Mod.	12/05/2006
Clay	3.8	%	15-5 Mod.	12/05/2006
Texture	Loamy Sand	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	2.18	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.1	S.U.	21a	11/30/2006
Saturation	53.0	%	27b	11/30/2006
Calcium saturated paste	0.55	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	0.57	meq/l	3-5.4	12/22/2006
Sodium saturated paste	22.9	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	30.5	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-40	Description: SHOB-30, 160-165'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	67.5	%	15-5 Mod.	12/05/2006
Silt	22.5	%	15-5 Mod.	12/05/2006
Clay	10.0	%	15-5 Mod.	12/05/2006
Texture	Sandy Loam	—	USDA	12/05/2006
Electrical Conductivity Saturated Paste	3.02	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.4	S.U.	21a	11/30/2006
Saturation	68.6	%	27b	11/30/2006
Calcium saturated paste	2.03	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	2.36	meq/l	3-5.4	12/22/2006
Sodium saturated paste	28.8	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	19.4	—	20b	12/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100327-41	Description: SHOB-30, 165-170'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	35.0	%	15-5 Mod.	11/29/2006
Silt	46.2	%	15-5 Mod.	11/29/2006
Clay	18.8	%	15-5 Mod.	11/29/2006
Texture	Loam	---	USDA	11/29/2006
Electrical Conductivity Saturated Paste	2.46	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.1	S.U.	21a	11/28/2006
Saturation	88.8	%	27b	11/28/2006
Calcium saturated paste	0.70	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.58	meq/l	3-5.4	12/13/2006
Sodium saturated paste	27.8	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	34.9	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100327-42	Description: SHOB-30, 170-175'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	23.8	%	15-5 Mod.	11/29/2006
Silt	47.4	%	15-5 Mod.	11/29/2006
Clay	28.8	%	15-5 Mod.	11/29/2006
Texture	Clay Loam	---	USDA	11/29/2006
Electrical Conductivity Saturated Paste	1.51	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.9	S.U.	21a	11/28/2006
Saturation	110	%	27b	11/28/2006
Calcium saturated paste	0.30	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.20	meq/l	3-5.4	12/13/2006
Sodium saturated paste	14.8	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	29.6	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-43	Description: SHOB-30, 175-180'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	11/29/2006
Silt	50.0	%	15-5 Mod.	11/29/2006
Clay	42.5	%	15-5 Mod.	11/29/2006
Texture	Silty Clay	---	USDA	11/29/2006
Electrical Conductivity Saturated Paste	1.93	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.3	S.U.	21a	11/28/2006
Saturation	113	%	27b	11/28/2006
Calcium saturated paste	0.38	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.25	meq/l	3-5.4	12/13/2006
Sodium saturated paste	18.4	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	32.9	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-44	Description: SHOB-30, 180-185'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod.	11/29/2006
Silt	44.9	%	15-5 Mod.	11/29/2006
Clay	46.3	%	15-5 Mod.	11/29/2006
Texture	Silty Clay	—	USDA	11/29/2006
Electrical Conductivity Saturated Paste	3.04	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.7	S.U.	21a	11/28/2006
Saturation	112	%	27b	11/28/2006
Calcium saturated paste	0.88	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.73	meq/l	3-5.4	12/13/2006
Sodium saturated paste	30.8	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	34.3	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

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Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100327-45	Description: SHOB-30, 185-190'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	11/29/2006
Silt	32.5	%	15-5 Mod.	11/29/2006
Clay	57.5	%	15-5 Mod.	11/29/2006
Texture	Clay	---	USDA	11/29/2006
Electrical Conductivity Saturated Paste	3.33	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.5	S.U.	21a	11/28/2006
Saturation	131	%	27b	11/28/2006
Calcium saturated paste	0.80	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.67	meq/l	3-5.4	12/13/2006
Sodium saturated paste	39.5	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	46.0	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-46	Description: SHOB-30, 190-195'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	37.5	%	15-5 Mod.	11/29/2006
Silt	17.5	%	15-5 Mod.	11/29/2006
Clay	45.0	%	15-5 Mod.	11/29/2006
Texture	Clay	---	USDA	11/29/2006
Electrical Conductivity Saturated Paste	2.23	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	7.8	S.U.	21a	11/28/2006
Saturation	120	%	27b	11/28/2006
Calcium saturated paste	0.44	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.34	meq/l	3-5.4	12/13/2006
Sodium saturated paste	23.6	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	37.8	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-47	Description: SHOB-30, 195-200'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	85.0	%	15-5 Mod.	11/29/2006
Silt	5.0	%	15-5 Mod.	11/29/2006
Clay	10.0	%	15-5 Mod.	11/29/2006
Texture	Loamy Sand	---	USDA	11/29/2006
Electrical Conductivity Saturated Paste	4.40	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	7.0	S.U.	21a	11/28/2006
Saturation	105	%	27b	11/28/2006
Calcium saturated paste	1.06	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	1.13	meq/l	3-5.4	12/14/2006
Sodium saturated paste	45.8	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	43.8	---	20b	12/14/2006
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-48	Description: SHOB-30, 200-205'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	45.0	%	15-5 Mod.	11/29/2006
Silt	38.7	%	15-5 Mod.	11/29/2006
Clay	16.3	%	15-5 Mod.	11/29/2006
Texture	Loam	---	USDA	11/29/2006
Electrical Conductivity Saturated Paste	2.80	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	7.7	S.U.	21a	11/28/2006
Saturation	97.4	%	27b	11/28/2006
Calcium saturated paste	1.03	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	1.30	meq/l	3-5.4	12/14/2006
Sodium saturated paste	29.0	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	26.8	---	20b	12/14/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-49	Description: SHOB-30, 205-210'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	37.5	%	15-5 Mod.	11/29/2006
Silt	33.7	%	15-5 Mod.	11/29/2006
Clay	28.8	%	15-5 Mod.	11/29/2006
Texture	Clay Loam	—	USDA	11/29/2006
Electrical Conductivity Saturated Paste	2.55	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.0	S.U.	21a	11/28/2006
Saturation	114	%	27b	11/28/2006
Calcium saturated paste	0.62	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.54	meq/l	3-5.4	12/14/2006
Sodium saturated paste	27.0	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	35.4	—	20b	12/14/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-50	Description: SHOB-30, 210-215'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	27.5	%	15-5 Mod.	11/29/2006
Silt	47.5	%	15-5 Mod.	11/29/2006
Clay	25.0	%	15-5 Mod.	11/29/2006
Texture	Loam	---	USDA	11/29/2006
Electrical Conductivity Saturated Paste	1.75	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.7	S.U.	21a	11/28/2006
Saturation	117	%	27b	11/28/2006
Calcium saturated paste	0.57	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.36	meq/l	3-5.4	12/14/2006
Sodium saturated paste	20.9	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	30.6	---	20b	12/14/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-51	Description: SHOB-30, 215-220'	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	30.0	%	15-5 Mod.	11/29/2006
Silt	41.2	%	15-5 Mod.	11/29/2006
Clay	28.8	%	15-5 Mod.	11/29/2006
Texture	Clay Loam	---	USDA	11/29/2006
Electrical Conductivity Saturated Paste	2.06	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.9	S.U.	21a	11/28/2006
Saturation	125	%	27b	11/28/2006
Calcium saturated paste	0.41	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.33	meq/l	3-5.4	12/14/2006
Sodium saturated paste	21.4	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	35.2	---	20b	12/14/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-19	Description: SHOB-31, 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 mod.	12/19/2006
Silt	44.9	%	15-5mod.	12/19/2006
Clay	46.3	%	15.5mod.	12/19/2006
Texture	Silty Clay	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	8.28	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.0	S.U.	21a	12/19/2006
Saturation	130	%	27b	12/19/2006
Calcium saturated paste	22.6	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	27.4	meq/l	3-5.4	01/08/2007
Sodium saturated paste	58.6	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	11.7	---	20b	01/17/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-20	Description: SHOB-31, 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 mod.	12/19/2006
Silt	58.7	%	15-5mod.	12/19/2006
Clay	27.5	%	15.5mod.	12/19/2006
Texture	Si Cl Lo	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	2.77	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.5	S.U.	21a	12/19/2006
Saturation	173	%	27b	12/19/2006
Calcium saturated paste	0.91	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	1.65	meq/l	3-5.4	01/08/2007
Sodium saturated paste	27.2	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	24.1	---	20b	01/17/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-21	Description: SHOB-31, 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006		
Collected by: JOSH ELLIOTT		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 mod.	12/19/2006
Silt	56.2	%	15-5mod.	12/19/2006
Clay	31.3	%	15.5mod.	12/19/2006
Texture	Si Cl Lo	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	3.37	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.4	S.U.	21a	12/19/2006
Saturation	164	%	27b	12/19/2006
Calcium saturated paste	1.57	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	2.59	meq/l	3-5.4	01/08/2007
Sodium saturated paste	30.9	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	21.5	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-22	Description: SHOB-31, 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 mod.	12/19/2006
Silt	63.7	%	15-5mod.	12/19/2006
Clay	28.8	%	15.5mod.	12/19/2006
Texture	Si Cl Lo	----	USDA	12/19/2006
Electrical Conductivity Saturated Paste	6.82	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	7.2	S.U.	21a	12/19/2006
Saturation	99.8	%	27b	12/19/2006
Calcium saturated paste	16.2	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	15.4	meq/l	3-5.4	01/08/2007
Sodium saturated paste	57.2	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	14.4	----	20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-23	Description: SHOB-31, 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006		
Collected by: JOSH ELLIOTT		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	72.5	%	15-5 mod.	12/19/2006
Silt	12.5	%	15-5mod.	12/19/2006
Clay	15.0	%	15.5mod.	12/19/2006
Texture	Sandy Loam	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	14.2	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	5.5	S.U.	21a	12/19/2006
Saturation	85.9	%	27b	12/19/2006
Calcium saturated paste	19.9	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	39.3	meq/l	3-5.4	01/12/2007
Sodium saturated paste	142	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	26.1	---	20b	01/12/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-24	Description: SHOB-31, 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 mod.	12/19/2006
Silt	37.5	%	15-5mod.	12/19/2006
Clay	40.0	%	15.5mod.	12/19/2006
Texture	Clay Loam	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	2.96	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.8	S.U.	21a	12/19/2006
Saturation	160	%	27b	12/19/2006
Calcium saturated paste	0.57	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.67	meq/l	3-5.4	01/08/2007
Sodium saturated paste	29.1	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	37.0	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-25	Description: SHOB-31, 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	45.0	%	15-5 mod.	12/19/2006
Silt	30.0	%	15-5mod.	12/19/2006
Clay	25.0	%	15.5mod.	12/19/2006
Texture	Loam	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	2.31	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.1	S.U.	21a	12/19/2006
Saturation	109	%	27b	12/19/2006
Calcium saturated paste	0.57	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.49	meq/l	3-5.4	01/08/2007
Sodium saturated paste	22.0	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	30.2	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-26	Description: SHOB-31, 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 mod.	12/19/2006
Silt	58.7	%	15-5mod.	12/19/2006
Clay	31.3	%	15.5mod.	12/19/2006
Texture	Si Cl Lo	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	1.64	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	9.0	S.U.	21a	12/19/2006
Saturation	130	%	27b	12/19/2006
Calcium saturated paste	0.31	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.22	meq/l	3-5.4	01/08/2007
Sodium saturated paste	15.1	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	29.4	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-27	Description: SHOB-31, 40-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 mod.	12/19/2006
Silt	60.0	%	15-5mod.	12/19/2006
Clay	32.5	%	15.5mod.	12/19/2006
Texture	Si Cl Lo	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	2.02	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.8	S.U.	21a	12/19/2006
Saturation	107	%	27b	12/19/2006
Calcium saturated paste	0.49	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.32	meq/l	3-5.4	01/08/2007
Sodium saturated paste	20.8	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	32.7	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-28	Description: SHOB-31, 45-50	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 mod.	12/19/2006
Silt	47.5	%	15-5mod.	12/19/2006
Clay	32.5	%	15.5mod.	12/19/2006
Texture	Si Cl Lo	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	2.32	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	7.8	S.U.	21a	12/19/2006
Saturation	103	%	27b	12/19/2006
Calcium saturated paste	0.42	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.37	meq/l	3-5.4	01/08/2007
Sodium saturated paste	23.4	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	37.2	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-29	Description: SHOB-31, 50-55	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 mod.	12/19/2006
Silt	56.2	%	15-5mod.	12/19/2006
Clay	26.3	%	15.5mod.	12/19/2006
Texture	Silt Loam	----	USDA	12/19/2006
Electrical Conductivity Saturated Paste	1.35	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.7	S.U.	21a	12/19/2006
Saturation	72.4	%	27b	12/19/2006
Calcium saturated paste	0.30	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.23	meq/l	3-5.4	01/08/2007
Sodium saturated paste	12.6	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	24.5	----	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-30	Description: SHOB-31, 55-60	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 mod.	12/19/2006
Silt	67.5	%	15-5mod.	12/19/2006
Clay	25.0	%	15.5mod.	12/19/2006
Texture	Silt Loam	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	1.15	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	9.2	S.U.	21a	12/19/2006
Saturation	75.3	%	27b	12/19/2006
Calcium saturated paste	0.29	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.24	meq/l	3-5.4	01/08/2007
Sodium saturated paste	10.4	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	20.3	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-31	Description: SHOB-31, 60-65	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 mod.	12/19/2006
Silt	68.7	%	15-5mod.	12/19/2006
Clay	21.3	%	15.5mod.	12/19/2006
Texture	Silt Loam	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	1.67	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	9.3	S.U.	21a	12/19/2006
Saturation	74.8	%	27b	12/19/2006
Calcium saturated paste	0.46	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.38	meq/l	3-5.4	01/08/2007
Sodium saturated paste	16.4	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	25.4	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-32	Description: SHOB-31, 65-70	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 mod.	12/19/2006
Silt	70.0	%	15-5mod.	12/19/2006
Clay	17.5	%	15.5mod.	12/19/2006
Texture	Silt Loam	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	1.32	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	9.0	S.U.	21a	12/19/2006
Saturation	58.8	%	27b	12/19/2006
Calcium saturated paste	0.35	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.29	meq/l	3-5.4	01/08/2007
Sodium saturated paste	11.8	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	21.0	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-33	Description: SHOB-31, 70-75	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	57.5	%	15-5 mod.	12/19/2006
Silt	31.2	%	15-5mod.	12/19/2006
Clay	11.3	%	15.5mod.	12/19/2006
Texture	Sandy Loam	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	1.60	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	9.0	S.U.	21a	12/19/2006
Saturation	21.6	%	27b	12/19/2006
Calcium saturated paste	0.26	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.21	meq/l	3-5.4	01/08/2007
Sodium saturated paste	14.8	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	30.6	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-34	Description: SHOB-31, 75-80	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	32.5	%	15-5 mod.	12/19/2006
Silt	51.2	%	15-5mod.	12/19/2006
Clay	16.3	%	15.5mod.	12/19/2006
Texture	Silt Loam	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	1.94	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	9.0	S.U.	21a	12/19/2006
Saturation	56.7	%	27b	12/19/2006
Calcium saturated paste	0.60	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.45	meq/l	3-5.4	01/08/2007
Sodium saturated paste	18.6	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	25.7	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-35	Description: SHOB-31, 80-85	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	50.0	%	15-5 mod.	12/19/2006
Silt	40.0	%	15-5mod.	12/19/2006
Clay	10.0	%	15.5mod.	12/19/2006
Texture	Loam	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	1.91	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.7	S.U.	21a	12/19/2006
Saturation	46.6	%	27b	12/19/2006
Calcium saturated paste	0.50	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.37	meq/l	3-5.4	01/08/2007
Sodium saturated paste	17.9	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	27.0	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-36	Description: SHOB-31, 85-90	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	50.0	%	15-5 mod.	12/19/2006
Silt	38.7	%	15-5mod.	12/19/2006
Clay	11.3	%	15.5mod.	12/19/2006
Texture	Loam	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	1.63	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	9.1	S.U.	21a	12/19/2006
Saturation	53.5	%	27b	12/19/2006
Calcium saturated paste	0.47	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.38	meq/l	3-5.4	01/08/2007
Sodium saturated paste	14.9	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	22.9	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-37	Description: SHOB-31, 90-95	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	61.3	%	15-5 mod.	12/19/2006
Silt	29.9	%	15-5mod.	12/19/2006
Clay	8.8	%	15.5mod.	12/19/2006
Texture	Sandy Loam	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	1.91	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.9	S.U.	21a	12/19/2006
Saturation	43.0	%	27b	12/19/2006
Calcium saturated paste	0.53	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.41	meq/l	3-5.4	01/08/2007
Sodium saturated paste	18.1	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	26.4	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-38	Description: SHOB-31, 95-100	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	57.5	%	15-5 mod.	12/19/2006
Silt	31.2	%	15-5mod.	12/19/2006
Clay	11.3	%	15.5mod.	12/19/2006
Texture	Sandy Loam	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	1.72	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	9.0	S.U.	21a	12/19/2006
Saturation	46.1	%	27b	12/19/2006
Calcium saturated paste	0.54	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.39	meq/l	3-5.4	01/08/2007
Sodium saturated paste	16.2	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	23.8	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-39	Description: SHOB-31, 100-105	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	65.0	%	15-5 mod.	12/19/2006
Silt	27.5	%	15-5mod.	12/19/2006
Clay	7.5	%	15.5mod.	12/19/2006
Texture	Sandy Loam	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	1.27	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	9.1	S.U.	21a	12/19/2006
Saturation	31.8	%	27b	12/19/2006
Calcium saturated paste	0.39	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.29	meq/l	3-5.4	01/08/2007
Sodium saturated paste	11.6	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	19.8	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-40	Description: SHOB-31, 105-110	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	40.0	%	15-5 mod.	12/19/2006
Silt	46.2	%	15-5mod.	12/19/2006
Clay	13.8	%	15.5mod.	12/19/2006
Texture	Loam	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	1.67	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	9.0	S.U.	21a	12/19/2006
Saturation	57.0	%	27b	12/19/2006
Calcium saturated paste	0.51	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.34	meq/l	3-5.4	01/08/2007
Sodium saturated paste	15.8	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	24.1	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-41	Description: SHOB-31, 110-115	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	60.0	%	15-5 mod.	12/20/2006
Silt	28.7	%	15-5mod.	12/20/2006
Clay	11.3	%	15.5mod.	12/20/2006
Texture	Sandy Loam	----	USDA	12/20/2006
Electrical Conductivity Saturated Paste	0.93	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	9.2	S.U.	21a	12/20/2006
Saturation	61.7	%	27b	12/20/2006
Calcium saturated paste	0.36	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.67 J	meq/l	3-5.4	01/05/2007
Sodium saturated paste	8.56	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	11.9	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-42	Description: SHOB-31, 115-120	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	32.5	%	15-5 mod.	12/20/2006
Silt	50.0	%	15-5mod.	12/20/2006
Clay	17.5	%	15.5mod.	12/20/2006
Texture	Silt Loam	---	USDA	12/20/2006
Electrical Conductivity Saturated Paste	1.56	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	9.0	S.U.	21a	12/20/2006
Saturation	71.7	%	27b	12/20/2006
Calcium saturated paste	0.61	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.45 J	meq/l	3-5.4	01/05/2007
Sodium saturated paste	15.2	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	20.9	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-43	Description: SHOB-31, 135-140	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	52.5	%	15-5 mod.	12/20/2006
Silt	20.0	%	15-5mod.	12/20/2006
Clay	27.5	%	15.5mod.	12/20/2006
Texture	Sa Cl Lo	---	USDA	12/20/2006
Electrical Conductivity Saturated Paste	2.40	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	7.7	S.U.	21a	12/20/2006
Saturation	135	%	27b	12/20/2006
Calcium saturated paste	0.40	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.40 J	meq/l	3-5.4	01/05/2007
Sodium saturated paste	25.5	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	40.4	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-44	Description: SHOB-31, 140-145	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 mod.	12/20/2006
Silt	55.0	%	15-5mod.	12/20/2006
Clay	27.5	%	15.5mod.	12/20/2006
Texture	Si Cl Lo	----	USDA	12/20/2006
Electrical Conductivity Saturated Paste	1.56	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	9.3	S.U.	21a	12/20/2006
Saturation	158	%	27b	12/20/2006
Calcium saturated paste	0.34	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.23 J	meq/l	3-5.4	01/05/2007
Sodium saturated paste	14.7	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	27.5	----	20b	01/05/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-45 Description: SHOB-31, 145-150 Matrix: OVERBURDEN
 Date Received: 11/01/2006
 Date Collected: 10/27/2006 Collected by: JOSH ELLIOTT

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	40.0	%	15-5 mod.	12/20/2006
Silt	42.5	%	15-5mod.	12/20/2006
Clay	17.5	%	15.5mod.	12/20/2006
Texture	Loam	----	USDA	12/20/2006
Electrical Conductivity Saturated Paste	1.44	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	9.3	S.U.	21a	12/20/2006
Saturation	131	%	27b	12/20/2006
Calcium saturated paste	0.23	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.14 J	meq/l	3-5.4	01/05/2007
Sodium saturated paste	13.0	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	30.4	----	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-16	Description: SHOB-32, 0-5'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	15-5 Mod.	12/11/2006
Silt	29.9	%	15-5 Mod.	12/11/2006
Clay	63.8	%	15-5 Mod.	12/11/2006
Texture	Clay	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	6.39	mmhos/cm	10-3.3	12/15/2006
pH Saturated Paste	7.9	S.U.	21a	12/06/2006
Saturation	146	%	27b	12/06/2006
Calcium saturated paste	21.7	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	37.5	meq/l	3-5.4	12/28/2006
Sodium saturated paste	38.6	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	7.10	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-17	Description: SHOB-32, 5-10'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	12/11/2006
Silt	33.7	%	15-5 Mod.	12/11/2006
Clay	51.3	%	15-5 Mod.	12/11/2006
Texture	Clay	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	9.33	mmhos/cm	10-3.3	12/15/2006
pH Saturated Paste	7.6	S.U.	21a	12/06/2006
Saturation	144	%	27b	12/06/2006
Calcium saturated paste	21.4	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	62.6	meq/l	3-5.4	12/28/2006
Sodium saturated paste	70.6	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	10.9	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-18	Description: SHOB-32, 10-15'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/11/2006
Silt	32.5	%	15-5 Mod.	12/11/2006
Clay	62.5	%	15-5 Mod.	12/11/2006
Texture	Clay	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	8.00	mmhos/cm	10-3.3	12/15/2006
pH Saturated Paste	7.0	S.U.	21a	12/06/2006
Saturation	134	%	27b	12/06/2006
Calcium saturated paste	19.5	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	50.1	meq/l	3-5.4	12/28/2006
Sodium saturated paste	53.6	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	9.09	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-19	Description: SHOB-32, 15-20'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/11/2006
Silt	28.7	%	15-5 Mod.	12/11/2006
Clay	58.8	%	15-5 Mod.	12/11/2006
Texture	Clay	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	5.10	mmhos/cm	10-3.3	12/15/2006
pH Saturated Paste	7.5	S.U.	21a	12/06/2006
Saturation	130	%	27b	12/06/2006
Calcium saturated paste	10.1	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	22.7	meq/l	3-5.4	12/28/2006
Sodium saturated paste	34.4	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	8.48	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-20	Description: SHOB-32, 20-25'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	12/11/2006
Silt	58.7	%	15-5 Mod.	12/11/2006
Clay	26.3	%	15-5 Mod.	12/11/2006
Texture	Silt Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	2.34	mmhos/cm	10-3.3	12/15/2006
pH Saturated Paste	8.2	S.U.	21a	12/06/2006
Saturation	158	%	27b	12/06/2006
Calcium saturated paste	1.75	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	3.03	meq/l	3-5.4	12/28/2006
Sodium saturated paste	19.2	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	12.4	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-21	Description: SHOB-32, 25-30'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	41.3	%	15-5 Mod.	12/11/2006
Silt	18.7	%	15-5 Mod.	12/11/2006
Clay	40.0	%	15-5 Mod.	12/11/2006
Texture	Clay	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	3.40	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.0	S.U.	21a	12/07/2006
Saturation	131	%	27b	12/07/2006
Calcium saturated paste	2.52	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	3.18	meq/l	3-5.4	01/03/2007
Sodium saturated paste	34.2	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	20.3	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-22	Description: SHOB-32, 30-35'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod.	12/11/2006
Silt	38.7	%	15-5 Mod.	12/11/2006
Clay	50.0	%	15-5 Mod.	12/11/2006
Texture	Clay	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	3.57	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.7	S.U.	21a	12/07/2006
Saturation	164	%	27b	12/07/2006
Calcium saturated paste	0.57	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.67	meq/l	3-5.4	01/03/2007
Sodium saturated paste	19.1 J	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	24.2	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-23	Description: SHOB-32, 35-40'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 Mod.	12/11/2006
Silt	42.4	%	15-5 Mod.	12/11/2006
Clay	38.8	%	15-5 Mod.	12/11/2006
Texture	Si CL Lo	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	2.22	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.2	S.U.	21a	12/07/2006
Saturation	158	%	27b	12/07/2006
Calcium saturated paste	0.91	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	1.11	meq/l	3-5.4	01/03/2007
Sodium saturated paste	22.3 J	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	22.2	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-24	Description: SHOB-32, 40-45'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 Mod.	12/11/2006
Silt	63.7	%	15-5 Mod.	12/11/2006
Clay	22.5	%	15-5 Mod.	12/11/2006
Texture	Silt Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	1.43	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.8	S.U.	21a	12/07/2006
Saturation	128	%	27b	12/07/2006
Calcium saturated paste	0.32	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.42	meq/l	3-5.4	01/03/2007
Sodium saturated paste	12.7 J	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	21.0	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-25	Description: SHOB-32, 45-50'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	21.3	%	15-5 Mod.	12/11/2006
Silt	54.9	%	15-5 Mod.	12/11/2006
Clay	23.8	%	15-5 Mod.	12/11/2006
Texture	Silt Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	2.52	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.3	S.U.	21a	12/07/2006
Saturation	124	%	27b	12/07/2006
Calcium saturated paste	1.44	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	1.97	meq/l	3-5.4	01/03/2007
Sodium saturated paste	24.1 J	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	18.4	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-26	Description: SHOB-32, 50-55'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 Mod.	12/11/2006
Silt	59.9	%	15-5 Mod.	12/11/2006
Clay	21.3	%	15-5 Mod.	12/11/2006
Texture	Silt Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	1.92	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.5	S.U.	21a	12/07/2006
Saturation	80.2	%	27b	12/07/2006
Calcium saturated paste	0.69	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.94	meq/l	3-5.4	01/03/2007
Sodium saturated paste	19.2 J	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	21.2	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-27	Description: SHOB-32, 55-60'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod.	12/11/2006
Silt	63.7	%	15-5 Mod.	12/11/2006
Clay	25.0	%	15-5 Mod.	12/11/2006
Texture	Silt Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	1.63	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.8	S.U.	21a	12/07/2006
Saturation	80.0	%	27b	12/07/2006
Calcium saturated paste	0.34	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.40	meq/l	3-5.4	01/03/2007
Sodium saturated paste	16.1 J	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	26.4	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-28	Description: SHOB-32, 60-65'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	26.3	%	15-5 Mod.	12/11/2006
Silt	43.7	%	15-5 Mod.	12/11/2006
Clay	30.0	%	15-5 Mod.	12/11/2006
Texture	Clay Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	1.76	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.7	S.U.	21a	12/07/2006
Saturation	73.0	%	27b	12/07/2006
Calcium saturated paste	0.52	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.54	meq/l	3-5.4	01/03/2007
Sodium saturated paste	17.3 J	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	23.8	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-29	Description: SHOB-32, 65-70'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod.	12/11/2006
Silt	62.4	%	15-5 Mod.	12/11/2006
Clay	26.3	%	15-5 Mod.	12/11/2006
Texture	Silt Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	1.91	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.8	S.U.	21a	12/07/2006
Saturation	80.0	%	27b	12/07/2006
Calcium saturated paste	0.46	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.57	meq/l	3-5.4	01/03/2007
Sodium saturated paste	19.0 J	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	26.4	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-30	Description: SHOB-32, 70-75'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	31.3	%	15-5 Mod.	12/11/2006
Silt	43.7	%	15-5 Mod.	12/11/2006
Clay	25.0	%	15-5 Mod.	12/11/2006
Texture	Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	1.56	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	9.0	S.U.	21a	12/07/2006
Saturation	78.6	%	27b	12/07/2006
Calcium saturated paste	0.30	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.37	meq/l	3-5.4	01/03/2007
Sodium saturated paste	14.4 J	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	24.7	-----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-31	Description: SHOB-32, 75-80'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod.	12/11/2006
Silt	58.7	%	15-5 Mod.	12/11/2006
Clay	30.0	%	15-5 Mod.	12/11/2006
Texture	Si Cl Lo	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	1.93	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.9	S.U.	21a	12/07/2006
Saturation	96.3	%	27b	12/07/2006
Calcium saturated paste	0.49	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.48	meq/l	3-5.4	01/03/2007
Sodium saturated paste	18.4 J	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	26.4	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-32	Description: SHOB-32, 80-85'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006		
Collected by: RYAN TOLENE		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	3.8	%	15-5 Mod.	12/11/2006
Silt	56.2	%	15-5 Mod.	12/11/2006
Clay	40.0	%	15-5 Mod.	12/11/2006
Texture	Si Cl Lo	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	2.26	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.7	S.U.	21a	12/07/2006
Saturation	103	%	27b	12/07/2006
Calcium saturated paste	0.41	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.54	meq/l	3-5.4	01/03/2007
Sodium saturated paste	22.7 J	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	32.9	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-33	Description: SHOB-32, 85-90'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	26.3	%	15-5 Mod.	12/11/2006
Silt	48.7	%	15-5 Mod.	12/11/2006
Clay	25.0	%	15-5 Mod.	12/11/2006
Texture	Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	2.11	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.6	S.U.	21a	12/07/2006
Saturation	121	%	27b	12/07/2006
Calcium saturated paste	0.41	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.40	meq/l	3-5.4	01/03/2007
Sodium saturated paste	21.9 J	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	34.5	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-34	Description: SHOB-32, 90-95'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 Mod.	12/11/2006
Silt	54.9	%	15-5 Mod.	12/11/2006
Clay	31.3	%	15-5 Mod.	12/11/2006
Texture	Si Cl Lo	---	USDA	12/11/2006
Electrical Conductivity Saturated Paste	1.06	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.9	S.U.	21a	12/07/2006
Saturation	147	%	27b	12/07/2006
Calcium saturated paste	0.46	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.27	meq/l	3-5.4	01/03/2007
Sodium saturated paste	10.4 J	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	17.3	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-35	Description: SHOB-32, 95-100'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	12/11/2006
Silt	52.5	%	15-5 Mod.	12/11/2006
Clay	25.0	%	15-5 Mod.	12/11/2006
Texture	Silt Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	1.29	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	9.2	S.U.	21a	12/07/2006
Saturation	146	%	27b	12/07/2006
Calcium saturated paste	0.21	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.23	meq/l	3-5.4	01/03/2007
Sodium saturated paste	13.3 J	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	28.5	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-36	Description: SHOB-32, 100-105'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	58.8	%	15-5 Mod.	12/11/2006
Silt	18.7	%	15-5 Mod.	12/11/2006
Clay	22.5	%	15-5 Mod.	12/11/2006
Texture	Sa Cl Lo	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	1.68	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	9.3	S.U.	21a	12/07/2006
Saturation	125	%	27b	12/07/2006
Calcium saturated paste	0.33	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.32	meq/l	3-5.4	01/03/2007
Sodium saturated paste	17.6 J	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	30.9	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-37	Description: SHOB-32, 105-110'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	42.5	%	15-5 Mod.	12/11/2006
Silt	33.7	%	15-5 Mod.	12/11/2006
Clay	23.8	%	15-5 Mod.	12/11/2006
Texture	Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	1.52	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	9.3	S.U.	21a	12/07/2006
Saturation	133	%	27b	12/07/2006
Calcium saturated paste	0.05	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	<0.08	meq/l	3-5.4	01/03/2007
Sodium saturated paste	3.22	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	13.7	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-38	Description: SHOB-32, 110-115'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	65.0	%	15-5 Mod.	12/11/2006
Silt	13.7	%	15-5 Mod.	12/11/2006
Clay	21.3	%	15-5 Mod.	12/11/2006
Texture	Sa Cl Lo	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	1.20	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	9.3	S.U.	21a	12/07/2006
Saturation	112	%	27b	12/07/2006
Calcium saturated paste	0.05	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	<0.08	meq/l	3-5.4	01/03/2007
Sodium saturated paste	2.58	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	11.8	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-39	Description: SHOB-32, 115-120'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	68.8	%	15-5 Mod.	12/11/2006
Silt	13.7	%	15-5 Mod.	12/11/2006
Clay	17.5	%	15-5 Mod.	12/11/2006
Texture	Sandy Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	1.34	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	9.2	S.U.	21a	12/07/2006
Saturation	106	%	27b	12/07/2006
Calcium saturated paste	0.05	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	<0.08	meq/l	3-5.4	01/03/2007
Sodium saturated paste	2.62	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	11.5	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-40	Description: SHOB-32, 120-125'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	78.8	%	15-5 Mod.	12/11/2006
Silt	11.2	%	15-5 Mod.	12/11/2006
Clay	10.0	%	15-5 Mod.	12/11/2006
Texture	Sandy Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	3.07	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.2	S.U.	21a	12/07/2006
Saturation	94.1	%	27b	12/07/2006
Calcium saturated paste	0.13	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.16	meq/l	3-5.4	01/03/2007
Sodium saturated paste	6.69	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	17.8	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-41	Description: SHOB-32, 145-150'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	23.8	%	15-5 Mod.	12/11/2006
Silt	43.7	%	15-5 Mod.	12/11/2006
Clay	32.5	%	15-5 Mod.	12/11/2006
Texture	Clay Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	1.90	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.5	S.U.	21a	12/07/2006
Saturation	141	%	27b	12/07/2006
Calcium saturated paste	0.07	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	<0.08	meq/l	3-5.4	01/03/2007
Sodium saturated paste	4.10	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	15.2	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100345-42	Description: SHOB-32, 150-155'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	50.0	%	15-5 Mod.	12/11/2006
Silt	35.0	%	15-5 Mod.	12/11/2006
Clay	15.0	%	15-5 Mod.	12/11/2006
Texture	Loam	----	USDA	12/11/2006
Electrical Conductivity Saturated Paste	1.93	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.8	S.U.	21a	12/07/2006
Saturation	96.6	%	27b	12/07/2006
Calcium saturated paste	0.05	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	<0.08	meq/l	3-5.4	01/03/2007
Sodium saturated paste	4.66	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	18.7	----	20b	01/03/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-16	Description: SHOB-33, 0-5'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	27.5	%	15-5 Mod.	12/08/2006
Silt	32.5	%	15-5 Mod.	12/08/2006
Clay	40.0	%	15-5 Mod.	12/08/2006
Texture	Clay Loam	-----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	2.94	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.6	S.U.	21a	12/05/2006
Saturation	78.2	%	27b	12/05/2006
Calcium saturated paste	5.52	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	10.1	meq/l	3-5.4	01/03/2007
Sodium saturated paste	21.9	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	7.85	-----	20b	01/03/2007
Sample Preparation	-----	-----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-17	Description: SHOB-33, 5-10'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	48.8	%	15-5 Mod.	12/08/2006
Silt	39.9	%	15-5 Mod.	12/08/2006
Clay	11.3	%	15-5 Mod.	12/08/2006
Texture	Loam	-----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	8.26	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.6	S.U.	21a	12/05/2006
Saturation	56.6	%	27b	12/05/2006
Calcium saturated paste	5.37	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	28.6	meq/l	3-5.4	01/03/2007
Sodium saturated paste	80.7	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	19.6	-----	20b	01/03/2007
Sample Preparation	-----	-----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-18	Description: SHOB-33, 10-15'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 Mod.	12/08/2006
Silt	58.7	%	15-5 Mod.	12/08/2006
Clay	22.5	%	15-5 Mod.	12/08/2006
Texture	Silt Loam	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	6.65	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.1	S.U.	21a	12/05/2006
Saturation	77.5	%	27b	12/05/2006
Calcium saturated paste	11.3	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	17.4	meq/l	3-5.4	01/03/2007
Sodium saturated paste	59.0	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	15.6	----	20b	01/03/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-19	Description: SHOB-33, 15-20'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod.	12/08/2006
Silt	68.7	%	15-5 Mod.	12/08/2006
Clay	22.5	%	15-5 Mod.	12/08/2006
Texture	Silt Loam	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	2.85	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.3	S.U.	21a	12/05/2006
Saturation	166	%	27b	12/05/2006
Calcium saturated paste	2.15	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	3.39	meq/l	3-5.4	01/03/2007
Sodium saturated paste	24.1	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	14.5	----	20b	01/03/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-20	Description: SHOB-33, 20-25'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/08/2006
Silt	57.5	%	15-5 Mod.	12/08/2006
Clay	37.5	%	15-5 Mod.	12/08/2006
Texture	Si Cl Lo	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	2.71	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.6	S.U.	21a	12/05/2006
Saturation	195	%	27b	12/05/2006
Calcium saturated paste	0.82	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	1.34	meq/l	3-5.4	01/03/2007
Sodium saturated paste	24.6	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	23.6	----	20b	01/03/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-21	Description: SHOB-33, 25-30'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	42.5	%	15-5 Mod.	12/08/2006
Silt	26.2	%	15-5 Mod.	12/08/2006
Clay	31.3	%	15-5 Mod.	12/08/2006
Texture	Clay Loam	-----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	1.37	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.4	S.U.	21a	12/06/2006
Saturation	174	%	27b	12/06/2006
Calcium saturated paste	0.39	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.62	meq/l	3-5.4	01/03/2007
Sodium saturated paste	13.0	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	18.3	-----	20b	01/03/2007
Sample Preparation	-----	-----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-22	Description: SHOB-33, 30-35'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006		
Collected by: RYAN TOLENE		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	73.8	%	15-5 Mod.	12/08/2006
Silt	9.9	%	15-5 Mod.	12/08/2006
Clay	16.3	%	15-5 Mod.	12/08/2006
Texture	Sandy Loam	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	3.79	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.4	S.U.	21a	12/06/2006
Saturation	108	%	27b	12/06/2006
Calcium saturated paste	2.20	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	3.19	meq/l	3-5.4	01/03/2007
Sodium saturated paste	36.8	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	22.4	----	20b	01/03/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.:	2006100344-23	Description:	SHOB-33, 35-40'	Matrix:	OVERBURDEN
Date Received:	10/31/2006	Date Collected:	10/26/2006	Collected by:	RYAN TOLENE

