

Form 3160-3  
(March 2012)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**NM OIL CONSERVATION**  
ARTESIA DISTRICT  
**JAN 29 2016**

FORM APPROVED  
OMB No. 1004-0137  
Expires October 31, 2014

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

**RECEIVED**

5. Lease Serial No. SHLABHL: NMNM026870
6. If Indian, Allottee or Tribe Name

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER
--

7. If Unit or CA Agreement, Name and No.
--

1b. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone
--

8. Lease Name and Well No. Bonnie 35 Federal Com #4H
---

2. Name of Operator Cimarex Energy Co.
---

9. API Well No. <b>30-015-43619</b>
--

3a. Address 202 S. Cheyenne Ave., Ste 1000, Tulsa, OK 74103
--

3b. Phone No. (include area code) 918-585-1100
---

10. Field and Pool, or Exploratory Bonespring
--

4. Location of Well (Report location clearly and in accordance with any State requirements. *) At Surface                      330 FSL & 2190 FEL At proposed prod. Zone      330' FNL 1940' FEL sec 35 <i>Bone Spring</i>
--

11. Sec., T. R. M. or Blk. and Survey and Area 35, 25S, 26E
--

14. Distance in miles and direction from nearest town or post office* Loving, New Mexico is +/- 17.2 miles northeast of location
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12. County or Parish Eddy	13. State NM
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15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line if any)  330'
--

16. No of acres in lease NMNM026870=640.00 acres
---

17. Spacing Unit dedicated to this well  160.00
---

18. Distance from proposed* location to nearest well, drilling, completed, applied for, on this lease, ft.  40' to the Bonnie 35 Fed Com 5H well
--

19. Proposed Depth Pilot Hole TD: N/A 12,000 MD                      7,505 TVD <b>11,977</b>
---

20. BLM/BIA Bond No. on File  NMB01188
--

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  3355 GR
--

22. Approximate date work will start*  7/27/15
--

23. Estimated duration  35 days
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**24. Attachments**

- The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:
- |   |  |
|---|--|
| 1. Well plat certified by a registered surveyor   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan  | 5. Operator Certification  |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>Hope Knäuls</i>
-------------------------------------

Name (Printed/Typed) Hope Knäuls
-------------------------------------

Date 7/29/15
-----------------

Title

Regulatory Compliance  
**Steve Caffey**

*ADD*  
*2/12/16*

Approved By (Signature) <b>Steve Caffey</b>
--

Name (Printed/Typed) <b>CARLSBAD FIELD OFFICE</b>
--

Date <b>JAN 27 2016</b>
----------------------------

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

**APPROVAL FOR TWO YEARS**

Title 18 U.S.S. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

\*(Instructions on page 2)

**Carlsbad Controlled Water Basin**

Approval Subject to General Requirements  
& Special Stipulations Attached

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
District II  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

AMENDED REPORT

015- WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> APL Number 30-025-43619	<sup>2</sup> Pool Code 97818	<sup>3</sup> Pool Name Wildcat Bone Spring
<sup>4</sup> Property Code 314218	<sup>5</sup> Property Name BONNIE 35 FEDERAL COM	
<sup>7</sup> OGRID No. 215099	<sup>8</sup> Operator Name CIMAREX ENERGY CO.	<sup>6</sup> Well Number #4H
		<sup>9</sup> Elevation 3355.5'

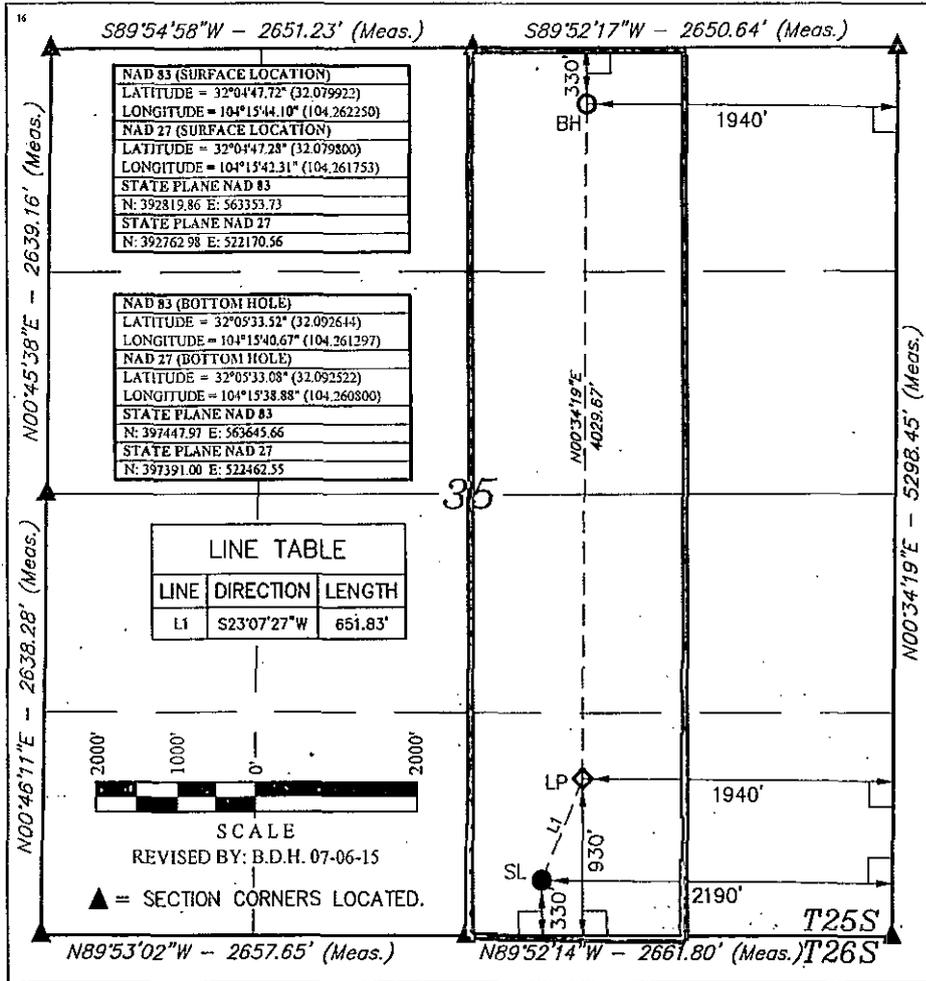
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	35	25S	26E		330	SOUTH	2190	EAST	EDDY

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	35	25S	26E		330	NORTH	1940	EAST	EDDY
<sup>12</sup> Dedicated Acres 160		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



<sup>16</sup> OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Hope Knauls 7-30-15  
Signature Date

Hope Knauls  
Printed Name

hknauls@cimarex.com  
E-mail Address

<sup>17</sup> SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

October 07, 2014  
Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number:

populate all data fields required when information is available prior to submittal

Operator Certification Statement

**Bonnie 35 Federal Com #4H**

Cimarex Energy Co.

UL: O, Sec. 35, 25S, 26E

Eddy Co., NM

Operator's Representative

Cimarex Energy Co. of Colorado

600 N. Marienfeld St., Ste. 600

Midland, TX 79701

Office Phone: (432) 571-7800

**CERTIFICATION:** I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

I am responsible under the terms and conditions of the lease to conduct lease operations in conjunction with the application. Bond coverage pursuant to 43, 25 or 36 CFR for lease activities is being provided by Cimarex Energy Co. under their (Lease, Statewide, Nationwide, Unit or Permit) Bond, BLM/BIA/FS Bond No. NMB01188.

Executed this 29 day of July, 2015

NAME: Hope Knauls  
Hope Knauls

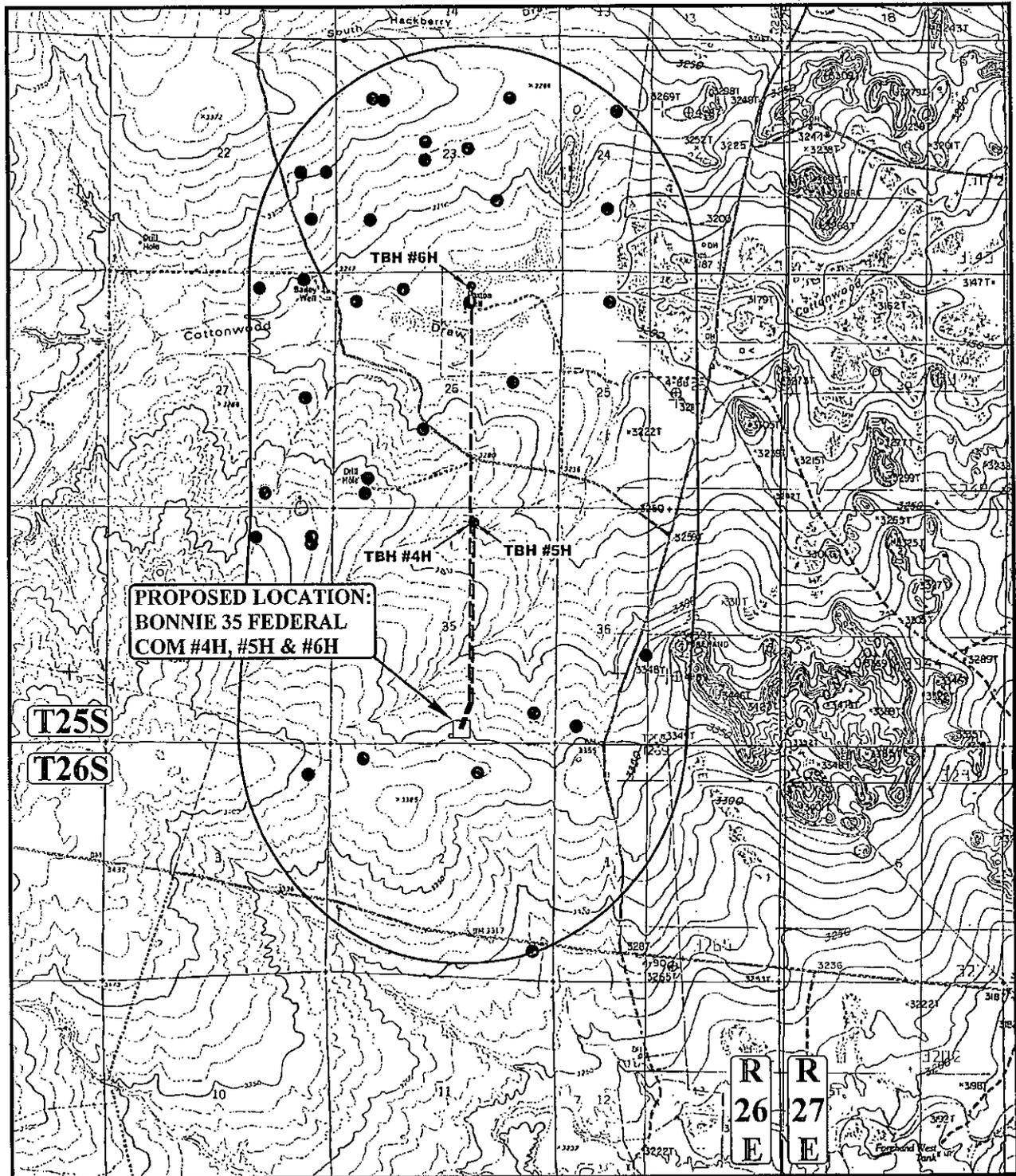
**TITLE:** Regulatory Compliance

**ADDRESS:** 600 N. Marienfeld St. Ste. 600 Midland-Tx 79071

**TELEPHONE:** 432-571-7800

**EMAIL:** hknauls@cimarex.com

**Field Representative:** Same as above



**LEGEND:**  
 ● EXISTING WELLS

**CIMAREX ENERGY CO.**

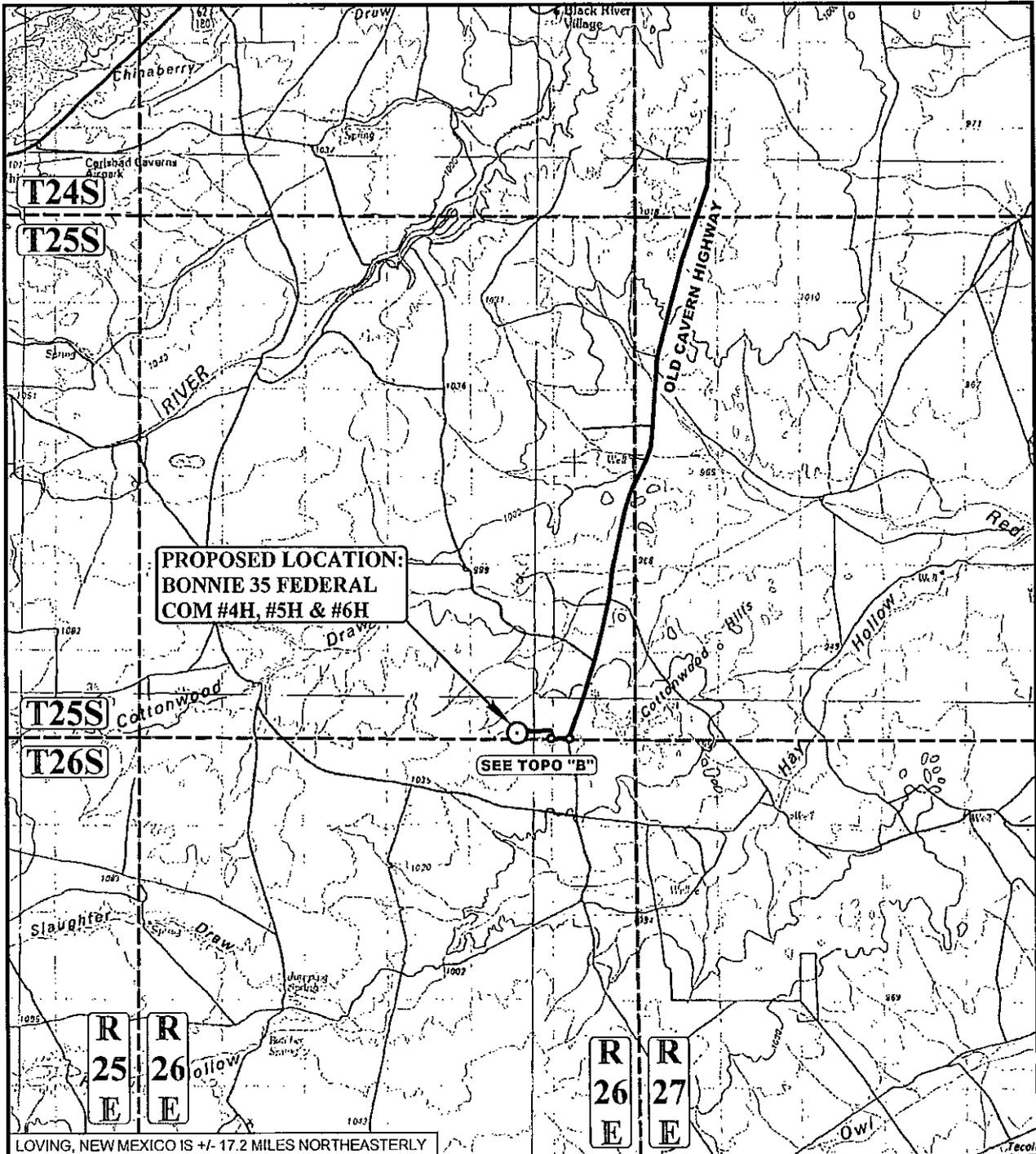
**BONNIE 35 FEDERAL COM #4H, #5H & #6H**  
 SECTION 35, T25S, R26E, N.M.P.M.  
 SW 1/4 SE 1/4



DRAWN BY: N.W.	DATE DRAWN: 10-31-14
SCALE: 1" = 3000'	REVISED: 07-06-15 Z.H.F.
<b>ONE MILE RADIUS PLAT</b>	<b>EXHIBIT A</b>



