

**PEABODY COAL COMPANY  
BLACK MESA - KAYENTA MINE  
DRAWING NO. 85305A**

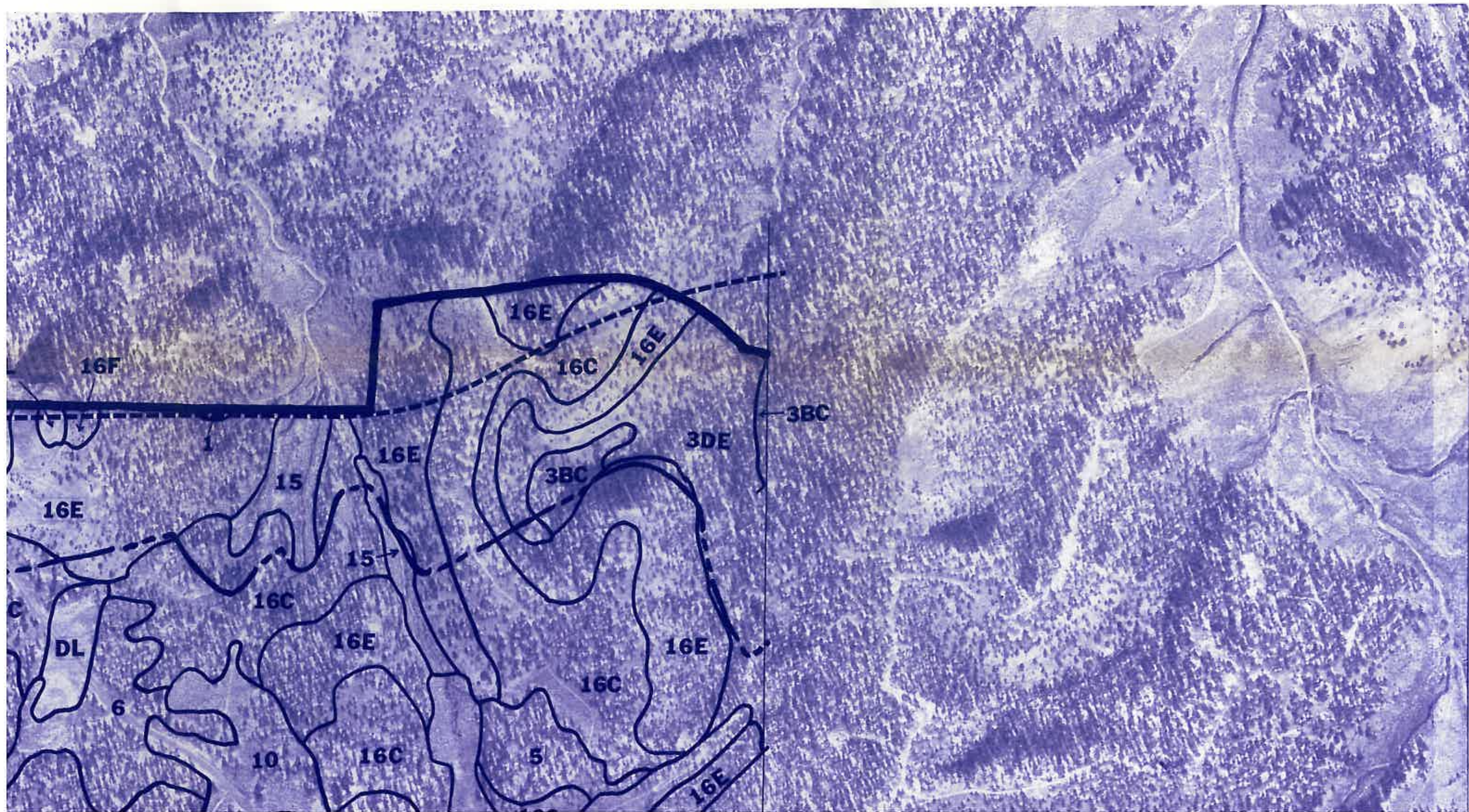
**LEGEND**

**Symbol**

**Name**

|       |                                                                     |
|-------|---------------------------------------------------------------------|
| 1A    | Dulce very channery fine sandy loam, 1 to 4 percent slopes          |
| 1, 1B | Dulce very channery fine sandy loam, 4 to 8 percent slopes          |
| 1C    | Dulce very channery fine sandy loam, 8 to 15 percent slopes         |
| 1D    | Dulce very channery fine sandy loam, 15 to 30 percent slopes        |
| 2B    | Bend very fine sandy loam, 1 to 8 percent slopes                    |
| 3A    | Zyme - Dulce complex, 2 to 8 percent slopes                         |
| 3BC   | Zyme - Dulce complex, 2 to 15 percent slopes                        |
| 3C    | Zyme - Dulce complex, 6 to 15 percent slopes                        |
| 3D    | Zyme - Dulce complex, 15 to 30 percent slopes                       |
| 3DE   | Zyme - Dulce complex, 15 to 50 percent slopes                       |
| 3E    | Zyme - Dulce complex, 30 to 50 percent slopes                       |
| 3F    | Ustic Torriorthents - Rock outcrop complex, 50 to 80 percent slopes |
| 4A    | Zyme very channery loam, 1 to 4 percent slopes                      |
| 4B    | Zyme very channery loam, 4 to 8 percent slopes                      |