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	62.5	%	15-5 Mod.	12/08/2006
Silt	15.0	%	15-5 Mod.	12/08/2006
Clay	22.5	%	15-5 Mod.	12/08/2006
Texture	Sa Cl Lo	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	3.02	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.4	S.U.	21a	12/06/2006
Saturation	125	%	27b	12/06/2006
Calcium saturated paste	1.17	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	1.41	meq/l	3-5.4	01/03/2007
Sodium saturated paste	30.7	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	27.0	----	20b	01/03/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-24	Description: SHOB-33, 40-45'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	77.5	%	15-5 Mod.	12/08/2006
Silt	12.5	%	15-5 Mod.	12/08/2006
Clay	10.0	%	15-5 Mod.	12/08/2006
Texture	Sandy Loam	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	5.54	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.1	S.U.	21a	12/06/2006
Saturation	87.8	%	27b	12/06/2006
Calcium saturated paste	1.55	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	2.16	meq/l	3-5.4	01/03/2007
Sodium saturated paste	62.2	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	45.7	----	20b	01/03/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-25	Description: SHOB-33, 60-65'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	27.5	%	15-5 Mod.	12/08/2006
Silt	43.7	%	15-5 Mod.	12/08/2006
Clay	28.8	%	15-5 Mod.	12/08/2006
Texture	Clay Loam	-----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	2.64	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.8	S.U.	21a	12/06/2006
Saturation	133	%	27b	12/06/2006
Calcium saturated paste	0.44	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.52	meq/l	3-5.4	01/03/2007
Sodium saturated paste	29.1	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	42.0	-----	20b	01/03/2007
Sample Preparation	-----	-----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-26	Description: SHOB-33, 65-70'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/08/2006
Silt	65.0	%	15-5 Mod.	12/08/2006
Clay	25.0	%	15-5 Mod.	12/08/2006
Texture	Silt Loam	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	1.61	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	9.0	S.U.	21a	12/06/2006
Saturation	149	%	27b	12/06/2006
Calcium saturated paste	0.36	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.34	meq/l	3-5.4	01/03/2007
Sodium saturated paste	17.2	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	29.2	----	20b	01/03/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-27	Description: SHOB-33, 70-75'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	12/08/2006
Silt	60.0	%	15-5 Mod.	12/08/2006
Clay	17.5	%	15-5 Mod.	12/08/2006
Texture	Silt Loam	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	1.33	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	9.1	S.U.	21a	12/06/2006
Saturation	102	%	27b	12/06/2006
Calcium saturated paste	0.26	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.29	meq/l	3-5.4	01/03/2007
Sodium saturated paste	14.1	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	26.8	----	20b	01/03/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-1	Description: SHOB-34, 0-5'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 Mod.	12/05/2006
Silt	41.2	%	15-5 Mod.	12/05/2006
Clay	40.0	%	15-5 Mod.	12/05/2006
Texture	Si Cl Lo	----	USDA	12/05/2006
Electrical Conductivity Saturated Paste	0.65	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	7.6	S.U.	21a	12/01/2006
Saturation	73.0	%	27b	12/01/2006
Calcium saturated paste	2.59	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	2.67	meq/l	3-5.4	12/28/2006
Sodium saturated paste	1.76	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	1.08	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-2	Description: SHOB-34, 5-10'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15-5 Mod.	12/05/2006
Silt	56.2	%	15-5 Mod.	12/05/2006
Clay	27.5	%	15-5 Mod.	12/05/2006
Texture	Si Cl Lo	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	0.77	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.3	S.U.	21a	12/01/2006
Saturation	76.9	%	27b	12/01/2006
Calcium saturated paste	1.42	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	2.60	meq/l	3-5.4	12/28/2006
Sodium saturated paste	4.01	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	2.83	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-3	Description: SHOB-34, 10-15'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	58.8	%	15-5 Mod.	12/05/2006
Silt	33.7	%	15-5 Mod.	12/05/2006
Clay	7.5	%	15-5 Mod.	12/05/2006
Texture	Sandy Loam	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	0.53	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.6	S.U.	21a	12/01/2006
Saturation	47.8	%	27b	12/01/2006
Calcium saturated paste	0.80	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	1.44	meq/l	3-5.4	12/28/2006
Sodium saturated paste	3.11	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	2.93	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-4	Description: SHOB-34, 15-20'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/05/2006
Silt	61.2	%	15-5 Mod.	12/05/2006
Clay	28.8	%	15-5 Mod.	12/05/2006
Texture	Si Cl Lo	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	1.00	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.3	S.U.	21a	12/01/2006
Saturation	90.9	%	27b	12/01/2006
Calcium saturated paste	1.41	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	1.60	meq/l	3-5.4	12/28/2006
Sodium saturated paste	7.20	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	5.88	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-5	Description: SHOB-34, 20-25'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	33.8	%	15-5 Mod.	12/05/2006
Silt	41.2	%	15-5 Mod.	12/05/2006
Clay	25.0	%	15-5 Mod.	12/05/2006
Texture	Loam	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	1.69	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.2	S.U.	21a	12/01/2006
Saturation	104	%	27b	12/01/2006
Calcium saturated paste	1.75	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	1.67	meq/l	3-5.4	12/28/2006
Sodium saturated paste	13.8	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	10.6	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-6	Description: SHOB-34, 25-30'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod.	12/05/2006
Silt	53.7	%	15-5 Mod.	12/05/2006
Clay	35.0	%	15-5 Mod.	12/05/2006
Texture	Si Cl Lo	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	1.59	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.1	S.U.	21a	12/01/2006
Saturation	117	%	27b	12/01/2006
Calcium saturated paste	1.03	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.94	meq/l	3-5.4	12/28/2006
Sodium saturated paste	15.2	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	15.3	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-7	Description: SHOB-34, 30-35'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15-5 Mod.	12/05/2006
Silt	56.2	%	15-5 Mod.	12/05/2006
Clay	27.5	%	15-5 Mod.	12/05/2006
Texture	Si Cl Lo	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	2.26	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.6	S.U.	21a	12/01/2006
Saturation	147	%	27b	12/01/2006
Calcium saturated paste	1.20	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	1.31	meq/l	3-5.4	12/28/2006
Sodium saturated paste	22.1	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	19.7	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-9	Description: SHOB-34, 35-40'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15-5 Mod.	12/05/2006
Silt	42.4	%	15-5 Mod.	12/05/2006
Clay	41.3	%	15-5 Mod.	12/05/2006
Texture	Silty Clay	—	USDA	12/05/2006
Electrical Conductivity Saturated Paste	1.82	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.7	S.U.	21a	12/01/2006
Saturation	170	%	27b	12/01/2006
Calcium saturated paste	0.70	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.82	meq/l	3-5.4	12/28/2006
Sodium saturated paste	18.3	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	21.0	—	20b	12/28/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-10	Description: SHOB-34, 40-45'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	63.8	%	15-5 Mod.	12/05/2006
Silt	12.4	%	15-5 Mod.	12/05/2006
Clay	23.8	%	15-5 Mod.	12/05/2006
Texture	Sa Cl Lo	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	1.93	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.2	S.U.	21a	12/01/2006
Saturation	106	%	27b	12/01/2006
Calcium saturated paste	0.62	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.55	meq/l	3-5.4	12/28/2006
Sodium saturated paste	20.4	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	26.7	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-11	Description: SHOB-34, 45-50'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	61.3	%	15-5 Mod.	12/05/2006
Silt	18.7	%	15-5 Mod.	12/05/2006
Clay	20.0	%	15-5 Mod.	12/05/2006
Texture	Sandy Loam	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	1.36	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.1	S.U.	21a	12/01/2006
Saturation	97.6	%	27b	12/01/2006
Calcium saturated paste	0.43	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.39	meq/l	3-5.4	12/28/2006
Sodium saturated paste	13.3	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	20.8	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-12	Description: SHOB-34, 50-55'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	61.3	%	15-5 Mod.	12/05/2006
Silt	18.7	%	15-5 Mod.	12/05/2006
Clay	20.0	%	15-5 Mod.	12/05/2006
Texture	Sandy Loam	----	USDA	12/05/2006
Electrical Conductivity Saturated Paste	1.84	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.2	S.U.	21a	12/01/2006
Saturation	53.5	%	27b	12/01/2006
Calcium saturated paste	0.95	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.71	meq/l	3-5.4	12/28/2006
Sodium saturated paste	21.0	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	23.0	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDR ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-13	Description: SHOB-34, 75-80'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 Mod.	12/05/2006
Silt	48.7	%	15-5 Mod.	12/05/2006
Clay	37.5	%	15-5 Mod.	12/05/2006
Texture	Si Cl Lo	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	0.80	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.3	S.U.	21a	12/01/2006
Saturation	169	%	27b	12/01/2006
Calcium saturated paste	0.25	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.19	meq/l	3-5.4	12/28/2006
Sodium saturated paste	8.46	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	17.9	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-14 Description: SHOB-34, 80-85' Matrix: OVERBURDEN

Date Received: 10/25/2006

Date Collected: 10/20/2006 Collected by: RYAN TOLENE

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	30.0	%	15-5 Mod.	12/05/2006
Silt	50.0	%	15-5 Mod.	12/05/2006
Clay	20.0	%	15-5 Mod.	12/05/2006
Texture	Silt Loam	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	2.24	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.8	S.U.	21a	12/01/2006
Saturation	103	%	27b	12/01/2006
Calcium saturated paste	0.66	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.68	meq/l	3-5.4	12/28/2006
Sodium saturated paste	26.0	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	31.7	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-15	Description: SHOB-34, 85-90'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	82.5	%	15-5 Mod.	12/05/2006
Silt	8.7	%	15-5 Mod.	12/05/2006
Clay	8.8	%	15-5 Mod.	12/05/2006
Texture	Loamy Sand	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	3.62	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.2	S.U.	21a	12/01/2006
Saturation	57.5	%	27b	12/01/2006
Calcium saturated paste	0.64	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.90	meq/l	3-5.4	12/28/2006
Sodium saturated paste	41.9	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	47.7	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-16 Description: SHOB-34, 90-95'

Matrix: OVERBURDEN

Date Received: 10/25/2006

Date Collected: 10/20/2006

Collected by: RYAN TOLENE

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	83.8	%	15-5 Mod.	12/05/2006
Silt	7.4	%	15-5 Mod.	12/05/2006
Clay	8.8	%	15-5 Mod.	12/05/2006
Texture	Loamy Sand	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	2.98	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.4	S.U.	21a	12/01/2006
Saturation	52.6	%	27b	12/01/2006
Calcium saturated paste	0.40	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.59	meq/l	3-5.4	12/28/2006
Sodium saturated paste	34.0J	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	48.3	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-17	Description: SHOB-34, 95-100'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	90.0	%	15-5 Mod.	12/05/2006
Silt	3.7	%	15-5 Mod.	12/05/2006
Clay	6.3	%	15-5 Mod.	12/05/2006
Texture	Sand	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	2.79	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.5	S.U.	21a	12/01/2006
Saturation	43.3	%	27b	12/01/2006
Calcium saturated paste	0.39	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.60	meq/l	3-5.4	12/28/2006
Sodium saturated paste	31.8	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	45.2	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-18	Description: SHOB-34, 100-105'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	75.0	%	15-5 Mod.	12/05/2006
Silt	13.7	%	15-5 Mod.	12/05/2006
Clay	11.3	%	15-5 Mod.	12/05/2006
Texture	Sandy Loam	—	USDA	12/05/2006
Electrical Conductivity Saturated Paste	2.69	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.9	S.U.	21a	12/01/2006
Saturation	65.2	%	27b	12/01/2006
Calcium saturated paste	0.49	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.64	meq/l	3-5.4	12/28/2006
Sodium saturated paste	31.2	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	41.7	—	20b	12/28/2006
Sample Preparation	—	—	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-19	Description: SHOB-34, 105-110'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	88.8	%	15-5 Mod.	12/05/2006
Silt	4.9	%	15-5 Mod.	12/05/2006
Clay	6.3	%	15-5 Mod.	12/05/2006
Texture	Sand	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	2.42	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.0	S.U.	21a	12/01/2006
Saturation	41.0	%	27b	12/01/2006
Calcium saturated paste	0.44	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.51	meq/l	3-5.4	12/28/2006
Sodium saturated paste	28.8	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	41.8	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-20	Description: SHOB-34, 110-115'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	88.8	%	15-5 Mod.	12/05/2006
Silt	4.9	%	15-5 Mod.	12/05/2006
Clay	6.3	%	15-5 Mod.	12/05/2006
Texture	Sand	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	2.40	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.7	S.U.	21a	12/01/2006
Saturation	46.9	%	27b	12/01/2006
Calcium saturated paste	0.43	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.46	meq/l	3-5.4	12/28/2006
Sodium saturated paste	29.9	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	45.0	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-21	Description: SHOB-34, 115-120'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	85.0	%	15-5 Mod.	12/06/2006
Silt	11.2	%	15-5 Mod.	12/06/2006
Clay	3.8	%	15-5 Mod.	12/06/2006
Texture	Loamy Sand	---	USDA	12/06/2006
Electrical Conductivity Saturated Paste	2.24	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.0	S.U.	21a	12/01/2006
Saturation	39.8	%	27b	12/01/2006
Calcium saturated paste	0.71	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.70	meq/l	3-5.4	12/28/2006
Sodium saturated paste	27.4	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	32.7	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-22	Description: SHOB-34, 120-125'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	76.3	%	15-5 Mod.	12/06/2006
Silt	14.9	%	15-5 Mod.	12/06/2006
Clay	8.8	%	15-5 Mod.	12/06/2006
Texture	Sandy Loam	—	USDA	12/06/2006
Electrical Conductivity Saturated Paste	2.31	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.1	S.U.	21a	12/01/2006
Saturation	50.8	%	27b	12/01/2006
Calcium saturated paste	0.89	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.80	meq/l	3-5.4	12/28/2006
Sodium saturated paste	30.1	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	32.8	—	20b	12/28/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-23	Description: SHOB-34, 125-130'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	77.5	%	15-5 Mod.	12/06/2006
Silt	13.7	%	15-5 Mod.	12/06/2006
Clay	8.8	%	15-5 Mod.	12/06/2006
Texture	Sandy Loam	—	USDA	12/06/2006
Electrical Conductivity Saturated Paste	1.68	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.8	S.U.	21a	12/01/2006
Saturation	41.2	%	27b	12/01/2006
Calcium saturated paste	0.56	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.55	meq/l	3-5.4	12/28/2006
Sodium saturated paste	18.7	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	25.1	—	20b	12/28/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-24	Description: SHOB-34, 130-135'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	82.5	%	15-5 Mod.	12/06/2006
Silt	10.0	%	15-5 Mod.	12/06/2006
Clay	7.5	%	15-5 Mod.	12/06/2006
Texture	Loamy Sand	---	USDA	12/06/2006
Electrical Conductivity Saturated Paste	1.78	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.8	S.U.	21a	12/01/2006
Saturation	40.7	%	27b	12/01/2006
Calcium saturated paste	0.65	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.56	meq/l	3-5.4	12/28/2006
Sodium saturated paste	21.2	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	27.3	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-25	Description: SHOB-34, 135-140'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	78.8	%	15-5 Mod.	12/06/2006
Silt	13.7	%	15-5 Mod.	12/06/2006
Clay	7.5	%	15-5 Mod.	12/06/2006
Texture	Loamy Sand	---	USDA	12/06/2006
Electrical Conductivity Saturated Paste	1.67	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.7	S.U.	21a	12/01/2006
Saturation	36.4	%	27b	12/01/2006
Calcium saturated paste	0.84	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.70	meq/l	3-5.4	12/28/2006
Sodium saturated paste	19.5	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	22.2	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-26	Description: SHOB-34, 140-145'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	71.3	%	15-5 Mod.	12/06/2006
Silt	19.9	%	15-5 Mod.	12/06/2006
Clay	8.8	%	15-5 Mod.	12/06/2006
Texture	Sandy Loam	—	USDA	12/06/2006
Electrical Conductivity Saturated Paste	1.62	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.6	S.U.	21a	12/01/2006
Saturation	39.3	%	27b	12/01/2006
Calcium saturated paste	0.97	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.77	meq/l	3-5.4	12/28/2006
Sodium saturated paste	18.0	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	19.3	—	20b	12/28/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-28	Description: SHOB-34, 150-155'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	82.5	%	15-5 Mod.	12/06/2006
Silt	13.7	%	15-5 Mod.	12/06/2006
Clay	3.8	%	15-5 Mod.	12/06/2006
Texture	Loamy Sand	---	USDA	12/06/2006
Electrical Conductivity Saturated Paste	1.62	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.8	S.U.	21a	12/01/2006
Saturation	36.8	%	27b	12/01/2006
Calcium saturated paste	0.51	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.59	meq/l	3-5.4	12/28/2006
Sodium saturated paste	19.5	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	26.2	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-29	Description: SHOB-34, 155-160'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	77.5	%	15-5 Mod.	12/06/2006
Silt	15.0	%	15-5 Mod.	12/06/2006
Clay	7.5	%	15-5 Mod.	12/06/2006
Texture	Sandy Loam	---	USDA	12/06/2006
Electrical Conductivity Saturated Paste	2.94	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.4	S.U.	21a	12/01/2006
Saturation	42.7	%	27b	12/01/2006
Calcium saturated paste	0.83	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.87	meq/l	3-5.4	12/28/2006
Sodium saturated paste	38.5	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	41.7	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-30	Description: SHOB-34, 160-165'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	35.0	%	15-5 Mod.	12/06/2006
Silt	35.0	%	15-5 Mod.	12/06/2006
Clay	30.0	%	15-5 Mod.	12/06/2006
Texture	Clay Loam	---	USDA	12/06/2006
Electrical Conductivity Saturated Paste	2.13	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.2	S.U.	21a	12/01/2006
Saturation	109	%	27b	12/01/2006
Calcium saturated paste	0.47	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.40	meq/l	3-5.4	12/28/2006
Sodium saturated paste	26.5J	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	40.2	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-31	Description: SHOB-34, 165-170'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	37.5	%	15-5 Mod.	12/06/2006
Silt	33.7	%	15-5 Mod.	12/06/2006
Clay	28.8	%	15-5 Mod.	12/06/2006
Texture	Clay Loam	---	USDA	12/06/2006
Electrical Conductivity Saturated Paste	2.23	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.2	S.U.	21a	12/01/2006
Saturation	109	%	27b	12/01/2006
Calcium saturated paste	0.47	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.41	meq/l	3-5.4	12/28/2006
Sodium saturated paste	30.0	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	45.4	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-32	Description: SHOB-34, 170-175'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	26.3	%	15-5 Mod.	12/06/2006
Silt	58.7	%	15-5 Mod.	12/06/2006
Clay	15.0	%	15-5 Mod.	12/06/2006
Texture	Silt Loam	---	USDA	12/06/2006
Electrical Conductivity Saturated Paste	2.94	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.7	S.U.	21a	12/01/2006
Saturation	125	%	27b	12/01/2006
Calcium saturated paste	0.48J	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.42J	meq/l	3-5.4	12/28/2006
Sodium saturated paste	30.6	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	45.6	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-33	Description: SHOB-34, 175-180'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	12/06/2006
Silt	55.0	%	15-5 Mod.	12/06/2006
Clay	22.5	%	15-5 Mod.	12/06/2006
Texture	Silt Loam	---	USDA	12/06/2006
Electrical Conductivity Saturated Paste	1.46	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.2	S.U.	21a	12/01/2006
Saturation	131	%	27b	12/01/2006
Calcium saturated paste	0.63	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.57	meq/l	3-5.4	12/28/2006
Sodium saturated paste	18.2	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	23.6	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-34	Description: SHOB-34, 180-185'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	46.3	%	15-5 Mod.	12/06/2006
Silt	37.4	%	15-5 Mod.	12/06/2006
Clay	16.3	%	15-5 Mod.	12/06/2006
Texture	Loam	---	USDA	12/06/2006
Electrical Conductivity Saturated Paste	1.16	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.2	S.U.	21a	12/01/2006
Saturation	82.7	%	27b	12/01/2006
Calcium saturated paste	0.44	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.37	meq/l	3-5.4	12/28/2006
Sodium saturated paste	13.8	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	21.5	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-36	Description: SHOB-34, 185-190'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	27.5	%	15-5 Mod.	12/06/2006
Silt	48.7	%	15-5 Mod.	12/06/2006
Clay	23.8	%	15-5 Mod.	12/06/2006
Texture	Loam	---	USDA	12/06/2006
Electrical Conductivity Saturated Paste	1.09	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.1	S.U.	21a	12/01/2006
Saturation	107	%	27b	12/01/2006
Calcium saturated paste	0.42	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.32	meq/l	3-5.4	12/28/2006
Sodium saturated paste	13.0	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	21.4	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-37	Description: SHOB-34, 190-195'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	12/06/2006
Silt	46.2	%	15-5 Mod.	12/06/2006
Clay	31.3	%	15-5 Mod.	12/06/2006
Texture	Clay Loam	---	USDA	12/06/2006
Electrical Conductivity Saturated Paste	1.21	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.0	S.U.	21a	12/01/2006
Saturation	114	%	27b	12/01/2006
Calcium saturated paste	0.32	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.30	meq/l	3-5.4	12/28/2006
Sodium saturated paste	14.3	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	25.6	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-38	Description: SHOB-34, 195-200'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	32.5	%	15-5 Mod.	12/06/2006
Silt	38.7	%	15-5 Mod.	12/06/2006
Clay	28.8	%	15-5 Mod.	12/06/2006
Texture	Clay Loam	—	USDA	12/06/2006
Electrical Conductivity Saturated Paste	1.82	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.1	S.U.	21a	12/01/2006
Saturation	93.5	%	27b	12/01/2006
Calcium saturated paste	0.65	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.87	meq/l	3-5.4	12/28/2006
Sodium saturated paste	23.4	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	26.9	—	20b	12/28/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-39	Description: SHOB-34, 200-205'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	42.5	%	15-5 Mod.	12/06/2006
Silt	35.0	%	15-5 Mod.	12/06/2006
Clay	22.5	%	15-5 Mod.	12/06/2006
Texture	Loam	---	USDA	12/06/2006
Electrical Conductivity Saturated Paste	0.78	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.0	S.U.	21a	12/01/2006
Saturation	86.3	%	27b	12/01/2006
Calcium saturated paste	0.36	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.31	meq/l	3-5.4	12/28/2006
Sodium saturated paste	9.04	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	15.6	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-40	Description: SHOB-34, 205-210'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	27.5	%	15-5 Mod.	12/06/2006
Silt	36.2	%	15-5 Mod.	12/06/2006
Clay	36.3	%	15-5 Mod.	12/06/2006
Texture	Clay Loam	---	USDA	12/06/2006
Electrical Conductivity Saturated Paste	0.99	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.9	S.U.	21a	12/01/2006
Saturation	106	%	27b	12/01/2006
Calcium saturated paste	0.41	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.33	meq/l	3-5.4	12/28/2006
Sodium saturated paste	12.0	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	19.7	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-41	Description: SHOB-34, 210-215'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod.	12/07/2006
Silt	36.2	%	15-5 Mod.	12/07/2006
Clay	38.8	%	15-5 Mod.	12/07/2006
Texture	Clay Loam	—	USDA	12/07/2006
Electrical Conductivity Saturated Paste	1.57	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.7	S.U.	21a	12/05/2006
Saturation	96.0	%	27b	12/05/2006
Calcium saturated paste	0.70	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.44	meq/l	3-5.4	12/28/2006
Sodium saturated paste	16.3	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	21.5	—	20b	12/28/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-42	Description: SHOB-34, 215-220'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	33.8	%	15-5 Mod.	12/07/2006
Silt	28.7	%	15-5 Mod.	12/07/2006
Clay	37.5	%	15-5 Mod.	12/07/2006
Texture	Clay Loam	—	USDA	12/07/2006
Electrical Conductivity Saturated Paste	1.42	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.5	S.U.	21a	12/05/2006
Saturation	79.3	%	27b	12/05/2006
Calcium saturated paste	0.18	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.19	meq/l	3-5.4	12/28/2006
Sodium saturated paste	13.9	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	32.3	—	20b	12/28/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-43	Description: SHOB-34, 220-225'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	52.5	%	15-5 Mod.	12/07/2006
Silt	22.5	%	15-5 Mod.	12/07/2006
Clay	25.0	%	15-5 Mod.	12/07/2006
Texture	Sa Cl Lo	---	USDA	12/07/2006
Electrical Conductivity Saturated Paste	1.19	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.2	S.U.	21a	12/05/2006
Saturation	72.0	%	27b	12/05/2006
Calcium saturated paste	0.81	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.49	meq/l	3-5.4	12/28/2006
Sodium saturated paste	11.6	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	14.3	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-44	Description: SHOB-34, 225-230'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	61.3	%	15-5 Mod.	12/07/2006
Silt	20.0	%	15-5 Mod.	12/07/2006
Clay	18.8	%	15-5 Mod.	12/07/2006
Texture	Sandy Loam	---	USDA	12/07/2006
Electrical Conductivity Saturated Paste	2.86	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.1	S.U.	21a	12/05/2006
Saturation	70.6	%	27b	12/05/2006
Calcium saturated paste	0.63	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.49	meq/l	3-5.4	12/28/2006
Sodium saturated paste	33.3	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	44.3	----	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-45	Description: SHOB-34, 230-235'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	62.5	%	15-5 Mod.	12/07/2006
Silt	20.0	%	15-5 Mod.	12/07/2006
Clay	17.5	%	15-5 Mod.	12/07/2006
Texture	Sandy Loam	---	USDA	12/07/2006
Electrical Conductivity Saturated Paste	2.95	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.1	S.U.	21a	12/05/2006
Saturation	67.7	%	27b	12/05/2006
Calcium saturated paste	0.58	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.54	meq/l	3-5.4	12/28/2006
Sodium saturated paste	32.0	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	42.9	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-46	Description: SHOB-34, 235-240'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	55.0	%	15-5 Mod.	12/07/2006
Silt	30.0	%	15-5 Mod.	12/07/2006
Clay	15.0	%	15-5 Mod.	12/07/2006
Texture	Sandy Loam	—	USDA	12/07/2006
Electrical Conductivity Saturated Paste	0.96	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.7	S.U.	21a	12/05/2006
Saturation	97.0	%	27b	12/05/2006
Calcium saturated paste	0.47	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.58	meq/l	3-5.4	12/28/2006
Sodium saturated paste	10.0	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	13.9	—	20b	12/28/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-47	Description: SHOB-34, 240-245'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	46.3	%	15-5 Mod.	12/07/2006
Silt	33.7	%	15-5 Mod.	12/07/2006
Clay	20.0	%	15-5 Mod.	12/07/2006
Texture	Loam	—	USDA	12/07/2006
Electrical Conductivity Saturated Paste	0.80	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	9.0	S.U.	21a	12/05/2006
Saturation	106	%	27b	12/05/2006
Calcium saturated paste	0.53	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.57	meq/l	3-5.4	12/28/2006
Sodium saturated paste	8.03	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	10.8	—	20b	12/28/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-48	Description: SHOB-34, 245-250'	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	53.8	%	15-5 Mod.	12/07/2006
Silt	32.4	%	15-5 Mod.	12/07/2006
Clay	13.8	%	15-5 Mod.	12/07/2006
Texture	Sandy Loam	----	USDA	12/07/2006
Electrical Conductivity Saturated Paste	0.98	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	9.0	S.U.	21a	12/05/2006
Saturation	102	%	27b	12/05/2006
Calcium saturated paste	1.04	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	1.27	meq/l	3-5.4	12/28/2006
Sodium saturated paste	11.3	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	10.6	----	20b	12/28/2006
Sample Preparation	----	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-1	Description: SHOB-35 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 Mod.	12/18/2006
Silt	48.7	%	15-5 Mod.	12/18/2006
Clay	32.5	%	15-5 Mod.	12/18/2006
Texture	Si Cl Lo	----	USDA	12/18/2006
Electrical Conductivity Saturated Paste	0.74	mmhos/cm	10-3.3	12/29/2006
pH Saturated Paste	7.8	S.U.	21a	12/15/2006
Saturation	66.4	%	27b	12/15/2006
Calcium saturated paste	1.14	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	1.17	meq/l	3-5.4	01/05/2007
Sodium saturated paste	5.58	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	5.19	----	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-2	Description: SHOB-35 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod.	12/18/2006
Silt	47.5	%	15-5 Mod.	12/18/2006
Clay	27.5	%	15-5 Mod.	12/18/2006
Texture	Clay Loam	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	4.20	mmhos/cm	10-3.3	12/29/2006
pH Saturated Paste	7.9	S.U.	21a	12/15/2006
Saturation	74.3	%	27b	12/15/2006
Calcium saturated paste	6.99	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	9.28	meq/l	3-5.4	01/05/2007
Sodium saturated paste	30.4	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	10.7	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-3	Description: SHOB-35 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod.	12/18/2006
Silt	53.7	%	15-5 Mod.	12/18/2006
Clay	37.5	%	15-5 Mod.	12/18/2006
Texture	Si Cl Lo	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	6.98	mmhos/cm	10-3.3	12/29/2006
pH Saturated Paste	8.1	S.U.	21a	12/15/2006
Saturation	115	%	27b	12/15/2006
Calcium saturated paste	12.9	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	21.6	meq/l	3-5.4	01/05/2007
Sodium saturated paste	56.7	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	13.6	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-4	Description: SHOB-35 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 Mod.	12/18/2006
Silt	51.2	%	15-5 Mod.	12/18/2006
Clay	30.0	%	15-5 Mod.	12/18/2006
Texture	Si Cl Lo	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	7.62	mmhos/cm	10-3.3	12/29/2006
pH Saturated Paste	7.9	S.U.	21a	12/15/2006
Saturation	108	%	27b	12/15/2006
Calcium saturated paste	16.1	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	21.3	meq/l	3-5.4	01/05/2007
Sodium saturated paste	63.7	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	14.7	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-5	Description: SHOB-35 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	31.3	%	15-5 Mod.	12/18/2006
Silt	41.2	%	15-5 Mod.	12/18/2006
Clay	27.5	%	15-5 Mod.	12/18/2006
Texture	Clay Loam	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	3.39	mmhos/cm	10-3.3	12/29/2006
pH Saturated Paste	8.1	S.U.	21a	12/15/2006
Saturation	164	%	27b	12/15/2006
Calcium saturated paste	2.99	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	3.96	meq/l	3-5.4	01/05/2007
Sodium saturated paste	29.0	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	15.6	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-6	Description: SHOB-35 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15-5 Mod.	12/18/2006
Silt	62.4	%	15-5 Mod.	12/18/2006
Clay	21.3	%	15-5 Mod.	12/18/2006
Texture	Silt Loam	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	1.89	mmhos/cm	10-3.3	12/29/2006
pH Saturated Paste	8.8	S.U.	21a	12/15/2006
Saturation	155	%	27b	12/15/2006
Calcium saturated paste	0.46	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.79	meq/l	3-5.4	01/05/2007
Sodium saturated paste	18.8	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	23.8	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-7	Description: SHOB-35 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	33.8	%	15-5 Mod.	12/18/2006
Silt	47.4	%	15-5 Mod.	12/18/2006
Clay	18.8	%	15-5 Mod.	12/18/2006
Texture	Loam	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	2.68	mmhos/cm	10-3.3	12/29/2006
pH Saturated Paste	8.8	S.U.	21a	12/15/2006
Saturation	129	%	27b	12/15/2006
Calcium saturated paste	0.61	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.96	meq/l	3-5.4	01/05/2007
Sodium saturated paste	27.3	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	30.8	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-8	Description: SHOB-35 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	41.3	%	15-5 Mod.	12/18/2006
Silt	36.2	%	15-5 Mod.	12/18/2006
Clay	22.5	%	15-5 Mod.	12/18/2006
Texture	Loam	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	1.91	mmhos/cm	10-3.3	12/29/2006
pH Saturated Paste	8.5	S.U.	21a	12/15/2006
Saturation	115	%	27b	12/15/2006
Calcium saturated paste	0.47	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.55	meq/l	3-5.4	01/05/2007
Sodium saturated paste	17.8	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	24.9	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-9	Description: SHOB-35 40-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	65.0	%	15-5 Mod.	12/18/2006
Silt	20.0	%	15-5 Mod.	12/18/2006
Clay	15.0	%	15-5 Mod.	12/18/2006
Texture	Sandy Loam	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	3.62	mmhos/cm	10-3.3	12/29/2006
pH Saturated Paste	8.7	S.U.	21a	12/15/2006
Saturation	85.9	%	27b	12/15/2006
Calcium saturated paste	0.88	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.90	meq/l	3-5.4	01/05/2007
Sodium saturated paste	36.2	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	38.4	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-10	Description: SHOB-35 70-75	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 Mod.	12/18/2006
Silt	23.7	%	15-5 Mod.	12/18/2006
Clay	57.5	%	15-5 Mod.	12/18/2006
Texture	Clay	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	2.02	mmhos/cm	10-3.3	12/29/2006
pH Saturated Paste	7.4	S.U.	21a	12/15/2006
Saturation	176	%	27b	12/15/2006
Calcium saturated paste	0.39	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.36	meq/l	3-5.4	01/05/2007
Sodium saturated paste	19.6	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	32.0	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-11	Description: SHOB-35 75-80	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/18/2006
Silt	57.5	%	15-5 Mod.	12/18/2006
Clay	35.0	%	15-5 Mod.	12/18/2006
Texture	Si Cl Lo	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	1.27	mmhos/cm	10-3.3	12/29/2006
pH Saturated Paste	8.7	S.U.	21a	12/15/2006
Saturation	159	%	27b	12/15/2006
Calcium saturated paste	0.23	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.15	meq/l	3-5.4	01/05/2007
Sodium saturated paste	12.9	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	29.8	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-12	Description: SHOB-35 80-85	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15-5 Mod.	12/18/2006
Silt	53.7	%	15-5 Mod.	12/18/2006
Clay	30.0	%	15-5 Mod.	12/18/2006
Texture	Si Cl Lo	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	1.37	mmhos/cm	10-3.3	12/29/2006
pH Saturated Paste	8.6	S.U.	21a	12/15/2006
Saturation	142	%	27b	12/15/2006
Calcium saturated paste	0.35	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.22	meq/l	3-5.4	01/05/2007
Sodium saturated paste	13.7	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	25.9	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-17	Description: SHOB-36, 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod.	12/27/2006
Silt	41.2	%	15-5 Mod.	12/27/2006
Clay	47.5	%	15-5 Mod.	12/27/2006
Texture	Silty Clay	---	USDA	12/27/2006
Electrical Conductivity Saturated Paste	2.96	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	7.9	S.U.	21a	01/03/2007
Saturation	98.6	%	27b	01/03/2007
Calcium saturated paste	10.9	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	12.0	meq/l	3-5.4	01/11/2007
Sodium saturated paste	16.3	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	4.81	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-18	Description: SHOB-36, 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	15-5 Mod.	12/27/2006
Silt	47.4	%	15-5 Mod.	12/27/2006
Clay	46.3	%	15-5 Mod.	12/27/2006
Texture	Silty Clay	---	USDA	12/27/2006
Electrical Conductivity Saturated Paste	7.51	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	8.0	S.U.	21a	01/03/2007
Saturation	134	%	27b	01/03/2007
Calcium saturated paste	21.3	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	29.6	meq/l	3-5.4	01/11/2007
Sodium saturated paste	62.7	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	12.4	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-19	Description: SHOB-36, 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	12/27/2006
Silt	45.0	%	15-5 Mod.	12/27/2006
Clay	37.5	%	15-5 Mod.	12/27/2006
Texture	Si Cl Lo	---	USDA	12/27/2006
Electrical Conductivity Saturated Paste	5.82	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	7.7	S.U.	21a	01/03/2007
Saturation	86.0	%	27b	01/03/2007
Calcium saturated paste	24.2	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	19.3	meq/l	3-5.4	01/11/2007
Sodium saturated paste	39.8	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	8.53	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-20	Description: SHOB-36, 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	35.0	%	15-5 Mod.	12/27/2006
Silt	37.5	%	15-5 Mod.	12/27/2006
Clay	27.5	%	15-5 Mod.	12/27/2006
Texture	Clay Loam	---	USDA	12/27/2006
Electrical Conductivity Saturated Paste	8.27	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	7.1	S.U.	21a	01/03/2007
Saturation	76.5	%	27b	01/03/2007
Calcium saturated paste	33.4	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	29.2	meq/l	3-5.4	01/11/2007
Sodium saturated paste	59.1	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	10.6	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-21	Description: SHOB-36, 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	70.0	%	15-5 Mod.	12/21/2006
Silt	18.7	%	15-5 Mod.	12/21/2006
Clay	11.3	%	15-5 Mod.	12/21/2006
Texture	Sandy Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.47	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	7.8	S.U.	21a	12/22/2006
Saturation	35.8	%	27b	12/22/2006
Calcium saturated paste	6.44	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	6.49	meq/l	3-5.4	01/11/2007
Sodium saturated paste	14.5	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	5.69	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-22	Description: SHOB-36, 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE.	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	80.0	%	15-5 Mod.	12/21/2006
Silt	8.7	%	15-5 Mod.	12/21/2006
Clay	11.3	%	15-5 Mod.	12/21/2006
Texture	Sandy Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	1.26	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	7.9	S.U.	21a	12/22/2006
Saturation	36.5	%	27b	12/22/2006
Calcium saturated paste	3.27	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	3.00	meq/l	3-5.4	01/11/2007
Sodium saturated paste	6.47	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	3.66	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-23	Description: SHOB-36, 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	77.5	%	15-5 Mod.	12/21/2006
Silt	12.5	%	15-5 Mod.	12/21/2006
Clay	10.0	%	15-5 Mod.	12/21/2006
Texture	Sandy Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	1.30	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	7.8	S.U.	21a	12/22/2006
Saturation	31.2	%	27b	12/22/2006
Calcium saturated paste	3.33	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	3.09	meq/l	3-5.4	01/11/2007
Sodium saturated paste	6.74	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	3.76	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-24	Description: SHOB-36, 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	70.0	%	15-5 Mod.	12/21/2006
Silt	18.7	%	15-5 Mod.	12/21/2006
Clay	11.3	%	15-5 Mod.	12/21/2006
Texture	Sandy Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.76	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	7.7	S.U.	21a	12/22/2006
Saturation	33.4	%	27b	12/22/2006
Calcium saturated paste	11.4	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	10.1	meq/l	3-5.4	01/11/2007
Sodium saturated paste	11.9	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	3.63	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-25	Description: SHOB-36, 40-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	77.5	%	15-5 Mod.	12/21/2006
Silt	13.7	%	15-5 Mod.	12/21/2006
Clay	8.8	%	15-5 Mod.	12/21/2006
Texture	Sandy Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	1.61	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	8.1	S.U.	21a	12/22/2006
Saturation	39.0	%	27b	12/22/2006
Calcium saturated paste	2.78	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	3.09	meq/l	3-5.4	01/11/2007
Sodium saturated paste	10.6	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	6.19	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-26	Description: SHOB-36, 45-50	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	65.0	%	15-5 Mod.	12/21/2006
Silt	23.7	%	15-5 Mod.	12/21/2006
Clay	11.3	%	15-5 Mod.	12/21/2006
Texture	Sandy Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	1.66	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	8.3	S.U.	21a	12/22/2006
Saturation	39.4	%	27b	12/22/2006
Calcium saturated paste	1.70	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.75	meq/l	3-5.4	01/11/2007
Sodium saturated paste	12.7	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	9.64	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-27	Description: SHOB-36, 50-55	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	12/21/2006
Silt	43.7	%	15-5 Mod.	12/21/2006
Clay	33.8	%	15-5 Mod.	12/21/2006
Texture	Clay Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	1.70	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	8.2	S.U.	21a	12/22/2006
Saturation	112	%	27b	12/22/2006
Calcium saturated paste	1.17	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.04	meq/l	3-5.4	01/11/2007
Sodium saturated paste	15.1	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	14.4	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-28	Description: SHOB-36, 55-60	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	15-5 Mod.	12/21/2006
Silt	68.7	%	15-5 Mod.	12/21/2006
Clay	28.8	%	15-5 Mod.	12/21/2006
Texture	Si Cl Lo	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	1.79	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	8.7	S.U.	21a	12/22/2006
Saturation	131	%	27b	12/22/2006
Calcium saturated paste	0.83	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.09	meq/l	3-5.4	01/11/2007
Sodium saturated paste	16.7	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	17.1	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-29	Description: SHOB-36, 60-65	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/21/2006
Silt	38.7	%	15-5 Mod.	12/21/2006
Clay	48.8	%	15-5 Mod.	12/21/2006
Texture	Clay	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	1.92	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	8.8	S.U.	21a	12/22/2006
Saturation	146	%	27b	12/22/2006
Calcium saturated paste	0.65	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.76	meq/l	3-5.4	01/11/2007
Sodium saturated paste	18.0	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	21.4	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-30	Description: SHOB-36, 65-70	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	12/21/2006
Silt	31.2	%	15-5 Mod.	12/21/2006
Clay	46.3	%	15-5 Mod.	12/21/2006
Texture	Clay	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.01	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	9.0	S.U.	21a	12/22/2006
Saturation	141	%	27b	12/22/2006
Calcium saturated paste	0.59	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.64	meq/l	3-5.4	01/11/2007
Sodium saturated paste	20.9	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	26.6	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-31	Description: SHOB-36, 70-75	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	35.0	%	15-5 Mod.	12/21/2006
Silt	41.2	%	15-5 Mod.	12/21/2006
Clay	23.8	%	15-5 Mod.	12/21/2006
Texture	Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	1.91	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	9.3	S.U.	21a	12/22/2006
Saturation	102	%	27b	12/22/2006
Calcium saturated paste	0.53	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.56	meq/l	3-5.4	01/11/2007
Sodium saturated paste	18.7	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	25.3	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-32	Description: SHOB-36, 75-80	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	35.0	%	15-5 Mod.	12/21/2006
Silt	43.7	%	15-5 Mod.	12/21/2006
Clay	21.3	%	15-5 Mod.	12/21/2006
Texture	Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.30	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	7.6	S.U.	21a	12/22/2006
Saturation	103	%	27b	12/22/2006
Calcium saturated paste	0.49	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.48	meq/l	3-5.4	01/11/2007
Sodium saturated paste	23.7	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	34.0	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-33	Description: SHOB-36, 95-100	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006		
Collected by: RYAN TOLENE		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	21.3	%	15-5 Mod.	01/04/2007
Silt	54.9	%	15-5 Mod.	12/21/2006
Clay	23.8	%	15-5 Mod.	12/21/2006
Texture	Silt Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	1.57	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	9.0	S.U.	21a	12/22/2006
Saturation	117	%	27b	12/22/2006
Calcium saturated paste	0.51	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.40	meq/l	3-5.4	01/11/2007
Sodium saturated paste	19.5	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	29.0	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-34	Description: SHOB-36, 100-105	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	75.0	%	15-5 Mod.	12/21/2006
Silt	12.5	%	15-5 Mod.	12/21/2006
Clay	12.5	%	15-5 Mod.	12/21/2006
Texture	Sandy Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	2.01	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	9.4	S.U.	21a	12/22/2006
Saturation	51.5	%	27b	12/22/2006
Calcium saturated paste	0.44	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.38	meq/l	3-5.4	01/11/2007
Sodium saturated paste	21.0	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	32.9	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-1	Description: SHOB-37, 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/27/2006
Silt	42.5	%	15-5 Mod.	12/27/2006
Clay	50.0	%	15-5 Mod.	12/27/2006
Texture	Silty Clay	---	USDA	12/27/2006
Electrical Conductivity Saturated Paste	4.15	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	7.9	S.U.	21a	01/03/2007
Saturation	117.3	%	27b	01/03/2007
Calcium saturated paste	26.0	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	29.3	meq/l	3-5.4	01/11/2007
Sodium saturated paste	11.4	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	2.16	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-2	Description: SHOB-37, 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	<1.3	%	15-5 Mod.	12/27/2006
Silt	50.0	%	15-5 Mod.	12/27/2006
Clay	50.0	%	15-5 Mod.	12/27/2006
Texture	Silty Clay	---	USDA	12/27/2006
Electrical Conductivity Saturated Paste	6.90	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	7.8	S.U.	21a	01/03/2007
Saturation	115.2	%	27b	01/03/2007
Calcium saturated paste	18.8	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	46.9	meq/l	3-5.4	01/11/2007
Sodium saturated paste	44.0	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	7.67	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-3	Description: SHOB-37, 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	15-5 Mod.	12/27/2006
Silt	45.0	%	15-5 Mod.	12/27/2006
Clay	52.5	%	15-5 Mod.	12/27/2006
Texture	Silty Clay	—	USDA	12/27/2006
Electrical Conductivity Saturated Paste	10.6	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	6.6	S.U.	21a	01/03/2007
Saturation	99.1	%	27b	01/03/2007
Calcium saturated paste	27.9	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	74.6	meq/l	3-5.4	01/11/2007
Sodium saturated paste	83.9	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	11.7	—	20b	01/11/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-4	Description: SHOB-37, 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	0.0	%	15-5 Mod.	12/27/2006
Silt	50.0	%	15-5 Mod.	12/27/2006
Clay	50.0	%	15-5 Mod.	12/27/2006
Texture	Silty Clay	---	USDA	12/27/2006
Electrical Conductivity Saturated Paste	11.0	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	7.0	S.U.	21a	01/03/2007
Saturation	97.4	%	27b	01/03/2007
Calcium saturated paste	21.8	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	91.6	meq/l	3-5.4	01/11/2007
Sodium saturated paste	79.3	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	10.5	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-5	Description: SHOB-37, 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/27/2006
Silt	52.5	%	15-5 Mod.	12/27/2006
Clay	42.5	%	15-5 Mod.	12/27/2006
Texture	Silty Clay	---	USDA	12/27/2006
Electrical Conductivity Saturated Paste	8.81	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	7.7	S.U.	21a	01/03/2007
Saturation	87.4	%	27b	01/03/2007
Calcium saturated paste	18.9	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	59.4	meq/l	3-5.4	01/11/2007
Sodium saturated paste	60.7	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	9.70	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-6	Description: SHOB-37, 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/27/2006
Silt	67.5	%	15-5 Mod.	12/27/2006
Clay	20.0	%	15-5 Mod.	12/27/2006
Texture	Silt Loam	---	USDA	12/27/2006
Electrical Conductivity Saturated Paste	12.3	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	8.1	S.U.	21a	01/03/2007
Saturation	54.3	%	27b	01/03/2007
Calcium saturated paste	19.9	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	91.9	meq/l	3-5.4	01/11/2007
Sodium saturated paste	95.4	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	12.8	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-7	Description: SHOB-37, 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	42.5	%	15-5 Mod.	12/27/2006
Silt	32.5	%	15-5 Mod.	12/27/2006
Clay	25.0	%	15-5 Mod.	12/27/2006
Texture	Loam	---	USDA	12/27/2006
Electrical Conductivity Saturated Paste	9.53	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	8.0	S.U.	21a	01/03/2007
Saturation	50.4	%	27b	01/03/2007
Calcium saturated paste	14.8	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	46.8	meq/l	3-5.4	01/11/2007
Sodium saturated paste	84.6	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	15.3	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-8	Description: SHOB-37, 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 Mod.	12/27/2006
Silt	53.7	%	15-5 Mod.	12/27/2006
Clay	32.5	%	15-5 Mod.	12/27/2006
Texture	Si Cl Lo	---	USDA	12/27/2006
Electrical Conductivity Saturated Paste	5.39	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	8.3	S.U.	21a	01/03/2007
Saturation	59.2	%	27b	01/03/2007
Calcium saturated paste	3.65	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	5.86	meq/l	3-5.4	01/11/2007
Sodium saturated paste	58.1	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	26.6	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-9	Description: SHOB-37, 40-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod.	12/27/2006
Silt	56.2	%	15-5 Mod.	12/27/2006
Clay	32.5	%	15-5 Mod.	12/27/2006
Texture	Si Cl Lo	---	USDA	12/27/2006
Electrical Conductivity Saturated Paste	5.74	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	8.2	S.U.	21a	01/03/2007
Saturation	129.8	%	27b	01/03/2007
Calcium saturated paste	4.08	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	6.41	meq/l	3-5.4	01/11/2007
Sodium saturated paste	63.3	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	27.6	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-10	Description: SHOB-37, 45-50	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	32.5	%	15-5 Mod.	12/27/2006
Silt	37.5	%	15-5 Mod.	12/27/2006
Clay	30.0	%	15-5 Mod.	12/27/2006
Texture	Clay Loam	---	USDA	12/27/2006
Electrical Conductivity Saturated Paste	3.10	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	8.9	S.U.	21a	01/03/2007
Saturation	141.3	%	27b	01/03/2007
Calcium saturated paste	0.87	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.53	meq/l	3-5.4	01/11/2007
Sodium saturated paste	33.9	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	31.0	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-11	Description: SHOB-37, 50-55	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	70.0	%	15-5 Mod.	12/27/2006
Silt	12.5	%	15-5 Mod.	12/27/2006
Clay	17.5	%	15-5 Mod.	12/27/2006
Texture	Sandy Loam	---	USDA	12/27/2006
Electrical Conductivity Saturated Paste	4.47	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	9.0	S.U.	21a	01/03/2007
Saturation	69.5	%	27b	01/03/2007
Calcium saturated paste	0.97	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.90	meq/l	3-5.4	01/11/2007
Sodium saturated paste	51.6	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	43.0	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-12	Description: SHOB-37, 55-60	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	52.5	%	15-5 Mod.	12/27/2006
Silt	27.5	%	15-5 Mod.	12/27/2006
Clay	20.0	%	15-5 Mod.	12/27/2006
Texture	Sandy Loam	---	USDA	12/27/2006
Electrical Conductivity Saturated Paste	3.76	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	9.1	S.U.	21a	01/03/2007
Saturation	88.5	%	27b	01/03/2007
Calcium saturated paste	0.80	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.20	meq/l	3-5.4	01/11/2007
Sodium saturated paste	49.3	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	49.3	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-13	Description: SHOB-37, 60-65	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	55.0	%	15-5 Mod.	12/27/2006
Silt	23.7	%	15-5 Mod.	12/27/2006
Clay	21.3	%	15-5 Mod.	12/27/2006
Texture	Sa Cl Lo	---	USDA	12/27/2006
Electrical Conductivity Saturated Paste	8.19	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	8.3	S.U.	21a	01/03/2007
Saturation	76.3	%	27b	01/03/2007
Calcium saturated paste	2.50	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	4.92	meq/l	3-5.4	01/11/2007
Sodium saturated paste	101	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	52.3	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-14	Description: SHOB-37, 80-85	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 Mod.	12/27/2006
Silt	48.7	%	15-5 Mod.	12/27/2006
Clay	32.5	%	15-5 Mod.	12/27/2006
Texture	Si Cl Lo	---	USDA	12/27/2006
Electrical Conductivity Saturated Paste	3.94	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	8.0	S.U.	21a	01/03/2007
Saturation	137	%	27b	01/03/2007
Calcium saturated paste	0.70	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.00	meq/l	3-5.4	01/11/2007
Sodium saturated paste	45.1	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	48.9	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-15	Description: SHOB-37, 85-90	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/27/2006
Silt	62.5	%	15-5 Mod.	12/27/2006
Clay	25.0	%	15-5 Mod.	12/27/2006
Texture	Silt Loam	---	USDA	12/27/2006
Electrical Conductivity Saturated Paste	2.54	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	9.1	S.U.	21a	01/03/2007
Saturation	141	%	27b	01/03/2007
Calcium saturated paste	0.38	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.37	meq/l	3-5.4	01/11/2007
Sodium saturated paste	29.4	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	47.7	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-16	Description: SHOB-37, 90-95	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	12/27/2006
Silt	57.5	%	15-5 Mod.	12/27/2006
Clay	20.0	%	15-5 Mod.	12/27/2006
Texture	Silt Loam	---	USDA	12/27/2006
Electrical Conductivity Saturated Paste	2.80	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	9.2	S.U.	21a	01/03/2007
Saturation	115	%	27b	01/03/2007
Calcium saturated paste	0.62	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.52	meq/l	3-5.4	01/11/2007
Sodium saturated paste	34.8	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	46.2	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-28	Description: SHOB-38, 0-5'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/08/2006
Silt	50.0	%	15-5 Mod.	12/08/2006
Clay	37.5	%	15-5 Mod.	12/08/2006
Texture	Si Cl Lo	-----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	10.5	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.2	S.U.	21a	12/06/2006
Saturation	77.1	%	27b	12/06/2006
Calcium saturated paste	18.1	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	58.8	meq/l	3-5.4	01/03/2007
Sodium saturated paste	93.9	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	15.1	-----	20b	01/03/2007
Sample Preparation	-----	-----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-29	Description: SHOB-38, 5-10'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15-5 Mod.	12/08/2006
Silt	61.2	%	15-5 Mod.	12/08/2006
Clay	22.5	%	15-5 Mod.	12/08/2006
Texture	Silt Loam	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	7.19	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.2	S.U.	21a	12/06/2006
Saturation	68.7	%	27b	12/06/2006
Calcium saturated paste	14.7	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	24.0	meq/l	3-5.4	01/03/2007
Sodium saturated paste	63.9	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	14.5	----	20b	01/03/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-30	Description: SHOB-38, 10-15'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	36.3	%	15-5 Mod.	12/08/2006
Silt	42.4	%	15-5 Mod.	12/08/2006
Clay	21.3	%	15-5 Mod.	12/08/2006
Texture	Loam	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	7.14	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.1	S.U.	21a	12/06/2006
Saturation	87.4	%	27b	12/06/2006
Calcium saturated paste	11.4	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	19.4	meq/l	3-5.4	01/03/2007
Sodium saturated paste	64.5	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	16.4	----	20b	01/03/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-31	Description: SHOB-38, 15-20'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/08/2006
Silt	50.0	%	15-5 Mod.	12/08/2006
Clay	40.0	%	15-5 Mod.	12/08/2006
Texture	Si Cl Lo	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	5.50	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.7	S.U.	21a	12/06/2006
Saturation	176	%	27b	12/06/2006
Calcium saturated paste	10.7	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	14.6	meq/l	3-5.4	01/03/2007
Sodium saturated paste	47.8	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	13.5	----	20b	01/03/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-32	Description: SHOB-38, 20-25'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	70.0	%	15-5 Mod.	12/08/2006
Silt	12.5	%	15-5 Mod.	12/08/2006
Clay	17.5	%	15-5 Mod.	12/08/2006
Texture	Sandy Loam	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	2.11	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.6	S.U.	21a	12/06/2006
Saturation	142	%	27b	12/06/2006
Calcium saturated paste	0.92	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	1.70	meq/l	3-5.4	01/03/2007
Sodium saturated paste	21.3	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	18.6	----	20b	01/03/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-33	Description: SHOB-38, 25-30'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	70.0	%	15-5 Mod.	12/08/2006
Silt	7.5	%	15-5 Mod.	12/08/2006
Clay	22.5	%	15-5 Mod.	12/08/2006
Texture	Sa Cl Lo	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	3.52	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.3	S.U.	21a	12/06/2006
Saturation	72.6	%	27b	12/06/2006
Calcium saturated paste	2.32	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	4.63	meq/l	3-5.4	01/03/2007
Sodium saturated paste	32.7	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	17.5	----	20b	01/03/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.:	2006100344-34	Description: SHOB-38, 30-35'	Matrix: OVERBURDEN
Date Received:	10/31/2006		
Date Collected:	10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	77.5	%	15-5 Mod.	12/08/2006
Silt	7.5	%	15-5 Mod.	12/08/2006
Clay	15.0	%	15-5 Mod.	12/08/2006
Texture	Sandy Loam	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	2.82	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.2	S.U.	21a	12/06/2006
Saturation	55.1	%	27b	12/06/2006
Calcium saturated paste	1.38	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	3.60	meq/l	3-5.4	01/03/2007
Sodium saturated paste	27.1	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	17.2	----	20b	01/03/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-35	Description: SHOB-38, 35-40'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006		Collected by: RYAN TOLENE