**UELS, LLC**  
 Corporate Office \* 85 South 200 East  
 Vernal, UT 84078 \* (435) 789-1017



LOVING, NEW MEXICO IS +/- 17.2 MILES NORTHEASTERLY

NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

**LEGEND:**

⊙ PROPOSED LOCATION

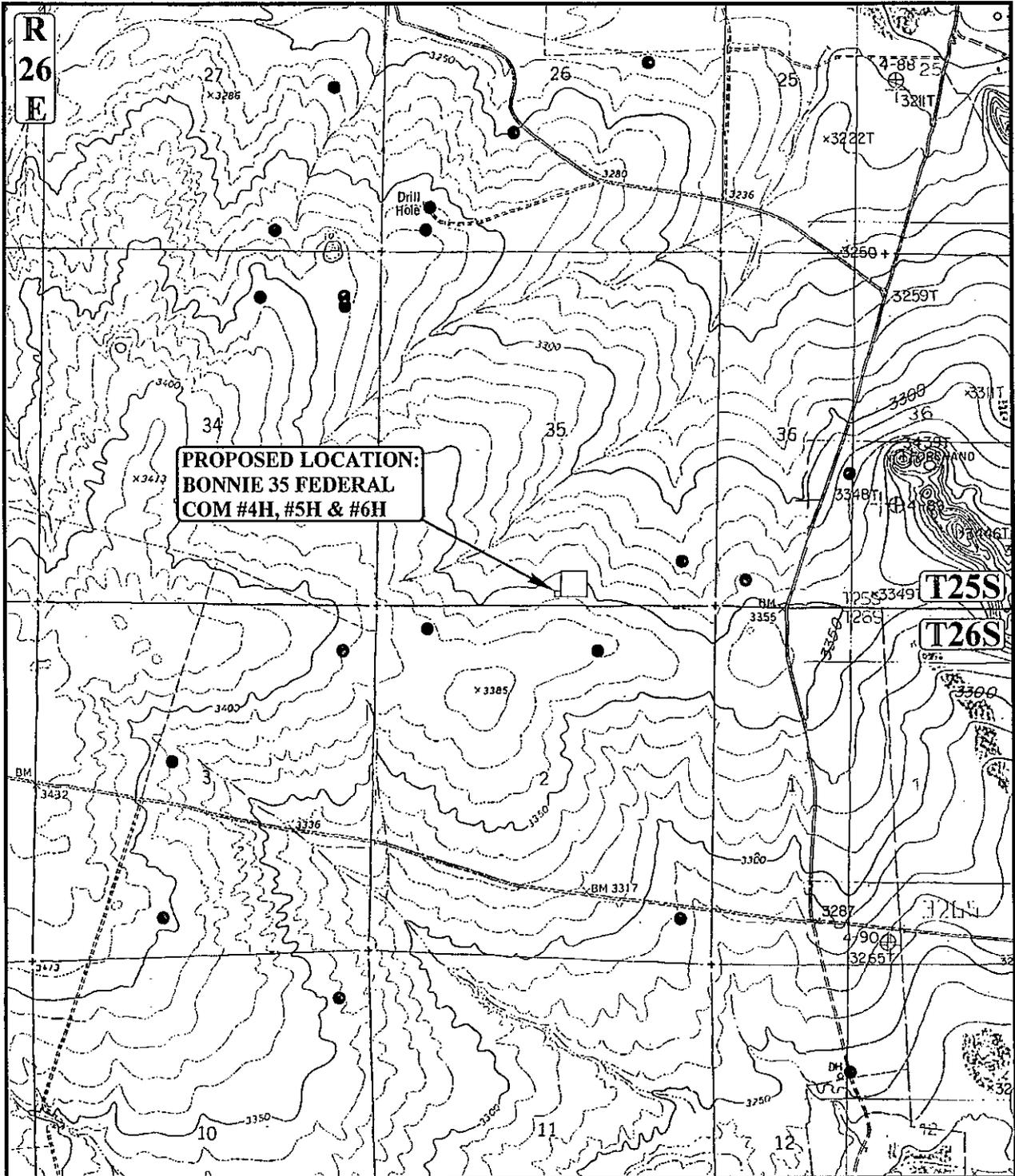
**CIMAREX ENERGY CO.**

**BONNIE 35 FEDERAL COM #4H, #5H & #6H  
SECTION 35, T25S, R26E, N.M.P.M.  
SW 1/4 SE 1/4**



**UELS, LLC**  
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017

DRAWN BY: N.W.	DATE DRAWN: 10-31-14
SCALE: 1:100,000	REVISED: 12-17-14 T.E.
<b>PUBLIC ACCESS ROAD MAP EXHIBIT B</b>	



**PROPOSED LOCATION:  
BONNIE 35 FEDERAL  
COM #4H, #5H & #6H**

**LEGEND:**

- EXISTING WELLS

**CIMAREX ENERGY CO.**

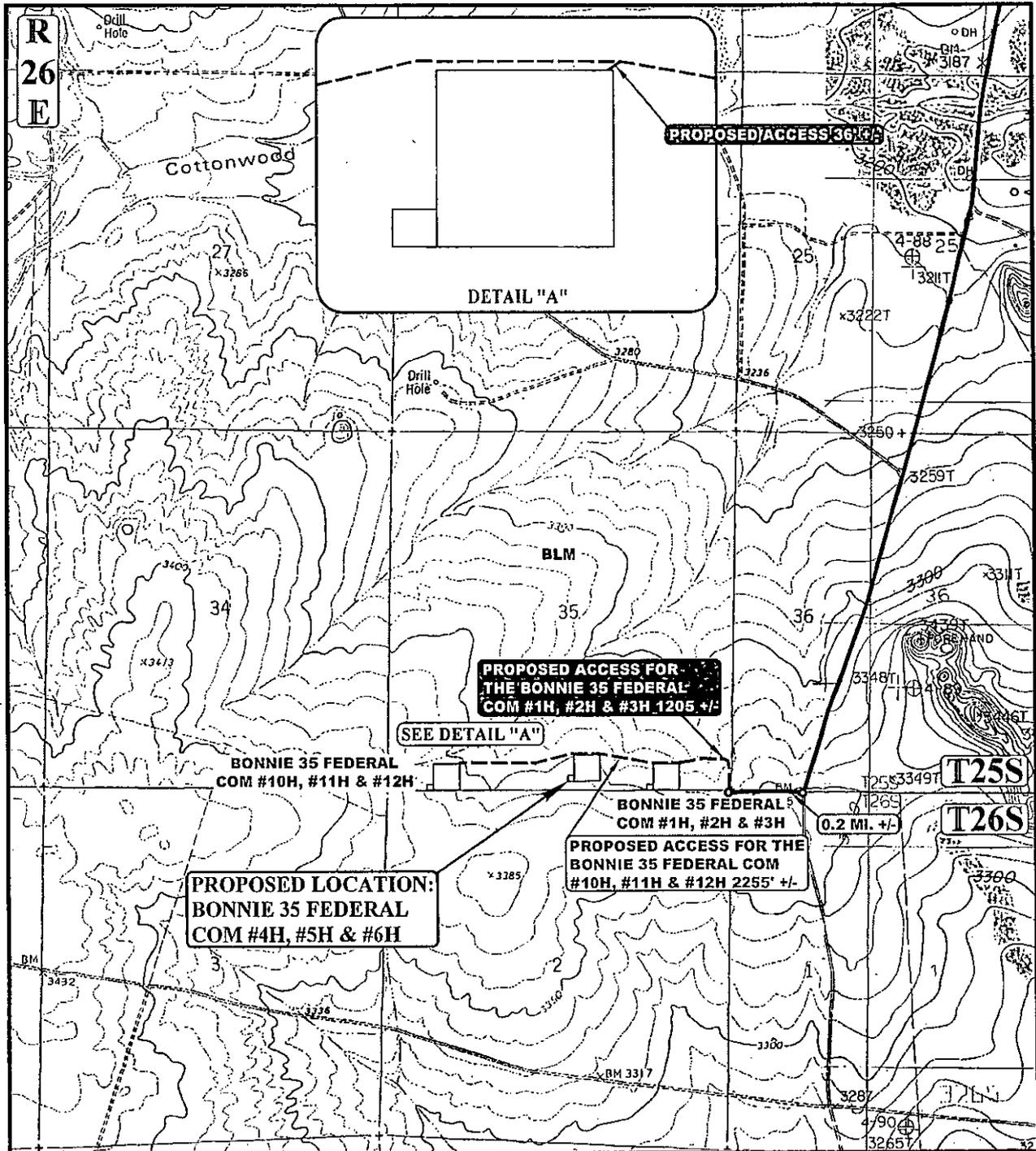
**BONNIE 35 FEDERAL COM #4H, #5H & #6H  
SECTION 35, T25S, R26E, N.M.P.M.  
SW 1/4 SE 1/4**



DRAWN BY: N.W.	DATE DRAWN: 10-31-14
SCALE: 1" = 2000'	REVISED: 00-00-00
<b>USGS TOPOGRAPHIC MAP EXHIBIT C</b>	



**UELS, LLC**  
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017



NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

**LEGEND:**

- EXISTING ROAD
- - - - - PROPOSED ROAD
- - - - - PROPOSED ROAD (SERVICING OTHER WELLS)
- - - - - PROPOSED ROAD (SERVICING OTHER WELLS)

**CIMAREX ENERGY CO.**

**BONNIE 35 FEDERAL COM #4H, #5H & #6H  
SECTION 35, T25S, R26E, N.M.P.M.  
SW 1/4 SE 1/4**

DRAWN BY: N.W. DATE DRAWN: 10-31-14  
SCALE: 1" = 2000' REVISED: 00-00-00

**ACCESS ROAD MAP EXHIBIT C-1**



**UELS, LLC**  
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017



Sec. 35

NE Cor. Sec. 35

Proposed Access Road for the Bonnie 35 Federal Com #10H, #11H & #12H Well Pad

BEGINNING OF PROPOSED ROAD RIGHT-OF-WAY STA. 0+00  
(At Proposed Access Road for the Bonnie 35 Federal Com #10H, #11H & #12H Well Pad)

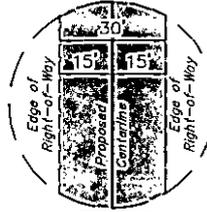
1/4 Section Line

1/16 Section Line

Section Line

Detail "A"  
No Scale

END OF PROPOSED ROAD RIGHT-OF-WAY STA. 0+36.09  
(At Edge of Proposed Bonnie 35 Federal Com #4H, #5H & #6H Well Pad)



TYPICAL RIGHT-OF-WAY DETAIL  
NO SCALE

SE 1/4

1/16 Section Line

N00°34'19"E - 5298.45' (Meas.)

BLM

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S56°25'21"W	36.09'

See Detail "A" @ Above

Proposed Access Road for the Bonnie 35 Federal Com #10H, #11H & #12H Well Pad

Proposed Bonnie 35 Federal Com #4H, #5H & #6H Well Pad

Proposed Bonnie 35 Federal Com #1H, #2H & #3H Well Pad

N89°52'14"W - 2661.80' (Meas.)

Section Line

ROAD RIGHT-OF-WAY DESCRIPTION

A 30' WIDE RIGHT-OF-WAY 15' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

BEGINNING AT A POINT IN THE SW 1/4 SE 1/4 OF SECTION 35, T25S, R26E, N.M.P.M., WHICH BEARS N51°38'52"E 867.77' FROM THE SOUTH 1/4 CORNER OF SAID SECTION 35, THENCE S56°25'21"W 36.09' TO A POINT IN THE SW 1/4 SE 1/4 OF SAID SECTION 35, WHICH BEARS N51°26'27"E 831.81' FROM THE SOUTH 1/4 CORNER OF SAID SECTION 35. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A G.P.S. OBSERVATION. CONTAINS 0.025 ACRES MORE OR LESS.

BEGINNING OF ROAD STA. 0+00 BEARS N51°38'52"E 867.77' FROM THE SOUTH 1/4 CORNER OF SECTION 35, T25S, R26E, N.M.P.M.

END OF ROAD STA. 0+36.09 BEARS N51°26'27"E 831.81' FROM THE SOUTH 1/4 CORNER OF SECTION 35, T25S, R26E, N.M.P.M.



RIGHT-OF-WAY LENGTHS

PROPERTY OWNER	FEET	ACRES	RODS
BLM SE 1/4 SEC. 35	36.09	0.025	2.19

▲ = SECTION CORNERS LOCATED.

NOTES:  
\* The maximum grade of existing ground for the proposed access road is ±1.7%

CERTIFICATE OF PROFESSIONAL SURVEYOR  
THIS IS TO CERTIFY THAT THE ABOVE IS A TRUE AND CORRECT COPY OF THE NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF

*Nelson Marshall*  
12446  
REGISTERED LAND SURVEYOR  
REGISTRATION NO. 12446  
STATE OF NEW MEXICO  
11-06-14

CIMAREX ENERGY CO.

BONNIE 35 FEDERAL COM #4H, #5H & #6H  
SECTION 35, T25S, R26E, N.M.P.M.  
EDDY COUNTY, NEW MEXICO

DRAWN BY: S.F.	DATE DRAWN: 10-28-14
SCALE: 1" = 400'	REVISED: 00-00-00

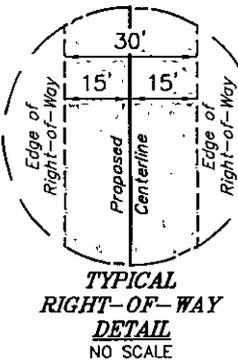
ACCESS ROAD R-O-W EXHIBIT C-2



UELS, LLC  
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017



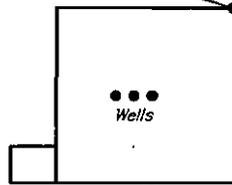
Sec. 35



END OF PROPOSED ROAD RIGHT-OF-WAY STA. 12+41.51  
(At Edge of Proposed Bonnie 35 Federal Com #1H, #2H & #3H Well Pad)

SE 1/4

BLM NE Cor. Sec. 35  
END OF ROAD ON STATE OF NEW MEXICO LANDS STA. 0+22.88 BEARS N89°52'14"W 21.64' FROM THE NORTHEAST CORNER OF SECTION 2, T26S, R26E, N.M.P.M.



Proposed Bonnie 35 Federal Com #1H, #2H & #3H Well Pad  
Existing Road  
Section Line

N00°34'19"E  
5298.45' (Meas.)

N89°52'14"W - 2661.80' (Meas.)

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N00°51'29"E	22.88'
L2	N00°51'29"E	381.23'
L3	N17°24'07"W	64.18'
L4	N69°50'46"W	67.32'
L5	N89°11'43"W	313.03'
L6	N75°57'56"W	9.19'
L7	S79°57'50"W	347.66'
L8	S56°28'15"W	36.03'

END OF PROPOSED ROAD RIGHT-OF-WAY ON STATE OF NEW MEXICO LANDS STA. 0+22.88 (At Section Line)



State of New Mexico  
BEGINNING OF PROPOSED ROAD RIGHT-OF-WAY STA. 0+00 (At Existing Road)

Existing Road See Detail "A" @ Below

Section Line  
N01°00'33"E - 2662.70' (Meas.)

1/4 Section Line

1/16 Section Line

1/16 Section Line

SE Cor. Sec. 2

-Sec. 2- NE 1/4

ROAD RIGHT-OF-WAY DESCRIPTION ON STATE OF NEW MEXICO LANDS

A 30' WIDE RIGHT-OF-WAY 15' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

BEGINNING AT A POINT IN THE NE 1/4 NE 1/4 OF SECTION 2, T26S, R26E, N.M.P.M., WHICH BEARS S43°54'47"W 31.69' FROM THE NORTHEAST CORNER OF SAID SECTION 2, THENCE N00°51'29"E 22.88' TO A POINT ON THE NORTH LINE OF THE NE 1/4 NE 1/4 OF SAID SECTION 2, WHICH BEARS N89°52'14"W 21.64' FROM THE NORTHEAST CORNER OF SAID SECTION 2. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A G.P.S. OBSERVATION. CONTAINS 0.016 ACRES MORE OR LESS.



RIGHT-OF-WAY LENGTHS

PROPERTY OWNER	FEET	ACRES	RODS
STATE OF NEW MEXICO	22.88	0.016	1.39

▲ = SECTION CORNERS LOCATED.

CERTIFICATE OF PROFESSIONAL SURVEY  
THIS IS TO CERTIFY THAT THE ABOVE PLAN WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.  
Nelson J. Marshall  
REGISTERED LAND SURVEYOR  
REGISTRATION NO. 12446  
STATE OF NEW MEXICO  
11-04-14

NOTES:  
• The maximum grade of existing ground for the proposed access road is ±4.1%.

CIMAREX ENERGY CO.

BONNIE 35 FEDERAL COM #1H, #2H & #3H  
SECTION 35, T25S, R26E, N.M.P.M.  
EDDY COUNTY, NEW MEXICO

DRAWN BY: S.F. DATE DRAWN: 10-29-14  
SCALE: 1" = 400' REVISED: 00-00-00

ACCESS ROAD R-O-W EXHIBIT C-2



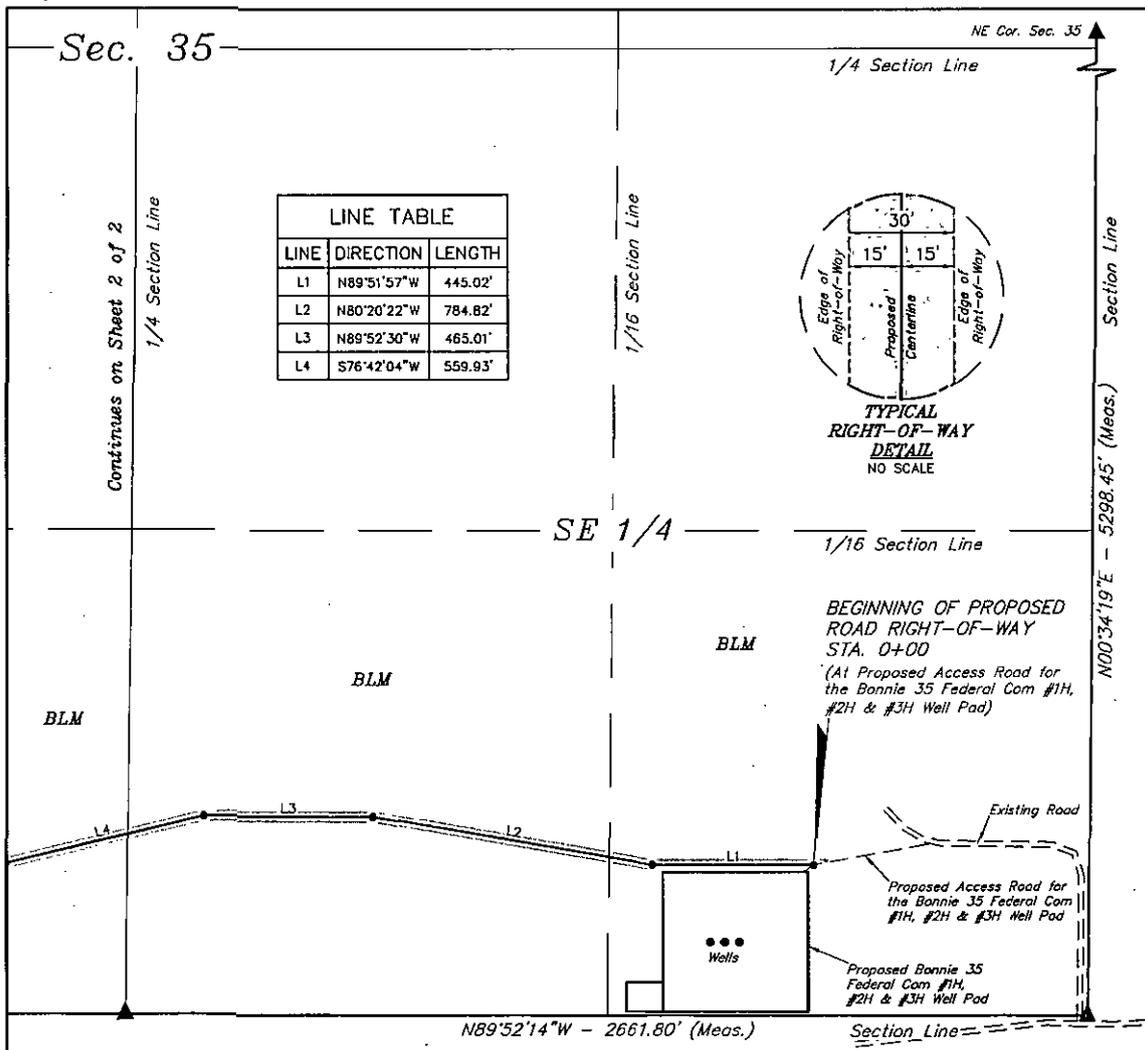
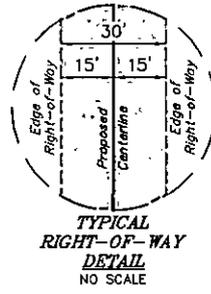
UELS, LLC  
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017



Sec. 35

NE Cor. Sec. 35

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N89°51'57"W	445.02'
L2	N80°20'22"W	784.82'
L3	N89°52'30"W	465.01'
L4	S76°42'04"W	559.93'



**ROAD RIGHT-OF-WAY DESCRIPTION**

A 30' WDE RIGHT-OF-WAY 15' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.  
 BEGINNING AT A POINT IN THE SE 1/4 SE 1/4 OF SECTION 35, T25S, R26E, N.M.P.M., WHICH BEARS N61°38'06" W 866.61' FROM THE SOUTHEAST CORNER OF SAID SECTION 35, THENCE N89°51'57" W 445.02'; THENCE N80°20'22" W 784.82'; THENCE N89°52'30" W 465.01'; THENCE S76°42'04" W 559.93'; THENCE N89°53'00" W 1170.08'; THENCE S56°24'58" W 36.08' TO A POINT IN THE SW 1/4 SW 1/4 OF SAID SECTION 35, WHICH BEARS N71°02'02" E 1192.86' FROM THE SOUTHWEST CORNER OF SAID SECTION 35. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A G.P.S. OBSERVATION. CONTAINS 2.384 ACRES MORE OR LESS.

BEGINNING OF ROAD STA. 0+00 BEARS N61°38'06" W 866.61' FROM THE SOUTHEAST CORNER OF SECTION 35, T25S, R26E, N.M.P.M.



RIGHT-OF-WAY LENGTHS			
PROPERTY OWNER	FEET	ACRES	RODS
BLM SE 1/4 SEC. 35	1,910.20	1.316	115.77
BLM SW 1/4 SEC. 35	1,550.75	1.068	93.98
TOTAL ON BLM LANDS	3,460.95	2.384	209.75

▲ = SECTION CORNERS LOCATED.

CERTIFICATE OF PROFESSIONAL SURVEY

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

*Nelson Marshall*  
 REGISTERED LAND SURVEYOR  
 REGISTRATION NO. 12446  
 STATE OF NEW MEXICO MAR 11-07-14

NOTES:  
 \* The maximum grade of existing ground for the proposed access road is ±3.4%.

