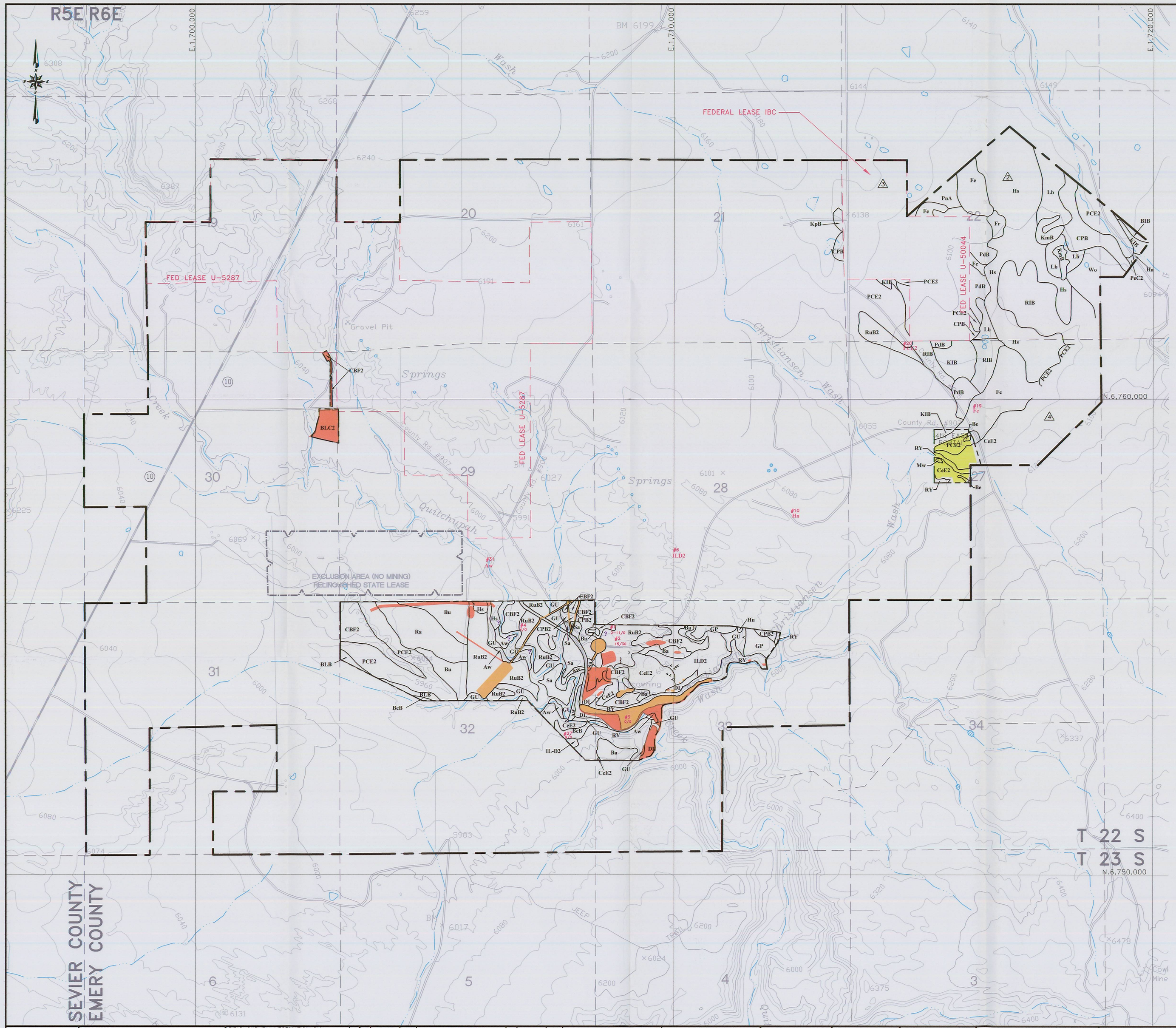


LEGEND

- PERMIT AREA BOUNDARY
- ADJACENT AREA FOR NON-WATER RESOURCES. FOR THE AREA OF HYDROLOGIC EVALUATION, SEE PLATE VI-4
- SOIL TYPE BOUNDARY
- Aw — SOIL MAPPING UNIT
- SURFACE AFFECTED PRIOR TO 8/3/77
- SURFACE AFFECTED 8/3/77 TO 7/1/2002
- SURFACE AFFECTED POST 7/1/2002
- #14 — CORE SAMPLE SITE
- 6 / – — TOPSOIL DEPTH
- – / 22 — SUITABLE TOPSOIL DEPTH / MATERIAL BORROW DEPTH
- ? — SALINE/SODIC SPOT
- GULLIED
- ROCK OUTCROP

## SURFACE OPERATIONS AREA

### SOIL MAPPING UNITS

| MAP SYMBOL | ACRES | MAPPING UNIT |
|---|---|---|
| Aw | 9.0 | ALLUVIAL LAND, 0 TO 3% SLOPES |
| Ba | 13.5 | BADLAND |
| BeB | 24.0 | BEEBE FINE SANDY LOAM, 0 TO 3% SLOPES |
| Be | 0.6 | BEGAY |
| BLB | 4.1 | BILLINGS SILTY CLAY LOAM, 1 TO 3% SLOPES |
| BLC2 | 4.5 | BILLINGS SILTY CLAY LOAM, 1 TO 6% SLOPES |
| Bu | 6.8 | BUNDERSON |
| CeE2 | 41.3 | CASTLE VALLEY EXTREMELY STONY VERY FINE SANDY LOAM 0 TO 20% SLOPES |
| CBF2 | 27.1 | CHIPETA–BADLAND ASSOCIATION, 3 TO 30% SLOPES, ERODED. |