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	76.3	%	15-5 Mod.	12/08/2006
Silt	7.4	%	15-5 Mod.	12/08/2006
Clay	16.3	%	15-5 Mod.	12/08/2006
Texture	Sandy Loam	-----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	6.94	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	6.8	S.U.	21a	12/06/2006
Saturation	68.2	%	27b	12/06/2006
Calcium saturated paste	15.1	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	24.7	meq/l	3-5.4	01/03/2007
Sodium saturated paste	57.5	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	12.9	-----	20b	01/03/2007
Sample Preparation	-----	-----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-36	Description: SHOB-38, 40-45'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	67.5	%	15-5 Mod.	12/08/2006
Silt	16.2	%	15-5 Mod.	12/08/2006
Clay	16.3	%	15-5 Mod.	12/08/2006
Texture	Sandy Loam	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	9.56	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	4.7	S.U.	21a	12/06/2006
Saturation	98.0	%	27b	12/06/2006
Calcium saturated paste	21.0	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	43.6	meq/l	3-5.4	01/03/2007
Sodium saturated paste	88.0	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	15.5	----	20b	01/03/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-37 Description: SHOB-38, 55-60' Matrix: OVERBURDEN
 Date Received: 10/31/2006
 Date Collected: 10/26/2006 Collected by: RYAN TOLENE

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	27.5	%	15-5 Mod.	12/08/2006
Silt	42.5	%	15-5 Mod.	12/08/2006
Clay	30.0	%	15-5 Mod.	12/08/2006
Texture	Clay Loam	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	2.12	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.5	S.U.	21a	12/06/2006
Saturation	171	%	27b	12/06/2006
Calcium saturated paste	0.71	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.99	meq/l	3-5.4	01/03/2007
Sodium saturated paste	23.8	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	25.9	----	20b	01/03/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-38	Description: SHOB-38, 60-65'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/08/2006
Silt	58.7	%	15-5 Mod.	12/08/2006
Clay	31.3	%	15-5 Mod.	12/08/2006
Texture	Si Cl Lo	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	1.91	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.9	S.U.	21a	12/06/2006
Saturation	164	%	27b	12/06/2006
Calcium saturated paste	0.42	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.56	meq/l	3-5.4	01/03/2007
Sodium saturated paste	19.9	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	28.5	----	20b	01/03/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.:	2006100344-39	Description: SHOB-38, 65-70'	Matrix: OVERBURDEN
Date Received:	10/31/2006		
Date Collected:	10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	12/08/2006
Silt	63.7	%	15-5 Mod.	12/08/2006
Clay	16.3	%	15-5 Mod.	12/08/2006
Texture	Silt Loam	----	USDA	12/08/2006
Electrical Conductivity Saturated Paste	1.78	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	9.0	S.U.	21a	12/06/2006
Saturation	135	%	27b	12/06/2006
Calcium saturated paste	0.27	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.33	meq/l	3-5.4	01/03/2007
Sodium saturated paste	18.8	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	34.5	----	20b	01/03/2007
Sample Preparation	----	----	27a	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-13	Description: SHOB-39 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod.	12/18/2006
Silt	50.0	%	15-5 Mod.	12/18/2006
Clay	25.0	%	15-5 Mod.	12/18/2006
Texture	Silt Loam	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	4.93	mmhos/cm	10-3.3	12/29/2006
pH Saturated Paste	7.6	S.U.	21a	12/15/2006
Saturation	70.1	%	27b	12/15/2006
Calcium saturated paste	16.2	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	22.8	meq/l	3-5.4	01/05/2007
Sodium saturated paste	26.3	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	5.96	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-14	Description: SHOB-39 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod.	12/18/2006
Silt	52.5	%	15-5 Mod.	12/18/2006
Clay	22.5	%	15-5 Mod.	12/18/2006
Texture	Silt Loam	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	8.67	mmhos/cm	10-3.3	12/29/2006
pH Saturated Paste	7.9	S.U.	21a	12/15/2006
Saturation	65.6	%	27b	12/15/2006
Calcium saturated paste	22.2	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	33.8	meq/l	3-5.4	01/05/2007
Sodium saturated paste	68.4	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	12.9	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-15	Description: SHOB-39 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 Mod.	12/18/2006
Silt	62.4	%	15-5 Mod.	12/18/2006
Clay	23.8	%	15-5 Mod.	12/18/2006
Texture	Silt Loam	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	6.24	mmhos/cm	10-3.3	12/29/2006
pH Saturated Paste	7.7	S.U.	21a	12/15/2006
Saturation	98.4	%	27b	12/15/2006
Calcium saturated paste	12.8	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	18.0	meq/l	3-5.4	01/05/2007
Sodium saturated paste	52.9	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	13.5	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-16	Description: SHOB-39 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 Mod.	12/18/2006
Silt	52.4	%	15-5 Mod.	12/18/2006
Clay	33.8	%	15-5 Mod.	12/18/2006
Texture	Si Cl Lo	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	6.43	mmhos/cm	10-3.3	12/29/2006
pH Saturated Paste	7.5	S.U.	21a	12/15/2006
Saturation	148	%	27b	12/15/2006
Calcium saturated paste	14.5	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	16.2	meq/l	3-5.4	01/05/2007
Sodium saturated paste	57.0	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	14.5	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-17	Description: SHOB-39 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	61.3	%	15-5 Mod.	12/18/2006
Silt	11.2	%	15-5 Mod.	12/18/2006
Clay	27.5	%	15-5 Mod.	12/18/2006
Texture	Sa Cl Lo	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	2.65	mmhos/cm	10-3.3	12/29/2006
pH Saturated Paste	8.1	S.U.	21a	12/15/2006
Saturation	155	%	27b	12/15/2006
Calcium saturated paste	1.15	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	1.70	meq/l	3-5.4	01/05/2007
Sodium saturated paste	25.0	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	21.0	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-18	Description: SHOB-39 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	12/18/2006
Silt	52.5	%	15-5 Mod.	12/18/2006
Clay	25.0	%	15-5 Mod.	12/18/2006
Texture	Silt Loam	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	1.87	mmhos/cm	10-3.3	12/29/2006
pH Saturated Paste	8.7	S.U.	21a	12/15/2006
Saturation	144	%	27b	12/15/2006
Calcium saturated paste	0.55	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.69	meq/l	3-5.4	01/05/2007
Sodium saturated paste	17.3	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	21.9	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-19	Description: SHOB-39 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	15-5 Mod.	12/18/2006
Silt	62.4	%	15-5 Mod.	12/18/2006
Clay	31.3	%	15-5 Mod.	12/18/2006
Texture	Si Cl Lo	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	2.12	mmhos/cm	10-3.3	12/29/2006
pH Saturated Paste	8.8	S.U.	21a	12/15/2006
Saturation	169	%	27b	12/15/2006
Calcium saturated paste	0.50	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.53	meq/l	3-5.4	01/05/2007
Sodium saturated paste	21.3	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	29.7	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-26	Description: SHOB-39 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/18/2006
Silt	58.7	%	15-5 Mod.	12/18/2006
Clay	28.8	%	15-5 Mod.	12/18/2006
Texture	Si Cl Lo	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	3.22	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.8	S.U.	21a	12/15/2006
Saturation	135	%	27b	12/15/2006
Calcium saturated paste	0.76	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.87	meq/l	3-5.4	01/05/2007
Sodium saturated paste	34.3	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	38.0	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-27	Description: SHOB-39 40-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	51.3	%	15-5 Mod.	12/18/2006
Silt	31.2	%	15-5 Mod.	12/18/2006
Clay	17.5	%	15-5 Mod.	12/18/2006
Texture	Loam	----	USDA	12/18/2006
Electrical Conductivity Saturated Paste	1.39	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	9.2	S.U.	21a	12/15/2006
Saturation	94.4	%	27b	12/15/2006
Calcium saturated paste	0.32	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.23	meq/l	3-5.4	01/05/2007
Sodium saturated paste	13.5	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	25.6	---	20b	01/05/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-28	Description: SHOB-39 45-50	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	65.0	%	15-5 Mod.	12/18/2006
Silt	18.7	%	15-5 Mod.	12/18/2006
Clay	16.3	%	15-5 Mod.	12/18/2006
Texture	Sandy Loam	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	2.30	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	9.0	S.U.	21a	12/15/2006
Saturation	82.2	%	27b	12/20/2006
Calcium saturated paste	0.57	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.41	meq/l	3-5.4	01/05/2007
Sodium saturated paste	22.9	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	32.7	----	20b	01/05/2007
Sample Preparation	---	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-29	Description: SHOB-39 50-55	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	68.8	%	15-5 Mod.	12/18/2006
Silt	16.2	%	15-5 Mod.	12/18/2006
Clay	15.0	%	15-5 Mod.	12/18/2006
Texture	Sandy Loam	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	1.69	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	7.4	S.U.	21a	12/15/2006
Saturation	71.6	%	27b	12/15/2006
Calcium saturated paste	0.81	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.55	meq/l	3-5.4	01/05/2007
Sodium saturated paste	16.3	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	19.8	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-30	Description: SHOB-39 70-75	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	32.5	%	15-5 Mod.	12/18/2006
Silt	18.7	%	15-5 Mod.	12/18/2006
Clay	48.8	%	15-5 Mod.	12/18/2006
Texture	Clay	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	2.64	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	7.5	S.U.	21a	12/15/2006
Saturation	144	%	27b	12/15/2006
Calcium saturated paste	0.46	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.51	meq/l	3-5.4	01/05/2007
Sodium saturated paste	30.3	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	43.6	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-31	Description: SHOB-39 75-80	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006		
Collected by: RYAN TOLENE		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	12/18/2006
Silt	33.7	%	15-5 Mod.	12/18/2006
Clay	48.8	%	15-5 Mod.	12/18/2006
Texture	Clay	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	1.58	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.7	S.U.	21a	12/15/2006
Saturation	162	%	27b	12/15/2006
Calcium saturated paste	0.29	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.20	meq/l	3-5.4	01/05/2007
Sodium saturated paste	14.9	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	30.0	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-35	Description: SHOB-40, 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	62.5	%	15-5 Mod.	12/21/2006
Silt	18.7	%	15-5 Mod.	12/21/2006
Clay	18.8	%	15-5 Mod.	12/21/2006
Texture	Sandy Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	0.42	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	8.0	S.U.	21a	12/22/2006
Saturation	33.7	%	27b	12/22/2006
Calcium saturated paste	2.30	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.85	meq/l	3-5.4	01/11/2007
Sodium saturated paste	0.61	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	0.42	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-36	Description: SHOB-40, 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	32.5	%	15-5 Mod.	12/21/2006
Silt	25.0	%	15-5 Mod.	12/21/2006
Clay	42.5	%	15-5 Mod.	12/21/2006
Texture	Clay	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	0.94	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	8.6	S.U.	21a	12/22/2006
Saturation	101	%	27b	12/22/2006
Calcium saturated paste	0.53	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.96	meq/l	3-5.4	01/11/2007
Sodium saturated paste	6.79	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	6.08	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-37	Description: SHOB-40, 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod.	12/21/2006
Silt	51.2	%	15-5 Mod.	12/21/2006
Clay	37.5	%	15-5 Mod.	12/21/2006
Texture	Si Cl Lo	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	1.55	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	8.2	S.U.	21a	12/22/2006
Saturation	110	%	27b	12/22/2006
Calcium saturated paste	1.34	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	3.85	meq/l	3-5.4	01/11/2007
Sodium saturated paste	11.6	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	7.17	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-38	Description: SHOB-40, 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/21/2006
Silt	53.7	%	15-5 Mod.	12/21/2006
Clay	38.8	%	15-5 Mod.	12/21/2006
Texture	Si Cl Lo	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	5.33	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	7.3	S.U.	21a	12/22/2006
Saturation	92.5	%	27b	12/22/2006
Calcium saturated paste	22.4	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	30.7	meq/l	3-5.4	01/11/2007
Sodium saturated paste	26.2	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	5.08	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-39	Description: SHOB-40, 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	47.5	%	15-5 Mod.	12/21/2006
Silt	33.7	%	15-5 Mod.	12/21/2006
Clay	18.8	%	15-5 Mod.	12/21/2006
Texture	Loam	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	7.72	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	4.8	S.U.	21a	12/22/2006
Saturation	88.1	%	27b	12/22/2006
Calcium saturated paste	18.5	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	45.8	meq/l	3-5.4	01/11/2007
Sodium saturated paste	55.2	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	9.73	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-40	Description: SHOB-40, 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/21/2006
Silt	62.5	%	15-5 Mod.	12/21/2006
Clay	32.5	%	15-5 Mod.	12/21/2006
Texture	Si Cl Lo	---	USDA	12/21/2006
Electrical Conductivity Saturated Paste	3.10	mmhos/cm	10-3.3	01/16/2007
pH Saturated Paste	8.9	S.U.	21a	12/22/2006
Saturation	174	%	27b	12/22/2006
Calcium saturated paste	0.75	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	1.20	meq/l	3-5.4	01/11/2007
Sodium saturated paste	32.2	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	32.6	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-41	Description: SHOB-40, 40-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/22/2006
Silt	62.5	%	15-5 Mod.	12/22/2006
Clay	25.0	%	15-5 Mod.	12/22/2006
Texture	Silt Loam	---	USDA	12/22/2006
Electrical Conductivity Saturated Paste	2.96	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	8.9	S.U.	21a	12/22/2006
Saturation	166	%	27b	12/22/2006
Calcium saturated paste	0.63	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.80	meq/l	3-5.4	01/09/2007
Sodium saturated paste	31.4	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	37.2	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-42	Description: SHOB-40, 45-50	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	32.5	%	15-5 Mod.	12/22/2006
Silt	42.5	%	15-5 Mod.	12/22/2006
Clay	25.0	%	15-5 Mod.	12/22/2006
Texture	Loam	---	USDA	12/22/2006
Electrical Conductivity Saturated Paste	2.00	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	8.8	S.U.	21a	12/22/2006
Saturation	161	%	27b	12/22/2006
Calcium saturated paste	0.31	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.41	meq/l	3-5.4	01/09/2007
Sodium saturated paste	20.5	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	34.1	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-1	Description: SHOB-41, 0-5'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 Mod	11/09/2006
Silt	53.7	%	15-5 Mod	11/09/2006
Clay	32.5	%	15-5 Mod	11/09/2006
Texture	Si Cl Lo	---	USDA	11/09/2006
Electrical Conductivity Saturated Paste	5.85	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	7.8	S.U.	21a	11/09/2006
Saturation	77.3	%	27b	11/08/2006
Calcium saturated paste	24.9	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	37.3	meq/l	3-5.4	11/13/2006
Sodium saturated paste	23.7	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	4.26	---	20b	11/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-2	Description: SHOB-41, 5-10'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 Mod	11/09/2006
Silt	38.7	%	15-5 Mod	11/09/2006
Clay	42.5	%	15-5 Mod	11/09/2006
Texture	Clay	---	USDA	11/09/2006
Electrical Conductivity Saturated Paste	7.43	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	5.3	S.U.	21a	11/09/2006
Saturation	82.8	%	27b	11/08/2006
Calcium saturated paste	17.1	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	55.6	meq/l	3-5.4	11/13/2006
Sodium saturated paste	43.0	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	7.14	---	20b	11/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-3	Description: SHOB-41, 10-15'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	3.8	%	15-5 Mod	11/09/2006
Silt	38.7	%	15-5 Mod	11/09/2006
Clay	57.5	%	15-5 Mod	11/09/2006
Texture	Clay	---	USDA	11/09/2006
Electrical Conductivity Saturated Paste	6.84	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	5.8	S.U.	21a	11/09/2006
Saturation	84.6	%	27b	11/08/2006
Calcium saturated paste	15.2	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	36.5	meq/l	3-5.4	11/13/2006
Sodium saturated paste	34.4	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	6.76	---	20b	11/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-4	Description: SHOB-41, 15-20'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15-5 Mod	11/09/2006
Silt	48.7	%	15-5 Mod	11/09/2006
Clay	35.0	%	15-5 Mod	11/09/2006
Texture	Si Cl Lo	---	USDA	11/09/2006
Electrical Conductivity Saturated Paste	6.83	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	7.4	S.U.	21a	11/09/2006
Saturation	80.0	%	27b	11/08/2006
Calcium saturated paste	18.7	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	40.7	meq/l	3-5.4	11/13/2006
Sodium saturated paste	40.4	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	7.41	---	20b	11/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-5	Description: SHOB-41, 20-25'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	48.8	%	15-5 Mod	11/09/2006
Silt	26.2	%	15-5 Mod	11/09/2006
Clay	25.0	%	15-5 Mod	11/09/2006
Texture	Sa Cl Lo	—	USDA	11/09/2006
Electrical Conductivity Saturated Paste	9.35	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	6.1	S.U.	21a	11/09/2006
Saturation	89.7	%	27b	11/08/2006
Calcium saturated paste	18.3	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	42.1	meq/l	3-5.4	11/13/2006
Sodium saturated paste	79.8	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	14.5	—	20b	11/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-6	Description: SHOB-41, 25-30'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 Mod	11/09/2006
Silt	56.2	%	15-5 Mod	11/09/2006
Clay	30.0	%	15-5 Mod	11/09/2006
Texture	Si Cl Lo	---	USDA	11/09/2006
Electrical Conductivity Saturated Paste	3.49	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	8.5	S.U.	21a	11/09/2006
Saturation	124	%	27b	11/08/2006
Calcium saturated paste	2.66	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	4.82	meq/l	3-5.4	11/13/2006
Sodium saturated paste	33.0	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	17.0	---	20b	11/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-7	Description: SHOB-41, 30-35'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod	11/09/2006
Silt	61.2	%	15-5 Mod	11/09/2006
Clay	30.0	%	15-5 Mod	11/09/2006
Texture	Si Cl Lo	—	USDA	11/09/2006
Electrical Conductivity Saturated Paste	1.96	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	8.8	S.U.	21a	11/09/2006
Saturation	166	%	27b	11/08/2006
Calcium saturated paste	0.99	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	1.17	meq/l	3-5.4	11/13/2006
Sodium saturated paste	15.1	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	14.5	—	20b	11/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-8	Description: SHOB-41, 35-40'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod	11/09/2006
Silt	40.0	%	15-5 Mod	11/09/2006
Clay	42.5	%	15-5 Mod	11/09/2006
Texture	Silty Clay	---	USDA	11/09/2006
Electrical Conductivity Saturated Paste	1.65	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	9.1	S.U.	21a	11/09/2006
Saturation	144	%	27b	11/08/2006
Calcium saturated paste	0.55	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	0.55	meq/l	3-5.4	11/13/2006
Sodium saturated paste	12.4	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	16.7	---	20b	11/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-9	Description: SHOB-41, 40-45'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	36.3	%	15-5 Mod	11/09/2006
Silt	33.7	%	15-5 Mod	11/09/2006
Clay	30.0	%	15-5 Mod	11/09/2006
Texture	Clay Loam	---	USDA	11/09/2006
Electrical Conductivity Saturated Paste	3.15	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	7.9	S.U.	21a	11/09/2006
Saturation	117	%	27b	11/08/2006
Calcium saturated paste	1.06	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	1.41	meq/l	3-5.4	11/13/2006
Sodium saturated paste	25.4	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	22.9	---	20b	11/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-10	Description: SHOB-41, 60-65'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	28.8	%	15-5 Mod	11/09/2006
Silt	46.2	%	15-5 Mod	11/09/2006
Clay	25.0	%	15-5 Mod	11/09/2006
Texture	Loam	---	USDA	11/09/2006
Electrical Conductivity Saturated Paste	1.79	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	7.8	S.U.	21a	11/09/2006
Saturation	152	%	27b	11/08/2006
Calcium saturated paste	0.68	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	0.79	meq/l	3-5.4	11/13/2006
Sodium saturated paste	17.6	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	20.5	---	20b	11/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-11	Description: SHOB-41, 65-70'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	28.8	%	15-5 Mod	11/09/2006
Silt	43.7	%	15-5 Mod	11/09/2006
Clay	27.5	%	15-5 Mod	11/09/2006
Texture	Clay Loam	—	USDA	11/09/2006
Electrical Conductivity Saturated Paste	1.14	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	9.2	S.U.	21a	11/09/2006
Saturation	114	%	27b	11/08/2006
Calcium saturated paste	0.36	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	0.27	meq/l	3-5.4	11/13/2006
Sodium saturated paste	9.58	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	17.2	—	20b	11/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-12	Description: SHOB-41, 70-75'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	61.3	%	15-5 Mod	11/09/2006
Silt	19.9	%	15-5 Mod	11/09/2006
Clay	18.8	%	15-5 Mod	11/09/2006
Texture	Sandy Loam	---	USDA	11/09/2006
Electrical Conductivity Saturated Paste	1.49	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	9.2	S.U.	21a	11/09/2006
Saturation	121	%	27b	11/08/2006
Calcium saturated paste	0.36	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	0.27	meq/l	3-5.4	11/13/2006
Sodium saturated paste	12.1	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	21.6	---	20b	11/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-15	Description: SHOB-41, 75-80'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	43.8	%	15-5 Mod	11/09/2006
Silt	38.7	%	15-5 Mod	11/09/2006
Clay	17.5	%	15-5 Mod	11/09/2006
Texture	Loam	---	USDA	11/09/2006
Electrical Conductivity Saturated Paste	1.60	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	8.5	S.U.	21a	11/09/2006
Saturation	113	%	27b	11/08/2006
Calcium saturated paste	0.45	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	0.32	meq/l	3-5.4	11/13/2006
Sodium saturated paste	12.4	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	19.9	---	20b	11/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-16	Description: SHOB-41, 80-85'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	23.8	%	15-5 Mod	11/09/2006
Silt	51.2	%	15-5 Mod	11/09/2006
Clay	25.0	%	15-5 Mod	11/09/2006
Texture	Silt Loam	---	USDA	11/09/2006
Electrical Conductivity Saturated Paste	2.71	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	8.6	S.U.	21a	11/09/2006
Saturation	121	%	27b	11/08/2006
Calcium saturated paste	1.19	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	1.45	meq/l	3-5.4	11/13/2006
Sodium saturated paste	30.5	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	26.6	---	20b	11/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-17	Description: SHOB-41, 85-90'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	53.8	%	15-5 Mod	11/09/2006
Silt	28.7	%	15-5 Mod	11/09/2006
Clay	17.5	%	15-5 Mod	11/09/2006
Texture	Sandy Loam	---	USDA	11/09/2006
Electrical Conductivity Saturated Paste	2.05	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	8.9	S.U.	21a	11/09/2006
Saturation	104	%	27b	11/08/2006
Calcium saturated paste	0.72	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	0.65	meq/l	3-5.4	11/13/2006
Sodium saturated paste	21.7	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	26.3	---	20b	11/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-18	Description: SHOB-41, 90-95'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	26.3	%	15-5 Mod	11/09/2006
Silt	53.7	%	15-5 Mod	11/09/2006
Clay	20.0	%	15-5 Mod	11/09/2006
Texture	Silt Loam	---	USDA	11/09/2006
Electrical Conductivity Saturated Paste	1.06	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	9.3	S.U.	21a	11/09/2006
Saturation	117	%	27b	11/08/2006
Calcium saturated paste	0.49	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	0.30	meq/l	3-5.4	11/13/2006
Sodium saturated paste	10.3	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	16.4	---	20b	11/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-19	Description: SHOB-41, 95-100'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	53.8	%	15-5 Mod	11/09/2006
Silt	36.2	%	15-5 Mod	11/09/2006
Clay	10.0	%	15-5 Mod	11/09/2006
Texture	Sandy Loam	—	USDA	11/09/2006
Electrical Conductivity Saturated Paste	1.15	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	9.5	S.U.	21a	11/09/2006
Saturation	70.8	%	27b	11/08/2006
Calcium saturated paste	0.22	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	0.19	meq/l	3-5.4	11/13/2006
Sodium saturated paste	11.2	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	24.9	—	20b	11/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-20	Description: SHOB-41, 100-105'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	56.3	%	15-5 Mod	11/09/2006
Silt	31.2	%	15-5 Mod	11/09/2006
Clay	12.5	%	15-5 Mod	11/09/2006
Texture	Sandy Loam	—	USDA	11/09/2006
Electrical Conductivity Saturated Paste	1.77	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	8.9	S.U.	21a	11/09/2006
Saturation	99.8	%	27b	11/08/2006
Calcium saturated paste	0.48	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	0.48	meq/l	3-5.4	11/13/2006
Sodium saturated paste	17.7	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	25.4	----	20b	11/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-21	Description: SHOB-41, 105-110'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	30.0	%	15-5 Mod	11/10/2006
Silt	48.7	%	15-5 Mod	11/10/2006
Clay	21.3	%	15-5 Mod	11/10/2006
Texture	Loam	—	USDA	11/10/2006
Electrical Conductivity Saturated Paste	1.20	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	8.9	S.U.	21a	11/10/2006
Saturation	114	%	27b	11/10/2006
Calcium saturated paste	0.90	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.61	meq/l	3-5.4	12/13/2006
Sodium saturated paste	13.1	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	15.0	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-22	Description: SHOB-41, 110-115'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	75.0	%	15-5 Mod	11/10/2006
Silt	13.7	%	15-5 Mod	11/10/2006
Clay	11.3	%	15-5 Mod	11/10/2006
Texture	Sandy Loam	----	USDA	11/10/2006
Electrical Conductivity Saturated Paste	1.74	mmhos/cm	10-3.3	11/15/2006
pH Saturated Paste	NA	---	---	---
Saturation	53.2	%	27b	11/11/2006
Calcium saturated paste	NA	---	---	---
Magnesium saturated paste	NA	---	---	---
Sodium saturated paste	NA	---	---	---
Sodium Adsorption Ratio	NA	---	---	---
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-23	Description: SHOB-41, 115-120'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	72.5	%	15-5 Mod	11/10/2006
Silt	16.2	%	15-5 Mod	11/10/2006
Clay	11.3	%	15-5 Mod	11/10/2006
Texture	Sandy Loam	---	USDA	11/10/2006
Electrical Conductivity Saturated Paste	16.1	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	9.1	S.U.	21a	11/10/2006
Saturation	68.8	%	27b	11/10/2006
Calcium saturated paste	0.63	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.70	meq/l	3-5.4	12/13/2006
Sodium saturated paste	13.1	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	15.5	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-24	Description: SHOB-41, 120-125'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	55.0	%	15-5 Mod	11/10/2006
Silt	22.5	%	15-5 Mod	11/10/2006
Clay	22.5	%	15-5 Mod	11/10/2006
Texture	Sa Cl Lo	—	USDA	11/10/2006
Electrical Conductivity Saturated Paste	4.72	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	6.9	S.U.	21a	11/10/2006
Saturation	58.4	%	27b	11/10/2006
Calcium saturated paste	6.94J	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	12.4	meq/l	3-5.4	12/13/2006
Sodium saturated paste	43.0 J	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	13.8	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-25	Description: SHOB-41, 125-130'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	77.5	%	15-5 Mod	11/10/2006
Silt	12.5	%	15-5 Mod	11/10/2006
Clay	10.0	%	15-5 Mod	11/10/2006
Texture	Sandy Loam	—	USDA	11/10/2006
Electrical Conductivity Saturated Paste	1.61	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	8.7	S.U.	21a	11/10/2006
Saturation	67.8	%	27b	11/10/2006
Calcium saturated paste	0.93	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	1.39	meq/l	3-5.4	12/13/2006
Sodium saturated paste	15.1	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	14.0	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-26	Description: SHOB-41, 130-135'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	47.5	%	15-5 Mod	11/10/2006
Silt	32.5	%	15-5 Mod	11/10/2006
Clay	20.0	%	15-5 Mod	11/10/2006
Texture	Loam	---	USDA	11/10/2006
Electrical Conductivity Saturated Paste	1.63	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	8.5	S.U.	21a	11/10/2006
Saturation	88.7	%	27b	11/10/2006
Calcium saturated paste	0.93	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	1.45	meq/l	3-5.4	11/13/2006
Sodium saturated paste	16.4	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	15.0	---	20b	11/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-27	Description: SHOB-41, 135-140'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	77.5	%	15-5 Mod	11/10/2006
Silt	12.5	%	15-5 Mod	11/10/2006
Clay	10.0	%	15-5 Mod	11/10/2006
Texture	Sandy Loam	---	USDA	11/10/2006
Electrical Conductivity Saturated Paste	2.54	mmhos/cm	10-3.3	11/15/2006
pH Saturated Paste	NA	---	---	---
Saturation	46.5	%	27b	11/11/2006
Calcium saturated paste	NA	---	---	---
Magnesium saturated paste	NA	---	---	---
Sodium saturated paste	NA	---	---	---
Sodium Adsorption Ratio	NA	---	---	---
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-28	Description: SHOB-41, 140-145'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	70.0	%	15-5 Mod	11/10/2006
Silt	17.5	%	15-5 Mod	11/10/2006
Clay	12.5	%	15-5 Mod	11/10/2006
Texture	Sandy Loam	—	USDA	11/10/2006
Electrical Conductivity Saturated Paste	1.32	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	9.4	S.U.	21a	11/10/2006
Saturation	71.6	%	27b	11/10/2006
Calcium saturated paste	1.04	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.59	meq/l	3-5.4	12/13/2006
Sodium saturated paste	14.3	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	15.9	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-29	Description: SHOB-41, 145-150'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	77.5	%	15-5 Mod	11/10/2006
Silt	12.5	%	15-5 Mod	11/10/2006
Clay	10.0	%	15-5 Mod	11/10/2006
Texture	Sandy Loam	----	USDA	11/10/2006
Electrical Conductivity Saturated Paste	2.42	mmhos/cm	10-3.3	11/15/2006
pH Saturated Paste	NA	---	---	---
Saturation	49.6	%	27b	11/11/2006
Calcium saturated paste	NA	---	----	---
Magnesium saturated paste	NA	---	---	---
Sodium saturated paste	NA	---	----	---
Sodium Adsorption Ratio	NA	---	---	---
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-30	Description: SHOB-41, 150-155'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	77.5	%	15-5 Mod	11/10/2006
Silt	10.0	%	15-5 Mod	11/10/2006
Clay	12.5	%	15-5 Mod	11/10/2006
Texture	Sandy Loam	---	USDA	11/10/2006
Electrical Conductivity Saturated Paste	2.37	mmhos/cm	10-3.3	11/15/2006
pH Saturated Paste	NA	---	---	---
Saturation	55.5	%	27b	11/11/2006
Calcium saturated paste	NA	---	---	---
Magnesium saturated paste	NA	---	---	---
Sodium saturated paste	NA	---	---	---
Sodium Adsorption Ratio	NA	---	---	---
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-31	Description: SHOB-41, 155-160'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod	11/10/2006
Silt	37.5	%	15-5 Mod	11/10/2006
Clay	47.5	%	15-5 Mod	11/10/2006
Texture	Clay	—	USDA	11/10/2006
Electrical Conductivity Saturated Paste	1.18	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	9.1	S.U.	21a	11/10/2006
Saturation	153	%	27b	11/10/2006
Calcium saturated paste	0.66	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.49	meq/l	3-5.4	12/13/2006
Sodium saturated paste	12.4	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	16.3	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-32	Description: SHOB-41, 160-165'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	55.0	%	15-5 Mod	11/10/2006
Silt	20.0	%	15-5 Mod	11/10/2006
Clay	25.0	%	15-5 Mod	11/10/2006
Texture	Sa Cl Lo	—	USDA	11/10/2006
Electrical Conductivity Saturated Paste	4.65	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	7.8	S.U.	21a	11/10/2006
Saturation	67.6	%	27b	11/10/2006
Calcium saturated paste	3.43 J	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	3.89	meq/l	3-5.4	11/13/2006
Sodium saturated paste	60.0 J	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	31.3	—	20b	11/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-33	Description: SHOB-41, 165-170'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod	11/10/2006
Silt	31.2	%	15-5 Mod	11/10/2006
Clay	46.3	%	15-5 Mod	11/10/2006
Texture	Clay	---	USDA	11/10/2006
Electrical Conductivity Saturated Paste	1.77	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	8.8	S.U.	21a	11/10/2006
Saturation	134	%	27b	11/10/2006
Calcium saturated paste	0.91	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.64	meq/l	3-5.4	12/13/2006
Sodium saturated paste	18.6	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	21.1	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-34	Description: SHOB-41, 170-175'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	47.5	%	15-5 Mod	11/10/2006
Silt	28.7	%	15-5 Mod	11/10/2006
Clay	23.8	%	15-5 Mod	11/10/2006
Texture	Loam	—	USDA	11/10/2006
Electrical Conductivity Saturated Paste	2.00	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	9.0	S.U.	21a	11/10/2006
Saturation	51.4	%	27b	11/10/2006
Calcium saturated paste	1.55	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	1.23	meq/l	3-5.4	12/13/2006
Sodium saturated paste	23.1	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	19.6	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-35	Description: SHOB-41, 175-180'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	40.0	%	15-5 Mod	11/10/2006
Silt	35.0	%	15-5 Mod	11/10/2006
Clay	25.0	%	15-5 Mod	11/10/2006
Texture	Loam	---	USDA	11/10/2006
Electrical Conductivity Saturated Paste	2.04	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	8.8	S.U.	21a	11/10/2006
Saturation	130	%	27b	11/10/2006
Calcium saturated paste	1.08	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.95	meq/l	3-5.4	12/13/2006
Sodium saturated paste	24.6	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	24.4	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-36	Description: SHOB-41, 180-185'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	50.0	%	15-5 Mod	11/10/2006
Silt	23.7	%	15-5 Mod	11/10/2006
Clay	26.3	%	15-5 Mod	11/10/2006
Texture	Sa Cl Lo	---	USDA	11/10/2006
Electrical Conductivity Saturated Paste	7.78	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	7.6	S.U.	21a	11/10/2006
Saturation	65.5	%	27b	11/10/2006
Calcium saturated paste	13.9	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	27.4	meq/l	3-5.4	12/13/2006
Sodium saturated paste	66.3 J	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	14.6	---	20b	12/13/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-37	Description: SHOB-41, 185-190'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod	11/10/2006
Silt	42.5	%	15-5 Mod	11/10/2006
Clay	45.0	%	15-5 Mod	11/10/2006
Texture	Silty Clay	—	USDA	11/10/2006
Electrical Conductivity Saturated Paste	1.42	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	9.0	S.U.	21a	11/10/2006
Saturation	141	%	27b	11/10/2006
Calcium saturated paste	0.69	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.49	meq/l	3-5.4	12/13/2006
Sodium saturated paste	16.0	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	20.8	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-38	Description: SHOB-41, 190-195'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod	11/10/2006
Silt	49.9	%	15-5 Mod	11/10/2006
Clay	38.8	%	15-5 Mod	11/10/2006
Texture	Si Cl Lo	—	USDA	11/10/2006
Electrical Conductivity Saturated Paste	1.26	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	9.3	S.U.	21a	11/10/2006
Saturation	136	%	27b	11/10/2006
Calcium saturated paste	0.86	meq/l	3-5.4	12/13/2006
Magnesium saturated paste	0.52	meq/l	3-5.4	12/13/2006
Sodium saturated paste	15.5	meq/l	3-5.4	12/13/2006
Sodium Adsorption Ratio	18.6	—	20b	12/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-39	Description: SHOB-41, 195-200'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15-5 Mod	11/10/2006
Silt	48.8	%	15-5 Mod	11/10/2006
Clay	35.0	%	15-5 Mod	11/10/2006
Texture	Si Cl Lo	---	USDA	11/10/2006
Electrical Conductivity Saturated Paste	NA	---	---	---
pH Saturated Paste	NA	---	---	---
Saturation	NA	---	---	---
Calcium saturated paste	NA	---	---	---
Magnesium saturated paste	NA	---	---	---
Sodium saturated paste	NA	---	---	---
Sodium Adsorption Ratio	NA	---	---	---
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-1	Description: SHOB-42 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	12/15/2006
Silt	47.5	%	15-5 Mod.	12/15/2006
Clay	35.0	%	15-5 Mod.	12/15/2006
Texture	Clay	----	USDA	12/15/2006
Electrical Conductivity Saturated Paste	0.79	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.4	S.U.	21a	12/12/2006
Saturation	93.6	%	27b	12/12/2006
Calcium saturated paste	2.21	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	1.50	meq/l	3-5.4	01/08/2007
Sodium saturated paste	4.21	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	3.09		20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-2	Description: SHOB-42 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	27.5	%	15-5 Mod.	12/15/2006
Silt	30.0	%	15-5 Mod.	12/15/2006
Clay	42.5	%	15-5 Mod.	12/15/2006
Texture	Clay	----	USDA	12/15/2006
Electrical Conductivity Saturated Paste	0.84	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.7	S.U.	21a	12/12/2006
Saturation	102	%	27b	12/12/2006
Calcium saturated paste	3.89	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	2.69	meq/l	3-5.4	01/08/2007
Sodium saturated paste	2.92	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	1.61		20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-3	Description: SHOB-42 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	12/15/2006
Silt	52.5	%	15-5 Mod.	12/15/2006
Clay	30.0	%	15-5 Mod.	12/15/2006
Texture	Si Cl Lo	----	USDA	12/15/2006
Electrical Conductivity Saturated Paste	0.66	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.6	S.U.	21a	12/12/2006
Saturation	84.4	%	27b	12/12/2006
Calcium saturated paste	2.73	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	1.85	meq/l	3-5.4	01/08/2007
Sodium saturated paste	2.06	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	1.36		20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-4	Description: SHOB-42 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	50.0	%	15-5 Mod.	12/15/2006
Silt	20.0	%	15-5 Mod.	12/15/2006
Clay	30.0	%	15-5 Mod.	12/15/2006
Texture	Loam	-----	USDA	12/15/2006
Electrical Conductivity Saturated Paste	0.51	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.9	S.U.	21a	12/12/2006
Saturation	67.0	%	27b	12/12/2006
Calcium saturated paste	1.15	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.92	meq/l	3-5.4	01/08/2007
Sodium saturated paste	3.06	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	3.00		20b	01/08/2007
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-5	Description: SHOB-42 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	55.0	%	15-5 Mod.	12/15/2006
Silt	25.0	%	15-5 Mod.	12/15/2006
Clay	20.0	%	15-5 Mod.	12/15/2006
Texture	Sa Cl Lo	----	USDA	12/15/2006
Electrical Conductivity Saturated Paste	0.66	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.8	S.U.	21a	12/12/2006
Saturation	57.5	%	27b	12/12/2006
Calcium saturated paste	1.26	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	1.25	meq/l	3-5.4	01/08/2007
Sodium saturated paste	4.00	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	3.57		20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-6	Description: SHOB-42 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	55.0	%	15-5 Mod.	12/15/2006
Silt	27.5	%	15-5 Mod.	12/15/2006
Clay	17.5	%	15-5 Mod.	12/15/2006
Texture	Sandy Loam	----	USDA	12/15/2006
Electrical Conductivity Saturated Paste	0.73	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.9	S.U.	21a	12/12/2006
Saturation	60.7	%	27b	12/12/2006
Calcium saturated paste	1.18	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	1.44	meq/l	3-5.4	01/08/2007
Sodium saturated paste	4.66	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	4.07		20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-7	Description: SHOB-42 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	55.0	%	15-5 Mod.	12/15/2006
Silt	30.0	%	15-5 Mod.	12/15/2006
Clay	15.0	%	15-5 Mod.	12/15/2006
Texture	Sandy Loam	----	USDA	12/15/2006
Electrical Conductivity Saturated Paste	1.12	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.4	S.U.	21a	12/12/2006
Saturation	73.8	%	27b	12/12/2006
Calcium saturated paste	1.65	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	2.68	meq/l	3-5.4	01/08/2007
Sodium saturated paste	7.26	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	4.94		20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-8	Description: SHOB-42 55-60	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/15/2006
Silt	42.5	%	15-5 Mod.	12/15/2006
Clay	52.5	%	15-5 Mod.	12/15/2006
Texture	Silty Clay	----	USDA	12/15/2006
Electrical Conductivity Saturated Paste	1.07	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.7	S.U.	21a	12/12/2006
Saturation	172	%	27b	12/12/2006
Calcium saturated paste	0.39	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.35	meq/l	3-5.4	01/08/2007
Sodium saturated paste	10.8	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	17.7		20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-9	Description: SHOB-42 60-65	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/15/2006
Silt	45.0	%	15-5 Mod.	12/15/2006
Clay	50.0	%	15-5 Mod.	12/15/2006
Texture	Silty Clay	----	USDA	12/15/2006
Electrical Conductivity Saturated Paste	1.24	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.3	S.U.	21a	12/12/2006
Saturation	163	%	27b	12/12/2006
Calcium saturated paste	0.37	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.36	meq/l	3-5.4	01/08/2007
Sodium saturated paste	12.4	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	20.5		20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-10	Description: SHOB-42 65-70	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/15/2006
Silt	37.5	%	15-5 Mod.	12/15/2006
Clay	57.5	%	15-5 Mod.	12/15/2006
Texture	Clay	----	USDA	12/15/2006
Electrical Conductivity Saturated Paste	1.54	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.8	S.U.	21a	12/12/2006
Saturation	159	%	27b	12/12/2006
Calcium saturated paste	0.35	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.40	meq/l	3-5.4	01/08/2007
Sodium saturated paste	15.9	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	26.0		20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-32	Description: SHOB-43 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	45.0	%	15-5 Mod.	12/18/2006
Silt	28.7	%	15-5 Mod.	12/18/2006
Clay	26.3	%	15-5 Mod.	12/18/2006
Texture	Loam	----	USDA	12/18/2006
Electrical Conductivity Saturated Paste	2.51	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.0	S.U.	21a	12/15/2006
Saturation	56.7	%	27b	12/15/2006
Calcium saturated paste	2.56	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	5.66	meq/l	3-5.4	01/05/2007
Sodium saturated paste	17.4	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	8.57	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-33	Description: SHOB-43 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/18/2006
Silt	41.2	%	15-5 Mod.	12/18/2006
Clay	51.3	%	15-5 Mod.	12/18/2006
Texture	Silty Clay	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	7.11	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	7.8	S.U.	21a	12/15/2006
Saturation	116	%	27b	12/15/2006
Calcium saturated paste	24.3 J	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	31.0 J	meq/l	3-5.4	01/08/2007
Sodium saturated paste	43.8	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	8.34	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-34	Description: SHOB-43 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	15-5 Mod.	12/18/2006
Silt	46.2	%	15-5 Mod.	12/18/2006
Clay	47.5	%	15-5 Mod.	12/18/2006
Texture	Silty Clay	----	USDA	12/18/2006
Electrical Conductivity Saturated Paste	6.15	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	7.5	S.U.	21a	12/15/2006
Saturation	105	%	27b	12/15/2006
Calcium saturated paste	25.2 J	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	26.2 J	meq/l	3-5.4	01/08/2007
Sodium saturated paste	37.1	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	7.32	----	20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-35	Description: SHOB-43 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod.	12/18/2006
Silt	33.7	%	15-5 Mod.	12/18/2006
Clay	41.3	%	15-5 Mod.	12/18/2006
Texture	Clay	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	8.99	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	5.8	S.U.	21a	12/15/2006
Saturation	102	%	27b	12/15/2006
Calcium saturated paste	16.5 J	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	28.5 J	meq/l	3-5.4	01/08/2007
Sodium saturated paste	87.3	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	18.4	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-36	Description: SHOB-43 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006		
Collected by: RYAN TOLENE		