**CIMAREX ENERGY CO.**

BONNIE 35 FEDERAL COM #10H, #11H & #12H  
 SECTION 35, T25S, R26E, N.M.P.M.  
 EDDY COUNTY, NEW MEXICO

DRAWN BY: S.F.	DATE DRAWN: 10-30-14
SCALE: 1" = 400'	REVISED: 00-00-00

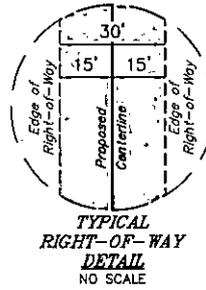
**ACCESS ROAD R-O-W EXHIBIT C-2**



**UELS, LLC**  
 Corporate Office \* 85 South 200 East  
 Vernal, UT 84078 \* (435) 789-1017

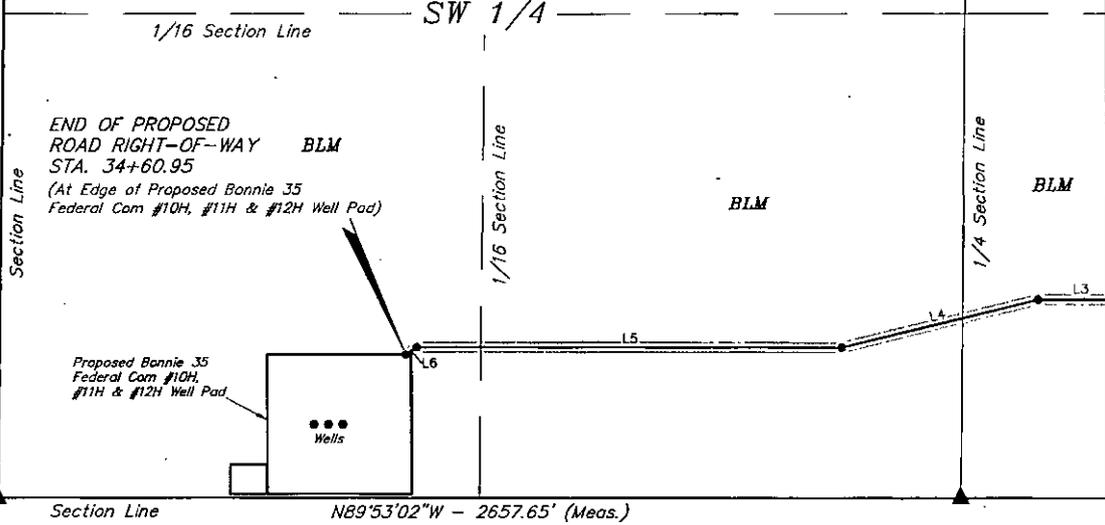


LINE TABLE		
LINE	DIRECTION	LENGTH
L3	N89°52'30"W	465.01'
L4	S76°42'04"W	559.93'
L5	N89°53'00"W	1170.08'
L6	S56°24'58"W	36.08'



Continued from Sheet 1 of 2

Section Line  
N00°46'11"E - 2638.28' (Meas.)



END OF PROPOSED ROAD RIGHT-OF-WAY STA. 34+60.95  
(At Edge of Proposed Bonnie 35 Federal Com #10H, #11H & #12H Well Pad)

Proposed Bonnie 35 Federal Com #10H, #11H & #12H Well Pad

Wells

Section Line N89°53'02"W - 2657.65' (Meas.)

END OF ROAD STA. 34+60.95 BEARS N71°02'02"E 1192.86' FROM THE SOUTHWEST CORNER OF SECTION 35, T25S, R26E, N.M.P.M.



▲ = SECTION CORNERS LOCATED.

CERTIFICATE OF PROFESSIONAL SURVEYOR

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

*Nelson Marshall*  
12446  
REGISTERED LAND SURVEYOR  
REGISTRATION NO. 12446  
STATE OF NEW MEXICO MARSHAL

11-07-14  
Sheet 2 of 2

NOTES:  
\* The maximum grade of existing ground for the proposed access road is ±1.6%

**CIMAREX ENERGY CO.**

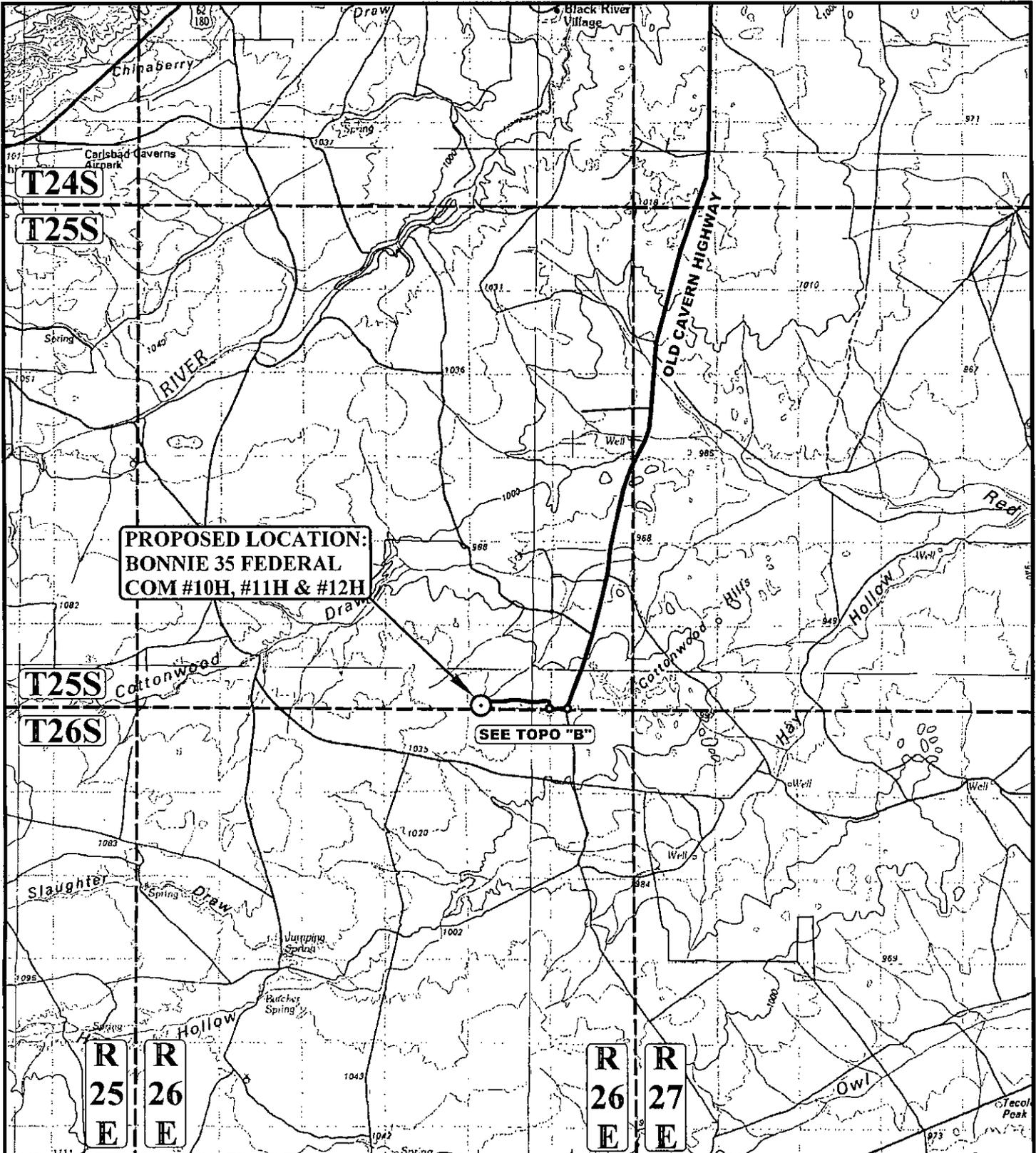
BONNIE 35 FEDERAL COM #10H, #11H & #12H  
SECTION 35, T25S, R26E, N.M.P.M.  
EDDY COUNTY, NEW MEXICO



**UELS, LLC**  
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017



DRAWN BY: S.F.	DATE DRAWN: 10-30-14
SCALE: 1" = 400'	REVISED: 00-00-00
<b>ACCESS ROAD R-O-W</b>	<b>EXHIBIT C-2</b>



**PROPOSED LOCATION:  
 BONNIE 35 FEDERAL  
 COM #10H, #11H & #12H**

**SEE TOPO "B"**

**T24S**

**T25S**

**T25S**

**T26S**

**R  
25  
E**

**R  
26  
E**

**R  
26  
E**

**R  
27  
E**

**LEGEND:**

- ⊙ PROPOSED LOCATION
- ACCESS ROAD

**CIMAREX ENERGY CO.**

**BONNIE 35 FEDERAL COM #10H, #11H & #12H  
 SECTION 35, T25S, R26E, N.M.P.M.  
 SW 1/4 SW 1/4**



DRAWN BY: N.W.	DATE DRAWN: 10-31-14
SCALE: 1:100,000	REVISED: 00-00-00

**PUBLIC ACCESS ROAD MAP    EXHIBIT B**



**UELS, LLC**  
 Corporate Office \* 85 South 200 East  
 Vernal, UT 84078 \* (435) 789-1017

Sec. 35

1/4 Section Line

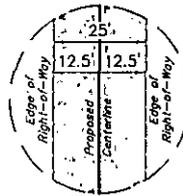
LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S00°07'15"W	258.44'
L2	S00°08'22"W	158.19'

BEGINNING OF ROAD "A" STA. 0+00 BEARS N13°36'18"E 533.13' FROM THE SOUTH 1/4 CORNER OF SECTION 35, T25S, R26E, N.M.P.M.

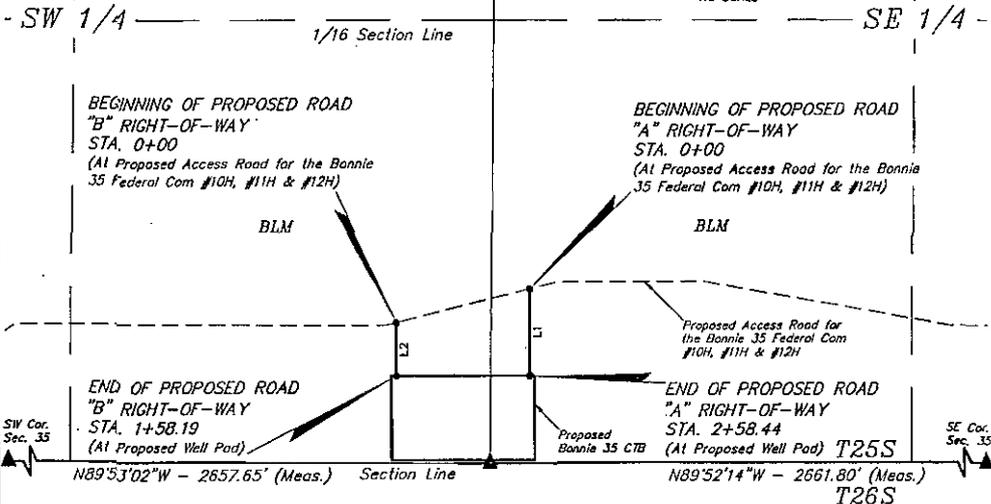
END OF ROAD "A" STA. 2+58.44 BEARS N25°40'30"E 288.18' FROM THE SOUTH 1/4 CORNER OF SECTION 35, T25S, R26E, N.M.P.M.

BEGINNING OF ROAD "B" STA. 0+00 BEARS N35°07'56"W 512.16' FROM THE SOUTH 1/4 CORNER OF SECTION 35, T25S, R26E, N.M.P.M.

END OF ROAD "B" STA. 1+58.19 BEARS N48°32'49"W 393.75' FROM THE SOUTH 1/4 CORNER OF SECTION 35, T25S, R26E, N.M.P.M.



TYPICAL RIGHT-OF-WAY DETAIL  
NO SCALE



ROAD "A" RIGHT-OF-WAY DESCRIPTION

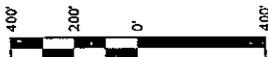
A 25' WIDE RIGHT-OF-WAY 12.5' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

BEGINNING AT A POINT IN THE SW 1/4 SE 1/4 OF SECTION 35, T25S, R26E, N.M.P.M., WHICH BEARS N13°36'18"E 533.13' FROM THE SOUTH 1/4 CORNER OF SAID SECTION 35, THENCE S00°07'15"W 258.44' TO A POINT IN THE SW 1/4 SE 1/4 OF SAID SECTION 35, WHICH BEARS N25°40'30"E 288.18' FROM THE SOUTH 1/4 CORNER OF SAID SECTION 35, THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A G.P.S. OBSERVATION. CONTAINS 0.148 ACRES MORE OR LESS.

ROAD "B" RIGHT-OF-WAY DESCRIPTION

A 25' WIDE RIGHT-OF-WAY 12.5' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

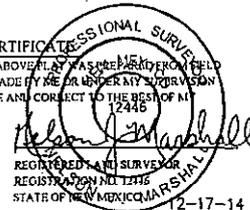
BEGINNING AT A POINT IN THE SE 1/4 SW 1/4 OF SECTION 35, T25S, R26E, N.M.P.M., WHICH BEARS N35°07'56"W 512.16' FROM THE SOUTH 1/4 CORNER OF SAID SECTION 35, THENCE S00°08'22"W 158.19' TO A POINT IN THE SE 1/4 SW 1/4 OF SAID SECTION 35, WHICH BEARS N48°32'49"W 393.75' FROM THE SOUTH 1/4 CORNER OF SAID SECTION 35, THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A G.P.S. OBSERVATION. CONTAINS 0.091 ACRES MORE OR LESS.



RIGHT-OF-WAY LENGTHS			
PROPERTY OWNER	FEET	ACRES	RODS
BLM SE 1/4 SEC. 35	258.44	0.148	15.66
BLM SW 1/4 SEC. 35	158.19	0.091	9.59
TOTAL	416.63	0.239	25.25

▲ = SECTION CORNERS LOCATED.

CERTIFICATE OF PROFESSIONAL SURVEYOR  
THIS IS TO CERTIFY THAT THE ABOVE IS A TRUE AND CORRECT COPY OF THE NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



NOTES:  
\* The maximum grade of existing ground for the proposed access road is ±3.8%

CIMAREX ENERGY CO.

BONNIE 35 CTB  
SECTION 35, T25S, R26E, N.M.P.M.  
EDDY COUNTY, NEW MEXICO

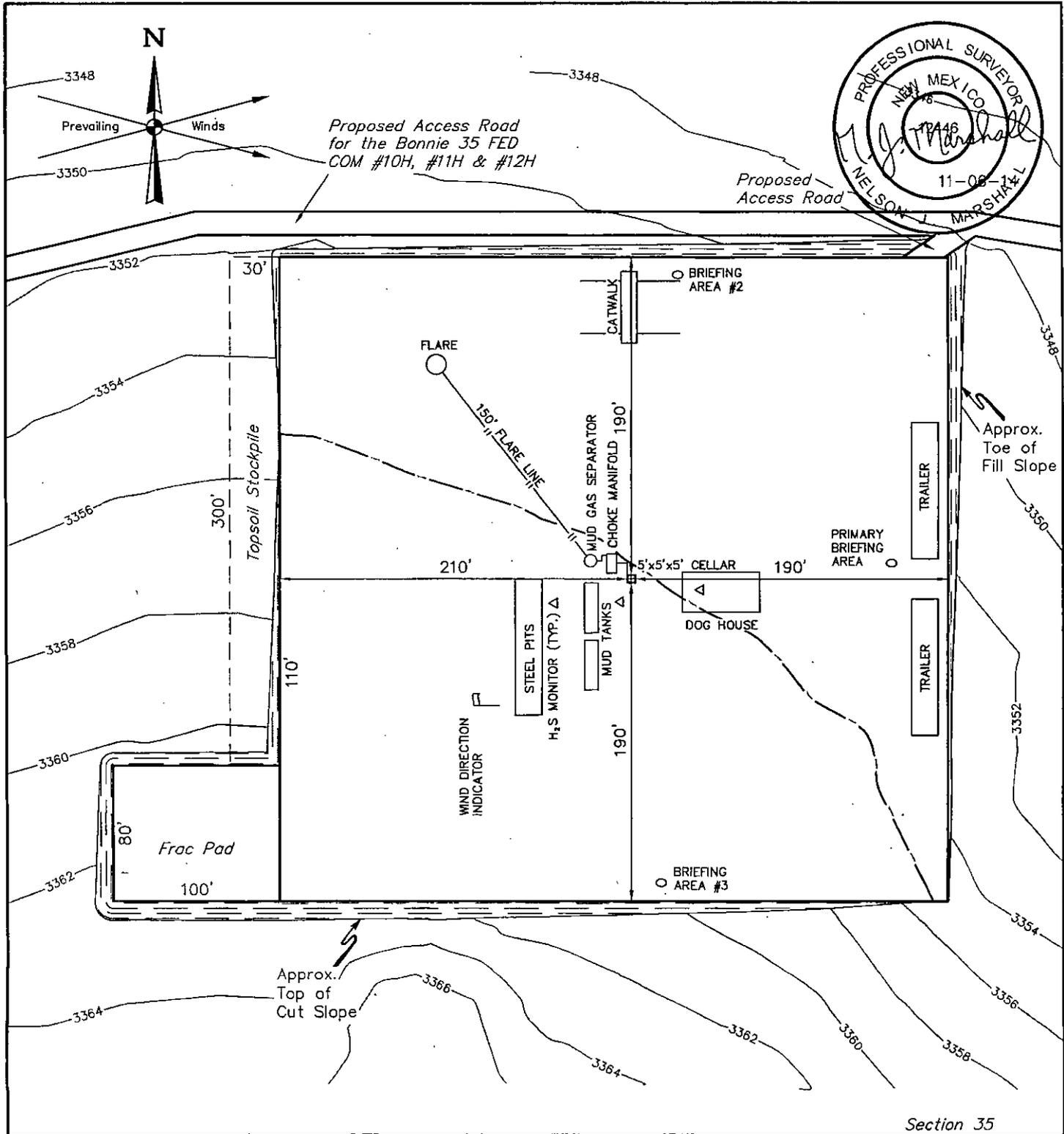
DRAWN BY: J.J.	DATE DRAWN: 12-11-14
SCALE: 1" = 400'	REVISED: 00-00-00

ACCESS ROAD R-O-W EXHIBIT C-2



UELS, LLC  
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017





Section 35  
Section 2

**NOTES:**

- Flare pit is to be located a min. of 160' from the wellhead.
- Contours shown at 2' intervals.

