



MAXIMUM PERMISSIBLE EXPLOSIVE WEIGHT CHART*

DISTANCE (ft.)	MAX. WEIGHT (lbs.)
400	53
800	212
1,200	476
1,600	846
2,000	1,322
2,400	1,904
2,800	2,592
3,200	3,385
3,600	4,284
4,000	5,289
4,400	6,400
4,800	7,617
5,200	8,400
5,600	9,422
6,000	10,521

*lbs per 8 ms delay period

2,000 1,000 0 2,000
 FEET
 SCALE 1:24,000 1 IN. EQUALS 2,000 FT.
 IF PRINTED AT 17 IN. X 22 IN.

REV	DATE	DES	CHK	R/W	REVISION DESCRIPTION
09/09/10	JDS		JDS	JRH	COMPLETENESS COMMENT
03/31/10	JDS		JDS	JRH	ORIGINAL PERMIT SUBMITTAL
			CADD	CHK	REVISION DESCRIPTION

PROJECT: SOUTH HEART COAL LLC
 SOUTH HEART LIGNITE MINE
 SOUTH HEART, NORTH DAKOTA

TITLE: **BLASTING DISTANCES MAP**

PROJECT No. 4284-01-400 FILE No. Blasting Distances.dwg

DESIGN JDS 08/20/09 SCALE AS SHOWN REV. 1

CADD JDS 09/03/10

CHECK JRH 09/09/10

REVIEW JRH 09/09/10

NORWEST CORPORATION

Figure 3.3-1

- LEGEND**
- PERMIT BOUNDARY
 - MINE PIT BOUNDARY
 - TOWNSHIP & RANGE
 - SECTION
 - 500 FT BLASTING BUFFER FOR OCCUPIED DWELLINGS
 - WATER PIPELINES
 - GAS PIPELINES
 - FIBER OPTIC LINE/CORRIDOR
 - FIBER OPTIC LINE
 - CONSOLIDATED TELECOM - COPPER LINE
 - ELECTRIC LINES (UNDERGROUND, OVERHEAD LINES)
 - MINE SUPPORT FACILITIES
 - STRUCTURE/BUILDING (BUILDING, HOMESTEAD, SILO, GRANARY, BARN, FARM STRUCTURE, etc.)

REFERENCE

Permit Boundary: Norwest, 11/12/2009.
 Mine Pit Boundary: Norwest, 01/20/2010.
 PLSS: ND HUB, 6/20/2006.
 Projection: StatePlane, North Dakota South, NAD27, Feet.