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	12/18/2006
Silt	46.2	%	15-5 Mod.	12/18/2006
Clay	33.8	%	15-5 Mod.	12/18/2006
Texture	Si Cl Lo	----	USDA	12/18/2006
Electrical Conductivity Saturated Paste	5.98	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	6.7	S.U.	21a	12/15/2006
Saturation	75.5	%	27b	12/15/2006
Calcium saturated paste	16.3 J	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	19.8 J	meq/l	3-5.4	01/08/2007
Sodium saturated paste	41.5	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	9.77	----	20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-37	Description: SHOB-43 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	23.8	%	15-5 Mod.	12/18/2006
Silt	39.9	%	15-5 Mod.	12/18/2006
Clay	36.3	%	15-5 Mod.	12/18/2006
Texture	Clay Loam	—	USDA	12/18/2006
Electrical Conductivity Saturated Paste	6.74	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	7.1	S.U.	21a	12/15/2006
Saturation	90.0	%	27b	12/15/2006
Calcium saturated paste	11.8 J	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	15.0 J	meq/l	3-5.4	01/08/2007
Sodium saturated paste	58.5	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	16.0	—	20b	01/08/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-38	Description: SHOB-43 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod.	12/18/2006
Silt	56.2	%	15-5 Mod.	12/18/2006
Clay	32.5	%	15-5 Mod.	12/18/2006
Texture	Si Cl Lo	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	3.16	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.0	S.U.	21a	12/15/2006
Saturation	155	%	27b	12/15/2006
Calcium saturated paste	2.45	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	3.00	meq/l	3-5.4	01/08/2007
Sodium saturated paste	28.3	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	17.2	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-39	Description: SHOB-43 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	12/18/2006
Silt	47.5	%	15-5 Mod.	12/18/2006
Clay	35.0	%	15-5 Mod.	12/18/2006
Texture	Si Cl Lo	----	USDA	12/18/2006
Electrical Conductivity Saturated Paste	3.99	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.2	S.U.	21a	12/15/2006
Saturation	165	%	27b	12/15/2006
Calcium saturated paste	2.42	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	2.94	meq/l	3-5.4	01/08/2007
Sodium saturated paste	38.3	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	23.4	---	20b	01/08/2007
Sample Preparation	----	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-40	Description: SHOB-43 40-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	15-5 Mod.	12/18/2006
Silt	57.4	%	15-5 Mod.	12/18/2006
Clay	36.3	%	15-5 Mod.	12/18/2006
Texture	Si Cl Lo	----	USDA	12/18/2006
Electrical Conductivity Saturated Paste	3.58	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.5	S.U.	21a	12/15/2006
Saturation	164	%	27b	12/15/2006
Calcium saturated paste	1.82	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	2.13	meq/l	3-5.4	01/08/2007
Sodium saturated paste	33.1	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	23.5	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-41	Description: SHOB-43 45-50	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	40.0	%	15-5 Mod.	12/20/2006
Silt	31.2	%	15-5 Mod.	12/20/2006
Clay	28.8	%	15-5 Mod.	12/20/2006
Texture	Clay Loam	---	USDA	12/20/2006
Electrical Conductivity Saturated Paste	4.25	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.5	S.U.	21a	12/20/2006
Saturation	136	%	27b	12/20/2006
Calcium saturated paste	2.23	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	2.40	meq/l	3-5.4	01/08/2007
Sodium saturated paste	40.9	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	26.9	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-42	Description: SHOB-43 50-55	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	52.5	%	15-5 Mod.	12/20/2006
Silt	25.0	%	15-5 Mod.	12/20/2006
Clay	22.5	%	15-5 Mod.	12/20/2006
Texture	Sa Cl Lo	---	USDA	12/20/2006
Electrical Conductivity Saturated Paste	3.75	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.6	S.U.	21a	12/20/2006
Saturation	119	%	27b	12/20/2006
Calcium saturated paste	1.83	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	1.89	meq/l	3-5.4	01/08/2007
Sodium saturated paste	35.9	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	26.3	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-43	Description: SHOB-43 55-60	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	48.8	%	15-5 Mod.	12/20/2006
Silt	26.2	%	15-5 Mod.	12/20/2006
Clay	25.0	%	15-5 Mod.	12/20/2006
Texture	Sa Cl Lo	----	USDA	12/20/2006
Electrical Conductivity Saturated Paste	6.43	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.4	S.U.	21a	12/20/2006
Saturation	104	%	27b	12/20/2006
Calcium saturated paste	4.39	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	5.08	meq/l	3-5.4	01/08/2007
Sodium saturated paste	64.5	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	29.6	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-44	Description: SHOB-43 60-65	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	48.8	%	15-5 Mod.	12/20/2006
Silt	26.2	%	15-5 Mod.	12/20/2006
Clay	25.0	%	15-5 Mod.	12/20/2006
Texture	Sa Cl Lo	---	USDA	12/20/2006
Electrical Conductivity Saturated Paste	4.62	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	7.6	S.U.	21a	12/20/2006
Saturation	99.8	%	27b	12/20/2006
Calcium saturated paste	4.12	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	5.05	meq/l	3-5.4	01/08/2007
Sodium saturated paste	44.9	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	21.0	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	---