**CIMAREX ENERGY CO.**

**BONNIE 35 FEDERAL COM #4H  
SECTION 35, T25S, R26E, N.M.P.M.  
330' FSL 2190' FEL**

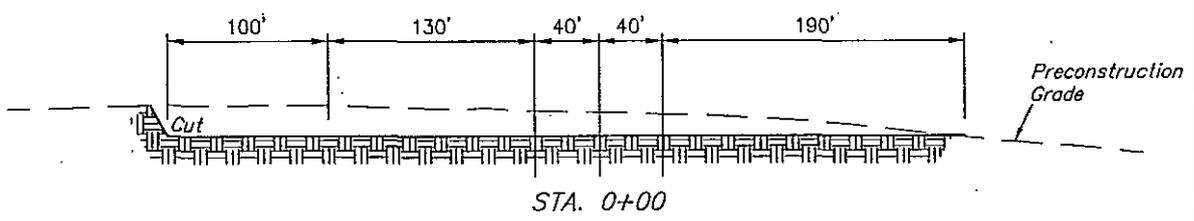
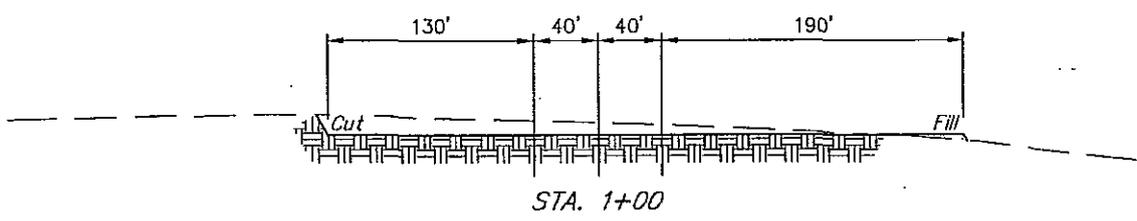
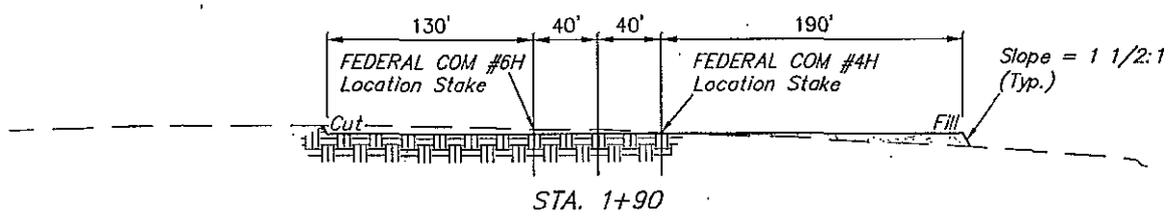
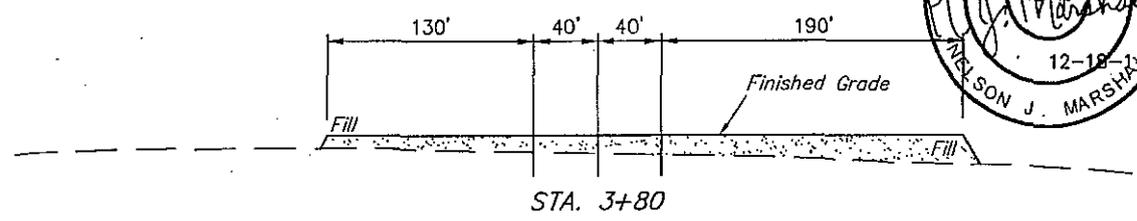
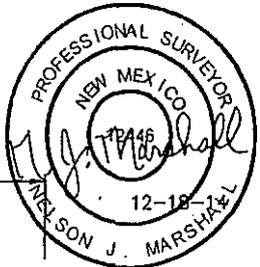
DRAWN BY: S.F.	DATE DRAWN: 10-28-14
SCALE: 1" = 80'	REVISED: 00-00-00

**TYPICAL RIG LAYOUT      EXHIBIT D**



**UELS, LLC**  
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017

1" = 40'  
 X-Section  
 Scale  
 1" = 100'



APPROXIMATE EARTHWORK QUANTITIES	
(4") TOPSOIL STRIPPING	2,120 Cu. Yds.
REMAINING LOCATION	8,840 Cu. Yds.
<b>TOTAL CUT</b>	<b>10,960 Cu. Yds.</b>
<b>FILL</b>	<b>8,840 Cu. Yds.</b>
EXCESS MATERIAL	2,120 Cu. Yds.
TOPSOIL	2,120 Cu. Yds.
<b>EXCESS UNBALANCE</b> (After Interim Rehabilitation)	<b>0 Cu. Yds.</b>

APPROXIMATE SURFACE DISTURBANCE AREAS		
	DISTANCE	ACRES
WELL SITE DISTURBANCE	NA	±4.123
30' WIDE ACCESS ROAD R-O-W DISTURBANCE	±36.09'	±0.025
30' WIDE FLOW LINE ROAD R-O-W DISTURBANCE	±860.21'	±0.592
30' WIDE POWER LINE R-O-W DISTURBANCE	±65.04'	±0.045
<b>TOTAL SURFACE USE AREA</b>		<b>±4.785</b>

**NOTES:**

- Fill quantity includes 5% for compaction.
- Calculations based on 4" of topsoil stripping.
- Topsoil should not be stripped below finished grade on substructure area.

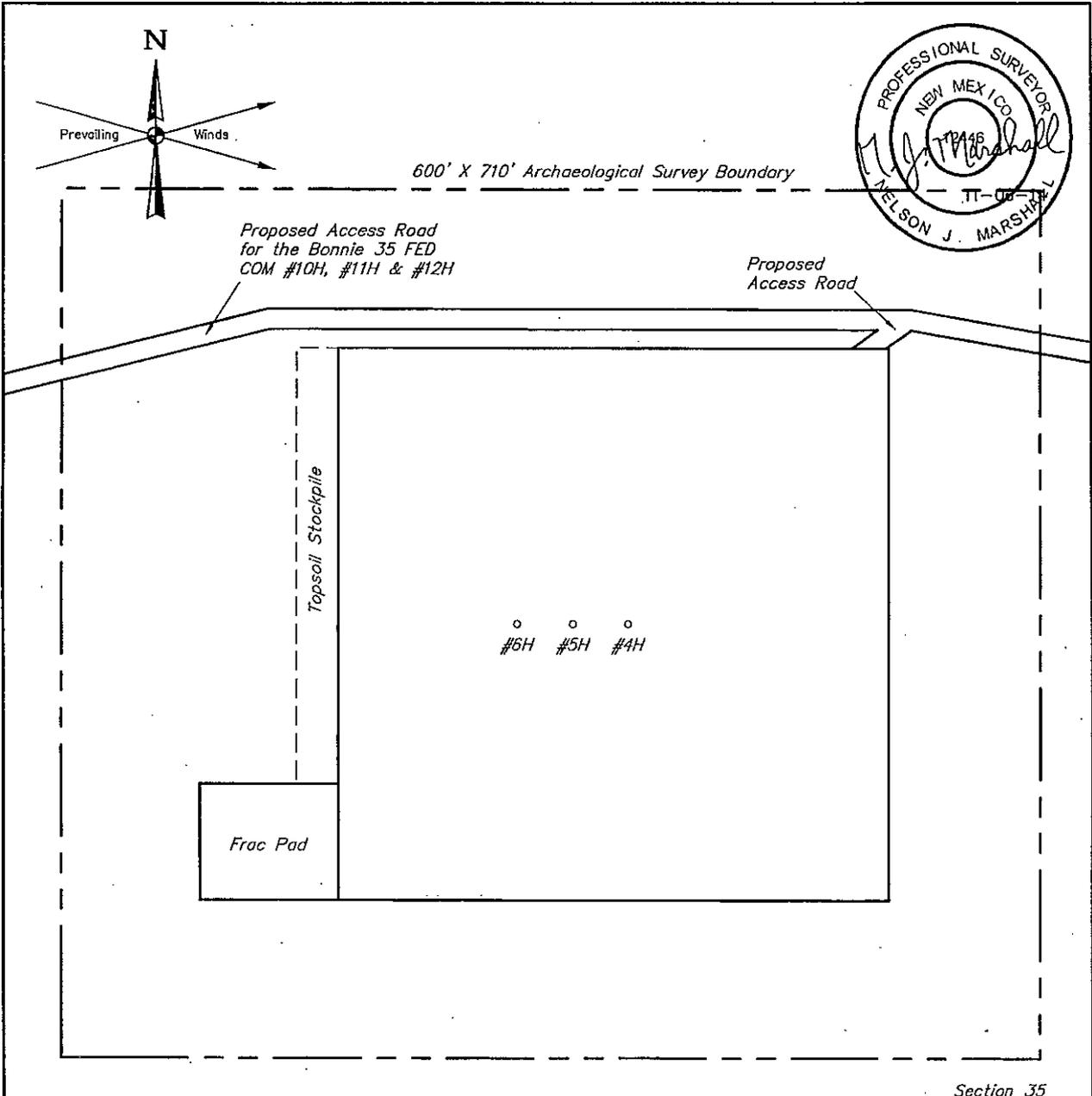
**CIMAREX ENERGY CO.**

**BONNIE 35 FEDERAL COM #4H, #5H & #6H  
 SECTION 35, T25S, R26E, N.M.P.M.  
 SW 1/4 SE 14**



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 Vernal, UT 84078 \* (435) 789-1017

DRAWN BY: S.F.	DATE DRAWN: 10-28-14
SCALE: AS SHOWN	REVISED: 12-15-14
<b>TYPICAL CROSS SECTIONS EXHIBIT D</b>	



Section 35  
Section 2

NOTES:

**CIMAREX ENERGY CO.**

**BONNIE 35 FEDERAL COM #4H, #5H & #6H  
SECTION 35, T25S, R26E, N.M.P.M.  
SW 1/4 SE 1/4**

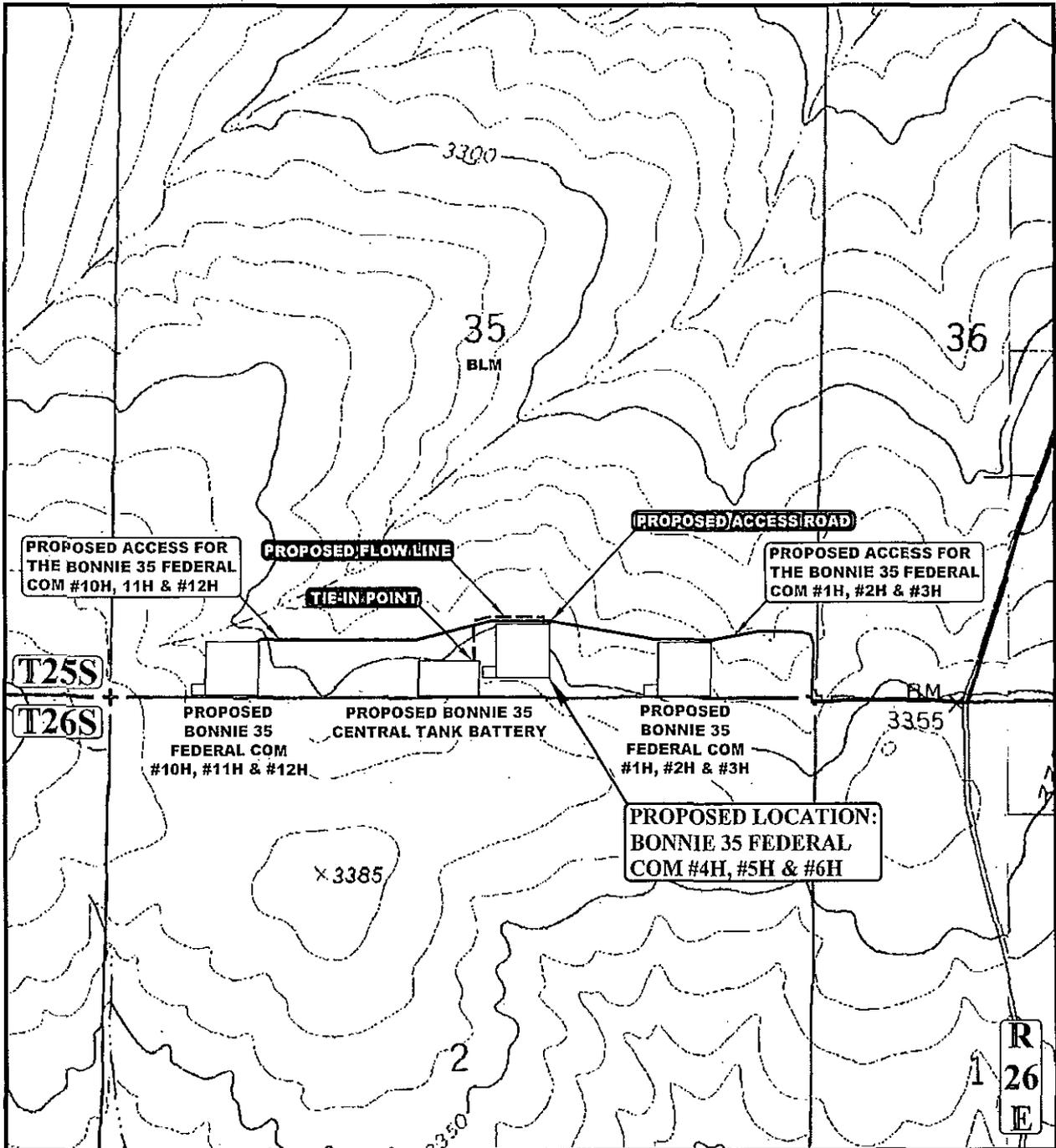


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Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017

DRAWN BY: S.F.	DATE DRAWN: 10-28-14
SCALE: 1" = 80'	REVISED: 00-00-00

<b>ARCHAEOLOGICAL SURVEY BOUNDARY</b>	<b>EXHIBIT D</b>
---------------------------------------	------------------





APPROXIMATE TOTAL FLOW LINE DISTANCE = 860' +/-

NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

**LEGEND:**

- EXISTING ROAD
- PROPOSED ROAD
- - - PROPOSED FLOW LINE

**CIMAREX ENERGY CO.**

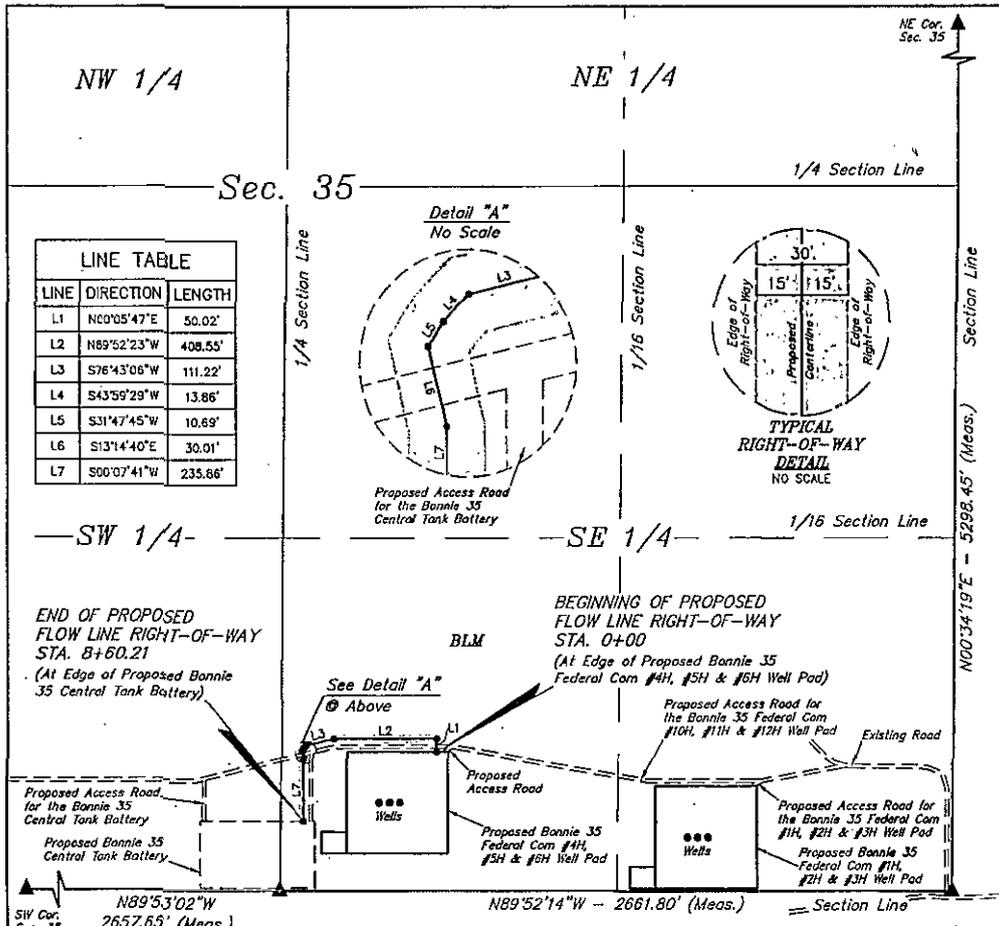
BONNIE 35 FEDERAL COM #4H, #5H & #6H  
SECTION 35, T25S, R26E, N.M.P.M.  
SW 1/4 SE 1/4



DRAWN BY: N.W.	DATE DRAWN: 10-31-14
SCALE: 1" = 1000'	REVISED: 12-17-14 T.E.
<b>FLOWLINE MAP</b>	<b>EXHIBIT G</b>



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Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017



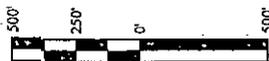
**FLOW LINE RIGHT-OF-WAY DESCRIPTION**

A 30' WIDE RIGHT-OF-WAY 15' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

BEGINNING AT A POINT IN THE SW 1/4 SE 1/4 OF SECTION 35, T25S, R26E, N.M.P.M., WHICH BEARS N50°06'50"E 808.65' FROM THE SOUTH 1/4 CORNER OF SAID SECTION 35, THENCE N00°05'47"E 50.02'; THENCE N89°52'23"W 408.55'; THENCE S76°43'06"W 111.22'; THENCE S43°59'29"W 13.86'; THENCE S31°47'45"W 10.69'; THENCE S13°14'40"E 30.01'; THENCE S00°07'41"W 235.86' TO A POINT IN THE SW 1/4 SE 1/4 OF SAID SECTION 35, WHICH BEARS N20°03'43"E 276.58' FROM THE SOUTH 1/4 CORNER OF SAID SECTION 35. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A G.P.S. OBSERVATION. CONTAINS 0.592 ACRES MORE OR LESS.

BEGINNING OF FLOW LINE STA. 0+00 BEARS N50°06'50"E 808.65' FROM THE SOUTH 1/4 CORNER OF SECTION 35, T25S, R26E, N.M.P.M.

END OF FLOW LINE STA. 8+60.21 BEARS N20°03'43"E 276.58' FROM THE SOUTH 1/4 CORNER OF SECTION 35, T25S, R26E, N.M.P.M.



RIGHT-OF-WAY LENGTHS			
PROPERTY OWNER	FEET	ACRES	RODS
BLM SE 1/4 SEC. 35	860.21	0.592	52.13

▲ = SECTION CORNERS LOCATED.