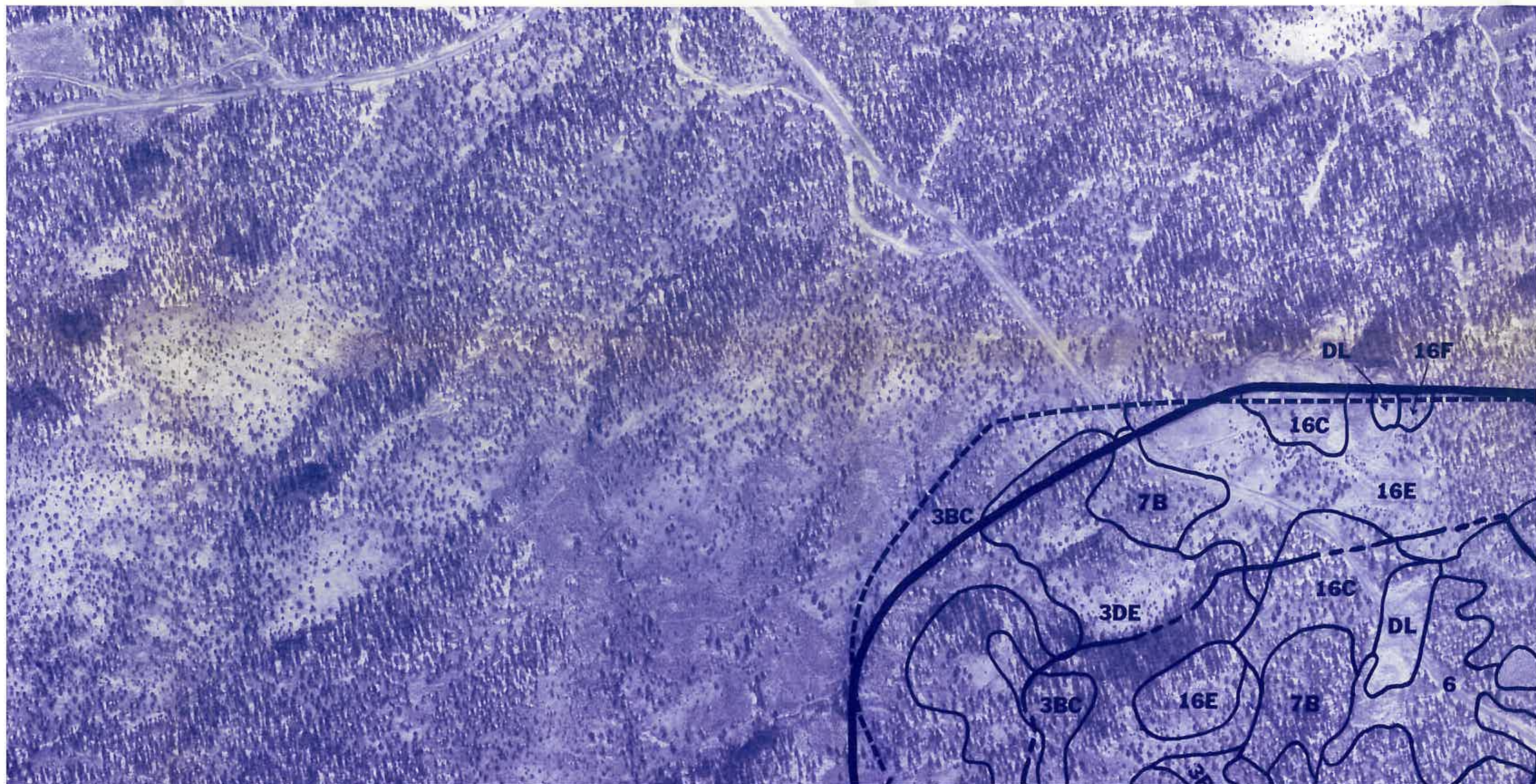




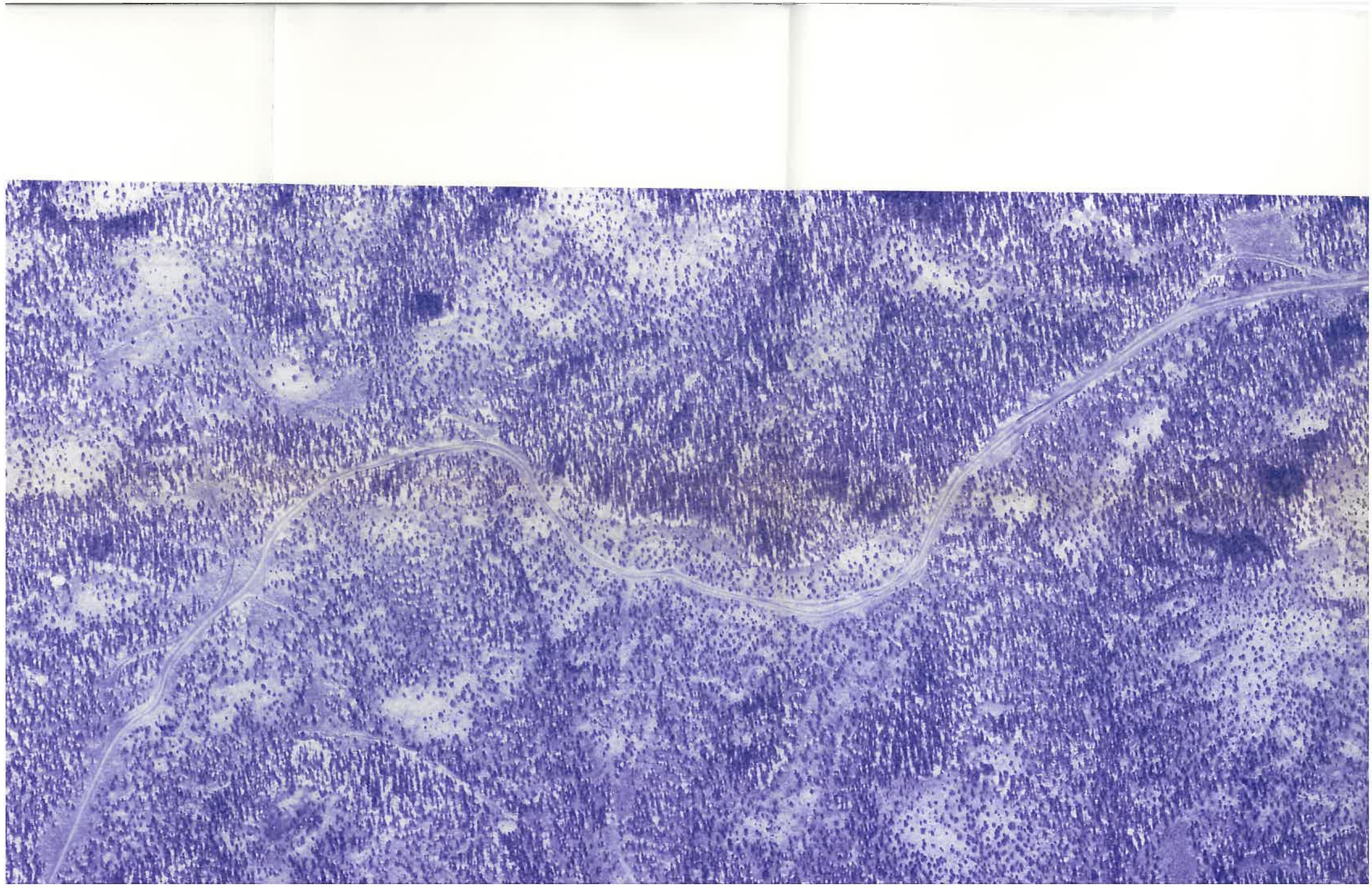
**Sym**

- 1A
- 1, 1
- 1C
- 1D
- 2B
- 3A
- 3B
- 3C
- 3D
- 3E
- 3F
- 4A
- 4B
- 4C

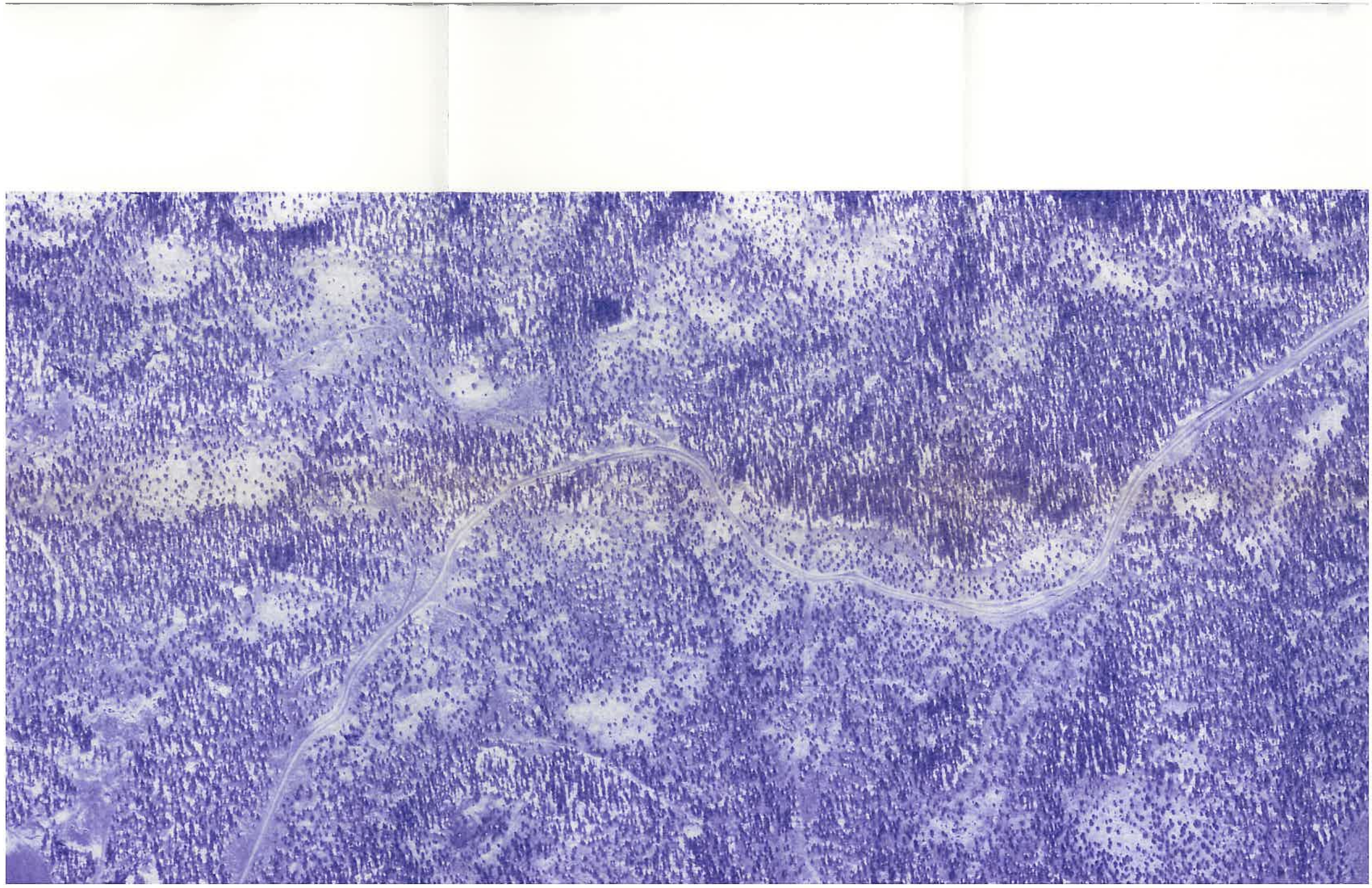




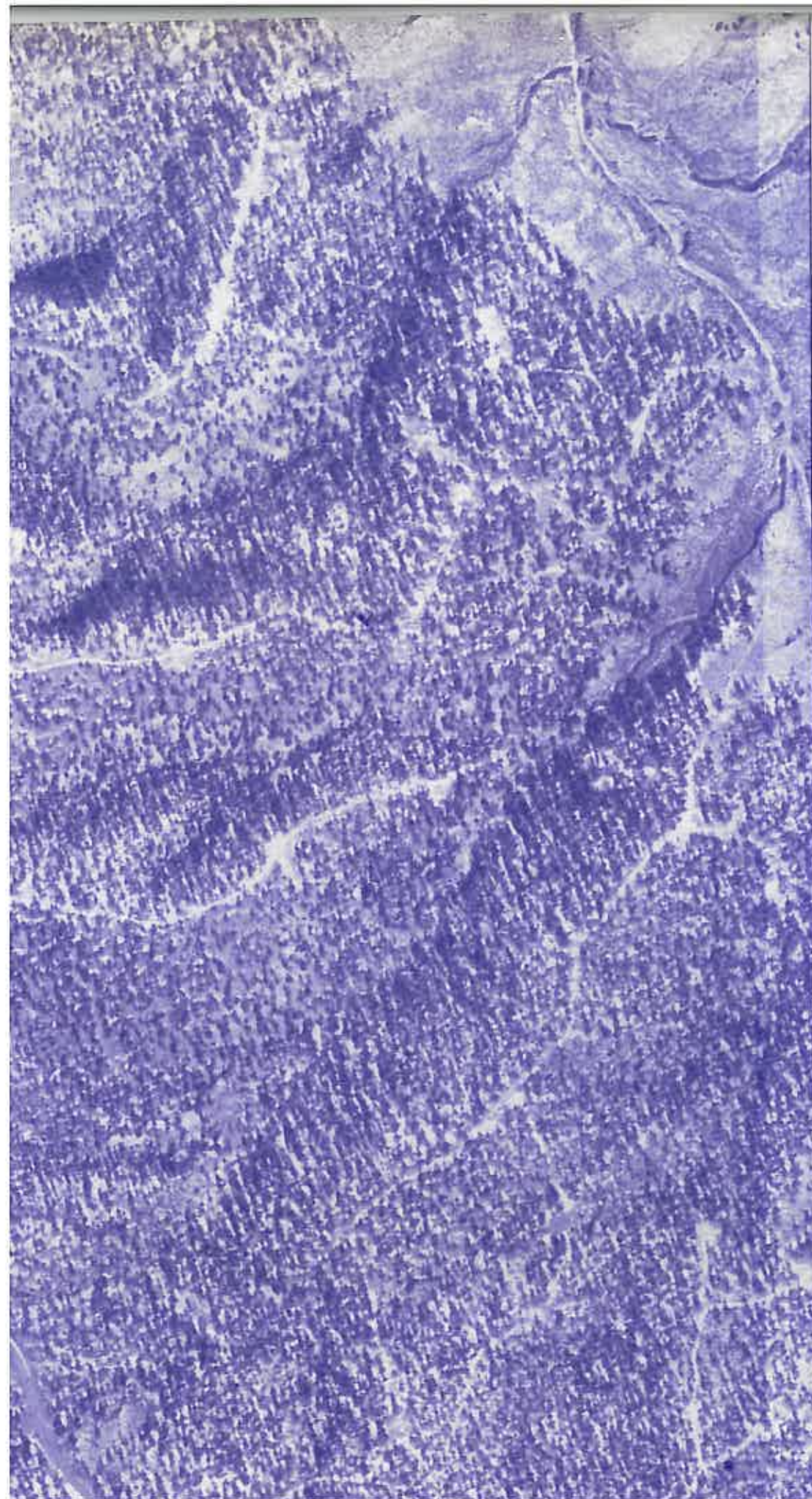






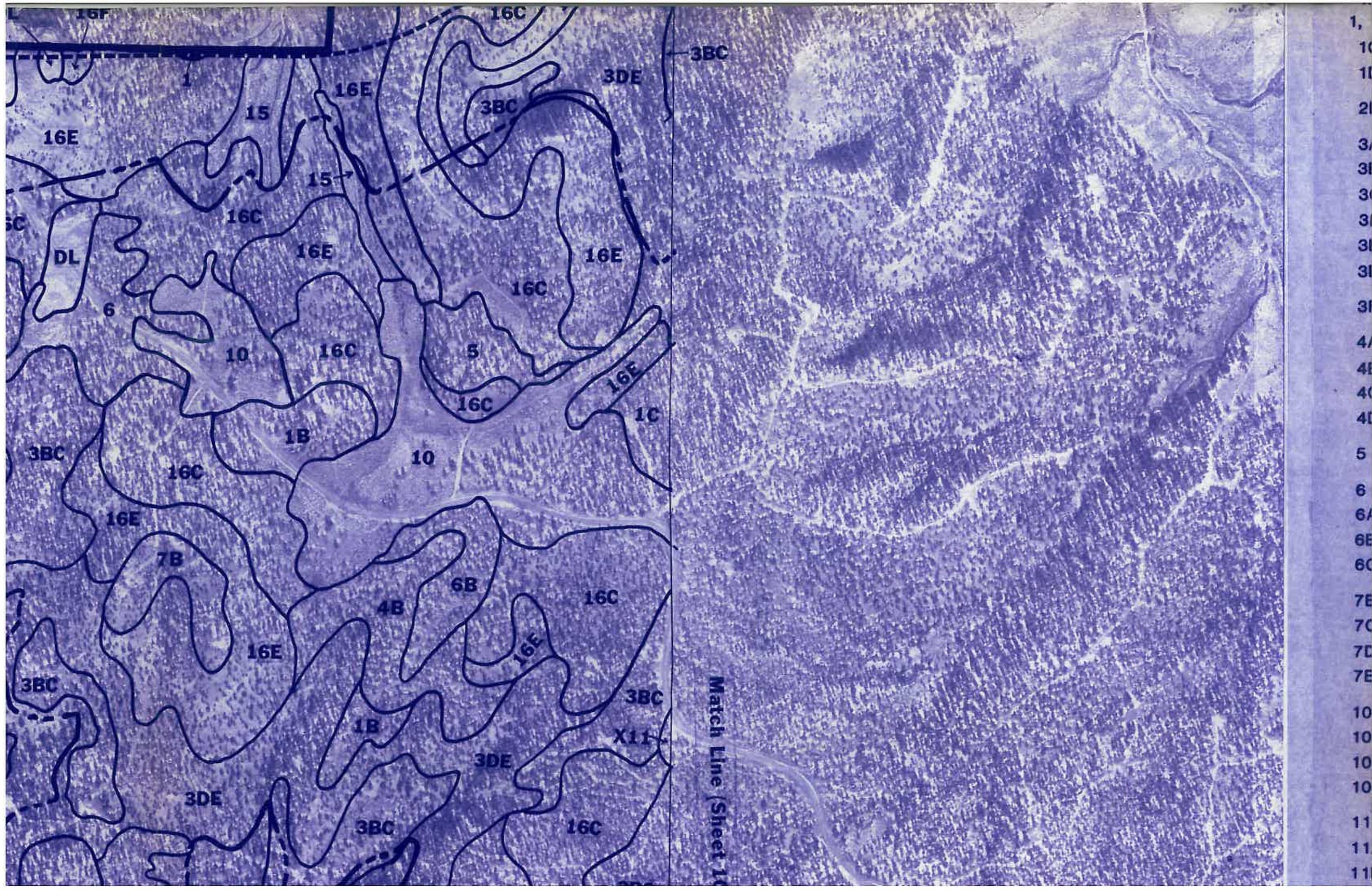




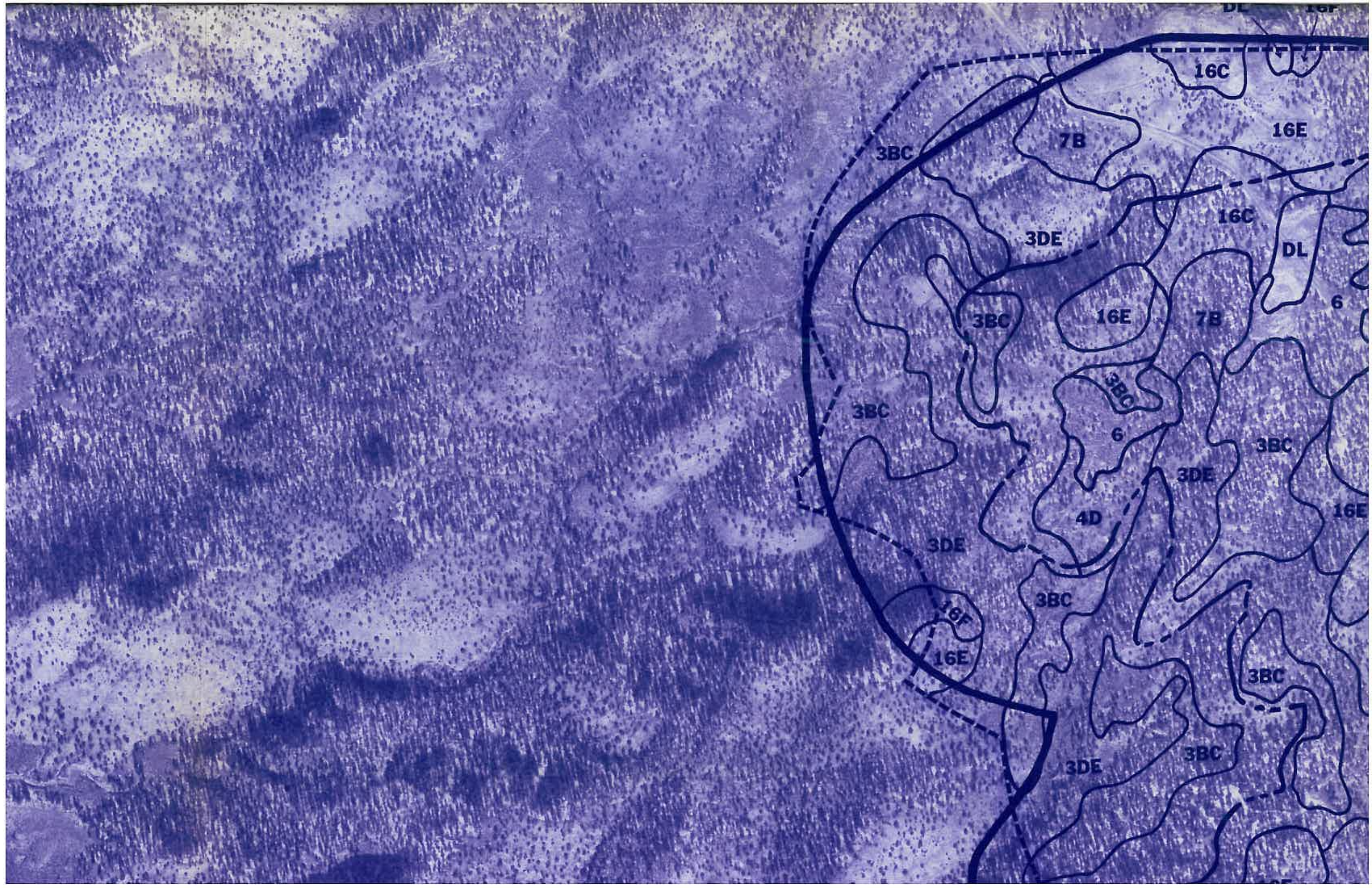


|       |                                                                         |
|-------|-------------------------------------------------------------------------|
| 1, 1B | Dulce very channery fine sandy loam, 1 to 4 percent slopes              |
| 1C    | Dulce very channery fine sandy loam, 8 to 15 percent slopes             |
| 1D    | Dulce very channery fine sandy loam, 15 to 30 percent slopes            |
| 2B    | Bald very fine sandy loam, 1 to 8 percent slopes                        |
| 3A    | Zyme - Dulce complex, 2 to 8 percent slopes                             |
| 3BC   | Zyme - Dulce complex, 2 to 15 percent slopes                            |
| 3C    | Zyme - Dulce complex, 6 to 15 percent slopes                            |
| 3D    | Zyme - Dulce complex, 15 to 30 percent slopes                           |
| 3DE   | Zyme - Dulce complex, 15 to 50 percent slopes                           |
| 3E    | Zyme - Dulce complex, 30 to 50 percent slopes                           |
| 3F    | Ustic Torriorthents - Rock outcrop complex, 50 to 80 percent slopes     |
| 4A    | Zyme very channery loam, 1 to 4 percent slopes                          |