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-45	Description: SHOB-43 65-70	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	72.5	%	15-5 Mod.	12/20/2006
Silt	15.0	%	15-5 Mod.	12/20/2006
Clay	12.5	%	15-5 Mod.	12/20/2006
Texture	Sandy Loam	----	USDA	12/20/2006
Electrical Conductivity Saturated Paste	8.19	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	7.5	S.U.	21a	12/20/2006
Saturation	69.8	%	27b	12/20/2006
Calcium saturated paste	6.31	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	7.97	meq/l	3-5.4	01/08/2007
Sodium saturated paste	91.4	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	34.2	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-46	Description: SHOB-43 90-95	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	50.0	%	15-5 Mod.	12/20/2006
Silt	22.5	%	15-5 Mod.	12/20/2006
Clay	27.5	%	15-5 Mod.	12/20/2006
Texture	Sa Cl Lo	---	USDA	12/20/2006
Electrical Conductivity Saturated Paste	3.15	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	7.5	S.U.	21a	12/20/2006
Saturation	141	%	27b	12/20/2006
Calcium saturated paste	0.78	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.81	meq/l	3-5.4	01/08/2007
Sodium saturated paste	31.2	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	34.9	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-47	Description: SHOB-43 95-100	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	30.0	%	15-5 Mod.	12/20/2006
Silt	38.7	%	15-5 Mod.	12/20/2006
Clay	31.3	%	15-5 Mod.	12/20/2006
Texture	Clay Loam	---	USDA	12/20/2006
Electrical Conductivity Saturated Paste	1.84	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.0	S.U.	21a	12/20/2006
Saturation	144	%	27b	12/20/2006
Calcium saturated paste	0.33	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.28	meq/l	3-5.4	01/08/2007
Sodium saturated paste	17.1	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	30.8	---	20b	01/08/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100157-1	Description: SHOB-44 @ 0-5'	Matrix: SOIL
Date Received: 10/16/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	42b mod.	11/01/2006
Silt	36.3	%	42b mod.	11/01/2006
Clay	52.5	%	42b mod.	11/01/2006
Texture	Clay	—	42b mod.	11/01/2006
Electrical Conductivity Saturated Paste	6.02	mmhos/cm	10-3.3	11/07/2006
pH Saturated Paste	7.4	S.U.	21a	11/01/2006
Saturation	65.5	%	27a	10/31/2006
Calcium saturated paste	28.2	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	33.7	meq/l	3-5.4	11/02/2006
Sodium saturated paste	29.1	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	5.24	—	20b	11/02/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100157-2	Description: SHOB-44 @ 5-10'	Matrix: SOIL
Date Received: 10/16/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	42b mod.	11/01/2006
Silt	53.7	%	42b mod.	11/01/2006
Clay	40.0	%	42b mod.	11/01/2006
Texture	Si Cl Lo	---	42b mod.	11/01/2006
Electrical Conductivity Saturated Paste	4.79	mmhos/cm	10-3.3	11/07/2006
pH Saturated Paste	8.1	S.U.	21a	11/01/2006
Saturation	87.0	%	27a	10/31/2006
Calcium saturated paste	12.7	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	17.9	meq/l	3-5.4	11/02/2006
Sodium saturated paste	32.7	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	8.34	----	20b	11/02/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100157-3	Description: SHOB-44 @ 10-15'	Matrix: SOIL
Date Received: 10/16/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	53.8	%	42b mod.	11/01/2006
Silt	22.4	%	42b mod.	11/01/2006
Clay	23.8	%	42b mod.	11/01/2006
Texture	Sa Cl Lo	—	42b mod.	11/01/2006
Electrical Conductivity Saturated Paste	5.80	mmhos/cm	10-3.3	11/07/2006
pH Saturated Paste	7.6	S.U.	21a	11/01/2006
Saturation	65.3	%	27a	10/31/2006
Calcium saturated paste	22.3	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	28.6	meq/l	3-5.4	11/02/2006
Sodium saturated paste	33.2	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	6.57	—	20b	11/02/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100157-4	Description: SHOB-44 @ 15-20'	Matrix: SOIL
Date Received: 10/16/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	63.8	%	42b mod.	11/01/2006
Silt	18.7	%	42b mod.	11/01/2006
Clay	17.5	%	42b mod.	11/01/2006
Texture	Sandy Loam	—	42b mod.	11/01/2006
Electrical Conductivity Saturated Paste	3.59	mmhos/cm	10-3.3	11/07/2006
pH Saturated Paste	7.7	S.U.	21a	11/01/2006
Saturation	73.4	%	27a	10/31/2006
Calcium saturated paste	10.9	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	12.8	meq/l	3-5.4	11/02/2006
Sodium saturated paste	19.4	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	5.64	—	20b	11/02/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100157-5	Description: SHOB-44 @ 20-25'	Matrix: SOIL
Date Received: 10/16/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	67.5	%	42b mod.	11/01/2006
Silt	15.0	%	42b mod.	11/01/2006
Clay	17.5	%	42b mod.	11/01/2006
Texture	Sandy Loam	—	42b mod.	11/01/2006
Electrical Conductivity Saturated Paste	3.48	mmhos/cm	10-3.3	11/07/2006
pH Saturated Paste	7.7	S.U.	21a	11/01/2006
Saturation	52.7	%	27a	10/31/2006
Calcium saturated paste	10.3	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	14.4	meq/l	3-5.4	11/02/2006
Sodium saturated paste	18.2	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	5.19	—	20b	11/02/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100157-6	Description: SHOB-44 @ 25-30'	Matrix: SOIL
Date Received: 10/16/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	66.3	%	42b mod.	11/01/2006
Silt	16.2	%	42b mod.	11/01/2006
Clay	17.5	%	42b mod.	11/01/2006
Texture	Sandy Loam	—	42b mod.	11/01/2006
Electrical Conductivity Saturated Paste	2.66	mmhos/cm	10-3.3	11/07/2006
pH Saturated Paste	8.1	S.U.	21a	11/01/2006
Saturation	57.8	%	27a	10/31/2006
Calcium saturated paste	8.17	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	8.58	meq/l	3-5.4	11/02/2006
Sodium saturated paste	13.8	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	4.77	—	20b	11/02/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100157-7	Description: SHOB-44 @ 30-35'	Matrix: SOIL
Date Received: 10/16/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	70.0	%	42b mod.	11/01/2006
Silt	17.5	%	42b mod.	11/01/2006
Clay	12.5	%	42b mod.	11/01/2006
Texture	Sandy Loam	—	42b mod.	11/01/2006
Electrical Conductivity Saturated Paste	1.12	mmhos/cm	10-3.3	11/07/2006
pH Saturated Paste	8.3	S.U.	21a	11/01/2006
Saturation	60.6	%	27a	10/31/2006
Calcium saturated paste	0.96	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	1.18	meq/l	3-5.4	11/02/2006
Sodium saturated paste	8.43	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	8.14	----	20b	11/02/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100157-8	Description: SHOB-44 @ 35-40'	Matrix: SOIL
Date Received: 10/16/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	66.3	%	42b mod.	11/01/2006
Silt	16.2	%	42b mod.	11/01/2006
Clay	17.5	%	42b mod.	11/01/2006
Texture	Sandy Loam	---	42b mod.	11/01/2006
Electrical Conductivity Saturated Paste	0.93	mmhos/cm	10-3.3	11/07/2006
pH Saturated Paste	8.2	S.U.	21a	11/01/2006
Saturation	82.6	%	27a	10/31/2006
Calcium saturated paste	0.61	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.67	meq/l	3-5.4	11/02/2006
Sodium saturated paste	7.38	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	9.19	---	20b	11/02/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100157-9	Description: SHOB-44 @ 40-45'	Matrix: SOIL
Date Received: 10/16/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	63.8	%	42b mod.	11/01/2006
Silt	13.7	%	42b mod.	11/01/2006
Clay	22.5	%	42b mod.	11/01/2006
Texture	Sa Cl Lo	---	42b mod.	11/01/2006
Electrical Conductivity Saturated Paste	1.02	mmhos/cm	10-3.3	11/07/2006
pH Saturated Paste	8.7	S.U.	21a	11/01/2006
Saturation	77.7	%	27a	10/31/2006
Calcium saturated paste	0.52	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.47	meq/l	3-5.4	11/02/2006
Sodium saturated paste	9.13	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	13.0	----	20b	11/02/2006
Sample Preparation	----	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100157-10	Description: SHOB-44 @ 60-65'	Matrix: SOIL
Date Received: 10/16/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	21.3	%	42b mod.	11/01/2006
Silt	38.7	%	42b mod.	11/01/2006
Clay	40.0	%	42b mod.	11/01/2006
Texture	Clay Loam	—	42b mod.	11/01/2006
Electrical Conductivity Saturated Paste	NA	—	—	—
pH Saturated Paste	8.2	S.U.	21a	11/01/2006
Saturation	102	%	27a	10/31/2006
Calcium saturated paste	8.71	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	8.20	meq/l	3-5.4	11/02/2006
Sodium saturated paste	42.2	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	14.5	—	20b	11/02/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100157-11	Description: SHOB-44 @ 65-70'	Matrix: SOIL
Date Received: 10/16/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	42b mod.	11/01/2006
Silt	55.0	%	42b mod.	11/01/2006
Clay	37.5	%	42b mod.	11/01/2006
Texture	Si Cl Lo	—	42b mod.	11/01/2006
Electrical Conductivity Saturated Paste	4.32	mmhos/cm	10-3.3	11/07/2006
pH Saturated Paste	8.4	S.U.	21a	11/01/2006
Saturation	84.9	%	27a	10/31/2006
Calcium saturated paste	10.0	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	9.55	meq/l	3-5.4	11/02/2006
Sodium saturated paste	50.5	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	16.1	—	20b	11/02/2006
Sample Preparation	—	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100157-12	Description: SHOB-44 @ 70-75'	Matrix: SOIL
Date Received: 10/16/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	207 (1)	%	27a	11/07/2006
Sand	13.8	%	42b mod.	11/01/2006
Silt	32.5	%	42b mod.	11/01/2006
Clay	53.8	%	42b mod.	11/01/2006
Texture	Clay	—	42b mod.	11/01/2006
Electrical Conductivity Saturated Paste	1.43 (1)	mmhos/cm	10-3.3	11/10/2006
pH Saturated Paste	8.9	S.U.	21a	11/01/2006
Saturation	165	%	27a	10/31/2006
Calcium saturated paste	0.44 (1)	meq/l	3-5.4	11/09/2006
Magnesium saturated paste	0.36 (1)	meq/l	3-5.4	11/09/2006
Sodium saturated paste	14.0 (1)	meq/l	3-5.4	11/09/2006
Sodium Adsorption Ratio	22.2 (1)	----	20b	11/09/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100191-1	Description: SHOB-44 @ 75-80'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	11/14/2006
Silt	51.2	%	15-5 Mod.	11/14/2006
Clay	43.8	%	15-5 Mod.	11/14/2006
Texture	Silty Clay	—	USDA	11/14/2006
Electrical Conductivity Saturated Paste	2.39	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	9.3	S.U.	21a	11/14/2006
Saturation	152	%	27b	11/13/2006
Calcium saturated paste	0.42	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	0.34	meq/l	3-5.4	11/20/2006
Sodium saturated paste	24.6	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	39.9	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100191-2	Description: SHOB-44 @ 80-85'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	11/14/2006
Silt	35.0	%	15-5 Mod.	11/14/2006
Clay	55.0	%	15-5 Mod.	11/14/2006
Texture	Clay	---	USDA	11/14/2006
Electrical Conductivity Saturated Paste	1.69	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	9.1	S.U.	21a	11/14/2006
Saturation	137	%	27b	11/13/2006
Calcium saturated paste	0.32	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	0.24	meq/l	3-5.4	11/20/2006
Sodium saturated paste	17.4	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	32.8	---	20b	11/20/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100191-3	Description: SHOB-44 @ 85-90'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	11/14/2006
Silt	42.5	%	15-5 Mod.	11/14/2006
Clay	52.5	%	15-5 Mod.	11/14/2006
Texture	Silty Clay	—	USDA	11/14/2006
Electrical Conductivity Saturated Paste	1.63	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	9.2	S.U.	21a	11/14/2006
Saturation	162	%	27b	11/13/2006
Calcium saturated paste	0.23	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	0.15	meq/l	3-5.4	11/20/2006
Sodium saturated paste	16.3	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	37.2	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100191-4	Description: SHOB-44 @ 90-95'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	15-5 Mod.	11/14/2006
Silt	33.7	%	15-5 Mod.	11/14/2006
Clay	60.0	%	15-5 Mod.	11/14/2006
Texture	Clay	---	USDA	11/14/2006
Electrical Conductivity Saturated Paste	1.55	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	9.3	S.U.	21a	11/14/2006
Saturation	169	%	27b	11/13/2006
Calcium saturated paste	0.16	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	0.08	meq/l	3-5.4	11/20/2006
Sodium saturated paste	14.4	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	41.7	---	20b	11/20/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDR ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100191-5	Description: SHOB-44 @ 95-100'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	52.5	%	15-5 Mod.	11/14/2006
Silt	13.7	%	15-5 Mod.	11/14/2006
Clay	33.8	%	15-5 Mod.	11/14/2006
Texture	Sa Cl Lo	----	USDA	11/14/2006
Electrical Conductivity Saturated Paste	4.12	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	8.5	S.U.	21a	11/14/2006
Saturation	86.9	%	27b	11/13/2006
Calcium saturated paste	1.30	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	1.78	meq/l	3-5.4	11/20/2006
Sodium saturated paste	40.7	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	32.8	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100191-6	Description: SHOB-44 @ 100-105'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	11/14/2006
Silt	45.0	%	15-5 Mod.	11/14/2006
Clay	40.0	%	15-5 Mod.	11/14/2006
Texture	Si Cl Lo	—	USDA	11/14/2006
Electrical Conductivity Saturated Paste	2.58	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	9.0	S.U.	21a	11/14/2006
Saturation	149	%	27b	11/13/2006
Calcium saturated paste	0.50	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	0.48	meq/l	3-5.4	11/20/2006
Sodium saturated paste	24.6	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	35.2	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100191-7	Description: SHOB-44 @ 105-110'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.3	%	15-5 Mod.	11/14/2006
Silt	71.2	%	15-5 Mod.	11/14/2006
Clay	22.5	%	15-5 Mod.	11/14/2006
Texture	Silt Loam	—	USDA	11/14/2006
Electrical Conductivity Saturated Paste	2.58	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	9.2	S.U.	21a	11/14/2006
Saturation	145	%	27b	11/13/2006
Calcium saturated paste	0.38	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	0.27	meq/l	3-5.4	11/20/2006
Sodium saturated paste	26.8	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	47.1	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100191-8	Description: SHOB-44 @ 110-115'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	11/14/2006
Silt	43.7	%	15-5 Mod.	11/14/2006
Clay	41.3	%	15-5 Mod.	11/14/2006
Texture	Silty Clay	---	USDA	11/14/2006
Electrical Conductivity Saturated Paste	1.88	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	9.1	S.U.	21a	11/14/2006
Saturation	140	%	27b	11/13/2006
Calcium saturated paste	0.21	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	0.17	meq/l	3-5.4	11/20/2006
Sodium saturated paste	19.1	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	43.5	---	20b	11/20/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100191-9	Description: SHOB-44 @ 115-120'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	11/14/2006
Silt	47.5	%	15-5 Mod.	11/14/2006
Clay	42.5	%	15-5 Mod.	11/14/2006
Texture	Silty Clay	—	USDA	11/14/2006
Electrical Conductivity Saturated Paste	2.70	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	9.1	S.U.	21a	11/14/2006
Saturation	132	%	27b	11/13/2006
Calcium saturated paste	0.39	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	0.32	meq/l	3-5.4	11/20/2006
Sodium saturated paste	28.1	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	47.3	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100191-10	Description: SHOB-44 @ 120-125'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod.	11/14/2006
Silt	51.2	%	15-5 Mod.	11/14/2006
Clay	37.5	%	15-5 Mod.	11/14/2006
Texture	Si Cl Lo	—	USDA	11/14/2006
Electrical Conductivity Saturated Paste	3.51	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	9.2	S.U.	21a	11/14/2006
Saturation	141	%	27b	11/13/2006
Calcium saturated paste	0.81	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	0.69	meq/l	3-5.4	11/20/2006
Sodium saturated paste	41.8	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	48.3	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100191-11	Description: SHOB-44 @ 125-130'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	11/14/2006
Silt	46.2	%	15-5 Mod.	11/14/2006
Clay	48.8	%	15-5 Mod.	11/14/2006
Texture	Silty Clay	—	USDA	11/14/2006
Electrical Conductivity Saturated Paste	1.74	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	9.1	S.U.	21a	11/14/2006
Saturation	143	%	27b	11/13/2006
Calcium saturated paste	0.23	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	0.17	meq/l	3-5.4	11/20/2006
Sodium saturated paste	17.3	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	38.6	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100191-12	Description: SHOB-44 @ 130-135'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	11/14/2006
Silt	35.0	%	15-5 Mod.	11/14/2006
Clay	47.5	%	15-5 Mod.	11/14/2006
Texture	Clay	—	USDA	11/14/2006
Electrical Conductivity Saturated Paste	2.67	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	8.4	S.U.	21a	11/14/2006
Saturation	148	%	27b	11/13/2006
Calcium saturated paste	0.46	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	0.38	meq/l	3-5.4	11/20/2006
Sodium saturated paste	29.0	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	44.9	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100191-13	Description: SHOB-44 @ 135-140'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	28.8	%	15-5 Mod.	11/14/2006
Silt	36.2	%	15-5 Mod.	11/14/2006
Clay	35.0	%	15-5 Mod.	11/14/2006
Texture	Clay Loam	---	USDA	11/14/2006
Electrical Conductivity Saturated Paste	4.67	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	8.8	S.U.	21a	11/14/2006
Saturation	114	%	27b	11/13/2006
Calcium saturated paste	0.74	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	0.71	meq/l	3-5.4	11/20/2006
Sodium saturated paste	52.0	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	61.0	---	20b	11/20/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDR ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100191-14	Description: SHOB-44 @ 140-145'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	11/14/2006
Silt	45.0	%	15-5 Mod.	11/14/2006
Clay	37.5	%	15-5 Mod.	11/14/2006
Texture	Si Cl Lo	—	USDA	11/14/2006
Electrical Conductivity Saturated Paste	1.76	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	9.4	S.U.	21a	11/14/2006
Saturation	115	%	27b	11/13/2006
Calcium saturated paste	0.24	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	0.17	meq/l	3-5.4	11/20/2006
Sodium saturated paste	17.5	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	39.0	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100191-15	Description: SHOB-44 @ 145-150'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	15-5 Mod.	11/14/2006
Silt	45.0	%	15-5 Mod.	11/14/2006
Clay	52.5	%	15-5 Mod.	11/14/2006
Texture	Silty Clay	—	USDA	11/14/2006
Electrical Conductivity Saturated Paste	2.30	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	9.1	S.U.	21a	11/14/2006
Saturation	124	%	27b	11/13/2006
Calcium saturated paste	0.28	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	0.25	meq/l	3-5.4	11/20/2006
Sodium saturated paste	23.9	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	46.5	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100191-16	Description: SHOB-44 @ 150-155'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod.	11/14/2006
Silt	41.2	%	15-5 Mod.	11/14/2006
Clay	50.0	%	15-5 Mod.	11/14/2006
Texture	Silty Clay	—	USDA	11/14/2006
Electrical Conductivity Saturated Paste	1.90	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	9.1	S.U.	21a	11/14/2006
Saturation	132	%	27b	11/13/2006
Calcium saturated paste	0.23	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	0.20	meq/l	3-5.4	11/20/2006
Sodium saturated paste	18.7	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	40.3	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100191-17	Description: SHOB-44 @ 155-160'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	11/14/2006
Silt	45.0	%	15-5 Mod.	11/14/2006
Clay	50.0	%	15-5 Mod.	11/14/2006
Texture	Silty Clay	—	USDA	11/14/2006
Electrical Conductivity Saturated Paste	2.68	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	9.0	S.U.	21a	11/14/2006
Saturation	129	%	27b	11/13/2006
Calcium saturated paste	0.66	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	0.52	meq/l	3-5.4	11/20/2006
Sodium saturated paste	27.8	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	36.3	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-1	Description: SHOB-45, 0-5'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	55.0	%	15-5 Mod.	12/06/2006
Silt	31.2	%	15-5 Mod.	12/06/2006
Clay	13.8	%	15-5 Mod.	12/06/2006
Texture	Sandy Loam	----	USDA	12/06/2006
Electrical Conductivity Saturated Paste	0.81	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.1	S.U.	21a	12/05/2006
Saturation	45.7	%	27b	12/04/2006
Calcium saturated paste	2.20	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	2.98	meq/l	3-5.4	12/28/2006
Sodium saturated paste	3.37	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	2.09	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-2	Description: SHOB-45, 5-10'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	48.8	%	15-5 Mod.	12/06/2006
Silt	32.4	%	15-5 Mod.	12/06/2006
Clay	18.8	%	15-5 Mod.	12/06/2006
Texture	Loam	----	USDA	12/06/2006
Electrical Conductivity Saturated Paste	0.98	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.2	S.U.	21a	12/05/2006
Saturation	55.0	%	27b	12/04/2006
Calcium saturated paste	2.01	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	3.14	meq/l	3-5.4	12/28/2006
Sodium saturated paste	5.32	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	3.31	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-3	Description: SHOB-45, 10-15'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod.	12/06/2006
Silt	45.0	%	15-5 Mod.	12/06/2006
Clay	30.0	%	15-5 Mod.	12/06/2006
Texture	Clay Loam	----	USDA	12/06/2006
Electrical Conductivity Saturated Paste	0.98	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.9	S.U.	21a	12/05/2006
Saturation	100	%	27b	12/04/2006
Calcium saturated paste	2.55	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	2.56	meq/l	3-5.4	12/28/2006
Sodium saturated paste	5.49	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	3.43	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-4	Description: SHOB-45, 15-20'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod.	12/06/2006
Silt	43.7	%	15-5 Mod.	12/06/2006
Clay	31.3	%	15-5 Mod.	12/06/2006
Texture	Clay Loam	----	USDA	12/06/2006
Electrical Conductivity Saturated Paste	4.01	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.5	S.U.	21a	12/05/2006
Saturation	86.5	%	27b	12/04/2006
Calcium saturated paste	22.5	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	20.6	meq/l	3-5.4	12/28/2006
Sodium saturated paste	14.9	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	3.22	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-5	Description: SHOB-45, 20-25'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	35.0	%	15-5 Mod.	12/06/2006
Silt	45.0	%	15-5 Mod.	12/06/2006
Clay	20.0	%	15-5 Mod.	12/06/2006
Texture	Loam	----	USDA	12/06/2006
Electrical Conductivity Saturated Paste	1.80	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.9	S.U.	21a	12/05/2006
Saturation	82.8	%	27b	12/04/2006
Calcium saturated paste	2.96	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	4.21	meq/l	3-5.4	12/28/2006
Sodium saturated paste	11.2	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	5.89	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-6	Description: SHOB-45, 25-30'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	35.0	%	15-5 Mod.	12/06/2006
Silt	43.7	%	15-5 Mod.	12/06/2006
Clay	21.3	%	15-5 Mod.	12/06/2006
Texture	Loam	----	USDA	12/06/2006
Electrical Conductivity Saturated Paste	1.90	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.0	S.U.	21a	12/05/2006
Saturation	83.6	%	27b	12/04/2006
Calcium saturated paste	2.50	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	3.86	meq/l	3-5.4	12/28/2006
Sodium saturated paste	14.1	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	7.90	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-7	Description: SHOB-45, 30-35'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	58.8	%	15-5 Mod.	12/06/2006
Silt	21.2	%	15-5 Mod.	12/06/2006
Clay	20.0	%	15-5 Mod.	12/06/2006
Texture	Sandy Loam	----	USDA	12/06/2006
Electrical Conductivity Saturated Paste	1.99	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.2	S.U.	21a	12/05/2006
Saturation	91.3	%	27b	12/04/2006
Calcium saturated paste	1.30	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	2.11	meq/l	3-5.4	12/28/2006
Sodium saturated paste	17.7	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	13.5	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-8	Description: SHOB-45, 35-40'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	62.5	%	15-5 Mod.	12/06/2006
Silt	16.2	%	15-5 Mod.	12/06/2006
Clay	21.3	%	15-5 Mod.	12/06/2006
Texture	Sa Cl Lo	----	USDA	12/06/2006
Electrical Conductivity Saturated Paste	1.27	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.5	S.U.	21a	12/05/2006
Saturation	112	%	27b	12/04/2006
Calcium saturated paste	0.63	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.94	meq/l	3-5.4	12/28/2006
Sodium saturated paste	11.6	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	13.1	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-9	Description: SHOB-45, 55-60'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 Mod.	12/06/2006
Silt	47.4	%	15-5 Mod.	12/06/2006
Clay	38.8	%	15-5 Mod.	12/06/2006
Texture	Si Cl Lo	----	USDA	12/06/2006
Electrical Conductivity Saturated Paste	1.42	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.7	S.U.	21a	12/05/2006
Saturation	145	%	27b	12/04/2006
Calcium saturated paste	0.52	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.55	meq/l	3-5.4	12/28/2006
Sodium saturated paste	13.1	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	18.0	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-10	Description: SHOB-45, 60-65'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/06/2006
Silt	51.2	%	15-5 Mod.	12/06/2006
Clay	38.8	%	15-5 Mod.	12/06/2006
Texture	Si Cl Lo	----	USDA	12/06/2006
Electrical Conductivity Saturated Paste	2.26	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.8	S.U.	21a	12/05/2006
Saturation	171	%	27b	12/04/2006
Calcium saturated paste	0.73	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	1.06	meq/l	3-5.4	12/28/2006
Sodium saturated paste	22.2	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	23.5	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-11	Description: SHOB-45, 65-70'	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	12/06/2006
Silt	52.5	%	15-5 Mod.	12/06/2006
Clay	27.5	%	15-5 Mod.	12/06/2006
Texture	Clay Loam	----	USDA	12/06/2006
Electrical Conductivity Saturated Paste	1.40	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	9.3	S.U.	21a	12/05/2006
Saturation	160	%	27b	12/04/2006
Calcium saturated paste	0.42	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.35	meq/l	3-5.4	12/28/2006
Sodium saturated paste	14.9	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	24.0	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-11	Description: SHOB-46 0-5	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	12/15/2006
Silt	42.5	%	15-5 Mod.	12/15/2006
Clay	42.5	%	15-5 Mod.	12/15/2006
Texture	Silty Clay	----	USDA	12/15/2006
Electrical Conductivity Saturated Paste	3.96	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.2	S.U.	21a	12/12/2006
Saturation	110	%	27b	12/12/2006
Calcium saturated paste	5.49	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	19.5	meq/l	3-5.4	01/08/2007
Sodium saturated paste	27.1	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	7.65		20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-12	Description: SHOB-46 5-10	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/15/2006
Silt	50.0	%	15-5 Mod.	12/15/2006
Clay	40.0	%	15-5 Mod.	12/15/2006
Texture	Si Cl Lo	----	USDA	12/15/2006
Electrical Conductivity Saturated Paste	5.73	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.0	S.U.	21a	12/12/2006
Saturation	123	%	27b	12/12/2006
Calcium saturated paste	8.86	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	31.9	meq/l	3-5.4	01/08/2007
Sodium saturated paste	41.5	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	9.20		20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-13	Description: SHOB-46 10-15	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	15-5 Mod.	12/15/2006
Silt	25.0	%	15-5 Mod.	12/15/2006
Clay	72.5	%	15-5 Mod.	12/15/2006
Texture	Clay	----	USDA	12/15/2006
Electrical Conductivity Saturated Paste	5.63	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	5.0	S.U.	21a	12/12/2006
Saturation	154	%	27b	12/12/2006
Calcium saturated paste	7.60	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	20.3	meq/l	3-5.4	01/08/2007
Sodium saturated paste	22.7	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	6.08		20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-14	Description: SHOB-46 15-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	57.5	%	15-5 Mod.	12/15/2006
Silt	20.0	%	15-5 Mod.	12/15/2006
Clay	22.5	%	15-5 Mod.	12/15/2006
Texture	Sa Cl Lo	----	USDA	12/15/2006
Electrical Conductivity Saturated Paste	14.5	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	3.5	S.U.	21a	12/12/2006
Saturation	79.8	%	27b	12/12/2006
Calcium saturated paste	21.8	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	115	meq/l	3-5.4	01/12/2007
Sodium saturated paste	107	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	13.0		20b	01/12/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-15	Description: SHOB-46 20-25	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	12/15/2006
Silt	57.5	%	15-5 Mod.	12/15/2006
Clay	25.0	%	15-5 Mod.	12/15/2006
Texture	Silt Loam	----	USDA	12/15/2006
Electrical Conductivity Saturated Paste	6.19	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.5	S.U.	21a	12/12/2006
Saturation	73.0	%	27b	12/12/2006
Calcium saturated paste	15.5	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	29.5	meq/l	3-5.4	01/08/2007
Sodium saturated paste	41.5	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	8.74		20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-16	Description: SHOB-46 25-30	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/15/2006
Silt	57.5	%	15-5 Mod.	12/15/2006
Clay	32.5	%	15-5 Mod.	12/15/2006
Texture	Si Cl Lo	----	USDA	12/15/2006
Electrical Conductivity Saturated Paste	2.66	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.3	S.U.	21a	12/12/2006
Saturation	177	%	27b	12/12/2006
Calcium saturated paste	1.39	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	3.50	meq/l	3-5.4	01/08/2007
Sodium saturated paste	23.2	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	14.9		20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-17	Description: SHOB-46 30-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/15/2006
Silt	57.5	%	15-5 Mod.	12/15/2006
Clay	35.0	%	15-5 Mod.	12/15/2006
Texture	Si Cl Lo	----	USDA	12/15/2006
Electrical Conductivity Saturated Paste	3.14	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.4	S.U.	21a	12/12/2006
Saturation	174	%	27b	12/12/2006
Calcium saturated paste	1.09	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	2.02	meq/l	3-5.4	01/08/2007
Sodium saturated paste	31.4	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	25.2		20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-18	Description: SHOB-46 35-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod.	12/15/2006
Silt	48.2	%	15-5 Mod.	12/15/2006
Clay	40.0	%	15-5 Mod.	12/15/2006
Texture	Si Cl Lo	----	USDA	12/15/2006
Electrical Conductivity Saturated Paste	2.10	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.5	S.U.	21a	12/12/2006
Saturation	170	%	27b	12/12/2006
Calcium saturated paste	0.56	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.78	meq/l	3-5.4	01/08/2007
Sodium saturated paste	19.9	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	24.3		20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-19	Description: SHOB-46 40-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	45.0	%	15-5 Mod.	12/15/2006
Silt	37.5	%	15-5 Mod.	12/15/2006
Clay	17.5	%	15-5 Mod.	12/15/2006
Texture	Loam	----	USDA	12/15/2006
Electrical Conductivity Saturated Paste	3.14	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	9.1	S.U.	21a	12/12/2006
Saturation	107	%	27b	12/12/2006
Calcium saturated paste	0.79	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.75	meq/l	3-5.4	01/08/2007
Sodium saturated paste	31.1	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	35.6		20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-20	Description: SHOB-46 45-50	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	57.5	%	15-5 Mod.	12/15/2006
Silt	30.0	%	15-5 Mod.	12/15/2006
Clay	12.5	%	15-5 Mod.	12/15/2006
Texture	Sandy Loam	----	USDA	12/15/2006
Electrical Conductivity Saturated Paste	3.88	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.8	S.U.	21a	12/12/2006
Saturation	77.9	%	27b	12/12/2006
Calcium saturated paste	1.32	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	1.63	meq/l	3-5.4	01/08/2007
Sodium saturated paste	42.2	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	34.8		20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-21	Description: SHOB-46 50-55	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	70.0	%	15-5 Mod.	12/13/2006
Silt	17.5	%	15-5 Mod.	12/13/2006
Clay	12.5	%	15-5 Mod.	12/13/2006
Texture	Sandy Loam	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	2.05	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.6	S.U.	21a	12/11/2006
Saturation	76.6	%	27b	12/11/2006
Calcium saturated paste	0.50	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.54	meq/l	3-5.4	01/05/2007
Sodium saturated paste	20.0	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	27.8	----	20b	01/05/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-22	Description: SHOB-46 55-60	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	71.3	%	15-5 Mod.	12/13/2006
Silt	17.4	%	15-5 Mod.	12/13/2006
Clay	11.3	%	15-5 Mod.	12/13/2006
Texture	Sandy Loam	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	2.01	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.4	S.U.	21a	12/11/2006
Saturation	65.9	%	27b	12/11/2006
Calcium saturated paste	0.66	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.89	meq/l	3-5.4	01/05/2007
Sodium saturated paste	20.1	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	22.8	----	20b	01/05/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-23	Description: SHOB-46 60-65	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	55.0	%	15-5 Mod.	12/13/2006
Silt	30.0	%	15-5 Mod.	12/13/2006
Clay	15.0	%	15-5 Mod.	12/13/2006
Texture	Sandy Loam	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	2.36	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.0	S.U.	21a	12/11/2006
Saturation	88.1	%	27b	12/11/2006
Calcium saturated paste	1.11	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	1.78	meq/l	3-5.4	01/05/2007
Sodium saturated paste	21.4	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	17.8	----	20b	01/05/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-24	Description: SHOB-46 85-90	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	28.8	%	15-5 Mod.	12/13/2006
Silt	41.2	%	15-5 Mod.	12/13/2006
Clay	30.0	%	15-5 Mod.	12/13/2006
Texture	Clay Loam	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	2.70	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.5	S.U.	21a	12/11/2006
Saturation	153	%	27b	12/11/2006
Calcium saturated paste	0.40	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.39	meq/l	3-5.4	01/05/2007
Sodium saturated paste	26.5	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	42.3	----	20b	01/05/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-25	Description: SHOB-46 90-95	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/13/2006
Silt	37.5	%	15-5 Mod.	12/13/2006
Clay	55.0	%	15-5 Mod.	12/13/2006
Texture	Clay	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	2.44	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.1	S.U.	21a	12/11/2006
Saturation	192	%	27b	12/11/2006
Calcium saturated paste	0.37	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.37	meq/l	3-5.4	01/05/2007
Sodium saturated paste	25.5	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	42.0	----	20b	01/05/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110075-26	Description: SHOB-46 95-100	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	15-5 Mod.	12/13/2006
Silt	57.5	%	15-5 Mod.	12/13/2006
Clay	40.0	%	15-5 Mod.	12/13/2006
Texture	Si Cl Lo	-----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	3.93	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.5	S.U.	21a	12/11/2006
Saturation	162	%	27b	12/11/2006
Calcium saturated paste	1.09	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.87	meq/l	3-5.4	01/05/2007
Sodium saturated paste	46.0	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	46.5	-----	20b	01/05/2007
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-18	Description: SHOB -47; 0-5'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod.	11/16/2006
Silt	56.2	%	15-5 Mod.	11/16/2006
Clay	32.5	%	15-5 Mod.	11/16/2006
Texture	Si Cl Lo	—	USDA	11/16/2006
Electrical Conductivity Saturated Paste	4.97	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	7.8	S.U.	21a	11/15/2006
Saturation	76.8	%	27b	11/14/2006
Calcium saturated paste	11.8	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	14.8	meq/l	3-5.4	11/20/2006
Sodium saturated paste	32.5	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	8.92	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-19	Description: SHOB -47; 5-10'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	11/16/2006
Silt	51.2	%	15-5 Mod.	11/16/2006
Clay	43.8	%	15-5 Mod.	11/16/2006
Texture	Silty Clay	—	USDA	11/16/2006
Electrical Conductivity Saturated Paste	9.30	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	8.0	S.U.	21a	11/15/2006
Saturation	143	%	27b	11/14/2006
Calcium saturated paste	14.0	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	29.0	meq/l	3-5.4	11/20/2006
Sodium saturated paste	75.4	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	16.3	----	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-20	Description: SHOB -47; 10-15'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	11/16/2006
Silt	60.0	%	15-5 Mod.	11/16/2006
Clay	30.0	%	15-5 Mod.	11/16/2006
Texture	Si Cl Lo	—	USDA	11/16/2006
Electrical Conductivity Saturated Paste	9.34	mmhos/cm	10-3.3	11/17/2006
pH Saturated Paste	7.9	S.U.	21a	11/15/2006
Saturation	120	%	27b	11/14/2006
Calcium saturated paste	16.3	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	30.3	meq/l	3-5.4	11/20/2006
Sodium saturated paste	79.9	meq/l	3-5.4	11/20/2006
Sodium Adsorption Ratio	16.6	—	20b	11/20/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-21	Description: SHOB -47; 15-20'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	33.8	%	15-5 Mod.	11/16/2006
Silt	42.4	%	15-5 Mod.	11/16/2006
Clay	23.8	%	15-5 Mod.	11/16/2006
Texture	Loam	—	USDA	11/17/2006
Electrical Conductivity Saturated Paste	6.36	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.2	S.U.	21a	11/16/2006
Saturation	153	%	27b	11/15/2006
Calcium saturated paste	5.29	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	14.4	meq/l	3-5.4	12/12/2006
Sodium saturated paste	60.1	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	19.1	—	20b	12/12/2006
Sample Preparation	----	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-22	Description: SHOB -47; 20-25'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	62.5	%	15-5 Mod.	11/17/2006
Silt	20.0	%	15-5 Mod.	11/17/2006
Clay	17.5	%	15-5 Mod.	11/17/2006
Texture	Sandy Loam	—	USDA	11/17/2006
Electrical Conductivity Saturated Paste	7.65	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.4	S.U.	21a	11/16/2006
Saturation	98.9	%	27b	11/15/2006
Calcium saturated paste	3.52	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	12.8	meq/l	3-5.4	12/12/2006
Sodium saturated paste	76.8	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	26.9	—	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-23	Description: SHOB -47; 25-30'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	68.8	%	15-5 Mod.	11/17/2006
Silt	16.2	%	15-5 Mod.	11/17/2006
Clay	15.0	%	15-5 Mod.	11/17/2006
Texture	Sandy Loam	—	USDA	11/17/2006
Electrical Conductivity Saturated Paste	6.76	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.5	S.U.	21a	11/16/2006
Saturation	254	%	27b	11/15/2006
Calcium saturated paste	2.15	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	6.24	meq/l	3-5.4	12/12/2006
Sodium saturated paste	70.3	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	34.3	----	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-24	Description: SHOB -47; 30-35'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	67.5	%	15-5 Mod.	11/17/2006
Silt	15.0	%	15-5 Mod.	11/17/2006
Clay	17.5	%	15-5 Mod.	11/17/2006
Texture	Sandy Loam	----	USDA	11/17/2006
Electrical Conductivity Saturated Paste	3.24	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.3	S.U.	21a	11/16/2006
Saturation	96.8	%	27b	11/15/2006
Calcium saturated paste	1.14	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	1.81	meq/l	3-5.4	12/12/2006
Sodium saturated paste	34.5	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	28.4	—	20b	12/12/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-25	Description: SHOB -47; 35-40'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	56.3	%	15-5 Mod.	11/17/2006
Silt	26.2	%	15-5 Mod.	11/17/2006
Clay	17.5	%	15-5 Mod.	11/17/2006
Texture	Sandy Loam	—	USDA	11/17/2006
Electrical Conductivity Saturated Paste	3.10	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.4	S.U.	21a	11/16/2006
Saturation	88.1	%	27b	11/15/2006
Calcium saturated paste	1.17	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	1.54	meq/l	3-5.4	12/12/2006
Sodium saturated paste	33.9	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	29.1	----	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-26	Description: SHOB -47; 55-60'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	23.8	%	15-5 Mod.	11/17/2006
Silt	41.2	%	15-5 Mod.	11/17/2006
Clay	35.0	%	15-5 Mod.	11/17/2006
Texture	Clay Loam	---	USDA	11/17/2006
Electrical Conductivity Saturated Paste	1.89	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	7.9	S.U.	21a	11/16/2006
Saturation	148	%	27b	11/15/2006
Calcium saturated paste	0.59 J	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.56	meq/l	3-5.4	12/12/2006
Sodium saturated paste	19.9	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	26.2	---	20b	12/12/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-27	Description: SHOB -47; 60-65'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	23.8	%	15-5 Mod.	11/17/2006
Silt	46.2	%	15-5 Mod.	11/17/2006
Clay	30.0	%	15-5 Mod.	11/17/2006
Texture	Clay Loam	—	USDA	11/17/2006
Electrical Conductivity Saturated Paste	1.97	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.9	S.U.	21a	11/16/2006
Saturation	146	%	27b	11/15/2006
Calcium saturated paste	0.52 J	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.48	meq/l	3-5.4	12/12/2006
Sodium saturated paste	20.8	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	29.4	—	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-28	Description: SHOB -47; 65-70'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 Mod.	11/17/2006
Silt	32.4	%	15-5 Mod.	11/17/2006
Clay	48.8	%	15-5 Mod.	11/17/2006
Texture	Clay	—	USDA	11/17/2006
Electrical Conductivity Saturated Paste	2.12	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.8	S.U.	21a	11/16/2006
Saturation	130	%	27b	11/15/2006
Calcium saturated paste	0.55 J	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.54	meq/l	3-5.4	12/12/2006
Sodium saturated paste	23.8	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	32.2	----	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-29	Description: SHOB -47; 70-75'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	31.3	%	15-5 Mod.	11/17/2006
Silt	48.7	%	15-5 Mod.	11/17/2006
Clay	20.0	%	15-5 Mod.	11/17/2006
Texture	Loam	---	USDA	11/17/2006
Electrical Conductivity Saturated Paste	1.93	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.9	S.U.	21a	11/16/2006
Saturation	105	%	27b	11/15/2006
Calcium saturated paste	0.54 J	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.47	meq/l	3-5.4	12/12/2006
Sodium saturated paste	23.5	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	33.2	---	20b	12/12/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-30	Description: SHOB -47; 75-80'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod.	11/17/2006
Silt	48.7	%	15-5 Mod.	11/17/2006
Clay	40.0	%	15-5 Mod.	11/17/2006
Texture	Si Cl Lo	—	USDA	11/17/2006
Electrical Conductivity Saturated Paste	1.00	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.0	S.U.	21a	11/16/2006
Saturation	158	%	27b	11/15/2006
Calcium saturated paste	0.86 J	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.58	meq/l	3-5.4	12/12/2006
Sodium saturated paste	10.7	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	12.6	----	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-31	Description: SHOB -47; 80-85'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	11/17/2006
Silt	25.0	%	15-5 Mod.	11/17/2006
Clay	55.0	%	15-5 Mod.	11/17/2006
Texture	Clay	—	USDA	11/17/2006
Electrical Conductivity Saturated Paste	1.57	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.8	S.U.	21a	11/16/2006
Saturation	154	%	27b	11/15/2006
Calcium saturated paste	0.61 J	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.39	meq/l	3-5.4	12/12/2006
Sodium saturated paste	15.8	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	22.4	----	20b	12/12/2006
Sample Preparation	----	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-32	Description: SHOB -47; 85-90'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15-5 Mod.	11/17/2006
Silt	39.9	%	15-5 Mod.	11/17/2006
Clay	43.8	%	15-5 Mod.	11/17/2006
Texture	Clay	—	USDA	11/17/2006
Electrical Conductivity Saturated Paste	1.53	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.8	S.U.	21a	11/16/2006
Saturation	144	%	27b	11/15/2006
Calcium saturated paste	0.30 J	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.30	meq/l	3-5.4	12/12/2006
Sodium saturated paste	16.1	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	29.2	—	20b	12/12/2006
Sample Preparation	—	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-33	Description: SHOB -47; 90-95'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod.	11/17/2006
Silt	42.5	%	15-5 Mod.	11/17/2006
Clay	32.5	%	15-5 Mod.	11/17/2006
Texture	Clay Loam	—	USDA	11/17/2006
Electrical Conductivity Saturated Paste	1.93	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.8	S.U.	21a	11/16/2006
Saturation	113	%	27b	11/15/2006
Calcium saturated paste	0.44 J	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.46	meq/l	3-5.4	12/12/2006
Sodium saturated paste	20.4	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	30.2	—	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-34	Description: SHOB -47; 95-100'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	28.8	%	15-5 Mod.	11/17/2006
Silt	51.2	%	15-5 Mod.	11/17/2006
Clay	20.0	%	15-5 Mod.	11/17/2006
Texture	Silty Loam	—	USDA	11/17/2006
Electrical Conductivity Saturated Paste	1.94	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.1	S.U.	21a	11/16/2006
Saturation	106	%	27b	11/15/2006
Calcium saturated paste	0.55 J	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.47	meq/l	3-5.4	12/12/2006
Sodium saturated paste	20.1	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	28.1	—	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-35	Description: SHOB -47; 100-105'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	26.3	%	15-5 Mod.	11/17/2006
Silt	47.4	%	15-5 Mod.	11/17/2006
Clay	26.3	%	15-5 Mod.	11/17/2006
Texture	Loam	—	USDA	11/17/2006
Electrical Conductivity Saturated Paste	1.83	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.9	S.U.	21a	11/16/2006
Saturation	121	%	27b	11/15/2006
Calcium saturated paste	0.54 J	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.40	meq/l	3-5.4	12/12/2006
Sodium saturated paste	19.2	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	28.1	—	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-36	Description: SHOB -47; 105-110'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 Mod.	11/17/2006
Silt	56.2	%	15-5 Mod.	11/17/2006
Clay	25.0	%	15-5 Mod.	11/17/2006
Texture	Silty Loam	—	USDA	11/17/2006
Electrical Conductivity Saturated Paste	1.56	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.0	S.U.	21a	11/16/2006
Saturation	122	%	27b	11/15/2006
Calcium saturated paste	0.48 J	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.42	meq/l	3-5.4	12/12/2006
Sodium saturated paste	16.5	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	24.6	—	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-37	Description: SHOB -47; 110-115'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	28.8	%	15-5 Mod.	11/17/2006
Silt	38.7	%	15-5 Mod.	11/17/2006
Clay	32.5	%	15-5 Mod.	11/17/2006
Texture	Clay Loam	—	USDA	11/17/2006
Electrical Conductivity Saturated Paste	1.71	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.9	S.U.	21a	11/16/2006
Saturation	117	%	27b	11/15/2006
Calcium saturated paste	0.33 J	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.34	meq/l	3-5.4	12/12/2006
Sodium saturated paste	19.4	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	33.4	—	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-38	Description: SHOB -47; 115-120'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	11/17/2006
Silt	40.0	%	15-5 Mod.	11/17/2006
Clay	37.5	%	15-5 Mod.	11/17/2006
Texture	Clay Loam	---	USDA	11/17/2006
Electrical Conductivity Saturated Paste	1.98	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.9	S.U.	21a	11/16/2006
Saturation	131	%	27b	11/15/2006
Calcium saturated paste	0.57 J	meq/l	3-5.4	11/20/2006
Magnesium saturated paste	0.47	meq/l	3-5.4	11/21/2006
Sodium saturated paste	24.7	meq/l	3-5.4	11/21/2006
Sodium Adsorption Ratio	34.3	---	20b	11/21/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-39	Description: SHOB -47; 120-125'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	NA	---	---	---
Silt	NA	---	---	---
Clay	NA	---	---	---
Texture	NA	---	---	---
Electrical Conductivity Saturated Paste	NA	---	---	---
pH Saturated Paste	NA	---	---	---
Saturation	NA	---	---	---
Calcium saturated paste	NA	---	---	---
Magnesium saturated paste	NA	---	---	---
Sodium saturated paste	NA	---	---	---
Sodium Adsorption Ratio	NA	---	---	---
Sample Preparation	NA	---	---	---

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-40	Description: SHOB -47; 125-130'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	28.8	%	15-5 Mod.	11/17/2006
Silt	41.2	%	15-5 Mod.	11/17/2006
Clay	30.0	%	15-5 Mod.	11/17/2006
Texture	Clay Loam	----	USDA	11/17/2006
Electrical Conductivity Saturated Paste	2.14	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.0	S.U.	21a	11/16/2006
Saturation	131	%	27b	11/15/2006
Calcium saturated paste	0.48 J	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.46	meq/l	3-5.4	12/12/2006
Sodium saturated paste	27.4	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	39.9	—	20b	12/12/2006
Sample Preparation	----	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-41	Description: SHOB -47; 130-135'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	11/21/2006
Silt	50.0	%	15-5 Mod.	11/21/2006
Clay	27.5	%	15-5 Mod.	11/21/2006
Texture	Clay Loam	---	USDA	11/21/2006
Electrical Conductivity Saturated Paste	1.47	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.0	S.U.	21a	11/17/2006
Saturation	128	%	27b	11/16/2006
Calcium saturated paste	0.43	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.29	meq/l	3-5.4	12/12/2006
Sodium saturated paste	14.7	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	24.4	---	20b	12/12/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-42	Description: SHOB -47; 135-140'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 Mod.	11/21/2006
Silt	52.4	%	15-5 Mod.	11/21/2006
Clay	28.8	%	15-5 Mod.	11/21/2006
Texture	Si Cl Lo	—	USDA	11/21/2006
Electrical Conductivity Saturated Paste	1.46	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.1	S.U.	21a	11/17/2006
Saturation	129	%	27b	11/16/2006
Calcium saturated paste	0.78	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.62	meq/l	3-5.4	12/12/2006
Sodium saturated paste	16.7	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	20.0	—	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-43	Description: SHOB -47; 140-145'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 Mod.	11/21/2006
Silt	51.2	%	15-5 Mod.	11/21/2006
Clay	30.0	%	15-5 Mod.	11/21/2006
Texture	Si Cl Lo	---	USDA	11/21/2006
Electrical Conductivity Saturated Paste	1.27	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.2	S.U.	21a	11/17/2006
Saturation	116	%	27b	11/16/2006
Calcium saturated paste	0.48	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.35	meq/l	3-5.4	12/12/2006
Sodium saturated paste	12.8	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	19.8	----	20b	12/12/2006
Sample Preparation	----	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-44	Description: SHOB -47; 145-150'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 Mod.	11/21/2006
Silt	49.9	%	15-5 Mod.	11/21/2006
Clay	31.3	%	15-5 Mod.	11/21/2006
Texture	Si Cl Lo	—	USDA	11/21/2006
Electrical Conductivity Saturated Paste	1.56	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.0	S.U.	21a	11/17/2006
Saturation	135	%	27b	11/16/2006
Calcium saturated paste	0.57	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.38	meq/l	3-5.4	12/12/2006
Sodium saturated paste	16.9	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	24.6	—	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-45 Description: SHOB -47; 150-155' Matrix: OVERBURDEN
 Date Received: 10/18/2006
 Date Collected: 10/13/2006 Collected by: RYAN TOLENE