| CPB2 | 8.6 | CHIPETA–PERSAYO COMPLEX, 1 TO 8% SLOPES, ERODED. |
| DL | 16.1 | DISTURBED LAND, 0 TO 15% SLOPES |
| Fe | 2.5 | FERRON SILT LOAM HEAVY VARIANT, 0 TO 3% SLOPES |
| GP | 9.2 | GP SILT LOAM, 0 TO 12% SLOPES |
| GU | 38.6 | GULLIED LAND, VARIABLE SLOPES |
| Hn | 0.2 | HUNTING CLAY LOAM, 0 TO 5% SLOPES |
| Hs | 3.8 | HUNTING CLAY LOAM, MODERATELY SALINE, 1 TO 3% SLOPES |
| ILD2 | 18.5 | ILDEFONSO LOAM, 3 TO 30% SLOPES |
| KIB | 1.4 | KILLPACK SILTY CLAY LOAM, 0 TO 3% SLOPES |
| Mw | 0.2 | MONTWELL |
| PCE2 | 43.55 | PERSAYO–CHIPETA COMPLEX, 1 TO 20% SLOPES |
| Ra | 27.4 | RAFAEL SILTY CLAY LOAM, 1 TO 3% SLOPES |
| RuB2 | 65.7 | RAVOLA–BUNDERSON COMPLEX, 1 TO 3% SLOPES, ERODED |
| RY | 34.6 | ROCKLAND |
| Sa | 14.5 | SALTAIR SILTY CLAY LOAM, 0 TO 30% SLOPES |
| – | 19.5 | INDUSTRIAL (COAL MINING) |
| – | 5.8 | ROADS |
| TOTAL | 442.45 | |

### AFFECTED ACREAGE

| | ACRES |
|---|---|
| PRIOR TO 8/3/77 | 19.5 |
| 8/3/77 TO 9/1/90 | 31.2 |
| NEAR FUTURE DISTURBANCE | 85.7 |
| POTENTIAL DISTURBANCE | 289.6 |
| POST JULY 1, 2002 | 16.45 |
| TOTAL | 442.45 |