CERTIFICATE OF PROFESSIONAL SURVEYOR  
 THIS IS TO CERTIFY THAT THE ABOVE PLAN WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

*Richard W. Marshall*  
 REGISTERED PROFESSIONAL SURVEYOR  
 REGISTRATION NO. 12416  
 STATE OF NEW MEXICO  
 12-18-14

**NOTES:**

**CIMAREX ENERGY CO.**

BONNIE 35 FEDERAL COM #4H, #5H & #6H  
 SECTION 35, T25S, R26E, N.M.P.M.  
 EDDY COUNTY, NEW MEXICO

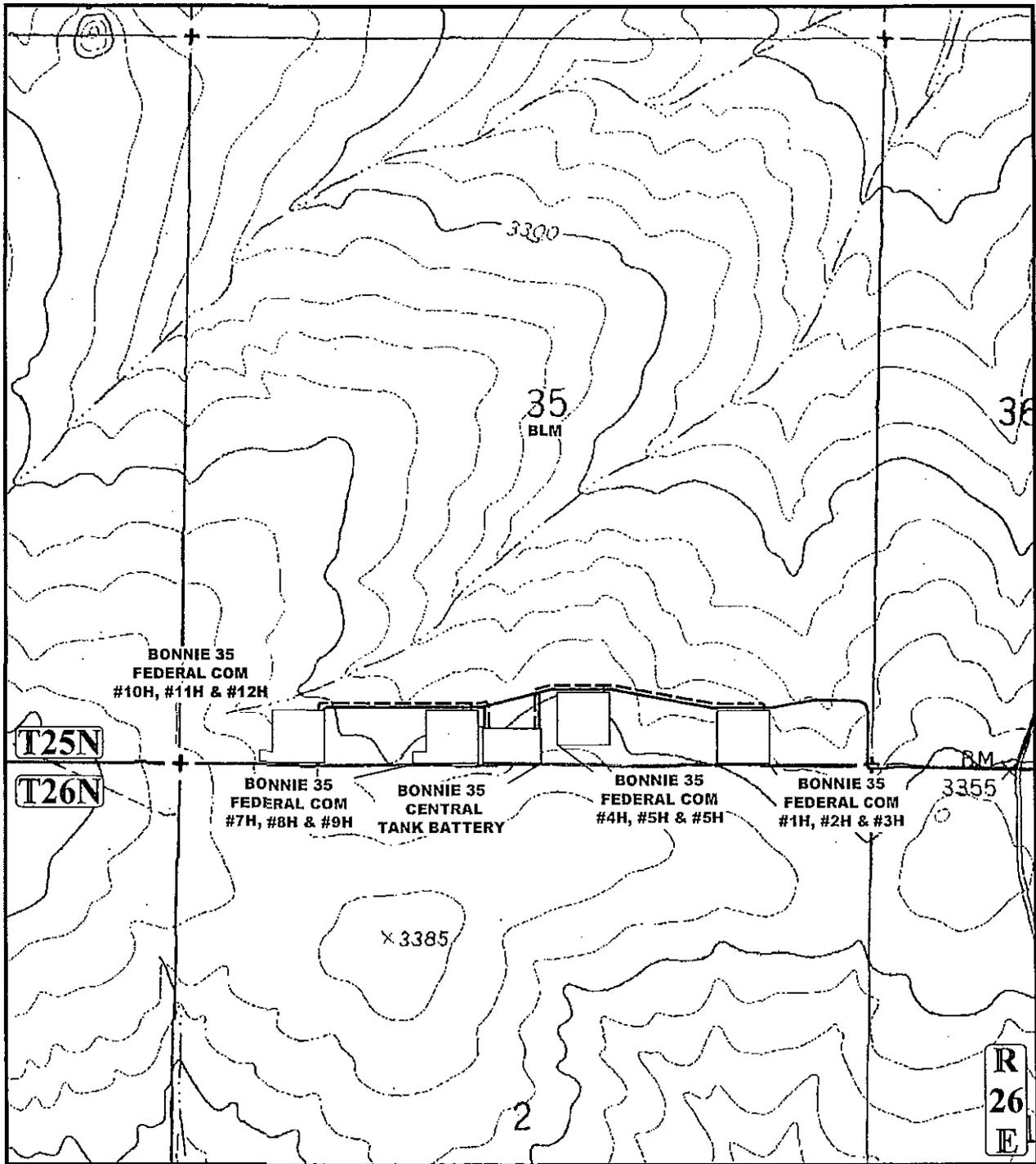


DRAWN BY: S.F.	DATE DRAWN: 10-28-14
SCALE: 1" = 500'	REVISED: 12-15-14

**FLOWLINE R-O-W EXHIBIT G-1**



**UELS, LLC**  
 Corporate Office \* 85 South 200 East  
 Vernal, UT 84078 \* (435) 789-1017



NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

**LEGEND:**

- EXISTING ROAD
- PROPOSED ROAD
- - - PROPOSED FLOW LINE

**CIMAREX ENERGY CO.**

**BONNIE 35 FLOW LINE NETWORK  
SECTION 35, T25S, R26E, N.M.P.M.  
S 1/2 S 1/2**

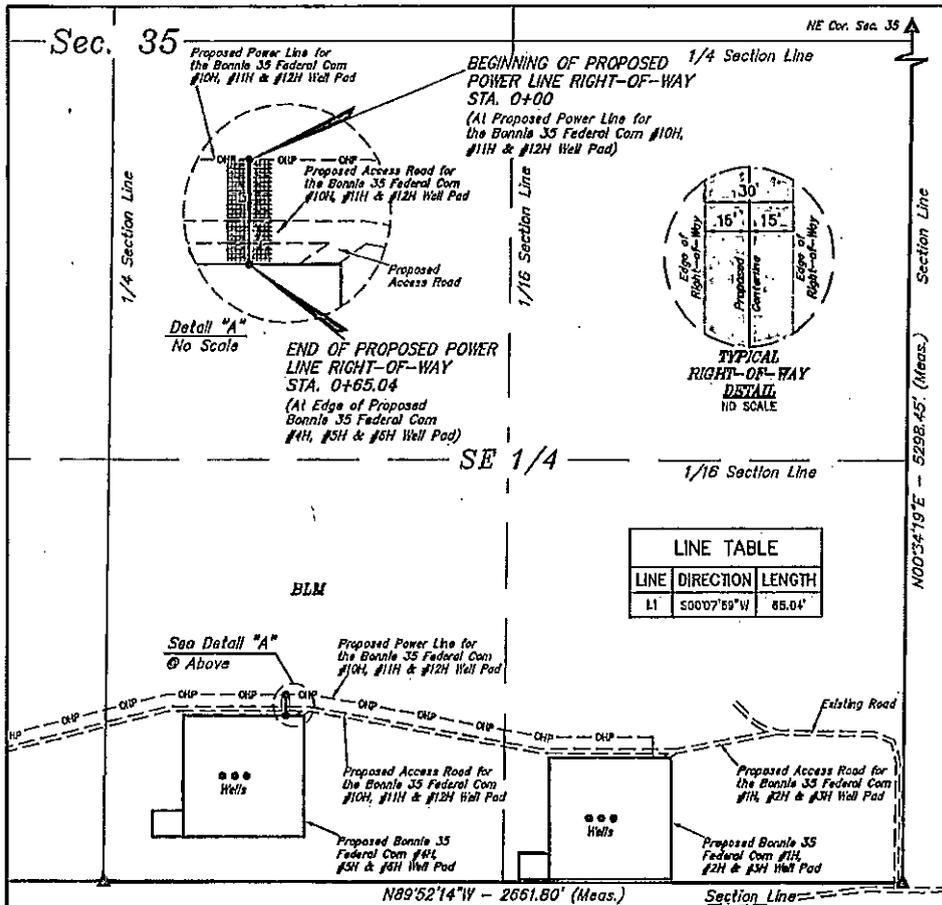
DRAWN BY: C.B.	DATE DRAWN: 02-25-15
SCALE: 1" = 1000'	REVISED: 00-00-00

**FLOWLINE NETWORK MAP EXHIBIT G1**



**UELS, LLC**  
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017





**POWER LINE RIGHT-OF-WAY DESCRIPTION**

A 30' WIDE RIGHT-OF-WAY 15' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

BEGINNING AT A POINT IN THE SW 1/4 SE 1/4 OF SECTION 35, T25S, R26E, N.M.P.M., WHICH BEARS N46°03'37\"/>

BEGINNING OF POWER LINE STA. 0+00 BEARS  
 N46°03'37\"/>

END OF POWER LINE STA. 0+65.04 BEARS  
 N49°25'13\"/>



RIGHT-OF-WAY LENGTHS			
PROPERTY OWNER	FEET	ACRES	RODS
BLM SE 1/4 SEC. 35	65.04	0.045	3.94

▲ = SECTION CORNERS LOCATED.

CERTIFICATE OF PROFESSIONAL SURVEY  
 THIS IS TO CERTIFY THAT THE ABOVE WAS PREPARED FROM BELIEVED NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.  
 [Signature]  
 REGISTERED PROFESSIONAL SURVEYOR  
 REG. NO. 12446  
 STATE OF NEW MEXICO  
 11-06-14

NOTES:

**CIMAREX ENERGY CO.**

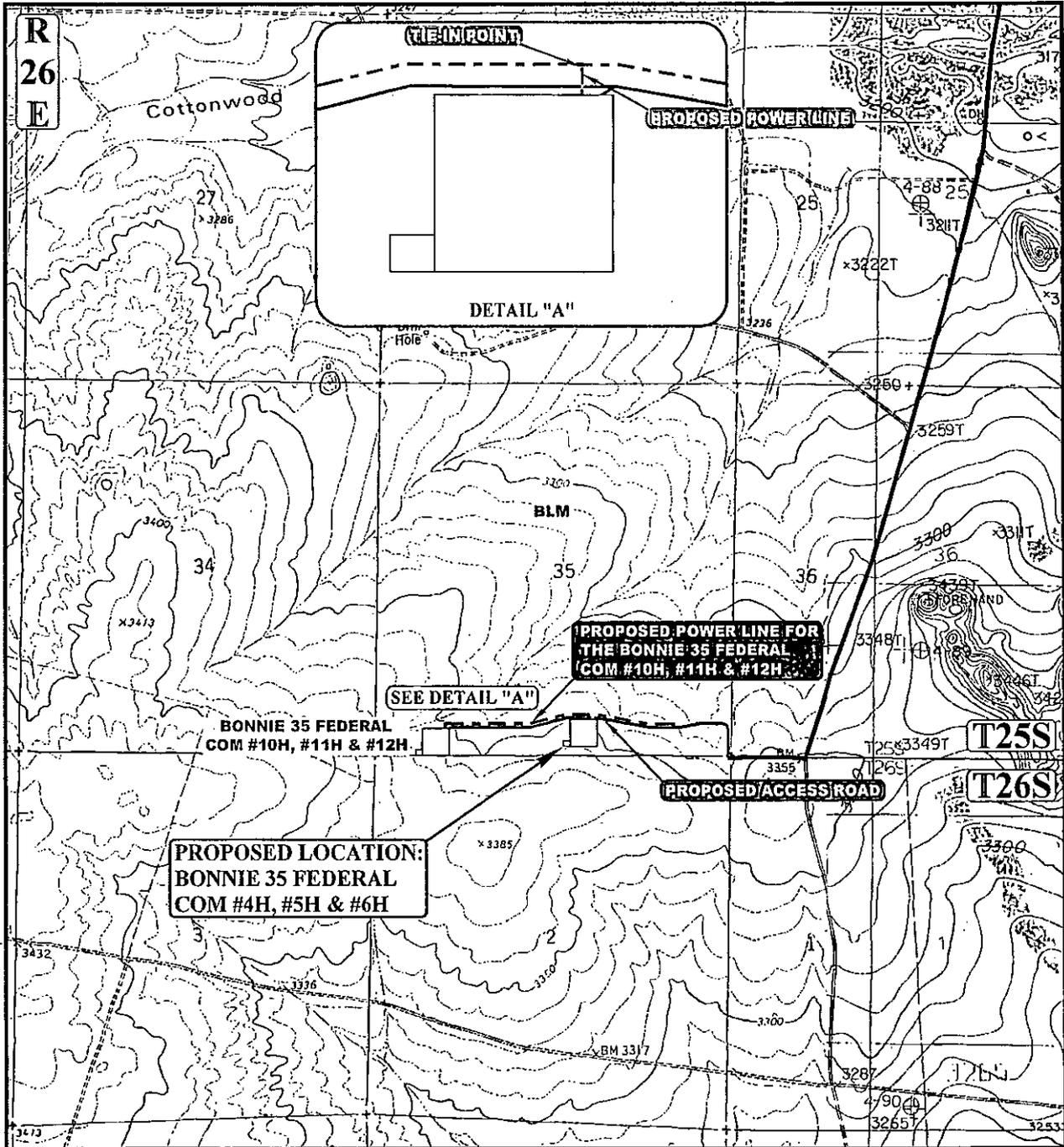
BONNIE 35 FEDERAL COM #4H, #5H & #6H  
 SECTION 35, T25S, R26E, N.M.P.M.  
 EDDY COUNTY, NEW MEXICO



DRAWN BY: S.F.	DATE DRAWN: 10-28-14
SCALE: 1" = 400'	REVISED: 00-00-00
<b>POWER LINE RIGHT-OF-WAY</b>	<b>EXHIBIT B</b>



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APPROXIMATE TOTAL POWER LINE DISTANCE = 65' +/-

NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

**LEGEND:**

- PROPOSED ROAD
- PROPOSED POWER LINE
- - - - PROPOSED POWER LINE (SERVICING OTHER WELLS)

**CIMAREX ENERGY CO.**

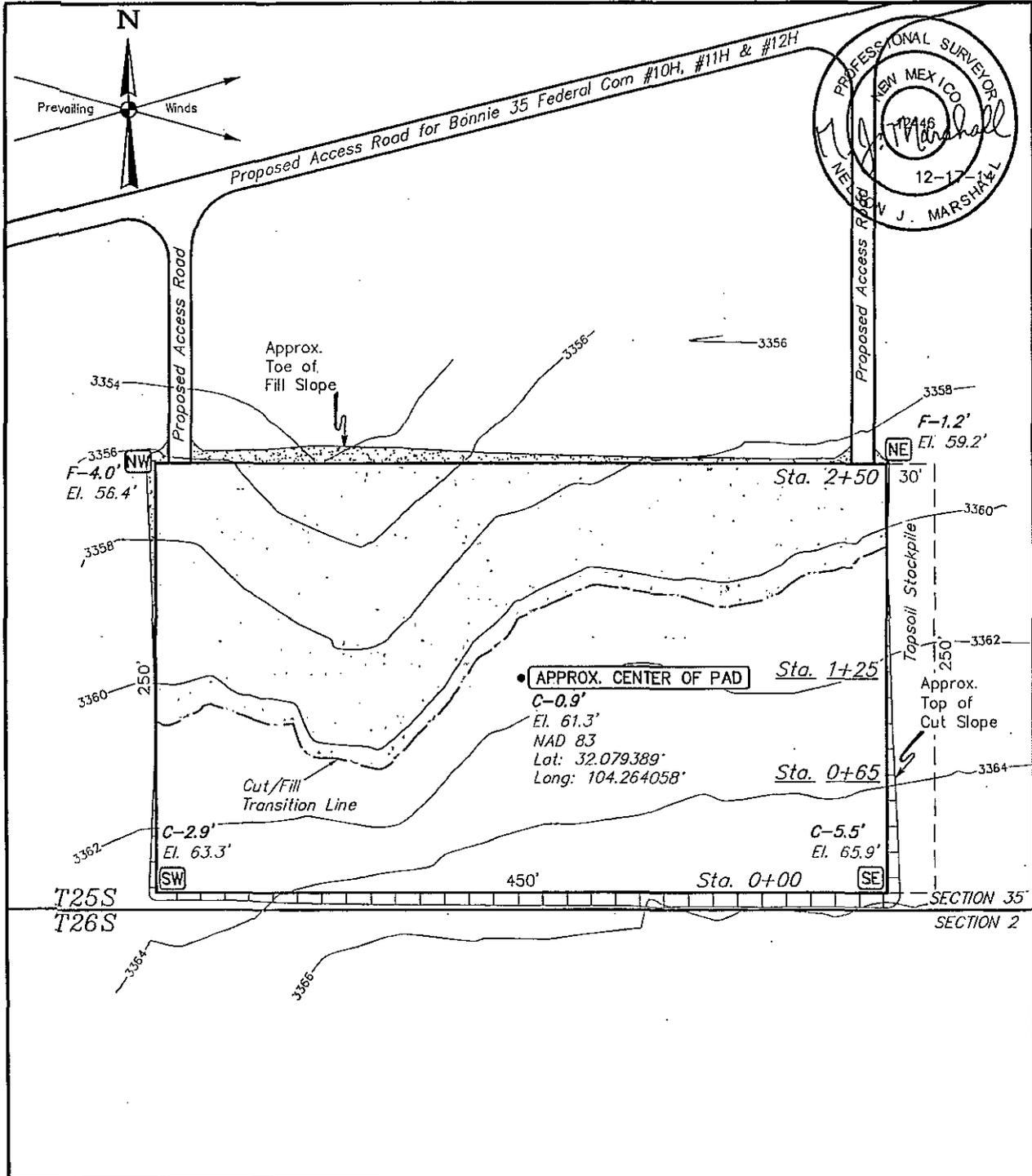
**BONNIE 35 FEDERAL COM #4H, #5H & #6H  
SECTION 35, T25S, R26E, N.M.P.M.  
SW 1/4 SE 1/4**

DRAWN BY: N.W.	DATE DRAWN: 10-31-14
SCALE: 1" = 2000'	REVISED: 00-00-00
<b>POWER LINE MAP</b>	<b>EXHIBIT H</b>



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FINISHED GRADE ELEVATION = 3360.4'

NOTES:  
 \* Contours shown at 2' intervals.

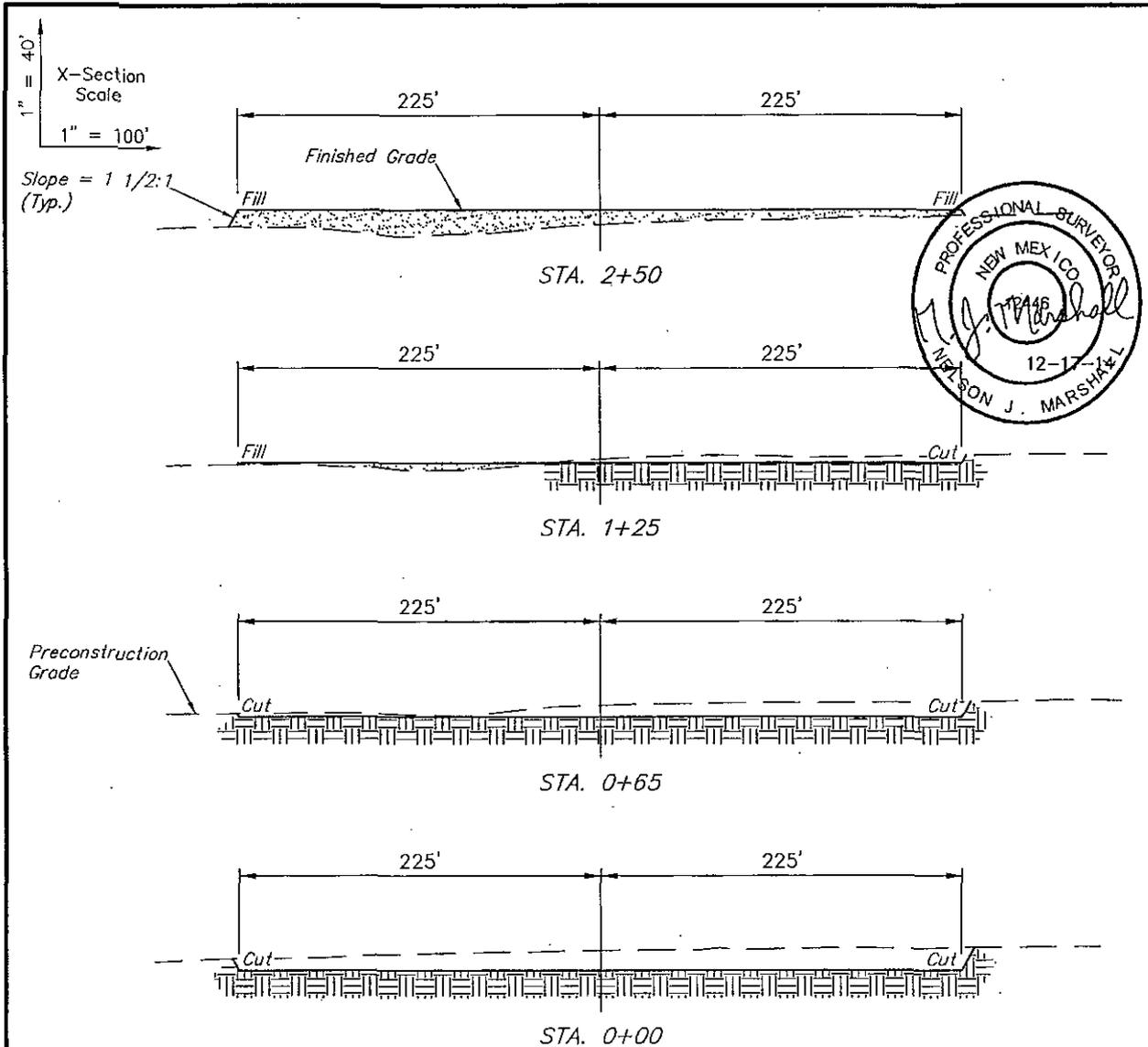
CIMAREX ENERGY CO.