| 4B    | Zyme very channery loam, 4 to 8 percent slopes                          |
| 4C    | Zyme very channery loam, 8 to 15 percent slopes                         |
| 4D    | Zyme very channery loam, 15 to 30 percent slopes                        |
| 5     | Pulpit very fine sandy loam, 2 to 8 percent slopes                      |
| 6     | Sharps very fine sandy loam, 2 to 8 percent slopes                      |
| 6A    | Sharps very fine sandy loam, 1 to 4 percent slopes                      |
| 6B    | Sharps very fine sandy loam, 4 to 8 percent slopes                      |
| 6C    | Sharps very fine sandy loam, 8 to 15 percent slopes                     |
| 7B    | Travessilla - Zyme - Dulce complex, 2 to 6 percent slopes               |
| 7C    | Zyme - Travessilla - Rock outcrop complex, 6 to 15 percent slopes       |
| 7D    | Zyme - Travessilla - Rock outcrop complex, 15 to 30 percent slopes      |
| 7E    | Zyme - Travessilla - Rock outcrop complex, 30 to 50 percent slopes      |
| 10    | Cahona very fine sandy loam, bedrock substratum, 2 to 8 percent slopes  |
| 10A   | Cahona very fine sandy loam, bedrock substratum, 1 to 4 percent slopes  |
| 10B   | Cahona very fine sandy loam, bedrock substratum, 4 to 8 percent slopes  |
| 10C   | Cahona very fine sandy loam, bedrock substratum, 8 to 15 percent slopes |
| 11    | Cahona very fine sandy loam, 1 to 6 percent slopes                      |
| 11A   | Cahona very fine sandy loam, 1 to 4 percent slopes                      |
| 11B   | Cahona very fine sandy loam, 4 to 8 percent slopes                      |