### OTHER MAPPED SOILS NOT IN SURFACE OPERATIONS AREAS

| MAP SYMBOL | MAPPING UNIT |
|---|---|
| CPB | CHIPETA–PERSAYO ASSOCIATION, 1 TO 3% SLOPES |
| Fr | FERRON SILT LOAM |
| Ha | HARDING VERY FINE SANDY LOAM |
| KmB | KILLPACK CLAY LOAM, HIGH WATER TABLE VARIANT, 1 TO 3% SLOPES |
| Lb | LIBBINGS SILTY CLAY LOAM |
| PeC2 | PENOYER LOAM, 2 TO 6% SLOPES, ERODED |
| RIB | RAVOLA LOAM, 1 TO 3% SLOPES |

### SAMPLE

CORE SAMPLE SITES
SURFACE OPERATIONS AREA

| NO. | SOIL SERIES |
|---|---|
| 1 | CHIPETA–BADLANDS ASSOC. |
| 2 | RAVOLA–BUNDERSON COMPLEX |
| 3 | DISTURBED LAND |
| 4 | RAVOLA–BUNDERSON COMPLEX |
| 27 | BEEBE VARIANT |

CORE SAMPLE SITES
NEAR SURFACE OPERATIONS AREA

| SAMPLE NO. | SOIL SERIES |
|---|---|
| 6 | GP SERIES |
| 10 | HUNTING |
| 19 | FERRON VARIANT |
| 20 | PERSAYO–CHIPETA COMPLEX |
| 31 | ALLUVIAL LAND |

RECEIVED
JUL 02 2009
DIV. OF OIL, GAS & MINING

REGISTERED PROFESSIONAL ENGINEER
No. 168246
RICHARD B. WHITE
STATE OF UTAH

EarthFax

BASE MAP:
U.S.G.S. 7.5 MINUTE QUADRANGLES: EMERY WEST 1968, EMERY EAST 1968, PHOTO REVISED 1978, MESA BUTTE 1968, PHOTO REVISED 1978, WALKER FLATE 1968, PHOTO REVISED 1978.

COORDINATE SYSTEM:
STATE PLANE COORDINATES.
UTM ZONE 12
ZONE 4,302–UTAH, CENTRAL – US FEET
VERTICAL DATUM – NAVD'88–US FEET

FIELD SURVEY INFORMATION BY:
J. WALSH & ASSOCIATES 3/81
HARNER–WHITE 7/81
USDA–SCS 10/88

EXTERNAL REFERENCE:
G:\UC982\XREF–CURRENT\XREF–USGSMAP.DWG
G:\UC982\XREF–CURRENT\XREF–PERM–NP.DWG
G:\UC982\XREF–CURRENT\XREF–SECTION.DWG

| REVISIONS NO. | DATE | BY | DESCRIPTION | NO. | DATE | BY | DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 1 | 8/20/01 | TDK | ADD 1.45 AC. SURFACE DISTURBANCE 4TH EAST PORTAL SITE | 4 | 05/09 | JAG | ZZ NORTH, ADJ. VS. PERMIT DEF. 2099 |
| 2 | 6/30/05 | JAG | ADDED FIRST NORTH I.B.C. | | | | |
| 3 | 12/12/06 | JAG | 1ST NORTH FED LEASE IBC, FULL EXTRACTION | | | | |

0' 1000'
SCALE: 1" = 1000'
CONTOUR INTERVAL = 40'

DRAWN BY: SWF
CHECKED BY: JAG
ORIGINAL DATE: 8/95
RE-DRAWN DATE: 12/05
APPROVED BY: JAG
DWG DATA: G:\UC982\03\DWG\PLATE VII-1.DWG

EMERY MINE
EMERY COUNTY, UTAH
PERMIT NO. ACT015/015

**CONSOLIDATION COAL COMPANY**
P.O. BOX 566
SESSER, IL 62884–0566

PLATE VII–1
SOIL MAP

File in:
☑ Confidential
☐ Shelf
☒ Expandable
Refer to Record No. 0037 Date 07/01/2009
In C/015/0013/007/Submittal
For additional information

G:\UC982\16 – Fagan lease extension\EXT SUBMITTAL\PLATE VII–NP.dwg, 6/30/2009 3:39:23 PM