BONNIE 35 CTB  
 SECTION 35, T25S, R26E, N.M.P.M.  
 S 1/2 S 1/2



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DRAWN BY: J.J.	DATE DRAWN: 12-11-14
SCALE: 1" = 80'	REVISED: 00-00-00
<b>LOCATION LAYOUT</b>	<b>EXHIBIT D</b>



APPROXIMATE EARTHWORK QUANTITIES	
(4") TOPSOIL STRIPPING	1,480 Cu. Yds.
REMAINING LOCATION	4,850 Cu. Yds.
<b>TOTAL CUT</b>	<b>6,330 Cu. Yds.</b>
FILL	4,850 Cu. Yds.
EXCESS MATERIAL	1,480 Cu. Yds.
TOPSOIL	1,480 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	0 Cu. Yds.

APPROXIMATE SURFACE DISTURBANCE AREAS		
	DISTANCE	ACRES
WELL SITE DISTURBANCE	NA	±2.911
25' WIDE ACCESS ROAD R-O-W DISTURBANCE	±416.63'	±0.239
15' WIDE POWER LINE R-O-W DISTURBANCE	±293.96'	±0.101
<b>TOTAL SURFACE USE AREA</b>		<b>±3.251</b>

- NOTES:**
- Fill quantity includes 5% for compaction.
  - Calculations based on 4" of topsoil stripping.
  - Topsoil should not be stripped below finished grade on substructure area.

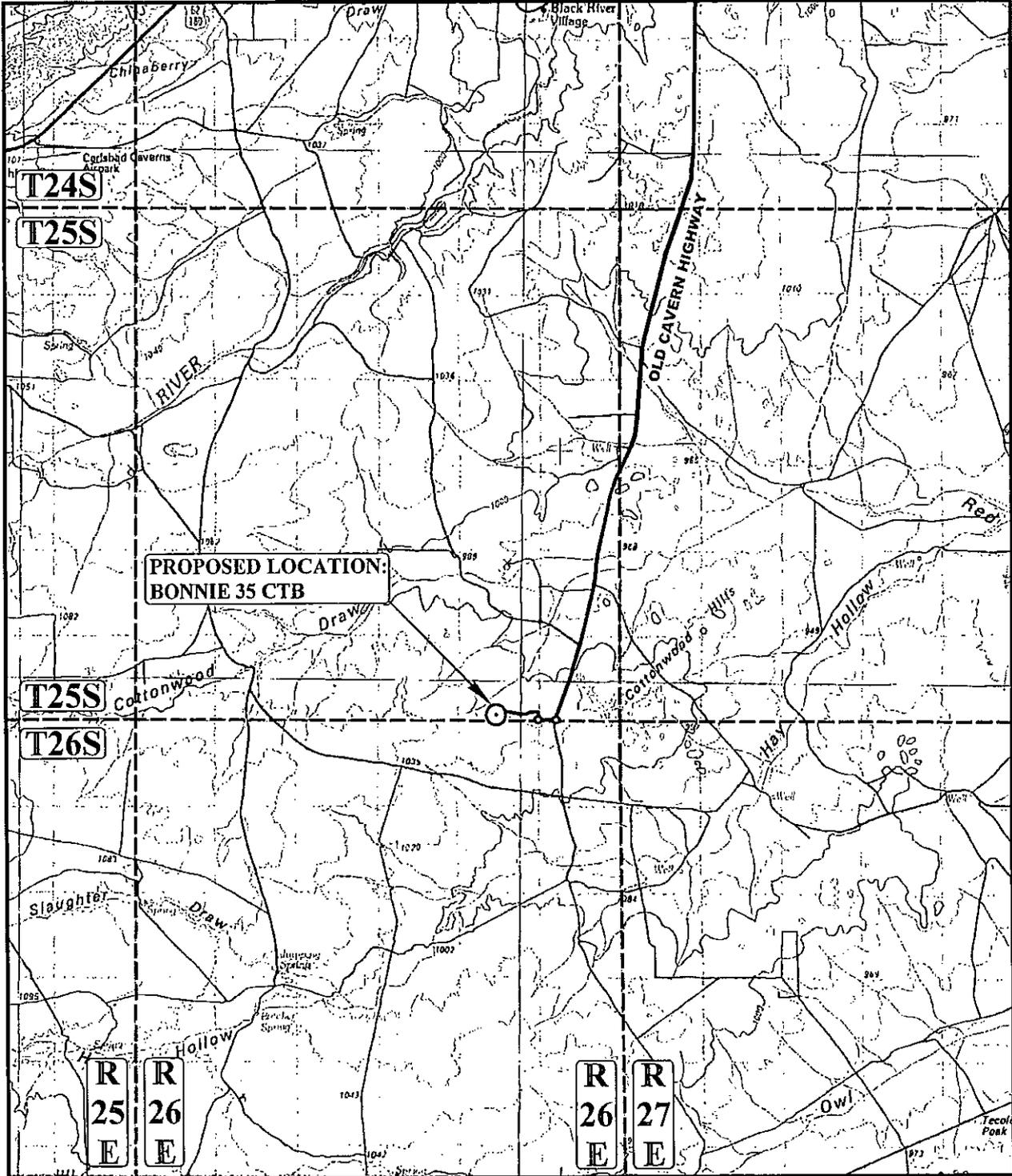
**CIMAREX ENERGY CO.**

**BONNIE 35 CTB**  
**SECTION 35, T25S, R26E, N.M.P.M.**  
**S 1/2 S 1/2**



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DRAWN BY: J.J.	DATE DRAWN: 12-11-14
SCALE: AS SHOWN	REVISED: 00-00-00
<b>TYPICAL CROSS SECTIONS EXHIBIT D</b>	



**PROPOSED LOCATION:  
BONNIE 35 CTB**

**LEGEND:**  
 PROPOSED LOCATION

**CIMAREX ENERGY CO.**

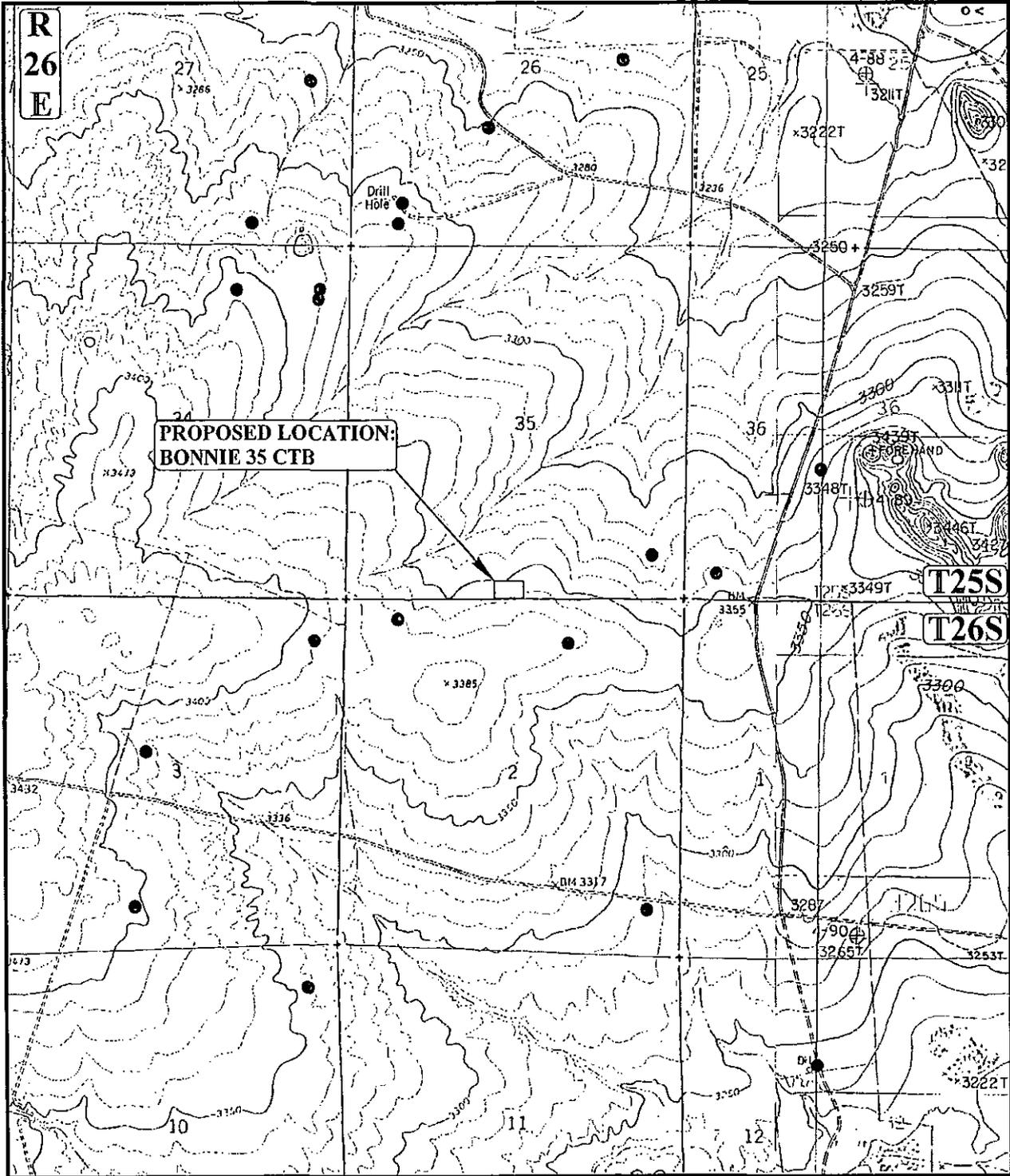
**BONNIE 35 CTB  
SECTION 35, T25S, R26E, N.M.P.M.  
S 1/2 S 1/2**



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 Corporate Office \* 85 South 200 East  
 Vernal, UT 84078 \* (435) 789-1017



DRAWN BY: C.B.	DATE DRAWN: 12-12-14
SCALE: 1:100,000	REVISED: 00-00-00
<b>PUBLIC ACCESS ROAD MAP EXHIBIT B</b>	



**LEGEND:**  
 ● EXISTING WELLS

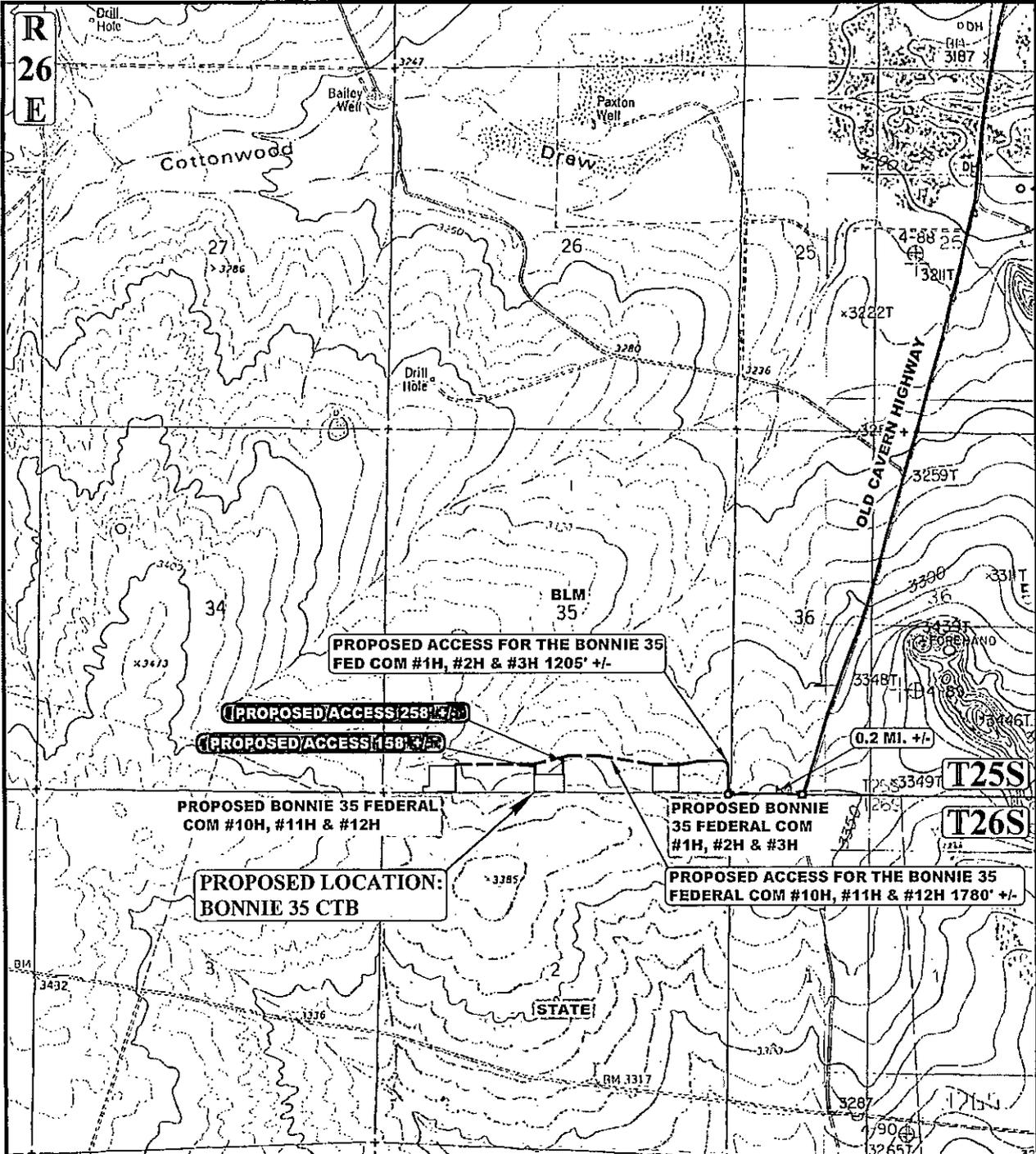
**CIMAREX ENERGY CO.**

**BONNIE 35 CTB**  
 SECTION 35, T25S, R26E, N.M.P.M.  
 S 1/2 S 1/2



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 Corporate Office \* 85 South 200 East  
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DRAWN BY: C.B.	DATE DRAWN: 12-12-14
SCALE: 1" = 2000'	REVISED: 00-00-00
<b>USGS TOPOGRAPHIC MAP EXHIBIT C</b>	



NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

**LEGEND:**

- EXISTING ROAD
- - - PROPOSED ROAD

**CIMAREX ENERGY CO.**

**BONNIE 35 CTB**  
**SECTION 35, T25S, R26E, N.M.P.M.**  
**S 1/2 S 1/2**



DRAWN BY: C.B.	DATE DRAWN: 12-12-14
SCALE: 1" = 2000'	REVISED: 00-00-00
<b>ACCESS ROAD MAP</b>	
<b>EXHIBIT C-1</b>	



**UELS, LLC**  
 Corporate Office \* 85 South 200 East  
 Vernal, UT 84078 \* (435) 789-1017

BEGINNING AT THE INTERSECTION OF OLD CAVERN HIGHWAY AND AN EXISTING ROAD TO THE WEST LOCATED IN THE NW 1/4 OF SECTION 1, T26S, R26E, N.M.P.M. PROCEED IN A WESTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE JUNCTION OF THIS ROAD AND THE BEGINNING OF THE PROPOSED ACCESS FOR THE BONNIE 35 FEDERAL COM #1H, #2H & #3H TO THE NORTH; FOLLOW ROAD FLAGS IN A NORTHERLY, THEN WESTERLY DIRECTION APPROXIMATELY 1,205' TO THE BEGINNING OF THE PROPOSED ACCESS TO FOR THE BONNIE 35 FEDERAL COM #10H, #11H & #12H TO THE WEST; FOLLOW ROAD FLAGS IN A WESTERLY DIRECTION APPROXIMATELY 1,230' TO THE BEGINNING OF THE PROPOSED ACCESS ROAD TO THE SOUTHWEST; FOLLOW ROAD FLAGS IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 36' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM HE INTERSECTION OF OLD CAVERN HIGHWAY AND AN EXISTING ROAD TO THE WEST LOCATED IN THE NW 1/4 OF SECTION 1, T26S, R26E, N.M.P.M. TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 0.6 MILES.

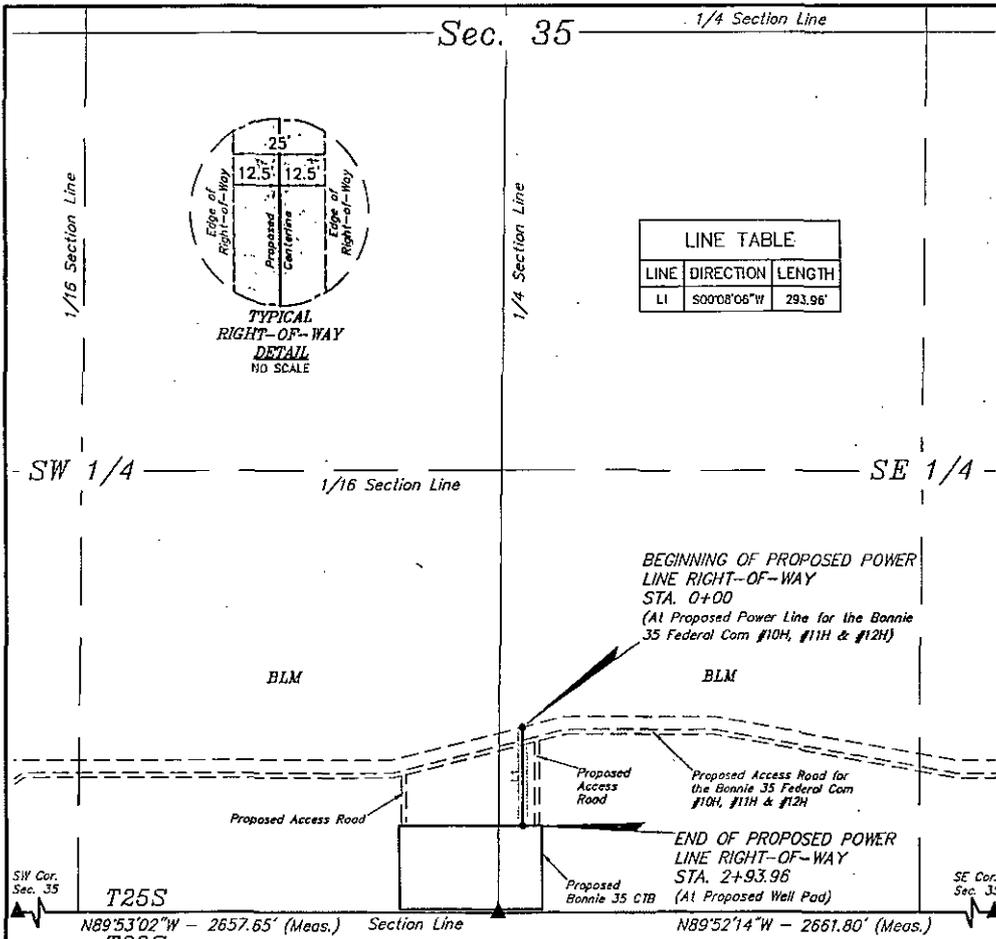
**CIMAREX ENERGY CO.**

**BONNIE 35 FEDERAL COM #4H, #5H & #6H  
SECTION 35, T25S, R26E, N.M.P.M.  
SW 1/4 SE 1/4**



**UELS, LLC**  
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017

DRAWN BY: N.W.	DATE DRAWN: 10-31-14
	REVISED: 00-00-00
<b>ROAD DESCRIPTION</b>	<b>EXHIBIT J</b>



**POWER LINE RIGHT-OF-WAY DESCRIPTION**

A 15' WIDE RIGHT-OF-WAY 7.5' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

BEGINNING AT A POINT IN THE SW 1/4 SE 1/4 OF SECTION 35, T25S, R26E, N.M.P.M., WHICH BEARS N08°16'37\"/>

BEGINNING OF POWER LINE STA. 0+00 BEARS  
 N08°16'37\"/>

END OF POWER LINE STA. 2+93.96 BEARS  
 N17°05'12\"/>



RIGHT-OF-WAY LENGTHS			
PROPERTY OWNER	FEET	ACRES	RODS
BLM SE 1/4 SEC. 35	293.96	0.101	17.82

CERTIFICATE OF PROFESSIONAL SURVEYOR

THIS IS TO CERTIFY THAT THE ABOVE PLAN WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

*Robert J. Marshall*

REGISTERED LAND SURVEYOR  
 REGISTRATION NO. 12448  
 STATE OF NEW MEXICO MARSHAL

12-17-14

▲ = SECTION CORNERS LOCATED.