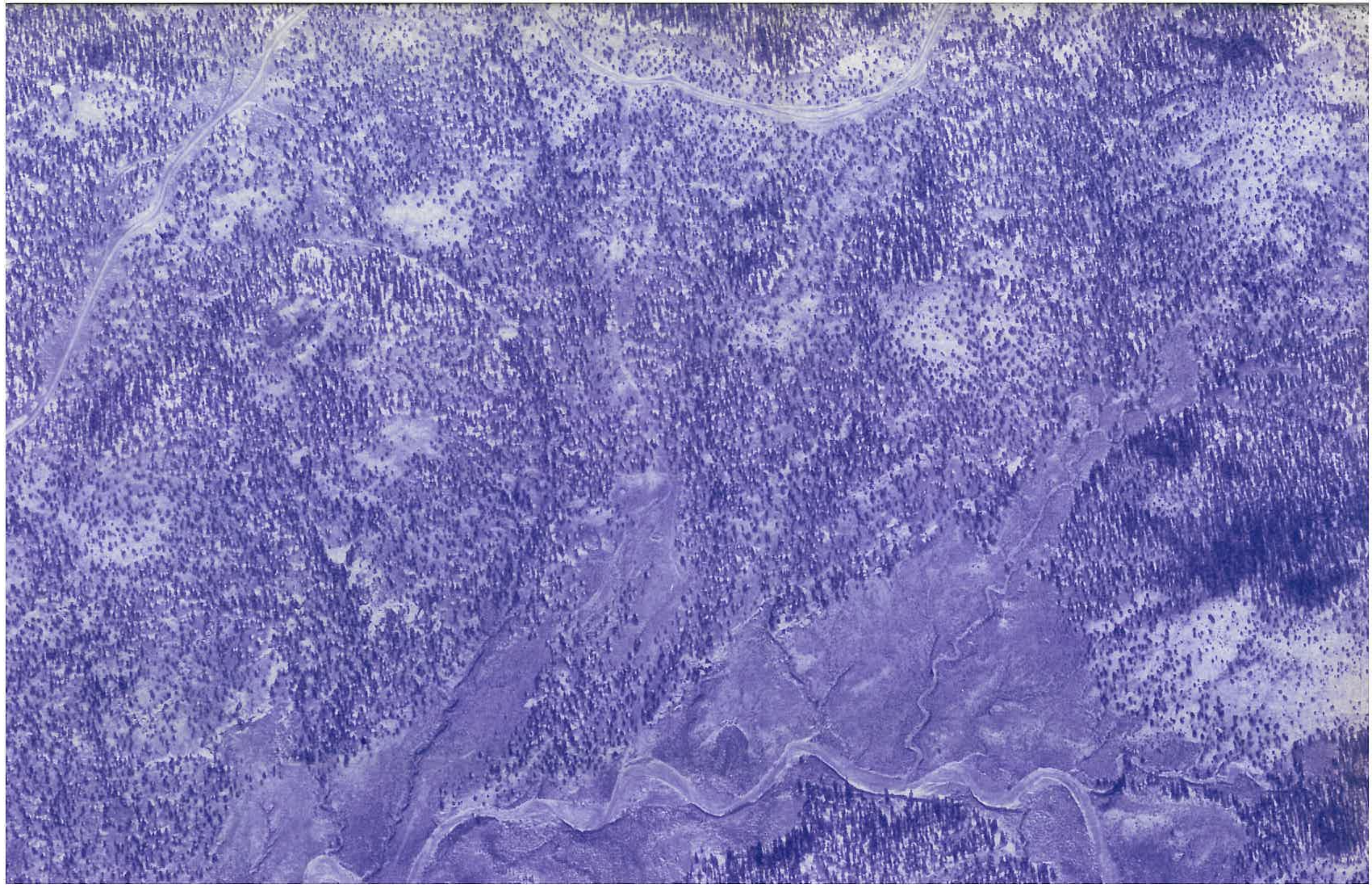




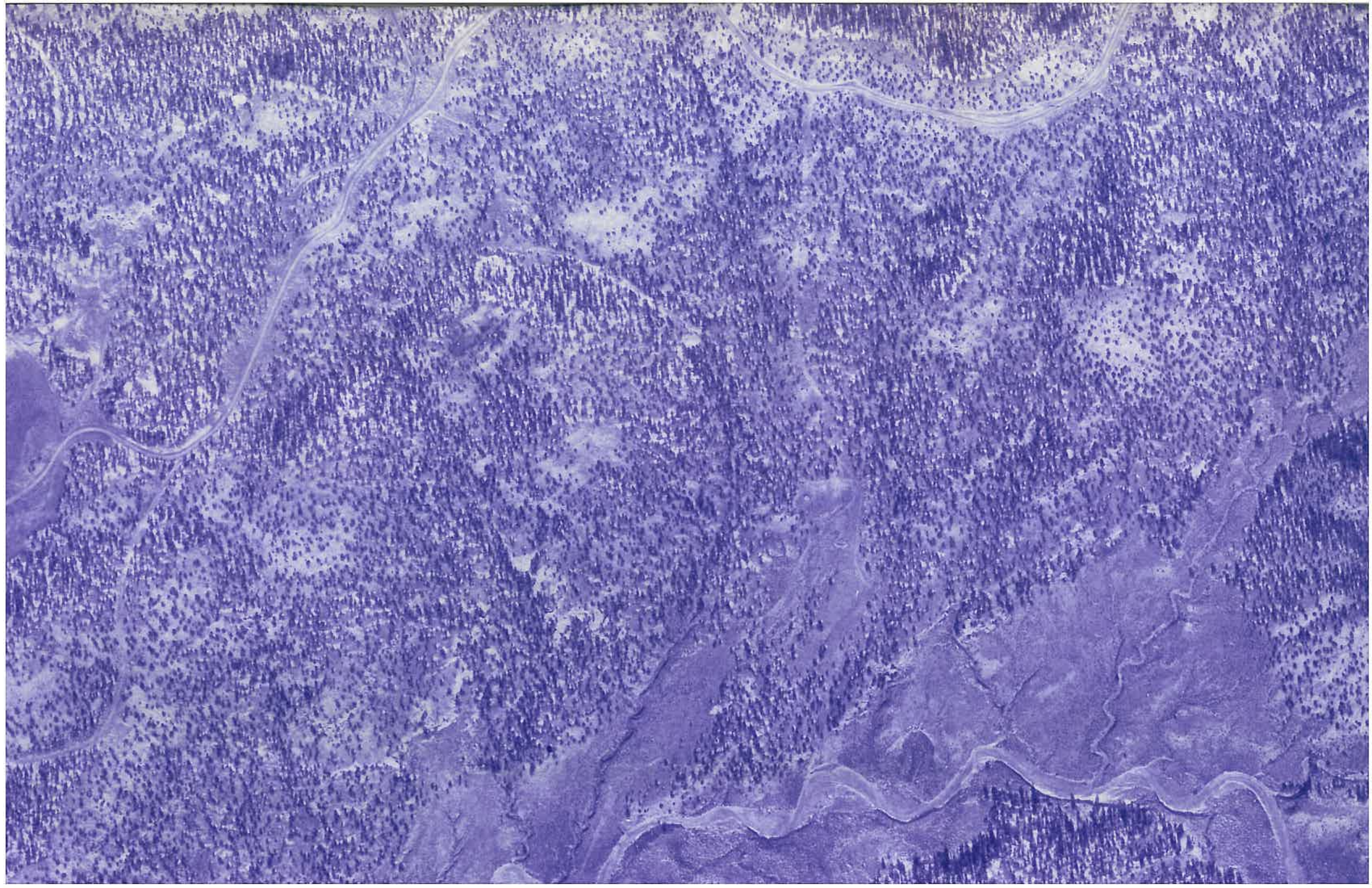




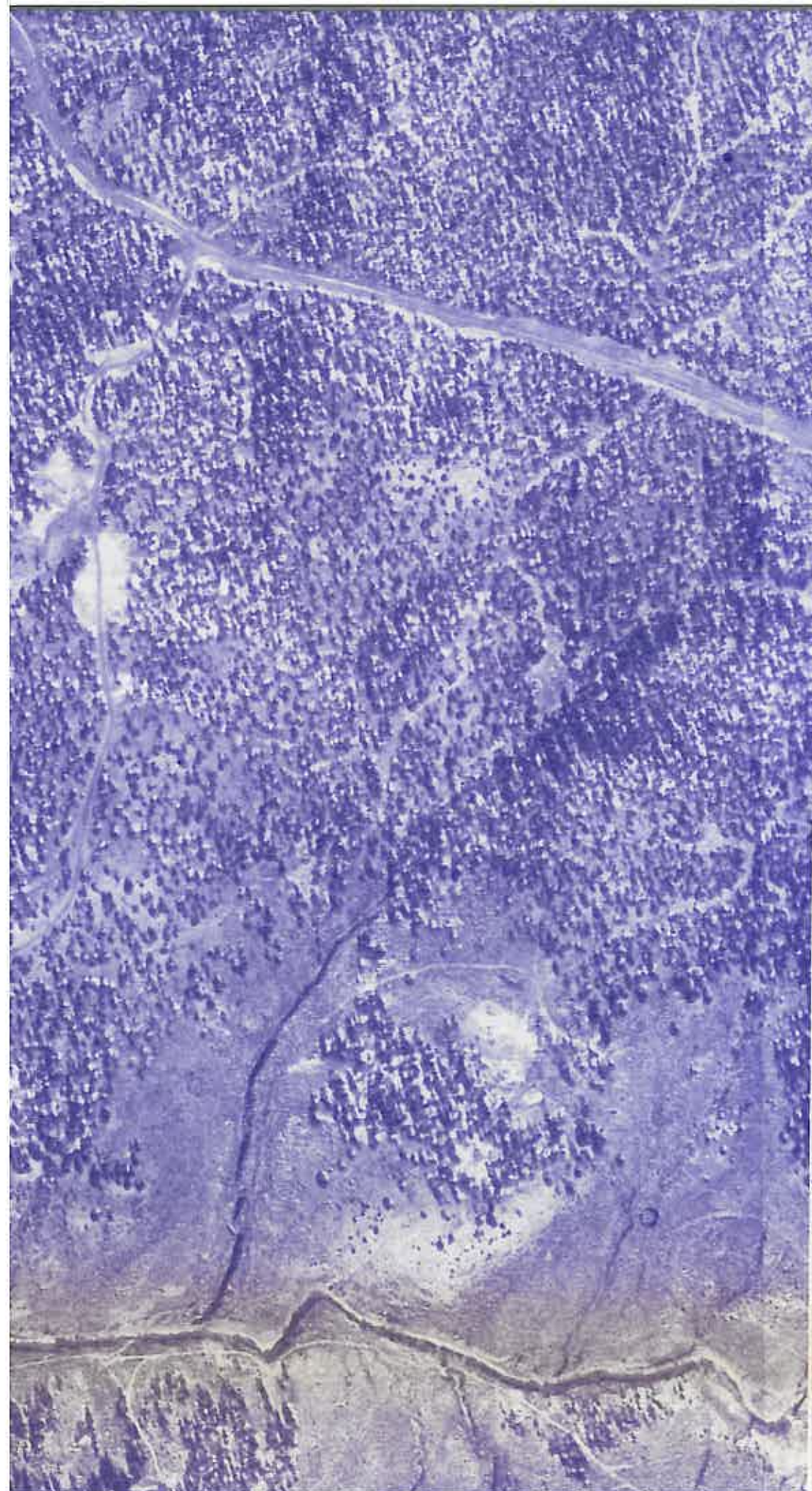












|         |                                                                                    |
|---------|------------------------------------------------------------------------------------|
| 10C     | Cahona very fine sandy loam, bedrock substratum, 8 to 15 percent slopes            |
| 11      | Cahona very fine sandy loam, 1 to 6 percent slopes                                 |
| 11A     | Cahona very fine sandy loam, 1 to 4 percent slopes                                 |
| 11B     | Cahona very fine sandy loam, 4 to 8 percent slopes                                 |
| 11C     | Cahona very fine sandy loam, 8 to 15 percent slopes                                |
| G11B    | Cahona very fine sandy loam, gravelly substratum, 2 to 8 percent slopes            |
| X11     | Cahona - Cahona, bedrock substratum, very fine sandy loams, 2 to 10 percent slopes |
| X11A    | Cahona - Cahona, bedrock substratum, very fine sandy loams, 1 to 4 percent slopes  |
| X11B    | Cahona - Cahona, bedrock substratum, very fine sandy loams, 4 to 8 percent slopes  |
| X11C    | Cahona - Cahona, bedrock substratum, very fine sandy loams, 8 to 15 percent slopes |
| 12      | Begay loam, 2 to 10 percent slopes                                                 |
| 12A     | Begay loam, 1 to 4 percent slopes                                                  |
| 12B     | Begay loam, 4 to 8 percent slopes                                                  |
| 12C     | Begay loam, 8 to 15 percent slopes                                                 |
| 13, 13A | San Mateo loam, 0 to 3 percent slopes                                              |
| 14A     | Oelop very fine sandy loam, 1 to 4 percent slopes                                  |
| 14B     | Oelop very fine sandy loam, 4 to 8 percent slopes                                  |
| 15, 15A | Las Lucas sandy clay loam, 2 to 6 percent slopes                                   |
| 16C     | Soil A - Soil B extremely channery very fine sandy loams, 4 to 15 percent slopes   |
| 16E     | Soil A - Soil B extremely channery very fine sandy loams, 15 to 50 percent slopes  |
| 16F     | Soil A - Soil B extremely channery very fine sandy loams, 50 to 70 percent slopes  |
| 17C     | Chilton gravelly fine sandy loam, 6 to 15 percent slopes                           |
| DL      | Disturbed land                                                                     |
| TS      | Topsoil stockpile                                                                  |
| RW      | Riverwash                                                                          |
| W       | Water                                                                              |