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	11/21/2006
Silt	51.2	%	15-5 Mod.	11/21/2006
Clay	28.8	%	15-5 Mod.	11/21/2006
Texture	Clay Loam	—	USDA	11/21/2006
Electrical Conductivity Saturated Paste	1.32	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.0	S.U.	21a	11/17/2006
Saturation	133	%	27b	11/16/2006
Calcium saturated paste	0.52	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.34	meq/l	3-5.4	12/12/2006
Sodium saturated paste	13.7	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	20.9	—	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-48	Description: SHOB -47; 155-160'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 Mod.	11/21/2006
Silt	49.9	%	15-5 Mod.	11/21/2006
Clay	31.3	%	15-5 Mod.	11/21/2006
Texture	Si Cl Lo	----	USDA	11/21/2006
Electrical Conductivity Saturated Paste	2.05	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.0	S.U.	21a	11/17/2006
Saturation	117	%	27b	11/16/2006
Calcium saturated paste	0.5	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.44	meq/l	3-5.4	12/12/2006
Sodium saturated paste	23.2	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	33.9	—	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-49	Description: SHOB -47; 160-165'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	21.3	%	15-5 Mod.	11/21/2006
Silt	47.4	%	15-5 Mod.	11/21/2006
Clay	31.3	%	15-5 Mod.	11/21/2006
Texture	Clay Loam	—	USDA	11/21/2006
Electrical Conductivity Saturated Paste	1.45	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.0	S.U.	21a	11/17/2006
Saturation	125	%	27b	11/16/2006
Calcium saturated paste	0.69	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.48	meq/l	3-5.4	12/12/2006
Sodium saturated paste	15.0	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	19.6	—	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-50	Description: SHOB -47; 165-170'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	21.3	%	15-5 Mod.	11/21/2006
Silt	46.2	%	15-5 Mod.	11/21/2006
Clay	32.5	%	15-5 Mod.	11/21/2006
Texture	Clay Loam	—	USDA	11/21/2006
Electrical Conductivity Saturated Paste	1.65	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.0	S.U.	21a	11/17/2006
Saturation	127	%	27b	11/16/2006
Calcium saturated paste	0.53	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.43	meq/l	3-5.4	12/12/2006
Sodium saturated paste	17.9	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	25.9	—	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-51	Description: SHOB -47; 170-175'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod.	11/21/2006
Silt	42.5	%	15-5 Mod.	11/21/2006
Clay	32.5	%	15-5 Mod.	11/21/2006
Texture	Clay Loam	----	USDA	11/21/2006
Electrical Conductivity Saturated Paste	1.79	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	9.0	S.U.	21a	11/17/2006
Saturation	127	%	27b	11/16/2006
Calcium saturated paste	0.59	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.52	meq/l	3-5.4	12/12/2006
Sodium saturated paste	19.2	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	25.7	—	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-52	Description: SHOB -47; 175-180'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	21.3	%	15-5 Mod.	11/21/2006
Silt	41.2	%	15-5 Mod.	11/21/2006
Clay	37.5	%	15-5 Mod.	11/21/2006
Texture	Clay Loam	—	USDA	11/21/2006
Electrical Conductivity Saturated Paste	1.88	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.9	S.U.	21a	11/17/2006
Saturation	129	%	27b	11/16/2006
Calcium saturated paste	0.29	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.34	meq/l	3-5.4	12/12/2006
Sodium saturated paste	21.1	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	37.7	—	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-53	Description: SHOB -47; 180-185'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15-5 Mod.	11/21/2006
Silt	41.2	%	15-5 Mod.	11/21/2006
Clay	42.5	%	15-5 Mod.	11/21/2006
Texture	Silty Clay	---	USDA	11/21/2006
Electrical Conductivity Saturated Paste	1.47	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.8	S.U.	21a	11/17/2006
Saturation	139	%	27b	11/16/2006
Calcium saturated paste	0.43	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.36	meq/l	3-5.4	12/12/2006
Sodium saturated paste	17.6	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	28.0	---	20b	12/12/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-54	Description: SHOB -47; 200-205'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	56.3	%	15-5 Mod.	11/21/2006
Silt	19.9	%	15-5 Mod.	11/21/2006
Clay	23.8	%	15-5 Mod.	11/21/2006
Texture	Sa Cl Lo	—	USDA	11/21/2006
Electrical Conductivity Saturated Paste	1.69	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	7.9	S.U.	21a	11/17/2006
Saturation	88.0	%	27b	11/16/2006
Calcium saturated paste	0.43	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.35	meq/l	3-5.4	12/12/2006
Sodium saturated paste	18.1	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	29.1	—	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-55	Description: SHOB -47; 205-210'	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	47.5	%	15-5 Mod.	11/21/2006
Silt	26.2	%	15-5 Mod.	11/21/2006
Clay	26.3	%	15-5 Mod.	11/21/2006
Texture	Sa Cl Lo	—	USDA	11/21/2006
Electrical Conductivity Saturated Paste	1.75	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.0	S.U.	21a	11/17/2006
Saturation	101	%	27b	11/16/2006
Calcium saturated paste	0.56	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	0.41	meq/l	3-5.4	12/12/2006
Sodium saturated paste	19.1	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	27.4	---	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-1	Description: SHOB-48 0-5'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/13/2006
Silt	42.5	%	15-5 Mod.	12/13/2006
Clay	50.0	%	15-5 Mod.	12/13/2006
Texture	Silty Clay	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	11.3	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.1	S.U.	21a	12/12/2006
Saturation	106	%	27b	12/12/2006
Calcium saturated paste	20.5	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	57.5	meq/l	3-5.4	01/08/2007
Sodium saturated paste	98.8	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	15.8	----	20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-2	Description: SHOB-48 5-10'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	35.0	%	15-5 Mod.	12/13/2006
Silt	40.0	%	15-5 Mod.	12/13/2006
Clay	25.0	%	15-5 Mod.	12/13/2006
Texture	Loam	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	9.58	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.3	S.U.	21a	12/12/2006
Saturation	71.5	%	27b	12/12/2006
Calcium saturated paste	14.3	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	39.1	meq/l	3-5.4	01/08/2007
Sodium saturated paste	84.0	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	16.3	----	20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-3	Description: SHOB-48 10-15'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	15-5 Mod.	12/13/2006
Silt	53.7	%	15-5 Mod.	12/13/2006
Clay	43.8	%	15-5 Mod.	12/13/2006
Texture	Silty Clay	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	2.89	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.7	S.U.	21a	12/12/2006
Saturation	168	%	27b	12/12/2006
Calcium saturated paste	0.78	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	1.41	meq/l	3-5.4	01/08/2007
Sodium saturated paste	25.6	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	24.5	----	20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-4	Description: SHOB-48 15-20'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/13/2006
Silt	55.0	%	15-5 Mod.	12/13/2006
Clay	35.0	%	15-5 Mod.	12/13/2006
Texture	Si Cl Lo	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	3.51	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.7	S.U.	21a	12/12/2006
Saturation	153	%	27b	12/12/2006
Calcium saturated paste	0.89	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	1.23	meq/l	3-5.4	01/08/2007
Sodium saturated paste	37.4	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	36.2	----	20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-5	Description: SHOB-48 20-25'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/13/2006
Silt	55.0	%	15-5 Mod.	12/13/2006
Clay	40.0	%	15-5 Mod.	12/13/2006
Texture	Si Cl Lo	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	3.48	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.6	S.U.	21a	12/12/2006
Saturation	129	%	27b	12/12/2006
Calcium saturated paste	0.85	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.89	meq/l	3-5.4	01/08/2007
Sodium saturated paste	36.5	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	39.2	----	20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-6	Description: SHOB-48 25-30'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	40.0	%	15-5 Mod.	12/13/2006
Silt	25.0	%	15-5 Mod.	12/13/2006
Clay	35.0	%	15-5 Mod.	12/13/2006
Texture	Clay Loam	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	4.87	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.0	S.U.	21a	12/12/2006
Saturation	121	%	27b	12/12/2006
Calcium saturated paste	1.78	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	1.80	meq/l	3-5.4	01/08/2007
Sodium saturated paste	53.4	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	39.9	----	20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-7	Description: SHOB-48 30-35'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	15-5 Mod.	12/13/2006
Silt	40.0	%	15-5 Mod.	12/13/2006
Clay	57.5	%	15-5 Mod.	12/13/2006
Texture	Silty Clay	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	3.44	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.8	S.U.	21a	12/12/2006
Saturation	149	%	27b	12/12/2006
Calcium saturated paste	0.77	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.75	meq/l	3-5.4	01/08/2007
Sodium saturated paste	35.7	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	40.9	----	20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-8	Description: SHOB-48 35-40'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15-5 Mod.	12/13/2006
Silt	44.9	%	15-5 Mod.	12/13/2006
Clay	38.8	%	15-5 Mod.	12/13/2006
Texture	Si Cl Lo	-----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	4.09	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.8	S.U.	21a	12/12/2006
Saturation	139	%	27b	12/12/2006
Calcium saturated paste	0.80	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.72	meq/l	3-5.4	01/08/2007
Sodium saturated paste	41.4	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	47.4	-----	20b	01/08/2007
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-9	Description: SHOB-48 40-45'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod.	12/13/2006
Silt	40.0	%	15-5 Mod.	12/13/2006
Clay	35.0	%	15-5 Mod.	12/13/2006
Texture	Clay Loam	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	3.84	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.3	S.U.	21a	12/12/2006
Saturation	122	%	27b	12/12/2006
Calcium saturated paste	0.98	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	1.00	meq/l	3-5.4	01/08/2007
Sodium saturated paste	41.1	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	41.3	----	20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-10	Description: SHOB-48 45-50'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/13/2006
Silt	62.5	%	15-5 Mod.	12/13/2006
Clay	30.0	%	15-5 Mod.	12/13/2006
Texture	Si Cl Lo	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	3.81	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	9.0	S.U.	21a	12/12/2006
Saturation	154	%	27b	12/12/2006
Calcium saturated paste	0.62	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.65	meq/l	3-5.4	01/08/2007
Sodium saturated paste	39.7	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	49.7	----	20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-11	Description: SHOB-48 50-55'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/13/2006
Silt	52.5	%	15-5 Mod.	12/13/2006
Clay	42.5	%	15-5 Mod.	12/13/2006
Texture	Silty Clay	-----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	2.36	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.9	S.U.	21a	12/12/2006
Saturation	151	%	27b	12/12/2006
Calcium saturated paste	0.38	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.36	meq/l	3-5.4	01/08/2007
Sodium saturated paste	22.9	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	37.8	-----	20b	01/08/2007
Sample Preparation	-----	-----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-12	Description: SHOB-48 55-60'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	12/13/2006
Silt	47.5	%	15-5 Mod.	12/13/2006
Clay	30.0	%	15-5 Mod.	12/13/2006
Texture	Clay Loam	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	5.80	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.4	S.U.	21a	12/12/2006
Saturation	163	%	27b	12/12/2006
Calcium saturated paste	1.36	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	1.45	meq/l	3-5.4	01/08/2007
Sodium saturated paste	66.9	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	56.4	----	20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-13	Description: SHOB-48 60-65'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	32.5	%	15-5 Mod.	12/13/2006
Silt	42.5	%	15-5 Mod.	12/13/2006
Clay	25.0	%	15-5 Mod.	12/13/2006
Texture	Silty Clay	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	6.27	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.7	S.U.	21a	12/12/2006
Saturation	124	%	27b	12/12/2006
Calcium saturated paste	1.27	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	1.35	meq/l	3-5.4	01/08/2007
Sodium saturated paste	72.3	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	63.2	----	20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-14	Description: SHOB-48 65-70'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	12/13/2006
Silt	62.5	%	15-5 Mod.	12/13/2006
Clay	22.5	%	15-5 Mod.	12/13/2006
Texture	Silt Loam	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	10.9	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.7	S.U.	21a	12/12/2006
Saturation	103	%	27b	12/12/2006
Calcium saturated paste	2.38	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	5.57	meq/l	3-5.4	01/12/2007
Sodium saturated paste	125	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	62.6	----	20b	01/12/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-15	Description: SHOB-48 70-75'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	12/13/2006
Silt	50.0	%	15-5 Mod.	12/13/2006
Clay	35.0	%	15-5 Mod.	12/13/2006
Texture	Si Cl Lo	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	7.45	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.4	S.U.	21a	12/12/2006
Saturation	106	%	27b	12/12/2006
Calcium saturated paste	2.90	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	4.86	meq/l	3-5.4	01/08/2007
Sodium saturated paste	84.0	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	42.7	----	20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-16	Description: SHOB-48 75-80'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod.	12/13/2006
Silt	43.7	%	15-5 Mod.	12/13/2006
Clay	47.5	%	15-5 Mod.	12/13/2006
Texture	Silty Clay	-----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	3.18	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.5	S.U.	21a	12/12/2006
Saturation	156	%	27b	12/12/2006
Calcium saturated paste	0.49	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.60	meq/l	3-5.4	01/08/2007
Sodium saturated paste	32.4	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	44.0	-----	20b	01/08/2007
Sample Preparation	-----	-----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-17	Description: SHOB-48 80-85'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/13/2006
Silt	58.7	%	15-5 Mod.	12/13/2006
Clay	33.8	%	15-5 Mod.	12/13/2006
Texture	Si Cl Lo	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	2.45	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.9	S.U.	21a	12/12/2006
Saturation	158	%	27b	12/12/2006
Calcium saturated paste	0.46	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.44	meq/l	3-5.4	01/08/2007
Sodium saturated paste	23.8	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	35.5	----	20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-18	Description: SHOB-48 85-90'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	12/13/2006
Silt	60.0	%	15-5 Mod.	12/13/2006
Clay	25.0	%	15-5 Mod.	12/13/2006
Texture	Silt Loam	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	3.35	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.9	S.U.	21a	12/12/2006
Saturation	198	%	27b	12/12/2006
Calcium saturated paste	0.40	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.45	meq/l	3-5.4	01/08/2007
Sodium saturated paste	35.2	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	54.1	----	20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-19	Description: SHOB-48 90-95'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	12/13/2006
Silt	53.7	%	15-5 Mod.	12/13/2006
Clay	26.3	%	15-5 Mod.	12/13/2006
Texture	Silt Loam	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	2.27	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	9.2	S.U.	21a	12/12/2006
Saturation	173	%	27b	12/12/2006
Calcium saturated paste	0.32	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.27	meq/l	3-5.4	01/08/2007
Sodium saturated paste	21.8	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	40.1	----	20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-20	Description: SHOB-48 95-100'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	57.5	%	15-5 Mod.	12/13/2006
Silt	25.0	%	15-5 Mod.	12/13/2006
Clay	17.5	%	15-5 Mod.	12/13/2006
Texture	Sandy Loam	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	9.88	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	9.2	S.U.	21a	12/12/2006
Saturation	109	%	27b	12/12/2006
Calcium saturated paste	1.09	meq/l	3-5.4	01/12/2007
Magnesium saturated paste	4.00	meq/l	3-5.4	01/12/2007
Sodium saturated paste	113	meq/l	3-5.4	01/12/2007
Sodium Adsorption Ratio	70.6	----	20b	01/12/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-21	Description: SHOB-48 100-105'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	60.0	%	15-5 Mod.	12/13/2006
Silt	22.5	%	15-5 Mod.	12/13/2006
Clay	17.5	%	15-5 Mod.	12/13/2006
Texture	Sandy Loam	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	12.1	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.9	S.U.	21a	12/11/2006
Saturation	125	%	27b	12/11/2006
Calcium saturated paste	1.53	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	5.79	meq/l	3-5.4	01/08/2007
Sodium saturated paste	150	meq/l	3-5.4	01/08/2007
Sodium Adsorption Ratio	78.3	----	20b	01/08/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-22	Description: SHOB-48 105-110'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	57.5	%	15-5 Mod.	12/13/2006
Silt	22.5	%	15-5 Mod.	12/13/2006
Clay	20.0	%	15-5 Mod.	12/13/2006
Texture	Sa Cl Lo	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	5.78	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.7	S.U.	21a	12/11/2006
Saturation	131	%	27b	12/11/2006
Calcium saturated paste	0.74	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	1.53	meq/l	3-5.4	01/05/2007
Sodium saturated paste	65.6	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	61.5	----	20b	01/05/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-23	Description: SHOB-48 110-115'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	70.0	%	15-5 Mod.	12/13/2006
Silt	17.5	%	15-5 Mod.	12/13/2006
Clay	12.5	%	15-5 Mod.	12/13/2006
Texture	Sandy Loam	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	6.06	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.5	S.U.	21a	12/11/2006
Saturation	59.1	%	27b	12/11/2006
Calcium saturated paste	0.77	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	1.75	meq/l	3-5.4	01/05/2007
Sodium saturated paste	74.7	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	66.5	----	20b	01/05/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-24	Description: SHOB-48 115-120'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	28.8	%	15-5 Mod.	12/13/2006
Silt	41.2	%	15-5 Mod.	12/13/2006
Clay	30.0	%	15-5 Mod.	12/13/2006
Texture	Clay Loam	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	2.64	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.1	S.U.	21a	12/11/2006
Saturation	164	%	27b	12/11/2006
Calcium saturated paste	0.52	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.55	meq/l	3-5.4	01/05/2007
Sodium saturated paste	28.8	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	39.2	----	20b	01/05/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-25	Description: SHOB-48 135-140'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/13/2006
Silt	41.2	%	15-5 Mod.	12/13/2006
Clay	48.8	%	15-5 Mod.	12/13/2006
Texture	Silty Clay	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	2.99	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.0	S.U.	21a	12/11/2006
Saturation	152	%	27b	12/11/2006
Calcium saturated paste	0.56	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.54	meq/l	3-5.4	01/05/2007
Sodium saturated paste	31.7	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	42.9	----	20b	01/05/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-26	Description: SHOB-48 140-145'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/13/2006
Silt	32.5	%	15-5 Mod.	12/13/2006
Clay	62.5	%	15-5 Mod.	12/13/2006
Texture	Clay	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	3.05	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.1	S.U.	21a	12/11/2006
Saturation	175	%	27b	12/11/2006
Calcium saturated paste	0.53	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.51	meq/l	3-5.4	01/05/2007
Sodium saturated paste	33.4	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	46.3	----	20b	01/05/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110074-27	Description: SHOB-48 145-150'	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/13/2006
Silt	30.0	%	15-5 Mod.	12/13/2006
Clay	60.0	%	15-5 Mod.	12/13/2006
Texture	Clay	----	USDA	12/13/2006
Electrical Conductivity Saturated Paste	2.56	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.1	S.U.	21a	12/11/2006
Saturation	165	%	27b	12/11/2006
Calcium saturated paste	0.40	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	0.39	meq/l	3-5.4	01/05/2007
Sodium saturated paste	27.0	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	42.9	----	20b	01/05/2007
Sample Preparation	----	----	3-5.1	

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 0-5 FT **Lab ID: 10131779001** Collected: 06/16/10 11:18 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	0	feet			1		06/29/10 12:28		
Stop Depth	5'	feet			1		06/29/10 12:28		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	1.0	meq/L	0.25		5		07/01/10 13:56	7440-70-2	
Magnesium saturated paste	0.58	meq/L	0.40		5		07/01/10 13:56	7439-95-4	
Sodium Adsorption Ratio	0.84		0.80		5		07/01/10 13:56		
Sodium saturated paste	0.75	meq/L	0.20		5		07/01/10 13:56	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	7.4	Std. Units	0.10	0.050	1		06/28/10 15:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	12.5	% (w/w)	0.10		1		06/26/10 16:41		
Percent Sand	81.3	% (w/w)	0.10		1		06/26/10 16:41		
Percent Silt	6.2	% (w/w)	0.10		1		06/26/10 16:41		
Texture	sandy loam				1		06/26/10 16:41		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	36.9	%			1		06/28/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	0.27	mmhos/cm	0.010	0.0050	1		06/30/10 17:00		

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 5-10 FT **Lab ID: 10131779002** Collected: 06/16/10 11:19 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data Analytical Method:									
Start Depth	5'	feet			1		06/29/10 12:28		
Stop Depth	10'	feet			1		06/29/10 12:28		
Sodium Adsorption Ratio, ICP Analytical Method: EPA 6010									
Calcium saturated paste	1.7	meq/L	0.25		5		07/01/10 14:01	7440-70-2	
Magnesium saturated paste	0.97	meq/L	0.40		5		07/01/10 14:01	7439-95-4	
Sodium Adsorption Ratio	1.1		0.80		5		07/01/10 14:01		
Sodium saturated paste	1.3	meq/L	0.20		5		07/01/10 14:01	7440-23-5	
ASA 10-3.2 pH Analytical Method: ASA 10-3.2									
pH, Saturated Paste	8.2	Std. Units	0.10	0.050	1		06/28/10 15:45		
PSA Percent Sand,Silt,Clay Analytical Method: ASA 15-5 mod									
Percent Clay	10	% (w/w)	0.10		1		06/26/10 16:49		
Percent Sand	80	% (w/w)	0.10		1		06/26/10 16:49		
Percent Silt	10	% (w/w)	0.10		1		06/26/10 16:49		
Texture	sandy loam/loamy sand				1		06/26/10 16:49		
Percent Saturation Analytical Method: USDA 27a									
Percent Saturation	43.5	%			1		06/28/10 00:00		
ASA10-3.3 Specific Conductance Analytical Method: ASA 10-3.3									
Sp.Conductance Saturated Paste	0.46	mmhos/cm	0.010	0.0050	1		06/30/10 17:00		

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 10-15 FT **Lab ID: 10131779003** Collected: 06/16/10 11:22 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	10'	feet			1		06/29/10 12:28		
Stop Depth	15'	feet			1		06/29/10 12:28		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	1.3	meq/L	0.25		5		07/01/10 14:05	7440-70-2	
Magnesium saturated paste	0.76	meq/L	0.40		5		07/01/10 14:05	7439-95-4	
Sodium Adsorption Ratio	1.6		0.80		5		07/01/10 14:05		
Sodium saturated paste	1.7	meq/L	0.20		5		07/01/10 14:05	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.3	Std. Units	0.10	0.050	1		06/28/10 15:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	10	% (w/w)	0.10		1		06/26/10 16:52		
Percent Sand	85	% (w/w)	0.10		1		06/26/10 16:52		
Percent Silt	5	% (w/w)	0.10		1		06/26/10 16:52		
Texture	loamy sand				1		06/26/10 16:52		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	40.6	%			1		06/28/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	0.40	mmhos/cm	0.010	0.0050	1		06/30/10 17:00		

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 15-20 FT **Lab ID: 10131779004** Collected: 06/16/10 11:25 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	15'	feet			1		06/29/10 12:29		
Stop Depth	20'	feet			1		06/29/10 12:29		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	1.3	meq/L	0.25		5		07/01/10 14:10	7440-70-2	
Magnesium saturated paste	0.76	meq/L	0.40		5		07/01/10 14:10	7439-95-4	
Sodium Adsorption Ratio	1.7		0.80		5		07/01/10 14:10		
Sodium saturated paste	1.7	meq/L	0.20		5		07/01/10 14:10	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.3	Std. Units	0.10	0.050	1		06/28/10 15:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	11.3	% (w/w)	0.10		1		06/26/10 16:53		
Percent Sand	81.3	% (w/w)	0.10		1		06/26/10 16:53		
Percent Silt	7.4	% (w/w)	0.10		1		06/26/10 16:53		
Texture	loamy sand				1		06/26/10 16:53		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	44.0	%			1		06/28/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	0.43	mmhos/cm	0.010	0.0050	1		06/30/10 17:00		

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 20-25 FT **Lab ID: 10131779005** Collected: 06/16/10 11:30 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	20'	feet			1		06/29/10 12:29		
Stop Depth	25'	feet			1		06/29/10 12:29		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	1.0	meq/L	0.25		5		07/01/10 14:23	7440-70-2	
Magnesium saturated paste	0.60	meq/L	0.40		5		07/01/10 14:23	7439-95-4	
Sodium Adsorption Ratio	2.1		0.80		5		07/01/10 14:23		
Sodium saturated paste	1.9	meq/L	0.20		5		07/01/10 14:23	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.2	Std. Units	0.10	0.050	1		06/28/10 15:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	13.8	% (w/w)	0.10		1		06/26/10 17:09		
Percent Sand	81.3	% (w/w)	0.10		1		06/26/10 17:09		
Percent Silt	4.9	% (w/w)	0.10		1		06/26/10 17:09		
Texture	sandy loam				1		06/26/10 17:09		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	44.0	%			1		06/28/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	0.39	mmhos/cm	0.010	0.0050	1		06/30/10 17:00		

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 25-30 FT **Lab ID: 10131779006** Collected: 06/16/10 11:32 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	25'	feet			1		06/29/10 12:29		
Stop Depth	30'	feet			1		06/29/10 12:29		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	2.0	meq/L	0.25		5		07/01/10 14:27	7440-70-2	
Magnesium saturated paste	1.3	meq/L	0.40		5		07/01/10 14:27	7439-95-4	
Sodium Adsorption Ratio	1.9		0.80		5		07/01/10 14:27		
Sodium saturated paste	2.4	meq/L	0.20		5		07/01/10 14:27	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.4	Std. Units	0.10	0.050	1		06/28/10 15:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	10	% (w/w)	0.10		1		06/26/10 17:12		
Percent Sand	82.5	% (w/w)	0.10		1		06/26/10 17:12		
Percent Silt	7.5	% (w/w)	0.10		1		06/26/10 17:12		
Texture	loamy sand				1		06/26/10 17:12		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	46.2	%			1		06/28/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	0.57	mmhos/cm	0.010	0.0050	1		06/30/10 17:00		

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 30-35 FT **Lab ID: 10131779007** Collected: 06/16/10 11:34 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	30'	feet			1		06/29/10 12:30		
Stop Depth	35'	feet			1		06/29/10 12:30		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	2.4	meq/L	0.25		5		07/01/10 14:32	7440-70-2	
Magnesium saturated paste	2.5	meq/L	0.40		5		07/01/10 14:32	7439-95-4	
Sodium Adsorption Ratio	4.2		0.80		5		07/01/10 14:32		
Sodium saturated paste	6.6	meq/L	0.20		5		07/01/10 14:32	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.1	Std. Units	0.10	0.050	1		06/28/10 15:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	25	% (w/w)	0.10		1		06/26/10 17:13		
Percent Sand	46.3	% (w/w)	0.10		1		06/26/10 17:13		
Percent Silt	28.7	% (w/w)	0.10		1		06/26/10 17:13		
Texture	loam				1		06/26/10 17:13		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	90.2	%			1		06/28/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	1.2	mmhos/cm	0.010	0.0050	1		06/30/10 17:00		

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 35-40 FT **Lab ID: 10131779008** Collected: 06/16/10 11:37 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	35'	feet			1		06/29/10 12:30		
Stop Depth	40'	feet			1		06/29/10 12:30		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	1.3	meq/L	0.25		5		07/01/10 14:36	7440-70-2	
Magnesium saturated paste	1.0	meq/L	0.40		5		07/01/10 14:36	7439-95-4	
Sodium Adsorption Ratio	6.0		0.80		5		07/01/10 14:36		
Sodium saturated paste	6.5	meq/L	0.20		5		07/01/10 14:36	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.6	Std. Units	0.10	0.050	1		06/28/10 15:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	42.5	% (w/w)	0.10		1		06/26/10 17:17		
Percent Sand	25	% (w/w)	0.10		1		06/26/10 17:17		
Percent Silt	32.5	% (w/w)	0.10		1		06/26/10 17:17		
Texture	clay				1		06/26/10 17:17		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	132	%			1		06/28/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	0.97	mmhos/cm	0.010	0.0050	1		06/30/10 17:00		

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 40-45 FT **Lab ID: 10131779009** Collected: 06/16/10 11:40 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	40'	feet			1		06/29/10 12:30		
Stop Depth	45'	feet			1		06/29/10 12:30		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	1.4	meq/L	0.25		5		07/01/10 14:41	7440-70-2	
Magnesium saturated paste	1.4	meq/L	0.40		5		07/01/10 14:41	7439-95-4	
Sodium Adsorption Ratio	7.2		0.80		5		07/01/10 14:41		
Sodium saturated paste	8.5	meq/L	0.20		5		07/01/10 14:41	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.6	Std. Units	0.10	0.050	1		06/28/10 15:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	45	% (w/w)	0.10		1		06/26/10 17:21		
Percent Sand	21.3	% (w/w)	0.10		1		06/26/10 17:21		
Percent Silt	33.2	% (w/w)	0.10		1		06/26/10 17:21		
Texture	clay				1		06/26/10 17:21		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	165	%			1		06/28/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	1.3	mmhos/cm	0.010	0.0050	1		06/30/10 17:00		

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 45-50 FT **Lab ID: 10131779010** Collected: 06/16/10 11:43 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	45'	feet			1		06/29/10 12:30		
Stop Depth	50'	feet			1		06/29/10 12:30		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	1.2	meq/L	0.25		5		07/01/10 14:46	7440-70-2	
Magnesium saturated paste	1.3	meq/L	0.40		5		07/01/10 14:46	7439-95-4	
Sodium Adsorption Ratio	7.8		0.80		5		07/01/10 14:46		
Sodium saturated paste	8.7	meq/L	0.20		5		07/01/10 14:46	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.6	Std. Units	0.10	0.050	1		06/28/10 15:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	45	% (w/w)	0.10		1		06/26/10 17:24		
Percent Sand	26.3	% (w/w)	0.10		1		06/26/10 17:24		
Percent Silt	28.7	% (w/w)	0.10		1		06/26/10 17:24		
Texture	clay				1		06/26/10 17:24		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	179	%			1		06/28/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	1.3	mmhos/cm	0.010	0.0050	1		06/30/10 17:00		

ANALYTICAL RESULTS

Project: South Heart 063-2212A
Pace Project No.: 10131779

Sample: SHOB-201, 50-55 FT **Lab ID: 10131779011** Collected: 06/16/10 11:45 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	50'	feet			1		06/29/10 12:31		
Stop Depth	55'	feet			1		06/29/10 12:31		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.89	meq/L	0.25		5		07/01/10 14:50	7440-70-2	
Magnesium saturated paste	0.92	meq/L	0.40		5		07/01/10 14:50	7439-95-4	
Sodium Adsorption Ratio	12.1		0.80		5		07/01/10 14:50		
Sodium saturated paste	11.5	meq/L	0.20		5		07/01/10 14:50	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.9	Std. Units	0.10	0.050	1		06/28/10 15:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	38.8	% (w/w)	0.10		1		06/26/10 17:31		
Percent Sand	30	% (w/w)	0.10		1		06/26/10 17:31		
Percent Silt	31.2	% (w/w)	0.10		1		06/26/10 17:31		
Texture	clay loam				1		06/26/10 17:31		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	170	%			1		06/28/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	1.0	mmhos/cm	0.010	0.0050	1		06/30/10 17:00		

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 55-60 FT **Lab ID: 10131779012** Collected: 06/16/10 11:47 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	55'	feet			1		06/29/10 12:31		
Stop Depth	60'	feet			1		06/29/10 12:31		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.90	meq/L	0.25		5		07/01/10 14:55	7440-70-2	
Magnesium saturated paste	0.85	meq/L	0.40		5		07/01/10 14:55	7439-95-4	
Sodium Adsorption Ratio	13.0		0.80		5		07/01/10 14:55		
Sodium saturated paste	12.1	meq/L	0.20		5		07/01/10 14:55	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	9.1	Std. Units	0.10	0.050	1		06/28/10 15:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	43.8	% (w/w)	0.10		1		06/26/10 17:33		
Percent Sand	27.5	% (w/w)	0.10		1		06/26/10 17:33		
Percent Silt	28.7	% (w/w)	0.10		1		06/26/10 17:33		
Texture	clay				1		06/26/10 17:33		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	183	%			1		06/28/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	5.9	mmhos/cm	0.010	0.0050	1		06/30/10 17:00		

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 65-70 FT **Lab ID: 10131779013** Collected: 06/16/10 11:55 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	65'	feet					06/29/10 12:32		
Stop Depth	70'	feet					06/29/10 12:32		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.98	meq/L	0.25		5		07/01/10 15:00	7440-70-2	
Magnesium saturated paste	0.88	meq/L	0.40		5		07/01/10 15:00	7439-95-4	
Sodium Adsorption Ratio	15.4		0.80		5		07/01/10 15:00		
Sodium saturated paste	14.9	meq/L	0.20		5		07/01/10 15:00	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.6	Std. Units	0.10	0.050	1		06/28/10 15:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	43.8	% (w/w)	0.10		1		06/26/10 17:41		
Percent Sand	40	% (w/w)	0.10		1		06/26/10 17:41		
Percent Silt	16.2	% (w/w)	0.10		1		06/26/10 17:41		
Texture	clay				1		06/26/10 17:41		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	201	%			1		06/28/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	1.2	mmhos/cm	0.010	0.0050	1		06/30/10 17:00		

ANALYTICAL RESULTS

Project: South Heart 063-2212A
Pace Project No.: 10131779

Sample: SHOB-201, 70-75 FT **Lab ID: 10131779014** Collected: 06/16/10 11:57 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	70'	feet			1		06/29/10 12:32		
Stop Depth	75'	feet			1		06/29/10 12:32		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.60	meq/L	0.25		5		07/01/10 15:12	7440-70-2	
Magnesium saturated paste	0.38J	meq/L	0.40		5		07/01/10 15:12	7439-95-4	
Sodium Adsorption Ratio	13.8		0.80		5		07/01/10 15:12		
Sodium saturated paste	9.6	meq/L	0.20		5		07/01/10 15:12	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	9.0	Std. Units	0.10	0.050	1		06/28/10 15:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	51.3	% (w/w)	0.10		1		06/26/10 17:43		
Percent Sand	20	% (w/w)	0.10		1		06/26/10 17:43		
Percent Silt	28.7	% (w/w)	0.10		1		06/26/10 17:43		
Texture	clay				1		06/26/10 17:43		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	246	%			1		06/28/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	6.2	mmhos/cm	0.010	0.0050	1		06/30/10 17:00		

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 75-80 FT **Lab ID: 10131779015** Collected: 06/16/10 11:59 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	75'	feet			1		06/29/10 12:33		
Stop Depth	80'	feet			1		06/29/10 12:33		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.83	meq/L	0.25		5		07/01/10 15:17	7440-70-2	
Magnesium saturated paste	0.54	meq/L	0.40		5		07/01/10 15:17	7439-95-4	
Sodium Adsorption Ratio	22.9		0.80		5		07/01/10 15:17		
Sodium saturated paste	18.9	meq/L	0.20		5		07/01/10 15:17	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.9	Std. Units	0.10	0.050	1		06/28/10 15:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	35	% (w/w)	0.10		1		06/26/10 17:44		
Percent Sand	12.5	% (w/w)	0.10		1		06/26/10 17:44		
Percent Silt	52.5	% (w/w)	0.10		1		06/26/10 17:44		
Texture	silty clay loam				1		06/26/10 17:44		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	191	%			1		06/28/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	1.5	mmhos/cm	0.010	0.0050	1		06/30/10 17:00		

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 80-85 FT **Lab ID: 10131779016** Collected: 06/16/10 12:03 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method:									
Start Depth	80'	feet			1		06/29/10 12:33		
Stop Depth	85'	feet			1		06/29/10 12:33		
Sodium Adsorption Ratio, ICP									
Analytical Method: EPA 6010									
Calcium saturated paste	0.79	meq/L	0.25		5		07/01/10 15:22	7440-70-2	
Magnesium saturated paste	0.67	meq/L	0.40		5		07/01/10 15:22	7439-95-4	
Sodium Adsorption Ratio	24.3		0.80		5		07/01/10 15:22		
Sodium saturated paste	20.8	meq/L	0.20		5		07/01/10 15:22	7440-23-5	
ASA 10-3.2 pH									
Analytical Method: ASA 10-3.2									
pH, Saturated Paste	8.9	Std. Units	0.10	0.050	1		06/28/10 15:45		
PSA Percent Sand,Silt,Clay									
Analytical Method: ASA 15-5 mod									
Percent Clay	36.3	% (w/w)	0.10		1		06/26/10 17:46		
Percent Sand	20	% (w/w)	0.10		1		06/26/10 17:46		
Percent Silt	43.7	% (w/w)	0.10		1		06/26/10 17:46		
Texture	silty clay loam/clay loam				1		06/26/10 17:46		
Percent Saturation									
Analytical Method: USDA 27a									
Percent Saturation	194	%			1		06/28/10 00:00		
ASA10-3.3 Specific Conductance									
Analytical Method: ASA 10-3.3									
Sp. Conductance Saturated Paste	1.6	mmhos/cm	0.010	0.0050	1		06/30/10 17:00		

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 85-90 FT **Lab ID: 10131779017** Collected: 06/16/10 12:07 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	85'	feet					06/29/10 12:33		
Stop Depth	90'	feet					06/29/10 12:33		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	1.0	meq/L	0.25		5		07/01/10 15:26	7440-70-2	
Magnesium saturated paste	0.78	meq/L	0.40		5		07/01/10 15:26	7439-95-4	
Sodium Adsorption Ratio	22.0		0.80		5		07/01/10 15:26		
Sodium saturated paste	20.8	meq/L	0.20		5		07/01/10 15:26	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.6	Std. Units	0.10	0.050	1		06/28/10 15:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	38.8	% (w/w)	0.10		1		06/26/10 17:50		
Percent Sand	43.8	% (w/w)	0.10		1		06/26/10 17:50		
Percent Silt	17.4	% (w/w)	0.10		1		06/26/10 17:50		
Texture	clay loam				1		06/26/10 17:50		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	182	%			1		06/28/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	1.6	mmhos/cm	0.010	0.0050	1		06/30/10 17:00		

ANALYTICAL RESULTS

Project: South Heart 063-2212A
Pace Project No.: 10131779

Sample: SHOB-201, 90-95 FT **Lab ID: 10131779018** Collected: 06/16/10 12:10 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	90'	feet			1		06/29/10 12:33		
Stop Depth	95'	feet			1		06/29/10 12:33		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.93	meq/L	0.25		5		07/01/10 15:31	7440-70-2	
Magnesium saturated paste	0.60	meq/L	0.40		5		07/01/10 15:31	7439-95-4	
Sodium Adsorption Ratio	24.8		0.80		5		07/01/10 15:31		
Sodium saturated paste	21.6	meq/L	0.20		5		07/01/10 15:31	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.6	Std. Units	0.10	0.050	1		06/28/10 15:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	21.3	% (w/w)	0.10		1		06/26/10 17:52		
Percent Sand	16.3	% (w/w)	0.10		1		06/26/10 17:52		
Percent Silt	62.4	% (w/w)	0.10		1		06/26/10 17:52		
Texture	silt loam				1		06/26/10 17:52		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	126	%			1		06/28/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	1.8	mmhos/cm	0.010	0.0050	1		06/30/10 17:00		

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 95-100 FT **Lab ID: 10131779019** Collected: 06/16/10 12:12 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	95'	feet			1		06/29/10 12:34		
Stop Depth	100'	feet			1		06/29/10 12:34		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.60	meq/L	0.25		5		07/01/10 15:36	7440-70-2	
Magnesium saturated paste	0.42	meq/L	0.40		5		07/01/10 15:36	7439-95-4	
Sodium Adsorption Ratio	21.4		0.80		5		07/01/10 15:36		
Sodium saturated paste	15.2	meq/L	0.20		5		07/01/10 15:36	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	9.0	Std. Units	0.10	0.050	1		06/28/10 15:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	20	% (w/w)	0.10		1		06/26/10 17:55		
Percent Sand	31.3	% (w/w)	0.10		1		06/26/10 17:55		
Percent Silt	48.7	% (w/w)	0.10		1		06/26/10 17:55		
Texture	loam				1		06/26/10 17:55		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	137	%			1		06/28/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	1.2	mmhos/cm	0.010	0.0050	1		06/30/10 17:00		

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 100-105 FT **Lab ID: 10131779020** Collected: 06/16/10 12:15 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	100'	feet			1		06/29/10 12:34		
Stop Depth	105'	feet			1		06/29/10 12:34		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.30	meq/L	0.25		5		07/01/10 15:40	7440-70-2	
Magnesium saturated paste	0.20J	meq/L	0.40		5		07/01/10 15:40	7439-95-4	
Sodium Adsorption Ratio	24.7		0.80		5		07/01/10 15:40		
Sodium saturated paste	12.4	meq/L	0.20		5		07/01/10 15:40	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	9.1	Std. Units	0.10	0.050	1		06/28/10 15:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	40	% (w/w)	0.10		1		06/26/10 17:58		
Percent Sand	15	% (w/w)	0.10		1		06/26/10 17:58		
Percent Silt	45	% (w/w)	0.10		1		06/26/10 17:58		
Texture	silty clay loam/ silty clay				1		06/26/10 17:58		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	184	%			1		06/28/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	1.0	mmhos/cm	0.010	0.0050	1		06/30/10 17:00		

ANALYTICAL RESULTS

Project: South Heart 063-2212A
Pace Project No.: 10131779

Sample: SHOB-201, 105-110 FT **Lab ID: 10131779021** Collected: 06/16/10 12:18 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	105'	feet			1		06/29/10 12:34		
Stop Depth	110'	feet			1		06/29/10 12:34		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.46	meq/L	0.25		5		07/01/10 16:24	7440-70-2	
Magnesium saturated paste	0.30J	meq/L	0.40		5		07/01/10 16:24	7439-95-4	
Sodium Adsorption Ratio	30.3		0.80		5		07/01/10 16:24		
Sodium saturated paste	18.7	meq/L	0.20		5		07/01/10 16:24	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.6	Std. Units	0.10	0.050	1		06/30/10 10:20		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	43.8	% (w/w)	0.10		1		06/29/10 15:57		
Percent Sand	8.8	% (w/w)	0.10		1		06/29/10 15:57		
Percent Silt	47.4	% (w/w)	0.10		1		06/29/10 15:57		
Texture	silty clay				1		06/29/10 15:57		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	180	%			1		06/29/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	1.6	mmhos/cm	0.010	0.0050	1		06/30/10 16:30		

ANALYTICAL RESULTS

Project: South Heart 063-2212A
Pace Project No.: 10131779

Sample: SHOB-201, 110-115 FT **Lab ID: 10131779022** Collected: 06/16/10 12:20 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	110'	feet			1		06/29/10 12:35		
Stop Depth	115'	feet			1		06/29/10 12:35		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	1.1	meq/L	0.25		5		07/01/10 16:29	7440-70-2	
Magnesium saturated paste	1.1	meq/L	0.40		5		07/01/10 16:29	7439-95-4	
Sodium Adsorption Ratio	11.8		0.80		5		07/01/10 16:29		
Sodium saturated paste	12.4	meq/L	0.20		5		07/01/10 16:29	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	9.1	Std. Units	0.10	0.050	1		06/30/10 10:20		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	27.5	% (w/w)	0.10		1		06/29/10 16:02		
Percent Sand	15	% (w/w)	0.10		1		06/29/10 16:02		
Percent Silt	57.5	% (w/w)	0.10		1		06/29/10 16:02		
Texture	silty clay loam				1		06/29/10 16:02		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	171	%			1		06/29/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	5.8	mmhos/cm	0.010	0.0050	1		06/30/10 16:30		