NOTES:

**CIMAREX ENERGY CO.**

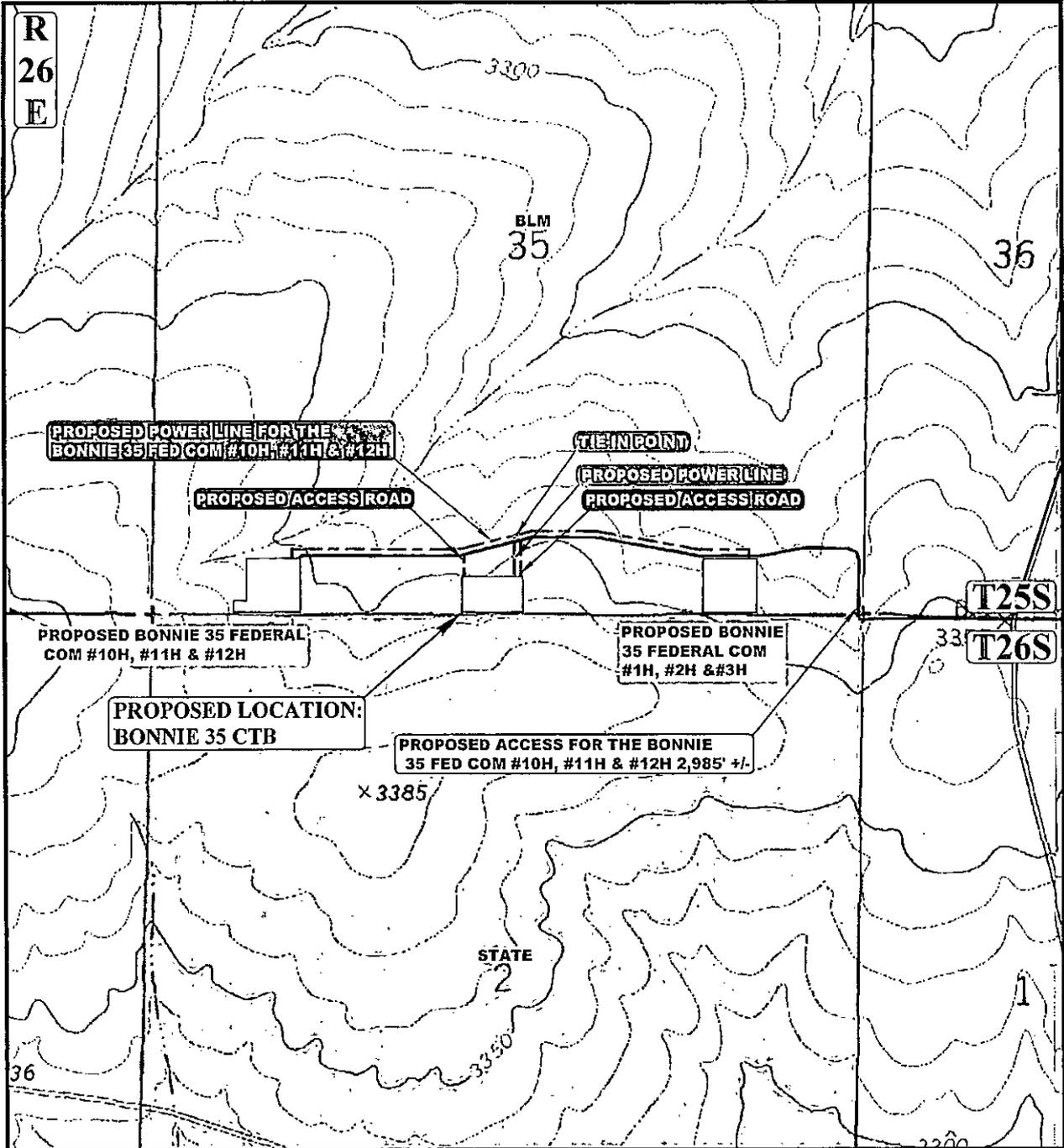
BONNIE 35 CTB  
 SECTION 35, T25S, R26E, N.M.P.M.  
 EDDY COUNTY, NEW MEXICO

DRAWN BY: JJ.	DATE DRAWN: 12-11-14
SCALE: 1" = 400'	REVISED: 00-00-00

**POWER LINE R-O-W**      **EXHIBIT H**

**U. UTAH**  
 ENGINEERING & LAND SURVEYING

UELS, LLC  
 Corporate Office \* 85 South 200 East  
 Vernal, UT 84078 \* (435) 789-1017



APPROXIMATE TOTAL POWER LINE DISTANCE = 294' +/-

NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

**LEGEND:**

- EXISTING ROAD
- PROPOSED ROAD
- - - PROPOSED POWER LINE
- - - PROPOSED PIPELINE (SERVICING OTHER WELLS)

**CIMAREX ENERGY CO.**

BONNIE 35 CTB  
SECTION 35, T25S, R26E, N.M.P.M.  
S 1/2 S 1/2



DRAWN BY: C.B.	DATE DRAWN: 12-12-14
SCALE: 1" = 1000'	REVISED: 00-00-00
<b>POWERLINE MAP</b>	<b>EXHIBIT H</b>



**UELS, LLC**  
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017

BEGINNING AT THE INTERSECTION OF OLD CAVERN HIGHWAY AND AN EXISTING ROAD TO THE WEST (LOCATED IN THE NW 1/4 OF SECTION 1, T26S, R26E, N.M.P.M.), PROCEED IN A WESTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE JUNCTION OF THIS ROAD AND THE BEGINNING OF THE PROPOSED ACCESS ROAD FOR THE BONNIE 35 FED COM #1H, #2H & #3H TO THE NORTH; FOLLOW ROAD FLAGS IN A NORTHERLY, THEN WESTERLY, DIRECTION APPROXIMATELY 1205' TO THE BEGINNING OF THE PROPOSED ACCESS FOR THE BONNIE 35 FEDERAL COM #10H, #11H, & #12H TO THE WEST; FOLLOW ROAD FLAGS IN A WESTERLY DIRECTION APPROXIMATELY 1780' TO THE BEGINNING OF THE PROPOSED ACCESS TO THE SOUTH; FOLLOW ROAD FLAGS IN A SOUTHERLY DIRECTION APPROXIMATELY 258' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM THE INTERSECTION OF OLD CAVERN HIGHWAY AND AN EXISTING ROAD TO THE WEST (LOCATED IN THE NW 1/4 OF SECTION 1, T26S, R26E, N.M.P.M.) TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 0.8 MILES.

**CIMAREX ENERGY CO.**

**BONNIE 35 CTB  
SECTION 35, T25S, R26E, N.M.P.M.  
S 1/2 S 1/2**



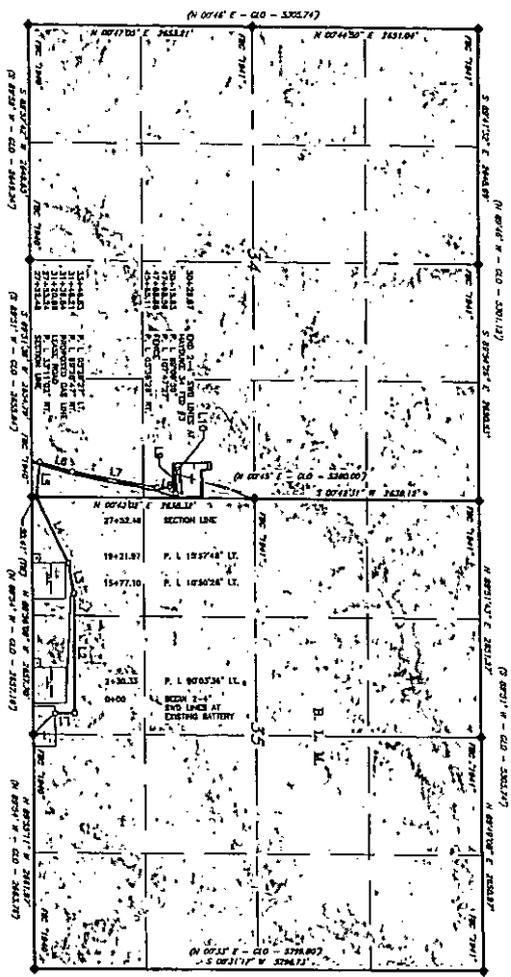
**UELS, LLC**  
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017

DRAWN BY: C.B.	DATE DRAWN: 12-12-14
	REVISED: 00-00-00

**ROAD DESCRIPTION**

**EXHIBIT J**

**CIMAREX ENERGY COMPANY**  
**PROPOSED 2-4" SWD LINES FROM THE BONNIE BATTERY TO THE HAYDUKE BATTERY**  
**SECTIONS 34 & 35, T25S, R26E,**  
**N. M. P. M., EDDY CO., NEW MEXICO**



LINE TABLE

LINE	BEARING	LENGTH
L1	N 00°08'44" E	230.33'
L2	N 89°58'53" W	1348.77'
L3	S 78°12'41" W	344.87'
L4	S 83°14'53" W	831.27'
L5	N 82°24'03" W	292.97'
L6	N 72°51'18" E	1028.44'
L7	N 18°01'42" E	333.48'
L8	S 88°14'15" W	217.04'
L9	N 02°35'55" W	14.24'

SCALE: 1" = 1500'  
 0 750 1500'  
 BEARINGS ARE AND BY GRID  
 DISTANCES ARE BY GRID

LEGEND  
 ( ) RECORD DATA - CLO  
 ◆ FOUND ADJUSTMENT  
 AS NOTED  
 ■ FOUND ADJ. AS NOTED  
 PROPOSED ACCESS ROAD

Firm No.: TX 1019383B NM 4655451

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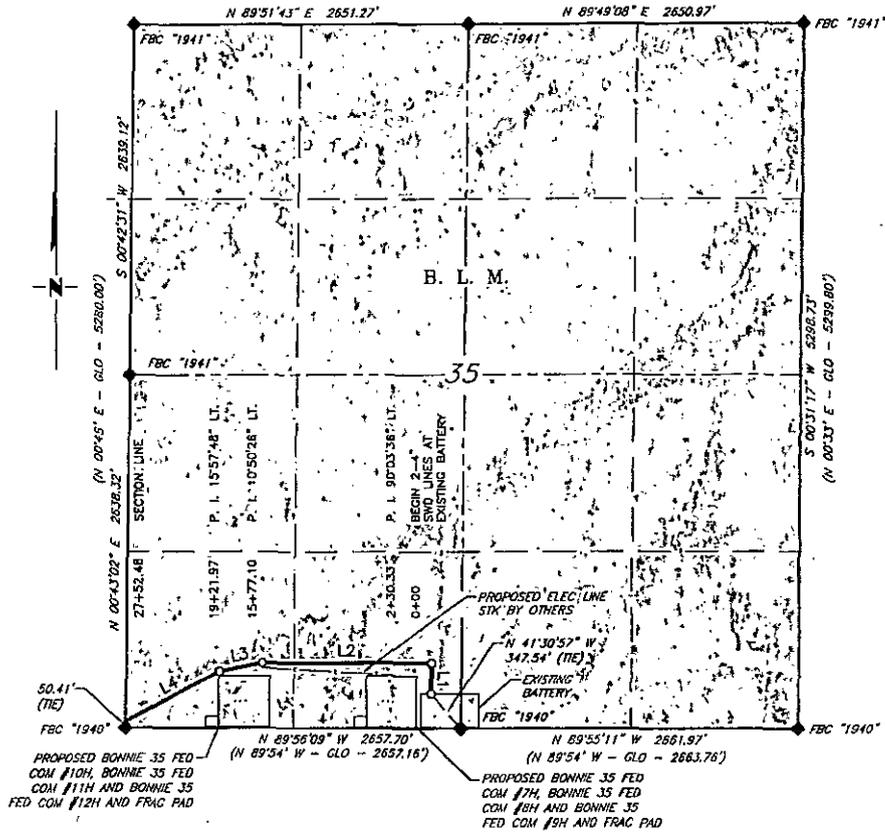
NO.	REVISION	DATE
JOB NO.: LS1501034		
DWG. NO.: 1501034-1		

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1500'
DATE: 1-21-2015
SURVEYED BY: BK/ML
DRAWN BY: CMJ
APPROVED BY: RMH
SHEET : 1 OF 5

**CIMAREX ENERGY COMPANY**  
**PROPOSED 2-4" SWD LINES FROM THE BONNIE BATTERY**  
**TO THE HAYDUKE BATTERY**  
**SECTION 35, T25S, R26E,**  
**N. M. P. M., EDDY CO., NEW MEXICO**

(S 89°51' W - GLO - 5305.74')



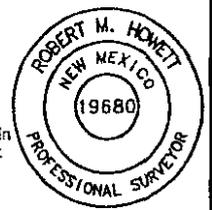
LINE TABLE		
LINE	BEARING	LENGTH
L1	N 00°06'44" E	230.33'
L2	N 89°56'53" W	1346.77'
L3	S 79°12'41" W	344.87'
L4	S 63°14'53" W	830.51'

SCALE: 1" = 1000'  
 0 500' 1000'  
 BEARINGS ARE GRID NAD 83  
 NM EAST  
 DISTANCES ARE HORIZ. GROUND.

**LEGEND**  
 ( ) RECORD DATA - GLO  
 ◆ FOUND MONUMENT AS NOTED  
 ■ FOUND MGN. AS NOTED  
 — PROPOSED ACCESS ROAD

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plat from an actual survey made on the ground under my direct supervision, said survey and plat meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief.

*Robert M. Howett*  
 Robert M. Howett



Firm No.: TX 10193838 NM 4555451

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 Robert M. Howett NM PS 19680

NO.	REVISION	DATE

JOB NO.: LS1501034  
 DWG. NO.: 1501034-2



308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1000'
DATE: 1-21-2015
SURVEYED BY: BK/ML
DRAWN BY: CMJ
APPROVED BY: RMH
SHEET: 2 OF 5

**CIMAREX ENERGY COMPANY**  
**PROPOSED 2-4" SWD LINES FROM THE BONNIE BATTERY**  
**TO THE HAYDUKE BATTERY**  
**SECTION 35, T25S, R26E,**  
**N. M. P. M., EDDY CO., NEW MEXICO**

DESCRIPTION

A strip of land 30 feet wide, being 2,752.48 feet or 166.817 rods in length, lying in Section 35, Township 25 South, Range 26 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across B. L. M. land:

BEGINNING at Engr. Sta. 0+00, a point in the Southwest quarter of Section 35, which bears N 41°30'57" W, 347.54 feet from a brass cap, stamped "1940", found for the South quarter corner of Section 35;

Thence N 00°06'44" E, 230.33 feet, to Engr. Sta. 2+30.33, a P. I. of 90°03'36" left;

Thence N 89°56'53" W, 1,346.77 feet, to Engr. Sta. 15+77.10, a P. I. of 10°50'28" left;

Thence S 79°12'41" W, 344.87 feet, to Engr. Sta. 19+21.97, a P. I. of 15°57'48" left;

Thence S 63°14'53" W, 830.51 feet, to Engr. Sta. 27+52.48, a point on the west line of Section 35, which bears N 00°43'02" E, 50.41 feet from a brass cap, stamped "1940", found for the Southwest corner of Section 35.

Said strip of land contains 1.896 acres, more or less and is allocated by forties as follows:

SE 1/4 SW 1/4	80.211 Rods	0.912 Acres
SW 1/4 SW 1/4	86.606 Rods	0.984 Acres

Firm No.: TX 10193838 NM 4655451

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NO.	REVISION	DATE
JOB NO.: LS1501034		
DWG. NO.: 1501034--3		

RRC

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1000'
DATE: 1-21-2015
SURVEYED BY: BK/ML
DRAWN BY: CMJ
APPROVED BY: RMH
SHEET : 3 OF 5



**CIMAREX ENERGY COMPANY**  
**PROPOSED 2-4" SWD LINES FROM THE BONNIE BATTERY**  
**TO THE HAYDUKE BATTERY**  
**SECTION 34, T25S, R26E,**  
**N. M. P. M., EDDY CO., NEW MEXICO**

DESCRIPTION

A strip of land 30 feet wide, being 2,277.39 feet or 138.024 rods in length, lying in Section 34, Township 25 South, Range 26 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across B. L. M. land:

BEGINNING at Engr. Sta. 27+52.48, a point on the East line of Section 34, which bears N 00°43'02" E, 50.41 feet from a brass cap, stamped "1940", found for the Southeast corner of Section 34;

Thence S 63°14'53" W, 0.76 feet, to Engr. Sta. 27+53.24, a P. I. of 33°11'02" right;

Thence N 83°34'04" W, 392.97 feet, to Engr. Sta. 31+46.21, a P. I. of 99°28'47" right;

Thence N 15°54'43" E, 400.42 feet, to Engr. Sta. 35+46.63, a P. I. of 05°29'27" left;

Thence N 10°25'16" E, 1,018.48 feet, to Engr. Sta. 45+65.11, a P. I. of 05°36'26" right;

Thence N 16°01'42" E, 233.48 feet, to Engr. Sta. 47+98.59, a P. I. of 107°47'27" left;

Thence S 88°14'15" W, 217.04 feet, to Engr. Sta. 50+15.63, a P. I. of 89°09'50" right;

Thence N 02°35'55" W, 14.24 feet, to Engr. Sta. 50+29.87, the End of Survey, a point in the Southeast quarter of Section 34, which bears S 16°59'16" W, 967.52 feet from a brass cap, stamped "1941", found for the East quarter corner of Section 34.