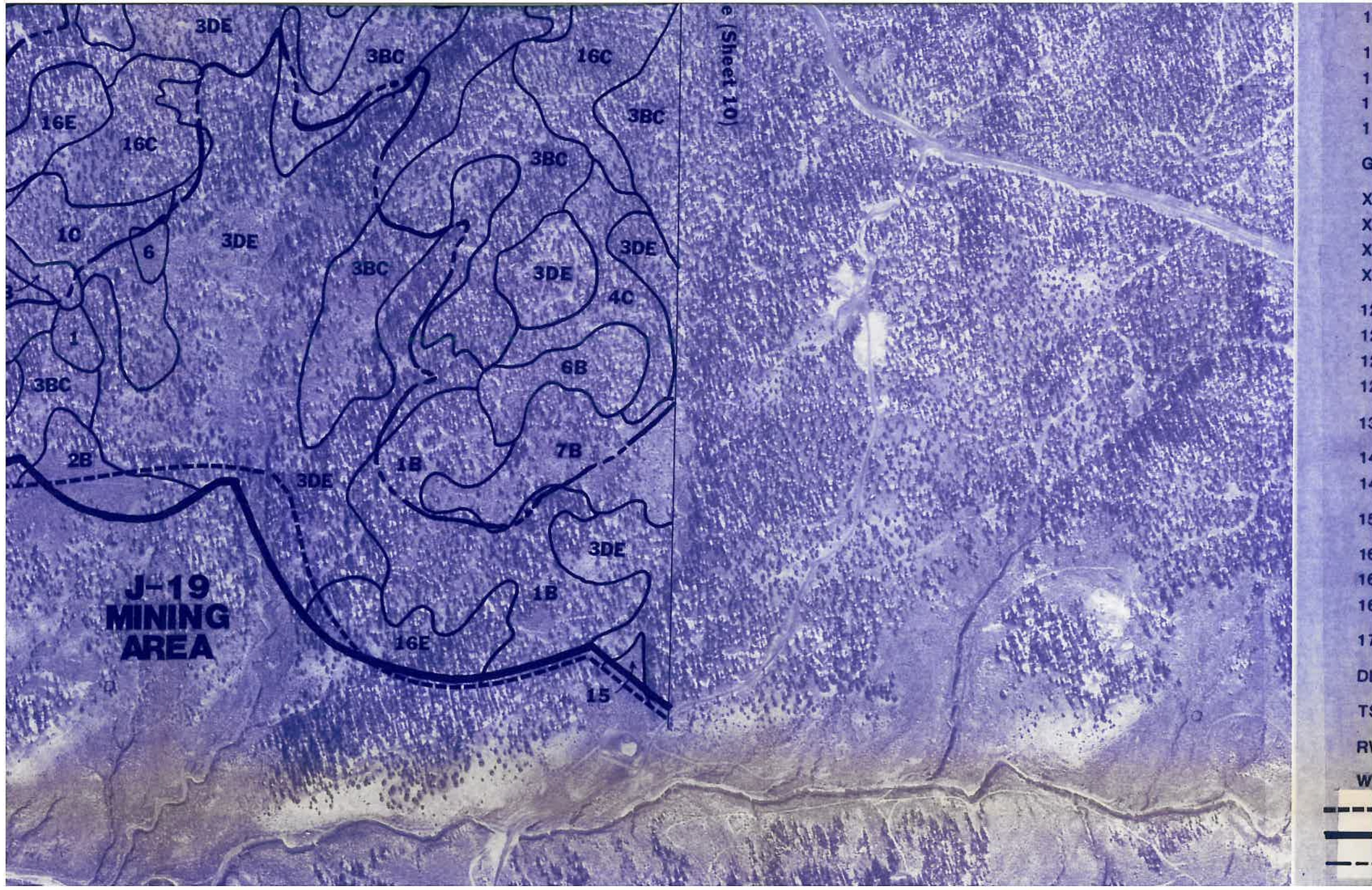


Disturbance boundary  
Survey area boundary  
Crop line

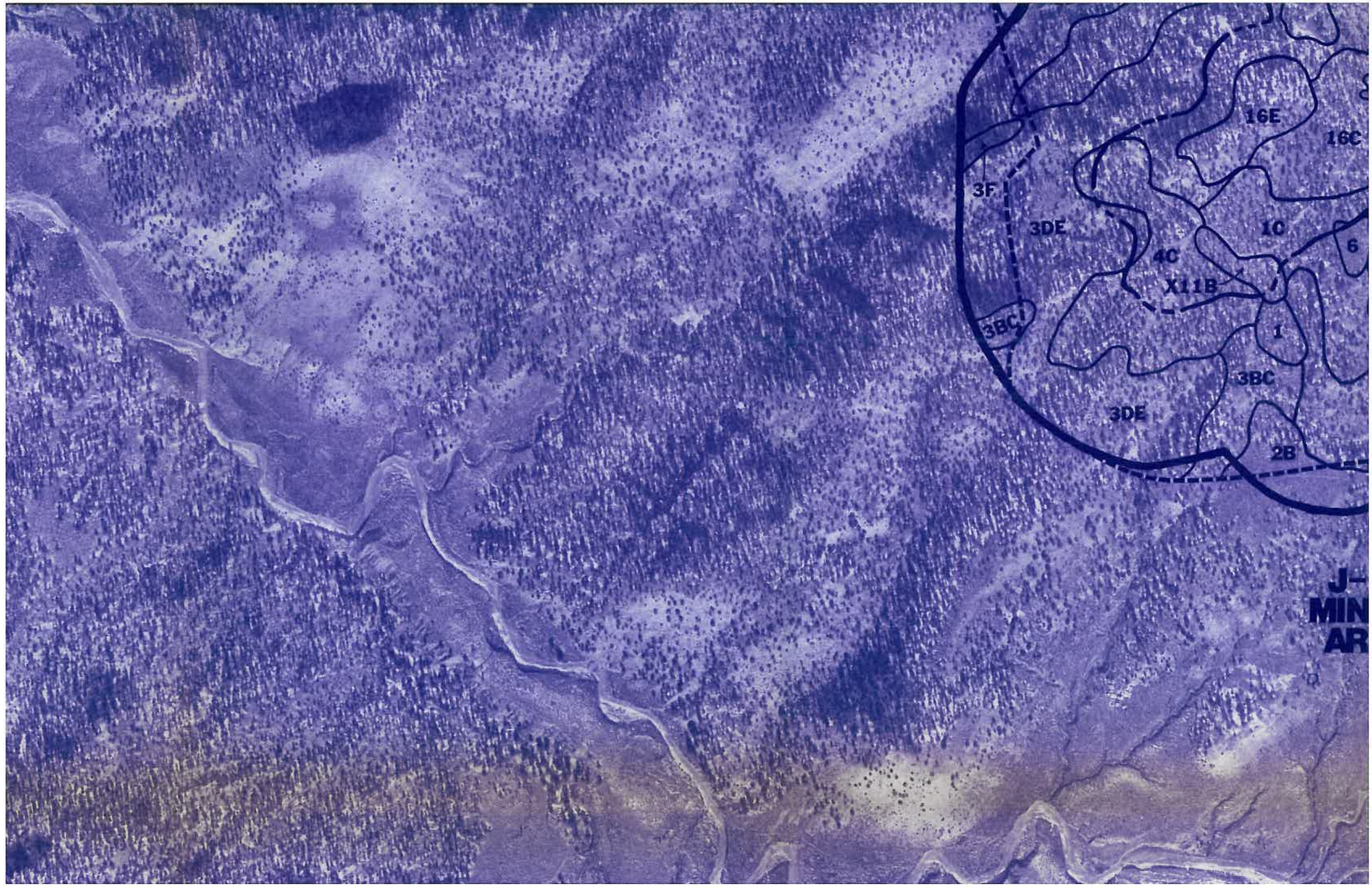


Soil sampling site  
Mapping unit delineation  