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 115-120 FT **Lab ID: 10131779023** Collected: 06/16/10 12:22 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	115'	feet			1		06/29/10 12:35		
Stop Depth	120'	feet			1		06/29/10 12:35		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.65	meq/L	0.25		5		07/01/10 16:33	7440-70-2	
Magnesium saturated paste	0.38J	meq/L	0.40		5		07/01/10 16:33	7439-95-4	
Sodium Adsorption Ratio	14.7		0.80		5		07/01/10 16:33		
Sodium saturated paste	10.6	meq/L	0.20		5		07/01/10 16:33	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	9.0	Std. Units	0.10	0.050	1		06/30/10 10:20		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	38.8	% (w/w)	0.10		1		06/29/10 16:05		
Percent Sand	6.3	% (w/w)	0.10		1		06/29/10 16:05		
Percent Silt	54.9	% (w/w)	0.10		1		06/29/10 16:05		
Texture	silty clay loam				1		06/29/10 16:05		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	150	%			1		06/29/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	1.2	mmhos/cm	0.010	0.0050	1		06/30/10 16:30		

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 120-125 FT **Lab ID: 10131779024** Collected: 06/16/10 12:26 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	120'	feet			1		06/29/10 12:35		
Stop Depth	125'	feet			1		06/29/10 12:35		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.64	meq/L	0.25		5		07/01/10 16:38	7440-70-2	
Magnesium saturated paste	0.37J	meq/L	0.40		5		07/01/10 16:38	7439-95-4	
Sodium Adsorption Ratio	20.2		0.80		5		07/01/10 16:38		
Sodium saturated paste	14.4	meq/L	0.20		5		07/01/10 16:38	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	9.1	Std. Units	0.10	0.050	1		06/30/10 10:20		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	50	% (w/w)	0.10		1		06/29/10 16:07		
Percent Sand	0	% (w/w)	0.10		1		06/29/10 16:07		
Percent Silt	50	% (w/w)	0.10		1		06/29/10 16:07		
Texture	silty clay				1		06/29/10 16:07		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	156	%			1		06/29/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	1.2	mmhos/cm	0.010	0.0050	1		06/30/10 16:30		

ANALYTICAL RESULTS

Project: South Heart 063-2212A
Pace Project No.: 10131779

Sample: SHOB-201, 125-130 FT **Lab ID: 10131779025** Collected: 06/16/10 12:27 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	125'	feet			1		06/29/10 12:36		
Stop Depth	130'	feet			1		06/29/10 12:36		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.42	meq/L	0.25		5		07/01/10 16:51	7440-70-2	
Magnesium saturated paste	0.26J	meq/L	0.40		5		07/01/10 16:51	7439-95-4	
Sodium Adsorption Ratio	19.1		0.80		5		07/01/10 16:51		
Sodium saturated paste	11.1	meq/L	0.20		5		07/01/10 16:51	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	9.0	Std. Units	0.10	0.050	1		06/30/10 10:20		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	50	% (w/w)	0.10		1		06/29/10 16:12		
Percent Sand	3.8	% (w/w)	0.10		1		06/29/10 16:12		
Percent Silt	46.2	% (w/w)	0.10		1		06/29/10 16:12		
Texture	silty clay				1		06/29/10 16:12		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	159	%			1		06/29/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	1.3	mmhos/cm	0.010	0.0050	1		06/30/10 16:30		

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 145-150 FT **Lab ID: 10131779026** Collected: 06/16/10 12:43 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	145'	feet			1		06/29/10 12:36		
Stop Depth	150'	feet			1		06/29/10 12:36		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.54	meq/L	0.25		5		07/01/10 16:56	7440-70-2	
Magnesium saturated paste	0.32J	meq/L	0.40		5		07/01/10 16:56	7439-95-4	
Sodium Adsorption Ratio	25.1		0.80		5		07/01/10 16:56		
Sodium saturated paste	16.4	meq/L	0.20		5		07/01/10 16:56	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.9	Std. Units	0.10	0.050	1		06/30/10 10:20		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	33.8	% (w/w)	0.10		1		06/29/10 16:14		
Percent Sand	30	% (w/w)	0.10		1		06/29/10 16:14		
Percent Silt	36.2	% (w/w)	0.10		1		06/29/10 16:14		
Texture	clay loam				1		06/29/10 16:14		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	141	%			1		06/29/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	1.3	mmhos/cm	0.010	0.0050	1		06/30/10 16:30		

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 150-155 FT **Lab ID: 10131779027** Collected: 06/16/10 12:47 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	150'	feet			1		06/29/10 12:37		
Stop Depth	155'	feet			1		06/29/10 12:37		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.41	meq/L	0.25		5		07/01/10 17:00	7440-70-2	
Magnesium saturated paste	0.21J	meq/L	0.40		5		07/01/10 17:00	7439-95-4	
Sodium Adsorption Ratio	22.1		0.80		5		07/01/10 17:00		
Sodium saturated paste	12.3	meq/L	0.20		5		07/01/10 17:00	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	9.1	Std. Units	0.10	0.050	1		06/30/10 10:20		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	30	% (w/w)	0.10		1		06/29/10 16:16		
Percent Sand	11.3	% (w/w)	0.10		1		06/29/10 16:16		
Percent Silt	58.7	% (w/w)	0.10		1		06/29/10 16:16		
Texture	silty clay loam				1		06/29/10 16:16		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	156	%			1		06/29/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	0.98	mmhos/cm	0.010	0.0050	1		06/30/10 16:30		

ANALYTICAL RESULTS

Project: South Heart 063-2212A

Pace Project No.: 10131779

Sample: SHOB-201, 155-160 FT **Lab ID: 10131779028** Collected: 06/16/10 12:49 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	155'	feet			1		06/29/10 12:37		
Stop Depth	160'	feet			1		06/29/10 12:37		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.38	meq/L	0.25		5		07/01/10 17:05	7440-70-2	
Magnesium saturated paste	0.27J	meq/L	0.40		5		07/01/10 17:05	7439-95-4	
Sodium Adsorption Ratio	17.5		0.80		5		07/01/10 17:05		
Sodium saturated paste	9.9	meq/L	0.20		5		07/01/10 17:05	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	9.2	Std. Units	0.10	0.050	1		06/30/10 10:20		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	48.8	% (w/w)	0.10		1		06/29/10 16:21		
Percent Sand	0	% (w/w)	0.10		1		06/29/10 16:21		
Percent Silt	51.2	% (w/w)	0.10		1		06/29/10 16:21		
Texture	silty clay				1		06/29/10 16:21		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	185	%			1		06/29/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	0.80	mmhos/cm	0.010	0.0050	1		06/30/10 16:30		

ANALYTICAL RESULTS

Project: South Heart 0632212A
Pace Project No.: 10131780

Sample: SHOB-202, 0-5 FT **Lab ID: 10131780001** Collected: 06/16/10 09:13 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	0	feet			1		06/29/10 12:14		
Stop Depth	5'	feet			1		06/29/10 12:14		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	23.5	meq/L	0.25		5		07/02/10 12:52	7440-70-2	
Magnesium saturated paste	19.4	meq/L	0.40		5		07/02/10 12:52	7439-95-4	
Sodium Adsorption Ratio	2.1		0.80		5		07/02/10 12:52		
Sodium saturated paste	9.9	meq/L	0.20		5		07/02/10 12:52	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.3	Std. Units	0.10	0.050	1		07/01/10 13:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	62.5	% (w/w)	0.10		1		06/30/10 17:45		
Percent Sand	10	% (w/w)	0.10		1		06/30/10 17:45		
Percent Silt	27.5	% (w/w)	0.10		1		06/30/10 17:45		
Texture	clay				1		06/30/10 17:45		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	116	%			1		06/30/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	4.2	mmhos/cm	0.010	0.0050	1		07/01/10 15:00		

ANALYTICAL RESULTS

Project: South Heart 0632212A

Pace Project No.: 10131780

Sample: SHOB-202, 5-10 FT **Lab ID: 10131780002** Collected: 06/16/10 09:14 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	5'	feet			1		06/29/10 12:15		
Stop Depth	10'	feet			1		06/29/10 12:15		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	21.6	meq/L	0.25		5		07/02/10 12:58	7440-70-2	
Magnesium saturated paste	49.8	meq/L	0.40		5		07/02/10 12:58	7439-95-4	
Sodium Adsorption Ratio	7.1		0.80		5		07/02/10 12:58		
Sodium saturated paste	42.6	meq/L	0.20		5		07/02/10 12:58	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	7.4	Std. Units	0.10	0.050	1		07/01/10 13:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	47.5	% (w/w)	0.10		1		06/30/10 17:45		
Percent Sand	26.3	% (w/w)	0.10		1		06/30/10 17:45		
Percent Silt	26.2	% (w/w)	0.10		1		06/30/10 17:45		
Texture	clay				1		06/30/10 17:45		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	125	%			1		06/30/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	8.2	mmhos/cm	0.010	0.0050	1		07/01/10 15:00		

ANALYTICAL RESULTS

Project: South Heart 0632212A

Pace Project No.: 10131780

Sample: SHOB-202, 10-15 FT **Lab ID: 10131780003** Collected: 06/16/10 09:17 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data Analytical Method:									
Start Depth	10'	feet			1		06/29/10 12:15		
Stop Depth	15'	feet			1		06/29/10 12:15		
Sodium Adsorption Ratio, ICP Analytical Method: EPA 6010									
Calcium saturated paste	22.4	meq/L	0.25		5		07/02/10 13:05	7440-70-2	
Magnesium saturated paste	40.1	meq/L	0.40		5		07/02/10 13:05	7439-95-4	
Sodium Adsorption Ratio	6.6		0.80		5		07/02/10 13:05		
Sodium saturated paste	37.0	meq/L	0.20		5		07/02/10 13:05	7440-23-5	
ASA 10-3.2 pH Analytical Method: ASA 10-3.2									
pH, Saturated Paste	3.6	Std. Units	0.10	0.050	1		07/01/10 13:45		
PSA Percent Sand,Silt,Clay Analytical Method: ASA 15-5 mod									
Percent Clay	12.5	% (w/w)	0.10		1		06/30/10 17:45		
Percent Sand	82.5	% (w/w)	0.10		1		06/30/10 17:45		
Percent Silt	5	% (w/w)	0.10		1		06/30/10 17:45		
Texture	sandy loam/loamy sand				1		06/30/10 17:45		
Percent Saturation Analytical Method: USDA 27a									
Percent Saturation	104	%			1		06/30/10 00:00		
ASA10-3.3 Specific Conductance Analytical Method: ASA 10-3.3									
Sp.Conductance Saturated Paste	7.6	mmhos/cm	0.010	0.0050	1		07/01/10 15:00		

ANALYTICAL RESULTS

Project: South Heart 0632212A

Pace Project No.: 10131780

Sample: SHOB-202, 15-20 FT **Lab ID: 10131780004** Collected: 06/16/10 09:20 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	15'	feet			1		06/29/10 12:16		
Stop Depth	20'	feet			1		06/29/10 12:16		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	21.2	meq/L	0.25		5		07/02/10 13:12	7440-70-2	
Magnesium saturated paste	34.5	meq/L	0.40		5		07/02/10 13:12	7439-95-4	
Sodium Adsorption Ratio	6.2		0.80		5		07/02/10 13:12		
Sodium saturated paste	32.6	meq/L	0.20		5		07/02/10 13:12	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	3.6	Std. Units	0.10	0.050	1		07/01/10 13:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	43.8	% (w/w)	0.10		1		06/30/10 17:45		
Percent Sand	32.5	% (w/w)	0.10		1		06/30/10 17:45		
Percent Silt	23.7	% (w/w)	0.10		1		06/30/10 17:45		
Texture	clay				1		06/30/10 17:45		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	104	%			1		06/30/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	6.7	mmhos/cm	0.010	0.0050	1		07/01/10 15:00		

ANALYTICAL RESULTS

Project: South Heart 0632212A

Pace Project No.: 10131780

Sample: SHOB-202, 20-25 FT **Lab ID: 10131780005** Collected: 06/16/10 09:24 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data Analytical Method:									
Start Depth	20'	feet			1		06/29/10 12:16		
Stop Depth	25'	feet			1		06/29/10 12:16		
Sodium Adsorption Ratio, ICP Analytical Method: EPA 6010									
Calcium saturated paste	16.0	meq/L	0.25		5		07/02/10 13:27	7440-70-2	
Magnesium saturated paste	24.6	meq/L	0.40		5		07/02/10 13:27	7439-95-4	
Sodium Adsorption Ratio	6.5		0.80		5		07/02/10 13:27		
Sodium saturated paste	29.4	meq/L	0.20		5		07/02/10 13:27	7440-23-5	
ASA 10-3.2 pH Analytical Method: ASA 10-3.2									
pH, Saturated Paste	4.9	Std. Units	0.10	0.050	1		07/01/10 13:45		
PSA Percent Sand,Silt,Clay Analytical Method: ASA 15-5 mod									
Percent Clay	58.8	% (w/w)	0.10		1		06/30/10 17:45		
Percent Sand	7.5	% (w/w)	0.10		1		06/30/10 17:45		
Percent Silt	33.7	% (w/w)	0.10		1		06/30/10 17:45		
Texture	clay				1		06/30/10 17:45		
Percent Saturation Analytical Method: USDA 27a									
Percent Saturation	174	%			1		06/30/10 00:00		
ASA10-3.3 Specific Conductance Analytical Method: ASA 10-3.3									
Sp. Conductance Saturated Paste	5.5	mmhos/cm	0.010	0.0050	1		07/01/10 15:00		

ANALYTICAL RESULTS

Project: South Heart 0632212A

Pace Project No.: 10131780

Sample: SHOB-202, 25-30 FT **Lab ID: 10131780006** Collected: 06/16/10 09:30 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	25'	feet			1		06/29/10 12:16		
Stop Depth	30'	feet			1		06/29/10 12:16		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	3.3	meq/L	0.25		5		07/02/10 13:34	7440-70-2	
Magnesium saturated paste	9.7	meq/L	0.40		5		07/02/10 13:34	7439-95-4	
Sodium Adsorption Ratio	11.9		0.80		5		07/02/10 13:34		
Sodium saturated paste	30.4	meq/L	0.20		5		07/02/10 13:34	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	7.3	Std. Units	0.10	0.050	1		07/01/10 13:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	63.8	% (w/w)	0.10		1		06/30/10 17:45		
Percent Sand	13.8	% (w/w)	0.10		1		06/30/10 17:45		
Percent Silt	22.4	% (w/w)	0.10		1		06/30/10 17:45		
Texture	clay				1		06/30/10 17:45		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	205	%			1		06/30/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	4.1	mmhos/cm	0.010	0.0050	1		07/01/10 15:00		

ANALYTICAL RESULTS

Project: South Heart 0632212A
Pace Project No.: 10131780

Sample: SHOB-202, 30-35 FT **Lab ID: 10131780007** Collected: 06/16/10 09:32 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	30'	feet			1		06/29/10 12:17		
Stop Depth	35'	feet			1		06/29/10 12:17		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	5.6	meq/L	0.25		5		07/02/10 13:40	7440-70-2	
Magnesium saturated paste	11.0	meq/L	0.40		5		07/02/10 13:40	7439-95-4	
Sodium Adsorption Ratio	14.1		0.80		5		07/02/10 13:40		
Sodium saturated paste	40.5	meq/L	0.20		5		07/02/10 13:40	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.1	Std. Units	0.10	0.050	1		07/01/10 13:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	43.8	% (w/w)	0.10		1		06/30/10 17:45		
Percent Sand	25	% (w/w)	0.10		1		06/30/10 17:45		
Percent Silt	31.2	% (w/w)	0.10		1		06/30/10 17:45		
Texture	clay				1		06/30/10 17:45		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	149	%			1		06/30/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	3.8	mmhos/cm	0.010	0.0050	1		07/01/10 15:00		

ANALYTICAL RESULTS

Project: South Heart 0632212A

Pace Project No.: 10131780

Sample: SHOB-202, 35-40 FT **Lab ID: 10131780008** Collected: 06/16/10 09:35 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data Analytical Method:									
Start Depth	35'	feet			1		06/29/10 12:17		
Stop Depth	40'	feet			1		06/29/10 12:17		
Sodium Adsorption Ratio, ICP Analytical Method: EPA 6010									
Calcium saturated paste	2.5	meq/L	0.25		5		07/02/10 13:47	7440-70-2	
Magnesium saturated paste	3.3	meq/L	0.40		5		07/02/10 13:47	7439-95-4	
Sodium Adsorption Ratio	18.6		0.80		5		07/02/10 13:47		
Sodium saturated paste	31.5	meq/L	0.20		5		07/02/10 13:47	7440-23-5	
ASA 10-3.2 pH Analytical Method: ASA 10-3.2									
pH, Saturated Paste	8.8	Std. Units	0.10	0.050	1		07/01/10 13:45		
PSA Percent Sand,Silt,Clay Analytical Method: ASA 15-5 mod									
Percent Clay	40	% (w/w)	0.10		1		06/30/10 17:45		
Percent Sand	6.3	% (w/w)	0.10		1		06/30/10 17:45		
Percent Silt	53.7	% (w/w)	0.10		1		06/30/10 17:45		
Texture	silty clay loam/silty clay				1		06/30/10 17:45		
Percent Saturation Analytical Method: USDA 27a									
Percent Saturation	135	%			1		06/30/10 00:00		
ASA10-3.3 Specific Conductance Analytical Method: ASA 10-3.3									
Sp.Conductance Saturated Paste	2.9	mmhos/cm	0.010	0.0050	1		07/01/10 15:00		

ANALYTICAL RESULTS

Project: South Heart 0632212A
Pace Project No.: 10131780

Sample: SHOB-202, 40-45 FT **Lab ID: 10131780009** Collected: 06/16/10 09:38 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	40'	feet			1		06/29/10 12:17		
Stop Depth	45'	feet			1		06/29/10 12:17		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	2.1	meq/L	0.25		5		07/02/10 13:54	7440-70-2	
Magnesium saturated paste	2.3	meq/L	0.40		5		07/02/10 13:54	7439-95-4	
Sodium Adsorption Ratio	24.1		0.80		5		07/02/10 13:54		
Sodium saturated paste	35.7	meq/L	0.20		5		07/02/10 13:54	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.3	Std. Units	0.10	0.050	1		07/01/10 13:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	33.8	% (w/w)	0.10		1		06/30/10 17:45		
Percent Sand	12.5	% (w/w)	0.10		1		06/30/10 17:45		
Percent Silt	53.7	% (w/w)	0.10		1		06/30/10 17:45		
Texture	silty clay loam				1		06/30/10 17:45		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	125	%			1		06/30/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	3.9	mmhos/cm	0.010	0.0050	1		07/01/10 15:00		

ANALYTICAL RESULTS

Project: South Heart 0632212A

Pace Project No.: 10131780

Sample: SHOB-202, 45-50 FT **Lab ID: 10131780010** Collected: 06/16/10 09:43 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	45'	feet			1		06/29/10 12:18		
Stop Depth	50'	feet			1		06/29/10 12:18		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	1.2	meq/L	0.25		5		07/02/10 14:00	7440-70-2	
Magnesium saturated paste	0.89	meq/L	0.40		5		07/02/10 14:00	7439-95-4	
Sodium Adsorption Ratio	21.8		0.80		5		07/02/10 14:00		
Sodium saturated paste	22.4	meq/L	0.20		5		07/02/10 14:00	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.6	Std. Units	0.10	0.050	1		07/01/10 13:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	31.3	% (w/w)	0.10		1		06/30/10 17:45		
Percent Sand	15	% (w/w)	0.10		1		06/30/10 17:45		
Percent Silt	53.7	% (w/w)	0.10		1		06/30/10 17:45		
Texture	silty clay loam				1		06/30/10 17:45		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	151	%			1		06/30/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	2.4	mmhos/cm	0.010	0.0050	1		07/01/10 15:00		

ANALYTICAL RESULTS

Project: South Heart 0632212A
Pace Project No.: 10131780

Sample: SHOB-202, 50-55 FT **Lab ID: 10131780011** Collected: 06/16/10 09:45 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	50'	feet			1		06/29/10 12:19		
Stop Depth	55'	feet			1		06/29/10 12:19		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.94	meq/L	0.25		5		07/02/10 14:07	7440-70-2	
Magnesium saturated paste	0.70	meq/L	0.40		5		07/02/10 14:07	7439-95-4	
Sodium Adsorption Ratio	24.3		0.80		5		07/02/10 14:07		
Sodium saturated paste	22.0	meq/L	0.20		5		07/02/10 14:07	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.9	Std. Units	0.10	0.050	1		07/01/10 13:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	31.3	% (w/w)	0.10		1		06/30/10 17:45		
Percent Sand	20	% (w/w)	0.10		1		06/30/10 17:45		
Percent Silt	48.7	% (w/w)	0.10		1		06/30/10 17:45		
Texture	silty clay loam/clay loam				1		06/30/10 17:45		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	178	%			1		06/30/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp.Conductance Saturated Paste	1.8	mmhos/cm	0.010	0.0050	1		07/01/10 15:00		

ANALYTICAL RESULTS

Project: South Heart 0632212A

Pace Project No.: 10131780

Sample: SHOB-202, 55-60 FT **Lab ID: 10131780012** Collected: 06/16/10 09:48 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	55'	feet			1		06/29/10 12:19		
Stop Depth	60'	feet			1		06/29/10 12:19		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.68	meq/L	0.25		5		07/02/10 14:14	7440-70-2	
Magnesium saturated paste	0.55	meq/L	0.40		5		07/02/10 14:14	7439-95-4	
Sodium Adsorption Ratio	32.2		0.80		5		07/02/10 14:14		
Sodium saturated paste	25.2	meq/L	0.20		5		07/02/10 14:14	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	9.2	Std. Units	0.10	0.050	1		07/01/10 13:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	26.3	% (w/w)	0.10		1		06/30/10 17:45		
Percent Sand	36.3	% (w/w)	0.10		1		06/30/10 17:45		
Percent Silt	37.4	% (w/w)	0.10		1		06/30/10 17:45		
Texture	loam				1		06/30/10 17:45		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	135	%			1		06/30/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	2.7	mmhos/cm	0.010	0.0050	1		07/01/10 15:00		

ANALYTICAL RESULTS

Project: South Heart 0632212A

Pace Project No.: 10131780

Sample: SHOB-202, 60-65 FT **Lab ID: 10131780013** Collected: 06/16/10 09:52 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	60'	feet			1		06/29/10 12:20		
Stop Depth	65'	feet			1		06/29/10 12:20		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.82	meq/L	0.25		5		07/02/10 14:20	7440-70-2	
Magnesium saturated paste	0.58	meq/L	0.40		5		07/02/10 14:20	7439-95-4	
Sodium Adsorption Ratio	20.9		0.80		5		07/02/10 14:20		
Sodium saturated paste	17.5	meq/L	0.20		5		07/02/10 14:20	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	9.0	Std. Units	0.10	0.050	1		07/01/10 13:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	25	% (w/w)	0.10		1		06/30/10 17:45		
Percent Sand	32.5	% (w/w)	0.10		1		06/30/10 17:45		
Percent Silt	42.5	% (w/w)	0.10		1		06/30/10 17:45		
Texture	loam				1		06/30/10 17:45		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	146	%			1		06/30/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	1.7	mmhos/cm	0.010	0.0050	1		07/01/10 15:00		

ANALYTICAL RESULTS

Project: South Heart 0632212A

Pace Project No.: 10131780

Sample: SHOB-202, 65-70 FT **Lab ID: 10131780014** Collected: 06/16/10 09:55 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	65'	feet					06/29/10 12:20		
Stop Depth	70'	feet					06/29/10 12:20		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.98	meq/L	0.25		5		07/02/10 14:25	7440-70-2	
Magnesium saturated paste	0.74	meq/L	0.40		5		07/02/10 14:25	7439-95-4	
Sodium Adsorption Ratio	39.1		0.80		5		07/02/10 14:25		
Sodium saturated paste	36.3	meq/L	0.20		5		07/02/10 14:25	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	9.1	Std. Units	0.10	0.050	1		07/01/10 13:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	20	% (w/w)	0.10		1		06/30/10 17:45		
Percent Sand	50	% (w/w)	0.10		1		06/30/10 17:45		
Percent Silt	30	% (w/w)	0.10		1		06/30/10 17:45		
Texture	loam				1		06/30/10 17:45		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	92.6	%			1		06/30/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	3.4	mmhos/cm	0.010	0.0050	1		07/01/10 15:00		

ANALYTICAL RESULTS

Project: South Heart 0632212A

Pace Project No.: 10131780

Sample: SHOB-202, 70-75 FT **Lab ID: 10131780015** Collected: 06/16/10 09:58 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	70'	feet					06/29/10 12:21		
Stop Depth	75'	feet					06/29/10 12:21		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.87	meq/L	0.25		5		07/02/10 14:40	7440-70-2	
Magnesium saturated paste	0.58	meq/L	0.40		5		07/02/10 14:40	7439-95-4	
Sodium Adsorption Ratio	28.1		0.80		5		07/02/10 14:40		
Sodium saturated paste	23.9	meq/L	0.20		5		07/02/10 14:40	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.9	Std. Units	0.10	0.050	1		07/01/10 13:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	25	% (w/w)	0.10		1		06/30/10 17:45		
Percent Sand	33.8	% (w/w)	0.10		1		06/30/10 17:45		
Percent Silt	41.2	% (w/w)	0.10		1		06/30/10 17:45		
Texture	loam				1		06/30/10 17:45		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	119	%			1		06/30/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	2.1	mmhos/cm	0.010	0.0050	1		07/01/10 15:00		

ANALYTICAL RESULTS

Project: South Heart 0632212A

Pace Project No.: 10131780

Sample: SHOB-202, 75-80 FT **Lab ID: 10131780016** Collected: 06/16/10 10:00 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	75'	feet			1		06/29/10 12:21		
Stop Depth	80'	feet			1		06/29/10 12:21		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.88	meq/L	0.25		5		07/02/10 14:46	7440-70-2	
Magnesium saturated paste	0.60	meq/L	0.40		5		07/02/10 14:46	7439-95-4	
Sodium Adsorption Ratio	29.8		0.80		5		07/02/10 14:46		
Sodium saturated paste	25.7	meq/L	0.20		5		07/02/10 14:46	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.9	Std. Units	0.10	0.050	1		07/01/10 13:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	20	% (w/w)	0.10		1		06/30/10 17:45		
Percent Sand	61.3	% (w/w)	0.10		1		06/30/10 17:45		
Percent Silt	18.7	% (w/w)	0.10		1		06/30/10 17:45		
Texture	sandy loam/sandy clay loam				1		06/30/10 17:45		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	130	%			1		06/30/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	2.1	mmhos/cm	0.010	0.0050	1		07/01/10 15:00		

ANALYTICAL RESULTS

Project: South Heart 0632212A

Pace Project No.: 10131780

Sample: SHOB-202, 95-100 FT **Lab ID: 10131780017** Collected: 06/16/10 10:13 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	95'	feet			1		06/29/10 12:21		
Stop Depth	100'	feet			1		06/29/10 12:21		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.93	meq/L	0.25		5		07/02/10 14:53	7440-70-2	
Magnesium saturated paste	0.62	meq/L	0.40		5		07/02/10 14:53	7439-95-4	
Sodium Adsorption Ratio	16.5		0.80		5		07/02/10 14:53		
Sodium saturated paste	14.6	meq/L	0.20		5		07/02/10 14:53	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.6	Std. Units	0.10	0.050	1		07/01/10 13:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	30	% (w/w)	0.10		1		06/30/10 17:45		
Percent Sand	43.8	% (w/w)	0.10		1		06/30/10 17:45		
Percent Silt	26.2	% (w/w)	0.10		1		06/30/10 17:45		
Texture	clay loam				1		06/30/10 17:45		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	185	%			1		06/30/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	1.6	mmhos/cm	0.010	0.0050	1		07/01/10 15:00		

ANALYTICAL RESULTS

Project: South Heart 0632212A
Pace Project No.: 10131780

Sample: SHOB-202, 105-110 FT **Lab ID: 10131780019** Collected: 06/16/10 00:00 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data		Analytical Method:							
Start Depth	105'	feet			1		06/29/10 12:22		
Stop Depth	110'	feet			1		06/29/10 12:22		
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	0.74	meq/L	0.25		5		07/02/10 15:03	7440-70-2	
Magnesium saturated paste	0.46	meq/L	0.40		5		07/02/10 15:03	7439-95-4	
Sodium Adsorption Ratio	14.7		0.80		5		07/02/10 15:03		
Sodium saturated paste	11.3	meq/L	0.20		5		07/02/10 15:03	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	9.2	Std. Units	0.10	0.050	1		07/01/10 13:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	30	% (w/w)	0.10		1		06/30/10 17:45		
Percent Sand	13.8	% (w/w)	0.10		1		06/30/10 17:45		
Percent Silt	56.2	% (w/w)	0.10		1		06/30/10 17:45		
Texture	silty clay loam				1		06/30/10 17:45		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	147	%			1		06/30/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp. Conductance Saturated Paste	1.2	mmhos/cm	0.010	0.0050	1		07/01/10 15:00		

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-16	Description: BD092806RT	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	71.3	%	42b mod.	10/19/2006
Silt	18.7	%	42b mod.	10/19/2006
Clay	10.0	%	42b mod.	10/19/2006
Texture	Sandy Loam	----	42b mod.	10/19/2006
Electrical Conductivity Saturated Paste	2.06	mmhos/cm	10-3.3	10/24/2006
pH Saturated Paste	9.5	S.U.	21a	10/20/2006
Saturation	70.2	%	27a	10/20/2006
Calcium saturated paste	0.42	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.34	meq/l	3-5.4	10/24/2006
Sodium saturated paste	23.8	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	38.8	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-2	Description: BD100206RMW	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/02/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	60.0	%	42b mod.	10/26/2006
Silt	26.2	%	42b mod.	10/26/2006
Clay	13.8	%	42b mod.	10/26/2006
Texture	Sandy Loam	---	42b mod.	10/26/2006
Electrical Conductivity Saturated Paste	1.32	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.3	S.U.	21a	10/24/2006
Saturation	37.9	%	27a	10/23/2006
Calcium saturated paste	0.39	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.27	meq/l	3-5.4	10/31/2006
Sodium saturated paste	13.5	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	23.3	---	20b	10/31/2006
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100095-13	Description: BD100306RMW	Matrix: SOIL
Date Received: 10/09/2006		
Date Collected: 10/03/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	65.0	%	42b mod.	10/26/2006
Silt	21.2	%	42b mod.	10/26/2006
Clay	13.8	%	42b mod.	10/26/2006
Texture	Sandy Loam	---	42b mod.	10/26/2006
Electrical Conductivity Saturated Paste	1.10	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.4	S.U.	21a	10/24/2006
Saturation	64.8	%	27a	10/23/2006
Calcium saturated paste	0.38	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.24	meq/l	3-5.4	10/31/2006
Sodium saturated paste	10.5	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	18.7	---	20b	10/31/2006
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-9	Description: BD100106RMW	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	6.2	%	42b mod.	10/11/2006
Silt	33.8	%	42b mod.	10/11/2006
Clay	60.0	%	42b mod.	10/11/2006
Texture	Clay	----	42b mod.	10/11/2006
Electrical Conductivity Saturated Paste	1.66	mmhos/cm	10-3.3	10/13/2006
pH Saturated Paste	9.0	S.U.	21a	10/11/2006
Saturation	221	%	27a	10/11/2006
Calcium saturated paste	1.43	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	1.61	meq/l	3-5.4	11/02/2006
Sodium saturated paste	12.5	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	10.1	----	20b	11/02/2006
Sample Preparation	---	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100062-1	Description: BD093006RMW	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: WITT & ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Saturation (oversaturated for paste extract)	140 (1)	%	27a	10/27/2006
Sand	5.0	%	42b mod.	10/11/2006
Silt	28.8	%	42b mod.	10/11/2006
Clay	66.2	%	42b mod.	10/11/2006
Texture	Clay	---	42b mod.	10/11/2006
Electrical Conductivity Saturated Paste	6.56 (1)	mmhos/cm	10-3.3	10/31/2006
pH Saturated Paste	8.0	S.U.	21a	10/11/2006
Saturation	120	%	27a	10/11/2006
Calcium saturated paste	17.3 J (1)	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	26.9 J (1)	meq/l	3-5.4	11/02/2006
Sodium saturated paste	45.5 J (1)	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	9.68 (1)	---	20b	11/02/2006
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-36	Description: BD092806JDE	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	42b mod.	10/18/2006
Silt	67.5	%	42b mod.	10/18/2006
Clay	22.5	%	42b mod.	10/18/2006
Texture	Silt Loam	----	42b mod.	10/18/2006
Electrical Conductivity Saturated Paste	1.97	mmhos/cm	10-3.3	10/19/2006
pH Saturated Paste	9.2	S.U.	21a	10/18/2006
Saturation	133	%	27a	10/17/2006
Calcium saturated paste	0.55	meq/l	3-5.4	10/19/2006
Magnesium saturated paste	0.41	meq/l	3-5.4	10/19/2006
Sodium saturated paste	21.8	meq/l	3-5.4	10/19/2006
Sodium Adsorption Ratio	31.6	----	20b	10/19/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER

Sample No.: 2006100063-46	Description: BD092906JDE	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/29/2006	Collected by: ELLIOTT & WITT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	0.0	%	42b mod.	10/31/2006
Silt	43.7	%	42b mod.	10/31/2006
Clay	56.3	%	42b mod.	10/31/2006
Texture	Silty Clay	----	42b mod.	10/31/2006
Electrical Conductivity Saturated Paste	0.76	mmhos/cm	10-3.3	10/30/2006
pH Saturated Paste	9.2	S.U.	21a	10/25/2006
Saturation	156	%	27a	10/24/2006
Calcium saturated paste	0.44	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.28	meq/l	3-5.4	11/02/2006
Sodium saturated paste	8.14	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	13.6	----	20b	11/02/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-29	Description: BD093006RT	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/30/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	67.5	%	42b mod.	10/24/2006
Silt	16.2	%	42b mod.	10/24/2006
Clay	16.3	%	42b mod.	10/24/2006
Texture	Sandy Loam	----	42b mod.	10/24/2006
Electrical Conductivity Saturated Paste	1.05	mmhos/cm	10-3.3	10/27/2006
pH Saturated Paste	9.4	S.U.	21a	10/23/2006
Saturation	92.0	%	27a	10/23/2006
Calcium saturated paste	0.12	meq/l	3-5.4	10/31/2006
Magnesium saturated paste	0.13	meq/l	3-5.4	10/31/2006
Sodium saturated paste	10.2	meq/l	3-5.4	10/31/2006
Sodium Adsorption Ratio	29.1	----	20b	10/31/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-45	Description: BD-10-01-06-RJM	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 10/01/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	42b mod.	10/31/2006
Silt	72.5	%	42b mod.	10/31/2006
Clay	15.0	%	42b mod.	10/31/2006
Texture	Silt Loam	----	42b mod.	10/31/2006
Electrical Conductivity Saturated Paste	0.70	mmhos/cm	10-3.3	10/30/2006
pH Saturated Paste	9.1	S.U.	21a	10/25/2006
Saturation	73.7	%	27a	10/24/2006
Calcium saturated paste	0.52	meq/l	3-5.4	11/02/2006
Magnesium saturated paste	0.25	meq/l	3-5.4	11/02/2006
Sodium saturated paste	6.52	meq/l	3-5.4	11/02/2006
Sodium Adsorption Ratio	10.5	----	20b	11/02/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100064-17	Description: BD092906RT	Matrix: SOIL
Date Received: 10/05/2006		
Date Collected: 09/28/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	46.3	%	42b mod.	10/19/2006
Silt	34.9	%	42b mod.	10/19/2006
Clay	18.8	%	42b mod.	10/19/2006
Texture	Loam	----	42b mod.	10/19/2006
Electrical Conductivity Saturated Paste	1.55	mmhos/cm	10-3.3	10/24/2006
pH Saturated Paste	9.6	S.U.	21a	10/20/2006
Saturation	112	%	27a	10/20/2006
Calcium saturated paste	0.35	meq/l	3-5.4	10/24/2006
Magnesium saturated paste	0.62	meq/l	3-5.4	10/24/2006
Sodium saturated paste	14.9	meq/l	3-5.4	10/24/2006
Sodium Adsorption Ratio	21.4	----	20b	10/24/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-43	Description: BD-JE-02	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RUSSELL J. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	35.0	%	42b mod.	11/08/2006
Silt	47.5	%	42b mod.	11/08/2006
Clay	17.5	%	42b mod.	11/08/2006
Texture	Loam		42b mod.	11/08/2006
Electrical Conductivity Saturated Paste	1.39	mmhos/cm	10-3.3	11/10/2006
pH Saturated Paste	9.4	S.U.	21a	11/08/2006
Saturation	87.3	%	21a	11/13/2006
Calcium saturated paste	0.36	meq/l	3-5.4	11/09/2006
Magnesium saturated paste	0.27	meq/l	3-5.4	11/09/2006
Sodium saturated paste	16.7	meq/l	3-5.4	11/09/2006
Sodium Adsorption Ratio	29.6	---	20b	11/09/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART POWER PROJECT

Sample No.: 2006100190-52	Description: BD-RJM-03	Matrix: SOIL
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RUSSELL J. MARCHESE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	0.0	%	42b mod.	11/08/2006
Silt	48.7	%	42b mod.	11/08/2006
Clay	51.3	%	42b mod.	11/08/2006
Texture	Silty Clay		42b mod.	11/08/2006
Electrical Conductivity Saturated Paste	0.98	mmhos/cm	10-3.3	11/10/2006
pH Saturated Paste	8.8	S.U.	21a	11/08/2006
Saturation	132	%	27a	11/08/2006
Calcium saturated paste	0.46	meq/l	3-5.4	11/30/2006
Magnesium saturated paste	0.40	meq/l	3-5.4	11/30/2006
Sodium saturated paste	11.5	meq/l	3-5.4	11/30/2006
Sodium Adsorption Ratio	17.5	---	20b	11/30/2006
Sample Preparation	---	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100344-40	Description: BD-AGV-2	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: ——	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/08/2006
Silt	57.5	%	15-5 Mod.	12/08/2006
Clay	32.5	%	15-5 Mod.	12/08/2006
Texture	Si Cl Lo	——	USDA	12/08/2006
Electrical Conductivity Saturated Paste	2.50	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.9	S.U.	21a	12/06/2006
Saturation	96.7	%	27b	12/06/2006
Calcium saturated paste	0.43	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.45	meq/l	3-5.4	01/03/2007
Sodium saturated paste	25.7	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	38.8	——	20b	01/03/2007
Sample Preparation	——	——	27a	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-8	Description: BD-JE-48	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	17.5	%	15-5 Mod.	12/29/2006
Silt	57.5	%	15-5 Mod.	12/29/2006
Clay	25.0	%	15-5 Mod.	12/29/2006
Texture	Silt Loam	---	USDA	12/29/2006
Electrical Conductivity Saturated Paste	2.26	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.8	S.U.	21a	12/27/2006
Saturation	134	%	27b	12/27/2006
Calcium saturated paste	0.68	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.63	meq/l	3-5.4	01/11/2007
Sodium saturated paste	22.4	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	27.6	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-38	Description: BD-RT-12	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/01/2006
Silt	51.2	%	15-5 Mod.	12/01/2006
Clay	36.3	%	15-5 Mod.	12/01/2006
Texture	Si Cl Lo	---	USDA	12/01/2006
Electrical Conductivity Saturated Paste	1.13	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.0	S.U.	21a	11/29/2006
Saturation	123	%	27b	11/29/2006
Calcium saturated paste	0.85	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.54	meq/l	3-5.4	12/14/2006
Sodium saturated paste	11.2	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	13.4	---	20b	12/14/2006
Sample Preparation	---	---	3-5.1	12/14/2006

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-37	Description: BD-RT-11	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/01/2006
Silt	55.0	%	15-5 Mod.	12/01/2006
Clay	35.0	%	15-5 Mod.	12/01/2006
Texture	Si Cl Lo	----	USDA	12/01/2006
Electrical Conductivity Saturated Paste	5.23	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	7.8	S.U.	21a	11/29/2006
Saturation	107	%	27b	11/29/2006
Calcium saturated paste	13.8	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	28.8	meq/l	3-5.4	12/14/2006
Sodium saturated paste	27.1	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	5.88	---	20b	12/14/2006
Sample Preparation	----	---	3-5.1	12/14/2006

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-17	Description: BD-JE-39	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 mod.	12/19/2006
Silt	56.2	%	15-5mod.	12/19/2006
Clay	35.0	%	15.5mod.	12/19/2006
Texture	Si Cl Lo	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	9.41	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	8.1	S.U.	21a	12/19/2006
Saturation	95.4	%	27b	12/19/2006
Calcium saturated paste	20.6	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	42.0	meq/l	3-5.4	01/08/2007
Sodium saturated paste	62.6	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	11.2	---	20b	01/17/2007
Sample Preparation	----	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-7	Description: BD-JE-47	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	12/29/2006
Silt	50.0	%	15-5 Mod.	12/29/2006
Clay	27.5	%	15-5 Mod.	12/29/2006
Texture	Clay Loam	----	USDA	12/29/2006
Electrical Conductivity Saturated Paste	1.70	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.7	S.U.	21a	12/27/2006
Saturation	180	%	27b	12/27/2006
Calcium saturated paste	1.04	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	2.07	meq/l	3-5.4	01/11/2007
Sodium saturated paste	13.9	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	11.2	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-1	Description: BD-JE-49	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod	12/14/2006
Silt	60.0	%	15-5 Mod	12/14/2006
Clay	20.0	%	15-5 Mod	12/14/2006
Texture	Silt Loam	—	USDA	12/14/2006
Electrical Conductivity Saturated Paste	6.82	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.7	S.U.	21a	12/13/2006
Saturation	73.2	%	27b	12/13/2006
Calcium saturated paste	21.1	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	46.7	meq/l	3-5.4	01/03/2007
Sodium saturated paste	43.0	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	7.37	—	20b	01/03/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-7		Description: BD-JE-55		Matrix: OVERBURDEN	
Date Received: 11/01/2006					
Date Collected: 10/29/2006		Collected by: JOSH ELLIOTT			
Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis	
Sand	10.0	%	15-5 Mod	12/14/2006	
Silt	40.0	%	15-5 Mod	12/14/2006	
Clay	50.0	%	15-5 Mod	12/14/2006	
Texture	Silty Clay	—	USDA	12/14/2006	
Electrical Conductivity Saturated Paste	4.78	mmhos/cm	10-3.3	12/18/2006	
pH Saturated Paste	7.7	S.U.	21a	12/13/2006	
Saturation	116	%	27b	12/13/2006	
Calcium saturated paste	15.1	meq/l	3-5.4	01/03/2007	
Magnesium saturated paste	14.9	meq/l	3-5.4	01/03/2007	
Sodium saturated paste	34.9	meq/l	3-5.4	01/03/2007	
Sodium Adsorption Ratio	9.00	—	20b	01/03/2007	
Sample Preparation	—	—	3-5.1		

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-3	Description: BD-JE-51	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod	12/14/2006
Silt	42.5	%	15-5 Mod	12/14/2006
Clay	42.5	%	15-5 Mod	12/14/2006
Texture	Silty Clay	---	USDA	12/14/2006
Electrical Conductivity Saturated Paste	6.43	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	6.8	S.U.	21a	12/13/2006
Saturation	97.5	%	27b	12/13/2006
Calcium saturated paste	16.7	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	23.5	meq/l	3-5.4	01/03/2007
Sodium saturated paste	51.1	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	11.4	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-48	Description: BD-JE-37	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod.	12/22/2006
Silt	51.2	%	15-5 Mod.	12/22/2006
Clay	41.3	%	15-5 Mod.	12/22/2006
Texture	Silty Clay	---	USDA	12/22/2006
Electrical Conductivity Saturated Paste	3.45	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	8.4	S.U.	21a	12/22/2006
Saturation	116	%	27b	12/22/2006
Calcium saturated paste	2.65	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	3.22	meq/l	3-5.4	01/09/2007
Sodium saturated paste	36.0	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	21.0	---	20b	01/09/2007
Sample Preparation	----	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-16	Description: BD-JE-38	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 mod.	12/19/2006
Silt	36.2	%	15-5mod.	12/19/2006
Clay	56.3	%	15.5mod.	12/19/2006
Texture	Clay	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	1.33	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	9.2	S.U.	21a	12/19/2006
Saturation	161	%	27b	12/19/2006
Calcium saturated paste	0.24	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	0.18	meq/l	3-5.4	01/08/2007
Sodium saturated paste	14.4	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	31.3	---	20b	01/17/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-6	Description: BD-JE-46	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	12/29/2006
Silt	45.0	%	15-5 Mod.	12/29/2006
Clay	40.0	%	15-5 Mod.	12/29/2006
Texture	Si Cl Lo	---	USDA	12/29/2006
Electrical Conductivity Saturated Paste	1.90	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.6	S.U.	21a	12/27/2006
Saturation	139	%	27b	12/27/2006
Calcium saturated paste	0.80	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	0.92	meq/l	3-5.4	01/11/2007
Sodium saturated paste	17.9	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	19.3	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-27	Description: BD-RT-03	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15-5 Mod.	11/15/2006
Silt	52.4	%	15-5 Mod.	11/15/2006
Clay	31.3	%	15-5 Mod.	11/15/2006
Texture	Si Cl Lo	---	USDA	11/15/2006
Electrical Conductivity Saturated Paste	6.23	mmhos/cm	10-3.3	11/15/2006
pH Saturated Paste	7.5	S.U.	21a	11/14/2006
Saturation	71.0	%	27b	11/11/2006
Calcium saturated paste	21.1	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	25.7	meq/l	3-5.4	01/03/2007
Sodium saturated paste	36.0	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	7.43	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-2	Description: BD-JE-42	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	5.0	%	15-5 Mod.	12/29/2006
Silt	45.0	%	15-5 Mod.	12/29/2006
Clay	50.0	%	15-5 Mod.	12/29/2006
Texture	Silty Clay	---	USDA	12/29/2006
Electrical Conductivity Saturated Paste	7.56	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.0	S.U.	21a	12/27/2006
Saturation	100	%	27b	12/27/2006
Calcium saturated paste	20.4	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	30.3	meq/l	3-5.4	01/11/2007
Sodium saturated paste	60.9	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	12.1	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100195-15	Description: BD-RT-10	Matrix: OVERBURDEN
Date Received: 10/19/2006		
Date Collected: 10/16/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	3.8	%	15-5 Mod.	11/30/2006
Silt	51.2	%	15-5 Mod.	11/30/2006
Clay	45.0	%	15-5 Mod.	11/30/2006
Texture	Silty Clay	---	USDA	11/30/2006
Electrical Conductivity Saturated Paste	3.11	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	8.7	S.U.	21a	11/28/2006
Saturation	154	%	27b	11/28/2006
Calcium saturated paste	1.59	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	2.15	meq/l	3-5.4	12/14/2006
Sodium saturated paste	31.8	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	23.3	---	20b	12/14/2006
Sample Preparation	---	---	3-5.1	12/14/2006

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-5	Description: BD-JE-45	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	55.0	%	15-5 Mod.	12/29/2006
Silt	25.0	%	15-5 Mod.	12/29/2006
Clay	20.0	%	15-5 Mod.	12/29/2006
Texture	Sa Cl Lo	----	USDA	12/29/2006
Electrical Conductivity Saturated Paste	3.28	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	7.8	S.U.	21a	12/27/2006
Saturation	75.4	%	27b	12/27/2006
Calcium saturated paste	3.84	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	5.74	meq/l	3-5.4	01/11/2007
Sodium saturated paste	27.6	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	12.6	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100178-32	Description: BD-RT-04	Matrix: OVERBURDEN
Date Received: 10/17/2006		
Date Collected: 10/12/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	47.5	%	15-5 Mod.	11/15/2006
Silt	35.0	%	15-5 Mod.	11/15/2006
Clay	17.5	%	15-5 Mod.	11/15/2006
Texture	Loam	---	USDA	11/15/2006
Electrical Conductivity Saturated Paste	2.47	mmhos/cm	10-3.3	11/15/2006
pH Saturated Paste	8.6	S.U.	21a	11/14/2006
Saturation	65.0	%	27b	11/11/2006
Calcium saturated paste	0.86	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.91	meq/l	3-5.4	01/03/2007
Sodium saturated paste	15.1	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	16.1	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-4	Description: BD-RT-08	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15-5 Mod.	11/22/2006
Silt	63.7	%	15-5 Mod.	11/22/2006
Clay	20.0	%	15-5 Mod.	11/22/2006
Texture	Silt Loam	—	USDA	11/22/2006
Electrical Conductivity Saturated Paste	1.82	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.7	S.U.	21a	11/20/2006
Saturation	102	%	27b	11/20/2006
Calcium saturated paste	0.78 J	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	0.61	meq/l	3-5.4	11/22/2006
Sodium saturated paste	16.5	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	19.8	—	20b	11/22/2006
Sample Preparation	—	—	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-46	Description: BD-RT-05	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	76.3	%	15-5 Mod.	11/21/2006
Silt	17.4	%	15-5 Mod.	11/21/2006
Clay	6.3	%	15-5 Mod.	11/21/2006
Texture	Loamy Sand	---	USDA	11/21/2006
Electrical Conductivity Saturated Paste	6.54	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.0	S.U.	21a	11/17/2006
Saturation	50.8	%	27b	11/16/2006
Calcium saturated paste	7.31	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	11.6	meq/l	3-5.4	12/12/2006
Sodium saturated paste	58.6	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	19.1	---	20b	12/12/2006
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110085-18	Description: BD-JE-40	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	53.8	%	15-5 mod.	12/19/2006
Silt	38.7	%	15-5mod.	12/19/2006
Clay	7.5	%	15.5mod.	12/19/2006
Texture	Sandy Loam	---	USDA	12/19/2006
Electrical Conductivity Saturated Paste	5.60	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	7.6	S.U.	21a	12/19/2006
Saturation	47.9	%	27b	12/19/2006
Calcium saturated paste	7.92	meq/l	3-5.4	01/08/2007
Magnesium saturated paste	18.1	meq/l	3-5.4	01/08/2007
Sodium saturated paste	48.1	meq/l	3-5.4	01/17/2007
Sodium Adsorption Ratio	13.3	---	20b	01/17/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-1	Description: BD-JE-41	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	12/29/2006
Silt	27.5	%	15-5 Mod.	12/29/2006
Clay	57.5	%	15-5 Mod.	12/29/2006
Texture	Clay	---	USDA	12/29/2006
Electrical Conductivity Saturated Paste	6.01	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	7.4	S.U.	21a	12/27/2006
Saturation	149	%	27b	12/27/2006
Calcium saturated paste	7.51	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	11.2	meq/l	3-5.4	01/11/2007
Sodium saturated paste	58.2	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	19.0	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-3 Description: BD-JE-43 Matrix: OVERBURDEN
 Date Received: 11/01/2006
 Date Collected: 10/28/2006 Collected by: JOSH ELLIOTT

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/29/2006
Silt	30.0	%	15-5 Mod.	12/29/2006
Clay	57.5	%	15-5 Mod.	12/29/2006
Texture	Clay	---	USDA	12/29/2006
Electrical Conductivity Saturated Paste	8.72	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.1	S.U.	21a	12/27/2006
Saturation	124	%	27b	12/27/2006
Calcium saturated paste	21.5	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	32.9	meq/l	3-5.4	01/11/2007
Sodium saturated paste	76.9	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	14.7	---	20b	01/11/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110089-4	Description: BD-JE-44	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/28/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	55.0	%	15-5 Mod.	12/29/2006
Silt	22.5	%	15-5 Mod.	12/29/2006
Clay	22.5	%	15-5 Mod.	12/29/2006
Texture	Sa Cl Lo	----	USDA	12/29/2006
Electrical Conductivity Saturated Paste	3.34	mmhos/cm	10-3.3	01/18/2007
pH Saturated Paste	8.2	S.U.	21a	12/27/2006
Saturation	101	%	27b	12/27/2006
Calcium saturated paste	2.75	meq/l	3-5.4	01/11/2007
Magnesium saturated paste	3.27	meq/l	3-5.4	01/11/2007
Sodium saturated paste	32.2	meq/l	3-5.4	01/11/2007
Sodium Adsorption Ratio	18.6	----	20b	01/11/2007
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-30	Description: BD-RT-09	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/15/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	20.0	%	15-5 Mod.	11/24/2006
Silt	38.7	%	15-5 Mod.	11/24/2006
Clay	41.3	%	15-5 Mod.	11/24/2006
Texture	Clay	—	USDA	11/24/2006
Electrical Conductivity Saturated Paste	1.52	mmhos/cm	10-3.3	11/27/2006
pH Saturated Paste	8.0	S.U.	21a	11/21/2006
Saturation	108	%	27b	11/21/2006
Calcium saturated paste	1.21	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	1.47	meq/l	3-5.4	11/22/2006
Sodium saturated paste	12.5	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	10.8	—	20b	11/22/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-4	Description: BD-JE-52	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	57.5	%	15-5 Mod	12/14/2006
Silt	22.5	%	15-5 Mod	12/14/2006
Clay	20.0	%	15-5 Mod	12/14/2006
Texture	Sa Cl Lo	---	USDA	12/14/2006
Electrical Conductivity Saturated Paste	1.48	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	6.7	S.U.	21a	12/13/2006
Saturation	91.8	%	27b	12/13/2006
Calcium saturated paste	2.77	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	3.56	meq/l	3-5.4	01/03/2007
Sodium saturated paste	9.46	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	5.32	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-5	Description: BD-JE-53	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	2.5	%	15-5 Mod	12/14/2006
Silt	60.0	%	15-5 Mod	12/14/2006
Clay	37.5	%	15-5 Mod	12/14/2006
Texture	SI Cl Lo	—	USDA	12/14/2006
Electrical Conductivity Saturated Paste	5.10	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	7.7	S.U.	21a	12/13/2006
Saturation	115	%	27b	12/13/2006
Calcium saturated paste	18.3	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	33.1	meq/l	3-5.4	01/03/2007
Sodium saturated paste	23.7	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	4.69	—	20b	01/03/2007
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110028-6	Description: BD-JE-54	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/29/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	7.5	%	15-5 Mod	12/14/2006
Silt	61.2	%	15-5 Mod	12/14/2006
Clay	31.3	%	15-5 Mod	12/14/2006
Texture	SI Cl Lo	---	USDA	12/14/2006
Electrical Conductivity Saturated Paste	0.98	mmhos/cm	10-3.3	12/18/2006
pH Saturated Paste	8.2	S.U.	21a	12/13/2006
Saturation	152	%	27b	12/13/2006
Calcium saturated paste	0.92	meq/l	3-5.4	01/03/2007
Magnesium saturated paste	0.88	meq/l	3-5.4	01/03/2007
Sodium saturated paste	8.12	meq/l	3-5.4	01/03/2007
Sodium Adsorption Ratio	8.57	---	20b	01/03/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-10	Description: BD-RT-13	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/19/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	16.3	%	15-5 Mod.	12/04/2006
Silt	42.4	%	15-5 Mod.	12/04/2006
Clay	41.3	%	15-5 Mod.	12/04/2006
Texture	Silt Loam	---	USDA	12/04/2006
Electrical Conductivity Saturated Paste	5.92	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.0	S.U.	21a	11/30/2006
Saturation	89.1	%	27b	11/30/2006
Calcium saturated paste	17.9	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	24.3	meq/l	3-5.4	12/22/2006
Sodium saturated paste	40.1	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	8.74	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-19	Description: BD-RT-30	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	67.5	%	15-5 Mod.	12/06/2006
Silt	22.5	%	15-5 Mod.	12/06/2006
Clay	10.0	%	15-5 Mod.	12/06/2006
Texture	Sandy Loam	---	USDA	12/06/2006
Electrical Conductivity Saturated Paste	0.70	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.9	S.U.	21a	12/05/2006
Saturation	48.1	%	27b	12/04/2006
Calcium saturated paste	2.98	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	2.87	meq/l	3-5.4	12/28/2006
Sodium saturated paste	2.13	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	1.24	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-16	Description: BD-RT-27	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	78.8	%	15-5 Mod.	12/06/2006
Silt	11.2	%	15-5 Mod.	12/06/2006
Clay	10.0	%	15-5 Mod.	12/06/2006
Texture	Sandy Loam	---	USDA	12/06/2006
Electrical Conductivity Saturated Paste	1.89	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.0	S.U.	21a	12/05/2006
Saturation	41.4	%	27b	12/04/2006
Calcium saturated paste	5.20	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	1.55	meq/l	3-5.4	12/28/2006
Sodium saturated paste	13.8	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	7.51	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-15	Description: BD-RT-26	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	22.5	%	15-5 Mod.	12/06/2006
Silt	42.5	%	15-5 Mod.	12/06/2006
Clay	35.0	%	15-5 Mod.	12/06/2006
Texture	Clay Loam	---	USDA	12/06/2006
Electrical Conductivity Saturated Paste	4.51	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.7	S.U.	21a	12/05/2006
Saturation	79.9	%	27b	12/04/2006
Calcium saturated paste	20.6	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	21.0	meq/l	3-5.4	12/28/2006
Sodium saturated paste	22.0	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	4.82	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-14	Description: BD-RT-25	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	90.0	%	15-5 Mod.	12/06/2006
Silt	5.0	%	15-5 Mod.	12/06/2006
Clay	5.0	%	15-5 Mod.	12/06/2006
Texture	Sand	----	USDA	12/06/2006
Electrical Conductivity Saturated Paste	0.54	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.5	S.U.	21a	12/05/2006
Saturation	36.9	%	27b	12/04/2006
Calcium saturated paste	0.70	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	2.52	meq/l	3-5.4	12/28/2006
Sodium saturated paste	2.18	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	1.72	----	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-52	Description: BD-RT-15	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	15.0	%	15-5 Mod.	11/29/2006
Silt	47.5	%	15-5 Mod.	11/29/2006
Clay	37.5	%	15-5 Mod.	11/29/2006
Texture	Si Cl Lo	---	USDA	11/29/2006
Electrical Conductivity Saturated Paste	2.53	mmhos/cm	10-3.3	12/01/2006
pH Saturated Paste	9.1	S.U.	21a	11/28/2006
Saturation	114	%	27b	11/28/2006
Calcium saturated paste	0.46	meq/l	3-5.4	12/14/2006
Magnesium saturated paste	0.34	meq/l	3-5.4	12/14/2006
Sodium saturated paste	25.3	meq/l	3-5.4	12/14/2006
Sodium Adsorption Ratio	39.9		20b	12/14/2006
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: S. HEART OB POWER PROJECT

Sample No.: 2006100327-13	Description: BD-RT-14	Matrix: OVERBURDEN
Date Received: 10/24/2006		
Date Collected: 10/19/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	23.8	%	15-5 Mod.	12/04/2006
Silt	56.2	%	15-5 Mod.	12/04/2006
Clay	20.0	%	15-5 Mod.	12/04/2006
Texture	Clay Loam	---	USDA	12/04/2006
Electrical Conductivity Saturated Paste	8.05	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.1	S.U.	21a	11/30/2006
Saturation	66.6	%	27b	11/30/2006
Calcium saturated paste	21.9	meq/l	3-5.4	12/22/2006
Magnesium saturated paste	62.6	meq/l	3-5.4	12/22/2006
Sodium saturated paste	48.4	meq/l	3-5.4	12/22/2006
Sodium Adsorption Ratio	7.44	---	20b	12/22/2006
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-47	Description: BD-JE-36	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	25.0	%	15-5 Mod.	12/22/2006
Silt	57.5	%	15-5 Mod.	12/22/2006
Clay	17.5	%	15-5 Mod.	12/22/2006
Texture	Silt Loam	---	USDA	12/22/2006
Electrical Conductivity Saturated Paste	1.90	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	9.1	S.U.	21a	12/22/2006
Saturation	124	%	27b	12/22/2006
Calcium saturated paste	0.35	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.32	meq/l	3-5.4	01/09/2007
Sodium saturated paste	19.8	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	34.3	---	20b	01/09/2007
Sample Preparation	----	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-46	Description: BD-JE-35	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/22/2006
Silt	61.2	%	15-5 Mod.	12/22/2006
Clay	28.8	%	15-5 Mod.	12/22/2006
Texture	Si Cl Lo	---	USDA	12/22/2006
Electrical Conductivity Saturated Paste	7.68	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	6.9	S.U.	21a	12/22/2006
Saturation	88.6	%	27b	12/22/2006
Calcium saturated paste	17.4	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	17.3	meq/l	3-5.4	01/09/2007
Sodium saturated paste	75.5	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	18.1	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-20	Description: BD-RT-31	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/06/2006
Silt	37.5	%	15-5 Mod.	12/06/2006
Clay	52.5	%	15-5 Mod.	12/06/2006
Texture	Clay	—	USDA	12/06/2006
Electrical Conductivity Saturated Paste	1.19	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.8	S.U.	21a	12/05/2006
Saturation	174	%	27b	12/04/2006
Calcium saturated paste	0.54	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.66	meq/l	3-5.4	12/28/2006
Sodium saturated paste	10.4	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	13.4	—	20b	12/28/2006
Sample Preparation	—	—	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-17	Description: BD-RT-28	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	37.5	%	15-5 Mod.	12/06/2006
Silt	50.0	%	15-5 Mod.	12/06/2006
Clay	12.5	%	15-5 Mod.	12/06/2006
Texture	Silt Loam	----	USDA	12/06/2006
Electrical Conductivity Saturated Paste	7.58	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	8.5	S.U.	21a	12/05/2006
Saturation	55.8	%	27b	12/04/2006
Calcium saturated paste	5.20	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	26.4	meq/l	3-5.4	12/28/2006
Sodium saturated paste	72.2	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	18.2	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-8	Description: BD-RT-16	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	56.3	%	15-5 Mod.	12/05/2006
Silt	36.2	%	15-5 Mod.	12/05/2006
Clay	7.5	%	15-5 Mod.	12/05/2006
Texture	Sandy Loam	---	USDA	12/05/2006
Electrical Conductivity Saturated Paste	0.53	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	8.7	S.U.	21a	12/01/2006
Saturation	44.0	%	27b	12/01/2006
Calcium saturated paste	0.80	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	1.44	meq/l	3-5.4	12/28/2006
Sodium saturated paste	3.13	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	2.95	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100328-35	Description: BD-RT-17	Matrix: OVERBURDEN
Date Received: 10/25/2006		
Date Collected: 10/20/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	23.8	%	15-5 Mod.	12/06/2006
Silt	44.9	%	15-5 Mod.	12/06/2006
Clay	31.3	%	15-5 Mod.	12/06/2006
Texture	CLay Loam	---	USDA	12/06/2006
Electrical Conductivity Saturated Paste	1.13	mmhos/cm	10-3.3	12/05/2006
pH Saturated Paste	9.0	S.U.	21a	12/01/2006
Saturation	115	%	27b	12/01/2006
Calcium saturated paste	0.82	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	0.86	meq/l	3-5.4	12/28/2006
Sodium saturated paste	13.3	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	14.5	---	20b	12/28/2006
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-20	Description: BD-RT-18	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	13.8	%	15-5 Mod.	12/18/2006
Silt	53.7	%	15-5 Mod.	12/18/2006
Clay	32.5	%	15-5 Mod.	12/18/2006
Texture	Si Cl Lo	----	USDA	12/18/2006
Electrical Conductivity Saturated Paste	6.87	mmhos/cm	10-3.3	12/29/2006
pH Saturated Paste	8.1	S.U.	21a	12/15/2006
Saturation	128	%	27b	12/15/2006
Calcium saturated paste	12.0	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	21.8	meq/l	3-5.4	01/05/2007
Sodium saturated paste	62.5	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	15.2	—	20b	01/05/2007
Sample Preparation	—	—	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-44	Description: BD-JE-33	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/22/2006
Silt	43.7	%	15-5 Mod.	12/22/2006
Clay	46.3	%	15-5 Mod.	12/22/2006
Texture	Silty Clay	—	USDA	12/22/2006
Electrical Conductivity Saturated Paste	6.36	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	7.8	S.U.	21a	12/22/2006
Saturation	78.1	%	27b	12/22/2006
Calcium saturated paste	18.5	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	28.4	meq/l	3-5.4	01/09/2007
Sodium saturated paste	56.0	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	11.6	—	20b	01/09/2007
Sample Preparation	—	—	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-43	Description: BD-JE-32	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	<1.3	%	15-5 Mod.	12/22/2006
Silt	50.0	%	15-5 Mod.	12/22/2006
Clay	50.0	%	15-5 Mod.	12/22/2006
Texture	Silty Clay	—	USDA	12/22/2006
Electrical Conductivity Saturated Paste	10.8	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	6.8	S.U.	21a	12/22/2006
Saturation	82.5	%	27b	12/22/2006
Calcium saturated paste	20.7	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	92.8	meq/l	3-5.4	01/09/2007
Sodium saturated paste	73.0	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	9.69	—	20b	01/09/2007
Sample Preparation	—	—	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-18	Description: BD-RT-29	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	27.5	%	15-5 Mod.	12/06/2006
Silt	53.7	%	15-5 Mod.	12/06/2006
Clay	18.8	%	15-5 Mod.	12/06/2006
Texture	Silt Loam	---	USDA	12/06/2006
Electrical Conductivity Saturated Paste	8.60	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.9	S.U.	21a	12/05/2006
Saturation	72.0	%	27b	12/04/2006
Calcium saturated paste	21.7	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	28.8	meq/l	3-5.4	12/28/2006
Sodium saturated paste	70.3	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	14.0	----	20b	12/28/2006
Sample Preparation	----	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-21	Description: BD-RT-19	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/18/2006
Silt	52.5	%	15-5 Mod.	12/18/2006
Clay	37.5	%	15-5 Mod.	12/18/2006
Texture	Si Cl Lo	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	6.20	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	7.5	S.U.	21a	12/15/2006
Saturation	141	%	27b	12/15/2006
Calcium saturated paste	12.8 J	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	14.9 J	meq/l	3-5.4	01/05/2007
Sodium saturated paste	53.9	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	14.5	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110088-45	Description: BD-JE-34	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/27/2006	Collected by: JOSH ELLIOTT	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	10.0	%	15-5 Mod.	12/22/2006
Silt	62.5	%	15-5 Mod.	12/22/2006
Clay	27.5	%	15-5 Mod.	12/22/2006
Texture	Si Cl Lo	---	USDA	12/22/2006
Electrical Conductivity Saturated Paste	2.27	mmhos/cm	10-3.3	01/10/2007
pH Saturated Paste	8.9	S.U.	21a	12/22/2006
Saturation	165	%	27b	12/22/2006
Calcium saturated paste	0.62	meq/l	3-5.4	01/09/2007
Magnesium saturated paste	0.75	meq/l	3-5.4	01/09/2007
Sodium saturated paste	25.7	meq/l	3-5.4	01/09/2007
Sodium Adsorption Ratio	31.0	---	20b	01/09/2007
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100193-3	Description: BD-RT-07	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/14/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	43.8	%	15-5 Mod.	11/22/2006
Silt	31.2	%	15-5 Mod.	11/22/2006
Clay	25.0	%	15-5 Mod.	11/22/2006
Texture	Loam	—	USDA	11/22/2006
Electrical Conductivity Saturated Paste	8.24	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	6.2	S.U.	21a	11/20/2006
Saturation	84.6	%	27b	11/20/2006
Calcium saturated paste	12.6	meq/l	3-5.4	11/22/2006
Magnesium saturated paste	27.2	meq/l	3-5.4	11/22/2006
Sodium saturated paste	68.4	meq/l	3-5.4	11/22/2006
Sodium Adsorption Ratio	15.3	—	20b	11/22/2006
Sample Preparation	—	—	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-23	Description: BD-RT-21	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	12.5	%	15-5 Mod.	12/18/2006
Silt	41.2	%	15-5 Mod.	12/18/2006
Clay	46.3	%	15-5 Mod.	12/18/2006
Texture	Silty Clay	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	0.87	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	7.2	S.U.	21a	12/15/2006
Saturation	87.0	%	27b	12/15/2006
Calcium saturated paste	2.39	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	1.68	meq/l	3-5.4	01/05/2007
Sodium saturated paste	4.94	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	3.46	---	20b	01/05/2007
Sample Preparation	----	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-22	Description: BD-RT-20	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	27.5	%	15-5 Mod.	12/18/2006
Silt	28.7	%	15-5 Mod.	12/18/2006
Clay	43.8	%	15-5 Mod.	12/18/2006
Texture	Clay	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	6.32	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	5.6	S.U.	21a	12/15/2006
Saturation	102	%	27b	12/15/2006
Calcium saturated paste	12.6 J	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	20.1 J	meq/l	3-5.4	01/05/2007
Sodium saturated paste	58.1	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	14.4	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-13	Description: BD-RT-01	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	11.3	%	15-5 Mod	11/09/2006
Silt	54.9	%	15-5 Mod	11/09/2006
Clay	33.8	%	15-5 Mod	11/09/2006
Texture	SI Cl Lo	—	USDA	11/09/2006
Electrical Conductivity Saturated Paste	1.63	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	9.3	S.U.	21a	11/09/2006
Saturation	165	%	27b	11/08/2006
Calcium saturated paste	0.53	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	0.28	meq/l	3-5.4	11/13/2006
Sodium saturated paste	12.6	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	19.7	—	20b	11/13/2006
Sample Preparation	—	—	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100325-14	Description: BD-RT-02	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/11/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	8.8	%	15-5 Mod	11/09/2006
Silt	52.4	%	15-5 Mod	11/09/2006
Clay	38.8	%	15-5 Mod	11/09/2006
Texture	Si Cl Lo	---	USDA	11/09/2006
Electrical Conductivity Saturated Paste	1.13	mmhos/cm	10-3.3	11/14/2006
pH Saturated Paste	9.3	S.U.	21a	11/09/2006
Saturation	152	%	27b	11/08/2006
Calcium saturated paste	0.39	meq/l	3-5.4	11/13/2006
Magnesium saturated paste	0.35	meq/l	3-5.4	11/13/2006
Sodium saturated paste	9.15	meq/l	3-5.4	11/13/2006
Sodium Adsorption Ratio	15.0	---	20b	11/13/2006
Sample Preparation	---	---	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100343-13	Description: BD-RT-24	Matrix: OVERBURDEN
Date Received: 10/31/2006		
Date Collected: 10/26/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	18.8	%	15-5 Mod.	12/06/2006
Silt	46.2	%	15-5 Mod.	12/06/2006
Clay	35.0	%	15-5 Mod.	12/06/2006
Texture	Si Cl Lo	----	USDA	12/06/2006
Electrical Conductivity Saturated Paste	3.30	mmhos/cm	10-3.3	12/11/2006
pH Saturated Paste	7.5	S.U.	21a	12/05/2006
Saturation	104	%	27b	12/04/2006
Calcium saturated paste	18.1	meq/l	3-5.4	12/28/2006
Magnesium saturated paste	15.4	meq/l	3-5.4	12/28/2006
Sodium saturated paste	11.0	meq/l	3-5.4	12/28/2006
Sodium Adsorption Ratio	2.68	----	20b	12/28/2006
Sample Preparation	---	----	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-24	Description: BD-RT-22	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	0.0	%	15-5 Mod.	12/18/2006
Silt	30.0	%	15-5 Mod.	12/18/2006
Clay	70.0	%	15-5 Mod.	12/18/2006
Texture	Clay	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	4.88	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	5.0	S.U.	21a	12/15/2006
Saturation	136	%	27b	12/15/2006
Calcium saturated paste	5.61 J	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	23.7 J	meq/l	3-5.4	01/05/2007
Sodium saturated paste	35.0	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	9.14	---	20b	01/05/2007
Sample Preparation	---	----	3-5.1	

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006100192-47	Description: BD-RT-06	Matrix: OVERBURDEN
Date Received: 10/18/2006		
Date Collected: 10/13/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	67.5	%	15-5 Mod.	11/21/2006
Silt	15.0	%	15-5 Mod.	11/21/2006
Clay	17.5	%	15-5 Mod.	11/21/2006
Texture	Sandy Loam	—	USDA	11/21/2006
Electrical Conductivity Saturated Paste	6.96	mmhos/cm	10-3.3	11/21/2006
pH Saturated Paste	8.4	S.U.	21a	11/17/2006
Saturation	110	%	27b	11/16/2006
Calcium saturated paste	3.14	meq/l	3-5.4	12/12/2006
Magnesium saturated paste	10.6	meq/l	3-5.4	12/12/2006
Sodium saturated paste	69.3	meq/l	3-5.4	12/12/2006
Sodium Adsorption Ratio	26.4	----	20b	12/12/2006
Sample Preparation	—	—	3-5.1	

Northern Analytical Laboratories, Inc.

Client Name: GOLDER ASSOCIATES, INC.

Project No.: 063-2174

Project Name: SOUTH HEART OVERBURDEN

Sample No.: 2006110073-25	Description: BD-RT-23	Matrix: OVERBURDEN
Date Received: 11/01/2006		
Date Collected: 10/25/2006	Collected by: RYAN TOLENE	

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
Sand	31.3	%	15-5 Mod.	12/18/2006
Silt	23.7	%	15-5 Mod.	12/18/2006
Clay	45.0	%	15-5 Mod.	12/18/2006
Texture	Clay	---	USDA	12/18/2006
Electrical Conductivity Saturated Paste	9.78	mmhos/cm	10-3.3	01/02/2007
pH Saturated Paste	7.9	S.U.	21a	12/15/2006
Saturation	114	%	27b	12/15/2006
Calcium saturated paste	18.9 J	meq/l	3-5.4	01/05/2007
Magnesium saturated paste	51.0 J	meq/l	3-5.4	01/05/2007
Sodium saturated paste	86.7	meq/l	3-5.4	01/05/2007
Sodium Adsorption Ratio	14.7	---	20b	01/05/2007
Sample Preparation	---	---	3-5.1	

ANALYTICAL RESULTS

Project: South Heart 0632212A
Pace Project No.: 10131780

Sample: BD-PDS-01 **Lab ID: 10131780020** Collected: 06/16/10 00:00 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	1.3	meq/L	0.50		10		07/02/10 15:07	7440-70-2	
Magnesium saturated paste	3.4	meq/L	0.80		10		07/02/10 15:07	7439-95-4	
Sodium Adsorption Ratio	11.4		1.6		10		07/02/10 15:07		
Sodium saturated paste	17.4	meq/L	0.40		10		07/02/10 15:07	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.4	Std. Units	0.10	0.050	1		07/01/10 13:45		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	72.5	% (w/w)	0.10		1		06/30/10 17:45		
Percent Sand	8.8	% (w/w)	0.10		1		06/30/10 17:45		
Percent Silt	18.7	% (w/w)	0.10		1		06/30/10 17:45		
Texture	clay				1		06/30/10 17:45		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	311	%			1		06/30/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp.Conductance Saturated Paste	1.9	mmhos/cm	0.010	0.0050	1		07/01/10 15:00		

ANALYTICAL RESULTS

Project: South Heart 0632212A

Pace Project No.: 10131780

Sample: BD-PDS-02 **Lab ID: 10131780021** Collected: 06/16/10 00:00 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Sodium Adsorption Ratio, ICP		Analytical Method: EPA 6010							
Calcium saturated paste	1.0	meq/L	0.25		5		07/01/10 17:10	7440-70-2	
Magnesium saturated paste	0.64	meq/L	0.40		5		07/01/10 17:10	7439-95-4	
Sodium Adsorption Ratio	1.8		0.80		5		07/01/10 17:10		
Sodium saturated paste	1.6	meq/L	0.20		5		07/01/10 17:10	7440-23-5	
ASA 10-3.2 pH		Analytical Method: ASA 10-3.2							
pH, Saturated Paste	8.4	Std. Units	0.10	0.050	1		06/30/10 10:20		
PSA Percent Sand,Silt,Clay		Analytical Method: ASA 15-5 mod							
Percent Clay	6.3	% (w/w)	0.10		1		06/29/10 16:22		
Percent Sand	80	% (w/w)	0.10		1		06/29/10 16:22		
Percent Silt	13.7	% (w/w)	0.10		1		06/29/10 16:22		
Texture	loamy sand				1		06/29/10 16:22		
Percent Saturation		Analytical Method: USDA 27a							
Percent Saturation	45.3	%			1		06/29/10 00:00		
ASA10-3.3 Specific Conductance		Analytical Method: ASA 10-3.3							
Sp.Conductance Saturated Paste	0.40	mmhos/cm	0.010	0.0050	1		06/30/10 16:30		

ANALYTICAL RESULTS

Project: South Heart 0632212A

Pace Project No.: 10131780

Sample: BD-PDS-03 **Lab ID: 10131780022** Collected: 06/16/10 00:00 Received: 06/21/10 10:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Sodium Adsorption Ratio, ICP									
Analytical Method: EPA 6010									
Calcium saturated paste	0.58	meq/L	0.25		5		07/01/10 17:14	7440-70-2	
Magnesium saturated paste	0.36J	meq/L	0.40		5		07/01/10 17:14	7439-95-4	
Sodium Adsorption Ratio	21.3		0.80		5		07/01/10 17:14		
Sodium saturated paste	14.6	meq/L	0.20		5		07/01/10 17:14	7440-23-5	
ASA 10-3.2 pH									
Analytical Method: ASA 10-3.2									
pH, Saturated Paste	9.0	Std. Units	0.10	0.050	1		06/30/10 10:20		
PSA Percent Sand,Silt,Clay									
Analytical Method: ASA 15-5 mod									
Percent Clay	42.5	% (w/w)	0.10		1		06/29/10 16:28		
Percent Sand	20	% (w/w)	0.10		1		06/29/10 16:28		
Percent Silt	37.5	% (w/w)	0.10		1		06/29/10 16:28		
Texture	clay				1		06/29/10 16:28		
Percent Saturation									
Analytical Method: USDA 27a									
Percent Saturation	154	%			1		06/29/10 00:00		
ASA10-3.3 Specific Conductance									
Analytical Method: ASA 10-3.3									
Sp.Conductance Saturated Paste	1.2	mmhos/cm	0.010	0.0050	1		06/30/10 16:30		