Moist/dry phase demarcation



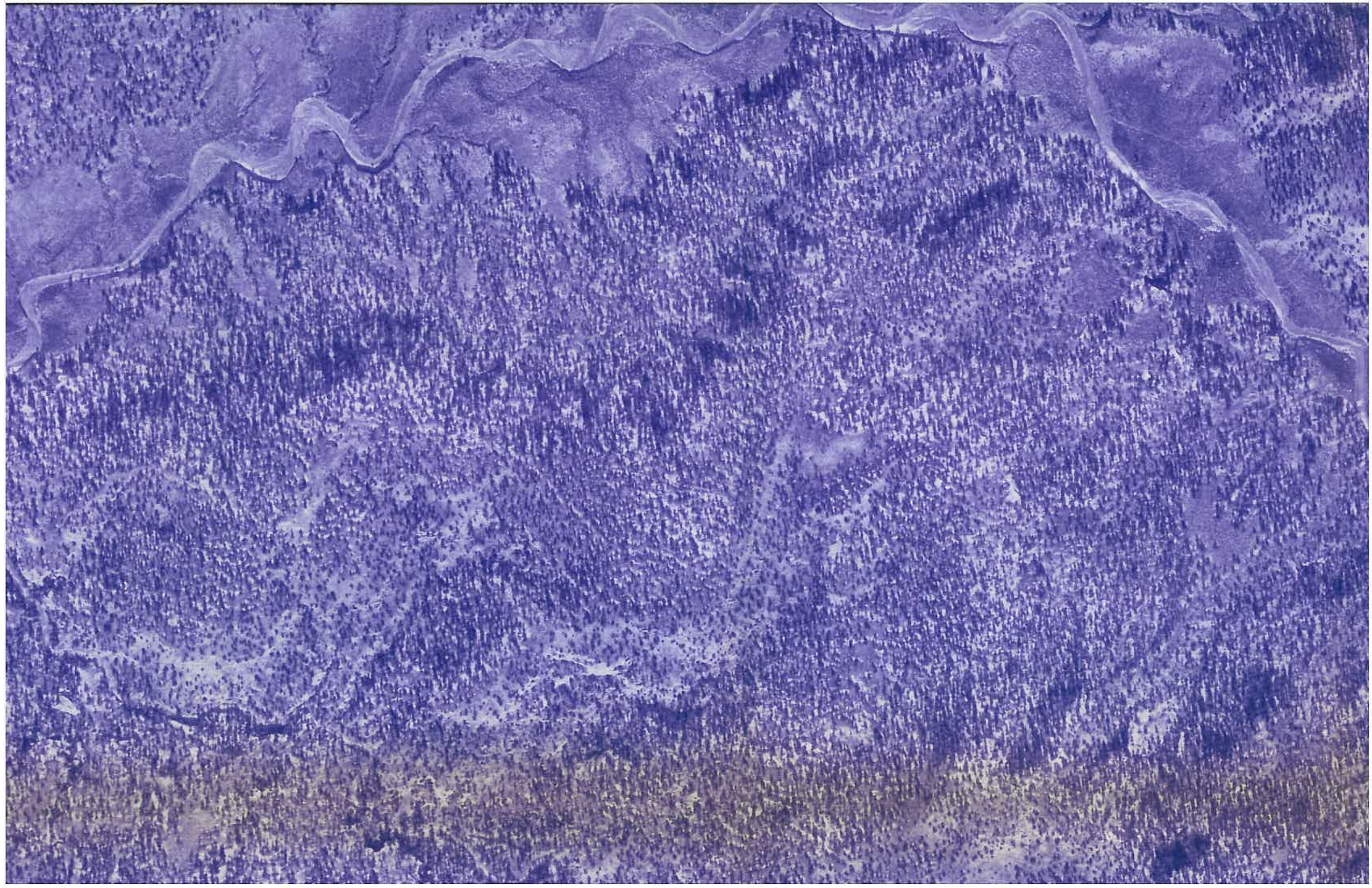




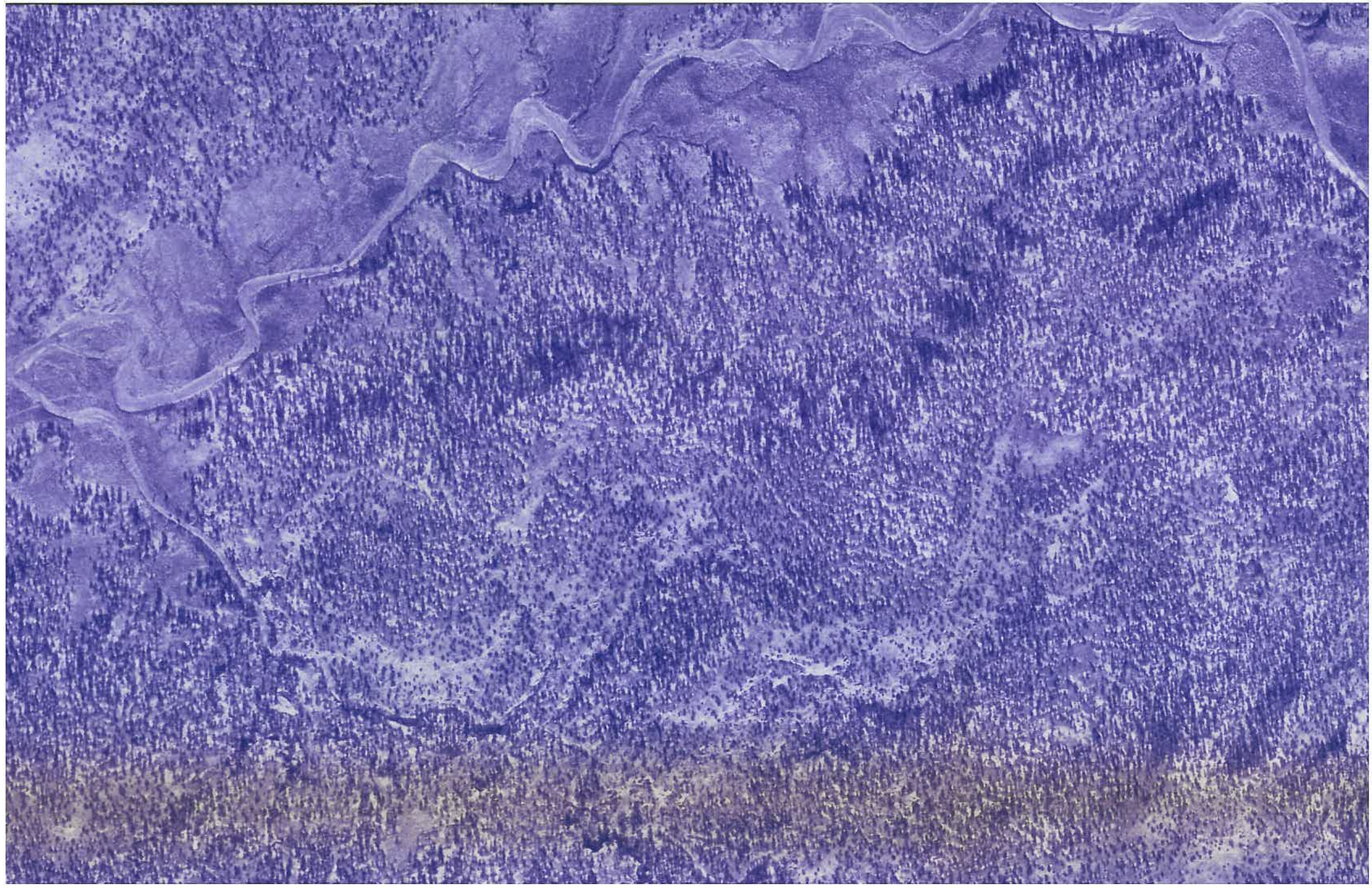


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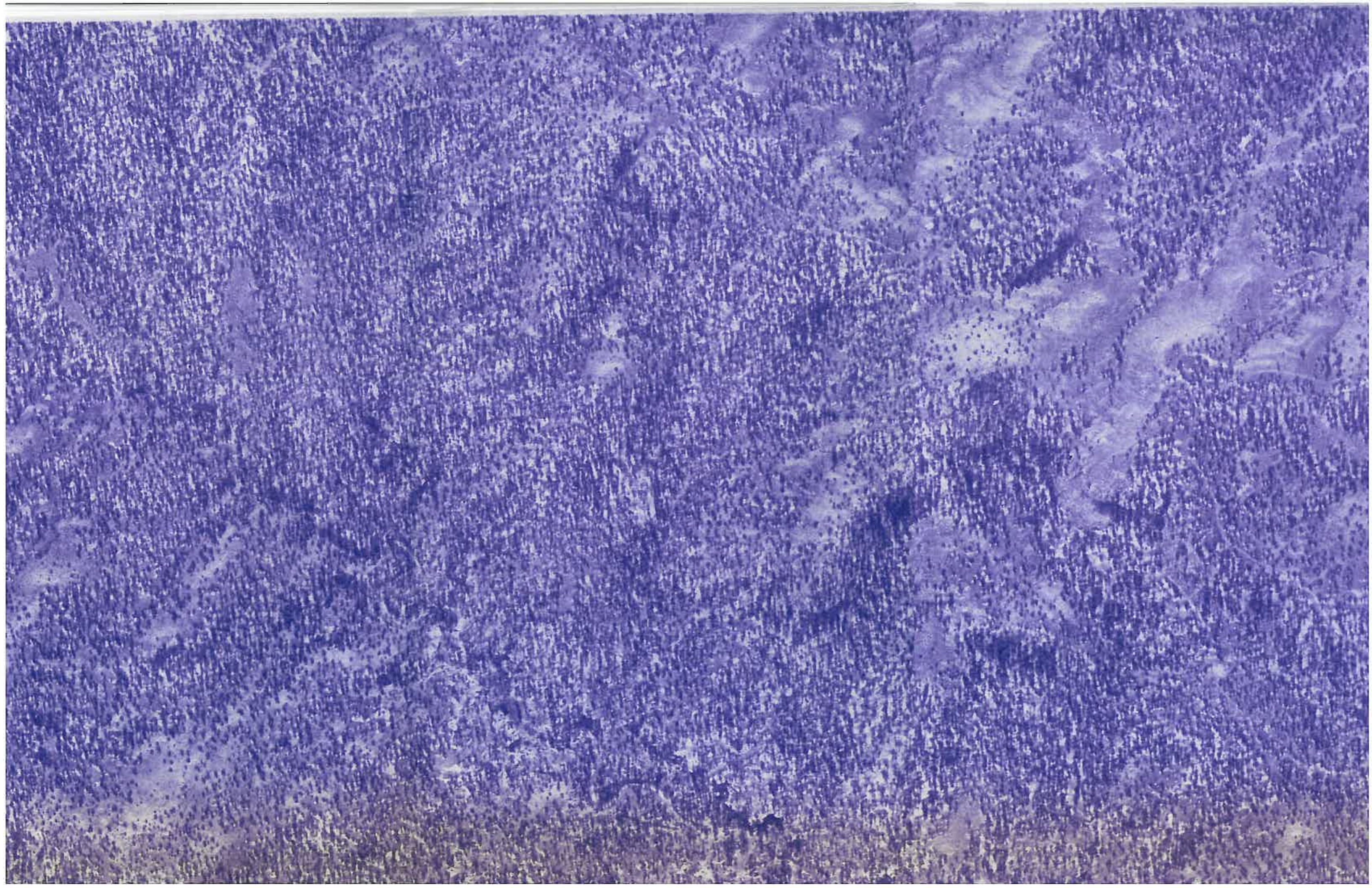




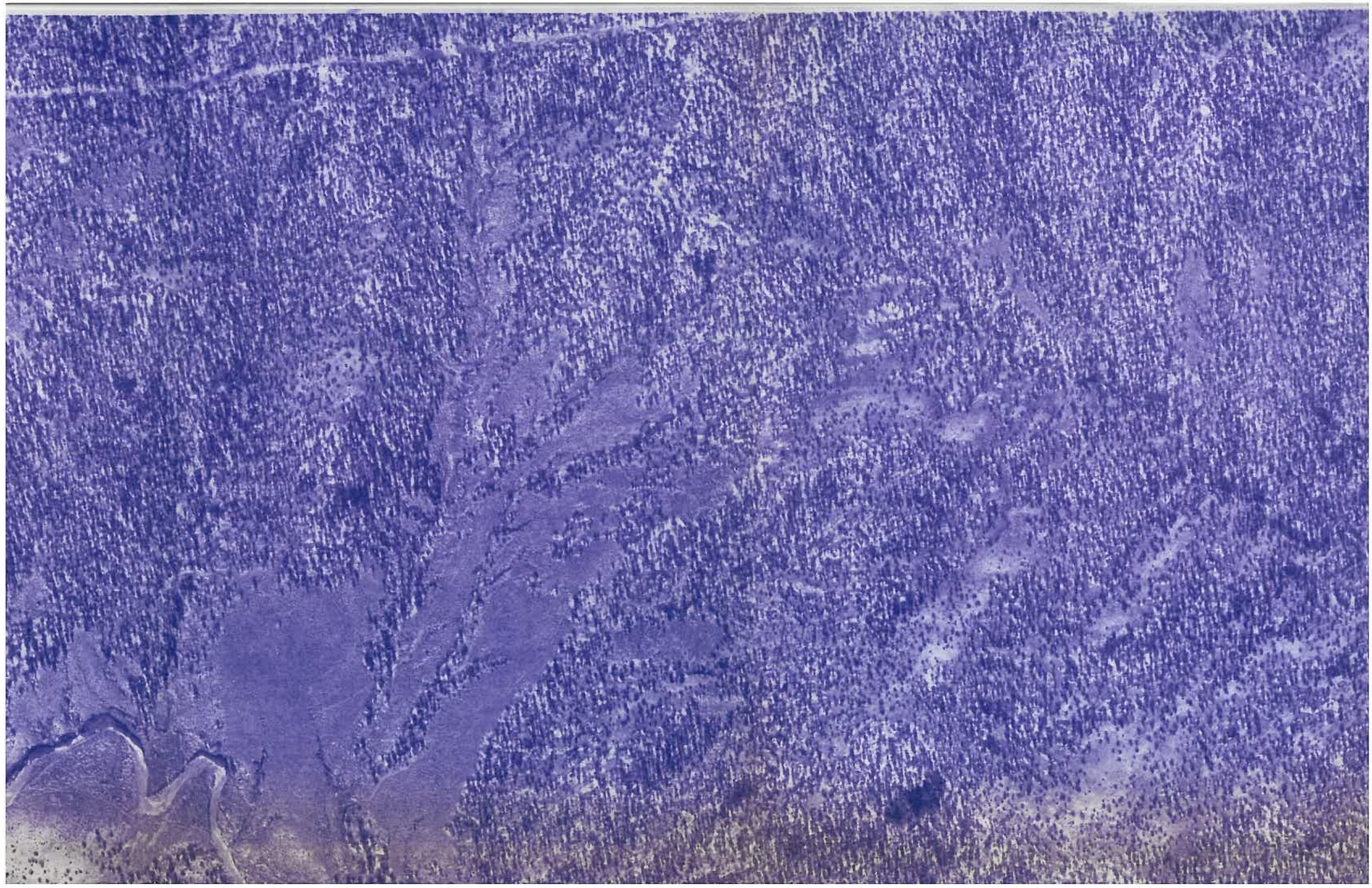




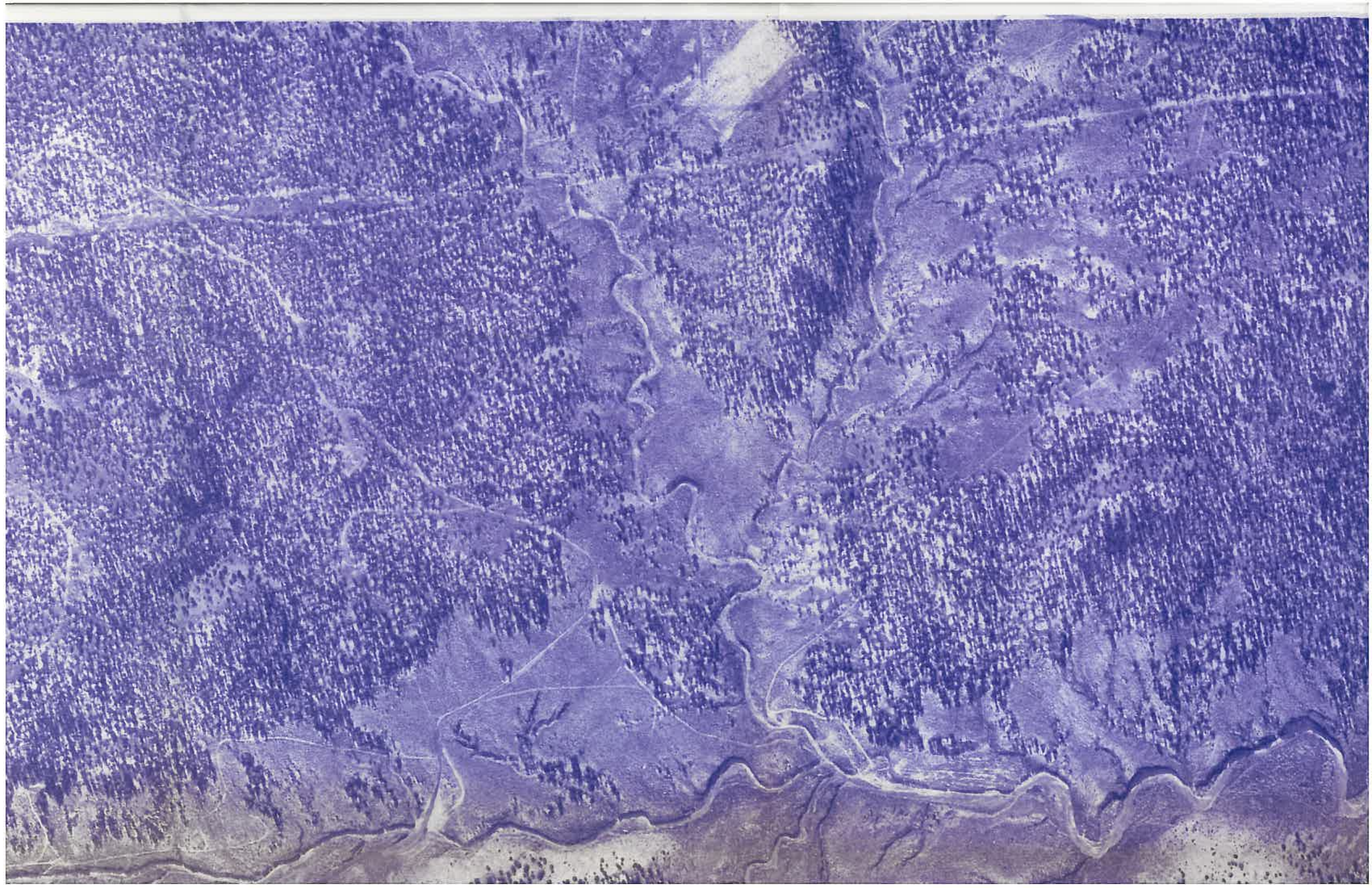




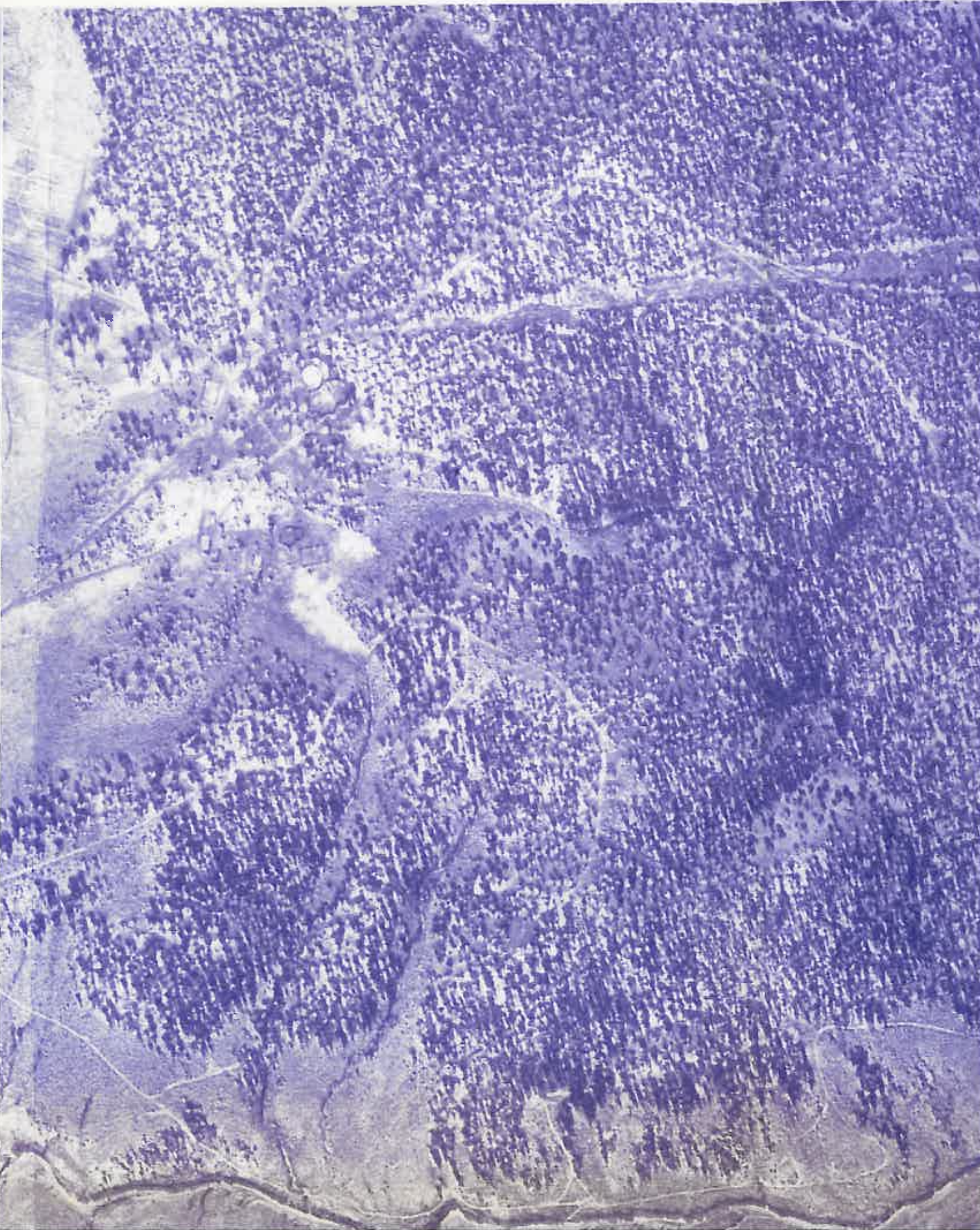










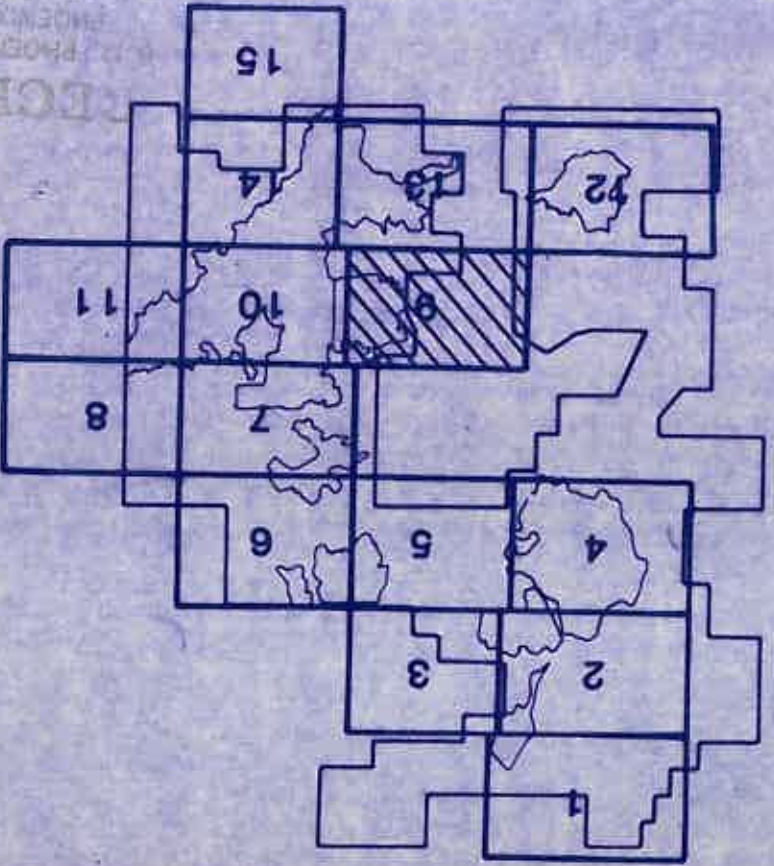


Disturbance boundary  
Survey area boundary

Crop line



Soil sampling  
Mapping unit  
Moist/dry pha



PEABODY COAL COMPANY  
BLACK MESA-KAYENTA MINE  
P.O. BOX 625  
KAYENTA, ARIZONA 86033

## ORDER 1 AND 2 SOIL SURVEY

CRS No  
85305A  
SHEET No  
9 of 15

DRAWN BY  
PJN

DATE

NOV. 85

SCALE

1"=400'

C.I.

N/A

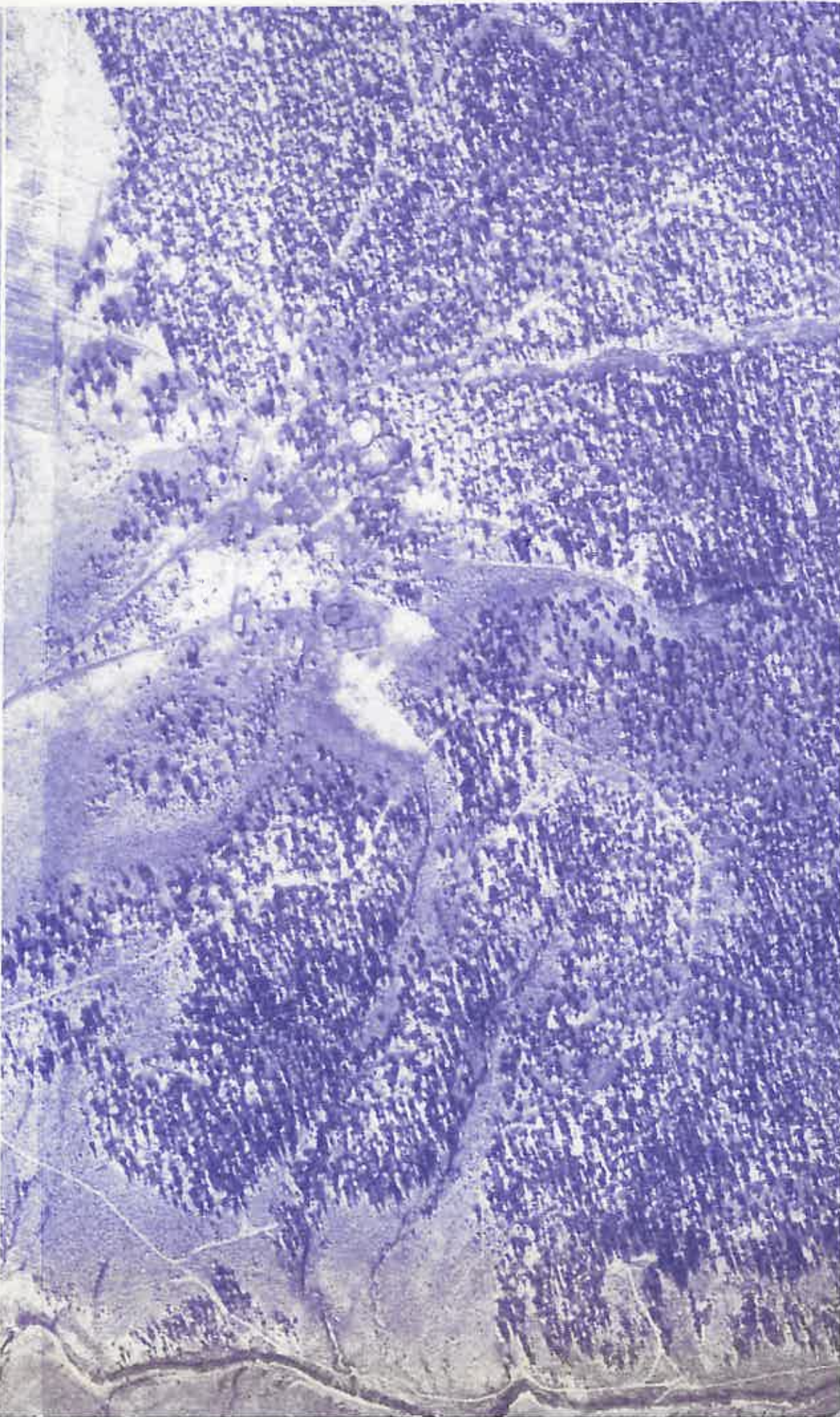
Drawn  
BY  
BY  
DATE

REVISION DESCRIPTION

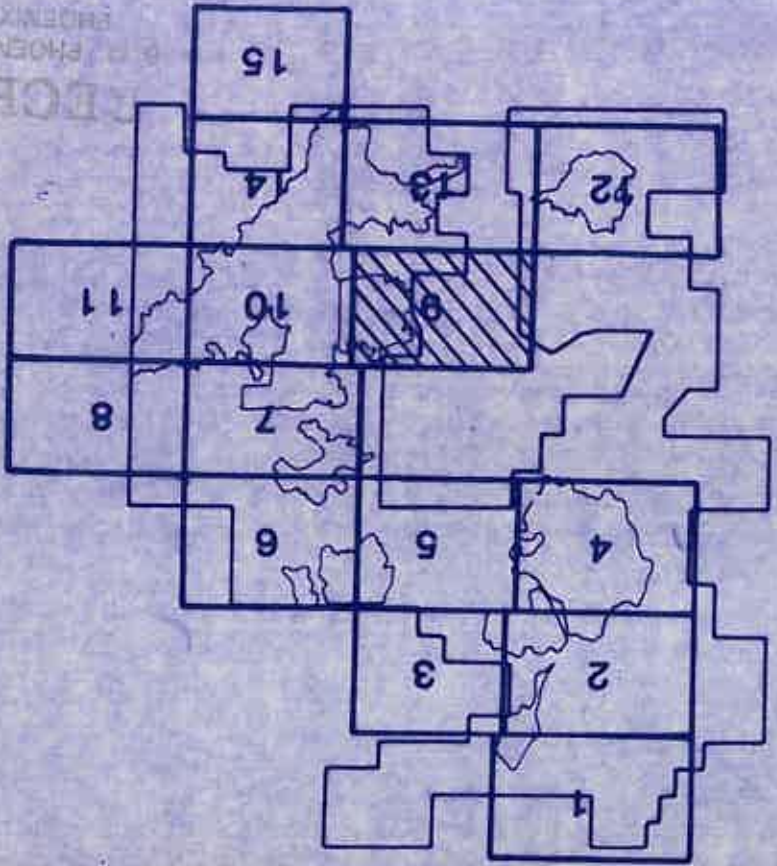
Prepared by

INTERMOUNTAIN SOIL, INC.





|                                                                                           |  |                                                 |  |                                                                                                                                  |  |
|-------------------------------------------------------------------------------------------|--|-------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------|--|
| PEABODY COAL COMPANY<br>BLACK MESA-KAYENTA MINE<br>P.O. BOX 625<br>KAYENTA, ARIZONA 86033 |  | ORDER 1 AND 2<br>SOIL SURVEY                    |  | DRS No<br>85305A<br>SHEET No<br>9 of 15                                                                                          |  |
| DRAWN BY<br>PJN<br>DATE<br>NOV. 85<br>SCALE<br>1"=400'<br>C.I.<br>N/A                     |  | DRAWN BY<br>DATE<br>REVISION DESCRIPTION<br>N/A |  | Prepared by<br> INERT MOUNTING & SUPPLY, INC. |  |



|                             |      |
|-----------------------------|------|
| Distance boundary           | ---  |
| Survey area boundary        | —    |
| Crop line                   | ---- |
| Moist/dry phase demarcation |      |
| Mapping unit delineation    | ○    |
| Soil sampling site          | ●    |