Said strip of land contains 1.568 acres, more or less and is allocated by forties as follows:

SE 1/4 SE 1/4	99.885 Rods	1.135 Acres
NE 1/4 SE 1/4	38.139 Rods	0.433 Acres

Firm No.: TX 10193838 NH 4655451

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NO.	REVISION	DATE
JOB NO.: LS1501034		
DWG. NO.: 1501034-5		

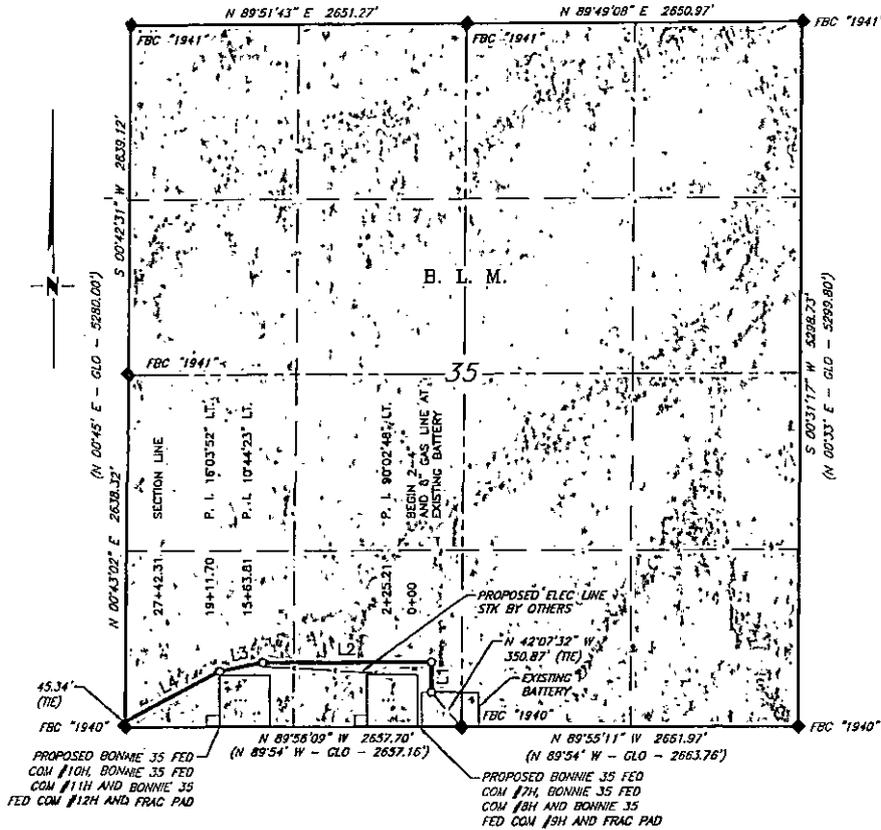
**RRC**

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1000'
DATE: 1-21-2015
SURVEYED BY: BK/ML
DRAWN BY: CMJ
APPROVED BY: RMH
SHEET : 5 OF 5

**CIMAREX ENERGY COMPANY**  
**PROPOSED 2-4" & 8" STEEL GAS LINES FROM THE BONNIE BATTERY**  
**TO THE HAYDUKE BATTERY**  
**SECTION 35, T25S, R26E,**  
**N. M. P. M., EDDY CO., NEW MEXICO**

(S 89°51' W - GLO - 5305.74')



LINE TABLE		
LINE	BEARING	LENGTH
L1	N 00°06'01" E	225.21'
L2	N 89°56'48" W	1338.60'
L3	S 79°18'49" W	347.89'
L4	S 63°14'57" W	830.61'

SCALE: 1" = 1000'  
 0 500' 1000'  
 BEARINGS ARE GRID MAG 83  
 NM EAST  
 DISTANCES ARE HORIZ. GROUND.

**LEGEND**  
 ( ) RECORD DATA -- GLO  
 ♦ FOUND MONUMENT AS NOTED  
 ■ FOUND ALIGN. AS NOTED  
 — PROPOSED ACCESS ROAD

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plat from an actual survey made on the ground under my direct supervision, said survey and plat meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief.

*Robert M. Howett*  
 Robert M. Howett NM PS 19680



Firm No.: TX 10193838 NM 4655451

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NO.	REVISION	DATE

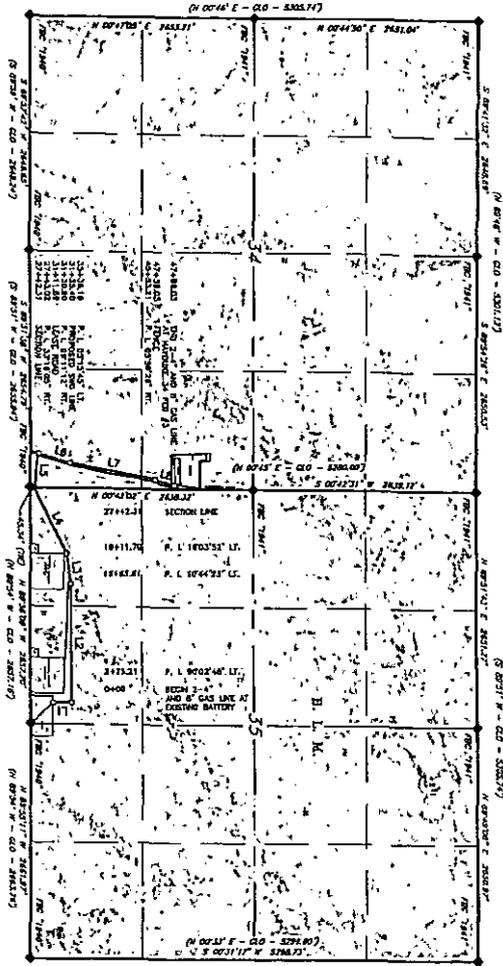
JOB NO.: LS1501033  
 DWG. NO.: 1501033-2



308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1000'
DATE: 1-21-2015
SURVEYED BY: BK/ML
DRAWN BY: CMJ
APPROVED BY: RMH
SHEET : 2 OF 5

**CIMAREX ENERGY COMPANY**  
**PROPOSED 2-4" & 8" STEEL GAS LINES FROM THE BONNIE BATTERY TO THE HAYDUKE BATTERY**  
**SECTIONS 34 & 35, T25S, R26E,**  
**N. M. P. M., EDDY CO., NEW MEXICO**



LINE	BEARING	LENGTH
L1	N 00°08'01" E	225.21'
L2	N 88°56'44" W	1388.62'
L3	S 79°10'45" W	347.85'
L4	S 83°14'57" W	831.32'
L5	N 05°22'58" E	387.88'
L6	N 10°26'58" E	105.42'
L7	N 10°26'58" E	243.82'
L8	N 16°25'54" E	243.82'

SCALE: 1" = 1500'  
 0 750' 1500'  
 BEARINGS ARE TRUE  
 DISTANCES ARE GROUND  
 LEGEND  
 ( ) RECORD DATA - CLO  
 ◆ FOUND ADJUMENT  
 ▲ FOUND ADJ. AS NOTED  
 ■ PROPOSED ACCESS ROAD

Firm No.: TX 10193938 NM 4655451

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NO.	REVISION	DATE

JOB NO.: LS1501033  
 DWG. NO.: 1501033-1

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1500'
DATE: 1-21-2015
SURVEYED BY: BK/ML
DRAWN BY: CMJ
APPROVED BY: RMH
SHEET : 1 OF 5

**CIMAREX ENERGY COMPANY**  
**PROPOSED 2-4" & 8" STEEL GAS LINES FROM THE BONNIE BATTERY**  
**TO THE HAYDUKE BATTERY**  
**SECTION 34, T25S, R26E,**  
**N. M. P. M., EDDY CO., NEW MEXICO**

DESCRIPTION

A strip of land 30 feet wide, being 2,053.72 feet or 124.468 rods in length, lying in Section 34, Township 25 South, Range 26 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across B. L. M. land:

BEGINNING at Engr. Sta. 27+42.31, a point on the East line of Section 34, which bears N 00°43'02" E, 45.34 feet from a brass cap, stamped "1940", found for the Southeast corner of Section 34;

Thence S 63°14'57" W, 0.71 feet, to Engr. Sta. 27+43.02, a P. I. of 33°16'05" right;

Thence N 83°28'58" W, 387.88 feet, to Engr. Sta. 31+30.90, a P. I. of 99°11'12" right;

Thence N 15°42'14" E, 405.28 feet, to Engr. Sta. 35+36.18, a P. I. of 05°15'45" left;

Thence N 10°26'29" E, 1,017.03 feet, to Engr. Sta. 45+53.21, a P. I. of 05°59'26" right;

Thence N 16°25'54" E, 242.82 feet, to Engr. Sta. 47+96.03, the End of Survey, a point in the Southeast quarter of Section 34, which bears S 03°26'48" W, 927.51 feet from a brass cap, stamped "1941", found for the East quarter corner of Section 34.

Said strip of land contains 1.414 acres, more or less and is allocated by forties as follows:

SE 1/4 SE 1/4	99.870 Rods	1.135 Acres
NE 1/4 SE 1/4	24.598 Rods	0.280 Acres

Firm No.: TX 10193838 NM 4655451

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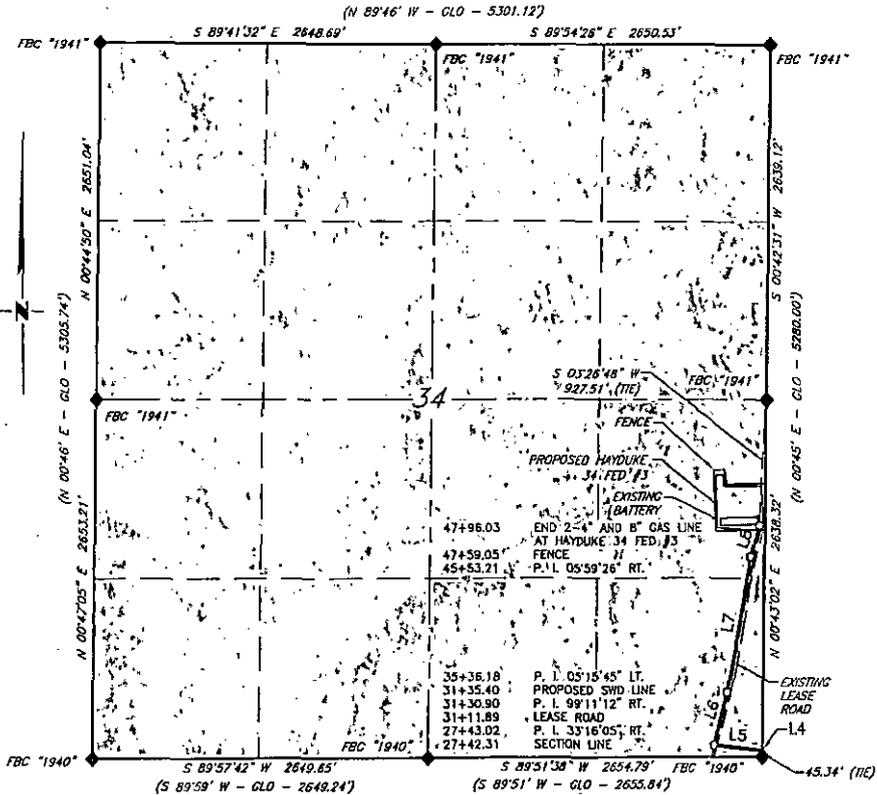
NO.	REVISION	DATE
JOB NO.: LS1501033		
DWG. NO.: 1501033-5		

RRC

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 984-8200

SCALE: 1" = 1000'
DATE: 1-21-2015
SURVEYED BY: BK/ML
DRAWN BY: CMJ
APPROVED BY: RMH
SHEET : 5 OF 5

**CIMAREX ENERGY COMPANY**  
**PROPOSED 2-4" & 8" STEEL GAS LINES FROM THE BONNIE BATTERY**  
**TO THE HAYDUKE BATTERY**  
**SECTION 34 T25S, R26E,**  
**N. M. P. M., EDDY CO., NEW MEXICO**



LINE TABLE		
LINE	BEARING	LENGTH
L4	S 63°14'57" W	0.71'
L5	N 83°28'58" W	387.88'
L6	N 15°42'14" E	405.28'
L7	N 40°26'29" E	1017.03'
L8	N 16°25'54" E	242.82'

SCALE: 1" = 1000'  
0      500'      1000'

BEARINGS ARE GRID NAD 83  
NM EAST  
DISTANCES ARE HORIZ. GROUND.

LEGEND

( ) RECORD DATA - GLO

◆ FOUND MONUMENT AS NOTED

■ FOUND MON. AS NOTED

— PROPOSED ACCESS ROAD

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plat from an actual survey made on the ground under my direct supervision, said survey and plat meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief.

*Robert M. Howett*



Firm No.: TX 10193838 NM 4655451      Robert M. Howett      NM PS 19680      Copyright 2014 - All Rights Reserved

RRC			SCALE: 1" = 1000'
			DATE: 1-21-2015
			SURVEYED BY: BK/ML
			DRAWN BY: CMJ
			APPROVED BY: RMH
			SHEET : 4 OF 5
NO.	REVISION	DATE	
JOB NO.: LS1501033			
DWG. NO.: 1501033-4			
308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200			

**CIMAREX ENERGY COMPANY**  
**PROPOSED 2-4" & 8" STEEL GAS LINES FROM THE BONNIE BATTERY**  
**TO THE HAYDUKE BATTERY**  
**SECTION 35, T25S, R26E,**  
**N. M. P. M., EDDY CO., NEW MEXICO**

DESCRIPTION

A strip of land 30 feet wide, being 2,742.31 feet or 166.201 rods in length, lying in Section 35, Township 25 South, Range 26 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across B. L. M. land:

BEGINNING at Engr. Sta. 0+00, a point in the Southwest quarter of Section 35, which bears N 42°07'32" W, 350.87 feet from a brass cap, stamped "1940", found for the South quarter corner of Section 35;

Thence N 00°06'01" E, 225.21 feet, to Engr. Sta. 2+25.21, a P. I. of 90°02'48" left;

Thence N 89°56'48" W, 1,338.60 feet, to Engr. Sta. 15+63.81, a P. I. of 10°44'23" left;

Thence S 79°18'49" W, 347.89 feet, to Engr. Sta. 19+11.70, a P. I. of 16°03'52" left;

Thence S 63°14'57" W, 830.61 feet, to Engr. Sta. 27+42.31, a point on the West line of Section 35, which bears N 00°43'02" E, 45.34 feet from a brass cap, stamped "1940", found for the Southwest corner of Section 35.

Said strip of land contains 1.889 acres, more or less and is allocated by forties as follows:

SE 1/4 SW 1/4	79.598 Rods	0.905 Acres
SW 1/4 SW 1/4	86.603 Rods	0.984 Acres

Firm No.: TX 10193838 NM 4655451

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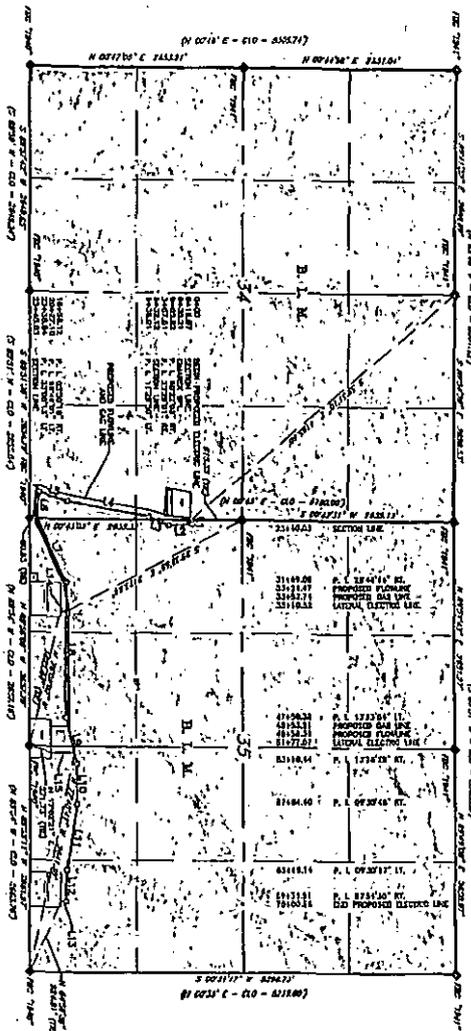
NO.	REVISION	DATE
JOB NO.: LS1501033		
DWC. NO.: 1501033-3		

RRC

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1000'
DATE: 1-21-2015
SURVEYED BY: BK/ML
DRAWN BY: CMJ
APPROVED BY: RMH
SHEET : 3 OF 5

**CIMAREX ENERGY COMPANY**  
**PROPOSED ELECTRIC LINE FROM THE HAYDUKE 34 #3 BATTERY TO THE BONNIE 35 FED COM #1, 2 & 3H,**  
**& LATERALS FOR THE BONNIE 35 FED COM #10, 11 & 12H, & BONNIE BATTERY**  
**SECTIONS 34 & 35, T25S, R26E,**  
**N. M. P. M., EDDY CO., NEW MEXICO**



LINE TABLE

LINE	BEARING	LENGTH
L1	N 89°13'10" E	63.02
L2	S 01°24'30" E	301.95
L3	S 72°04'25" W	772.07
L4	N 15°04'35" W	101.88
L5	S 61°46'10" E	311.74
L6	N 63°15'20" E	630.25
L7	S 87°57'17" E	1291.29
L8	N 78°38'45" E	280.05
L9	N 82°54'45" E	722.95
L10	S 87°57'17" E	722.95
L11	S 82°54'45" E	368.57
L12	S 63°15'20" E	368.57
L13	S 07°00'19" W	54.05
L14	S 07°00'22" E	54.72
L15	S 00°05'00" W	254.14

SCALE: 1" = 1500'  
 0 750' 1500'  
 BEARINGS ARE NOT AS GRID  
 DISTANCES ARE GRID  
 LEGEND  
 ( ) RECORD DATA - C&O  
 ( ) FIELD MEASUREMENT  
 ◆ RECALCULATED  
 ——— PROPOSED ELECTRIC LINE

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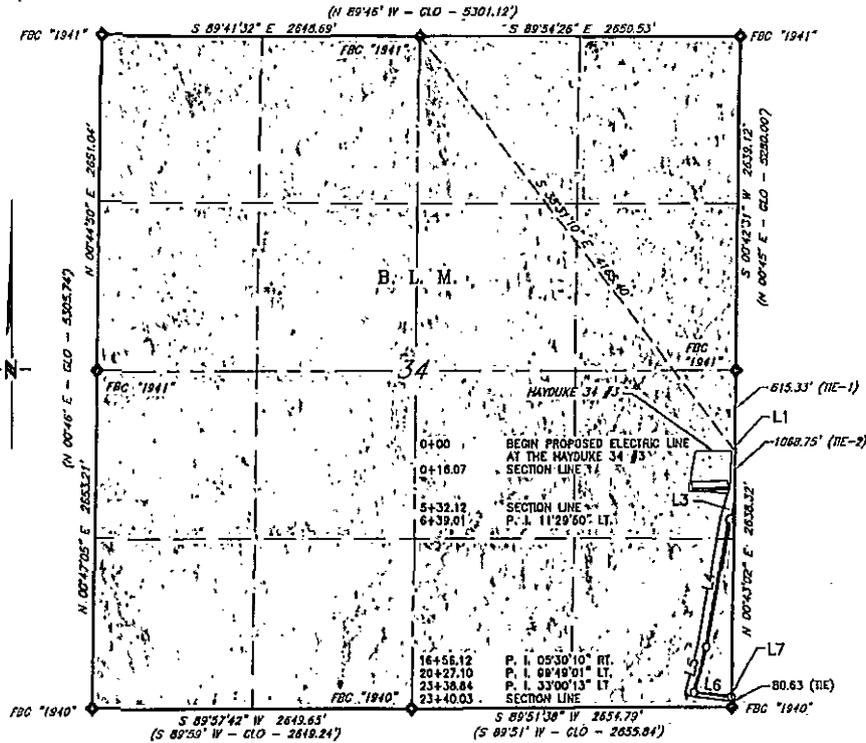
NO.	REVISION	DATE

JOB NO.: LS1502054  
 DWG. NO.: 1502054-1

300 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-0200

SCALE: 1" = 1500'  
 DATE: 2-19-2015  
 SURVEYED BY: ML/AA  
 DRAWN BY: CMJ  
 APPROVED BY: RMH  
 SHEET: 1 OF 2

**CIMAREX ENERGY COMPANY**  
**PROPOSED ELECTRIC LINE FROM THE HAYDUKE 34 #3 BATTERY TO**  
**THE BONNIE 35 FED COM #1, 2 & 3H WELL LOCATIONS**  
 SECTION 34 T25S, R26E,  
 N. M. P. M., EDDY CO., NEW MEXICO



LINE TABLE		
LINE	BEARING	LENGTH
L1	N 88°13'18" E	16.07'
L3	S 22°04'22" W	106.89'
L4	S 10°34'33" W	1017.11'
L5	S 16°04'43" W	370.98'
L6	S 83°44'18" E	311.74'
L7	N 63°15'28" E	1.19'

SCALE: 1" = 1000'  
 0 500' 1000'

BEARINGS ARE GRID AND BY  
 THE EAST  
 DISTANCES ARE HORIZ. GROUND.

LEGEND  
 ( ) RECORD DATA - CLO  
 ♦ FOUND MONUMENT AS NOTED  
 — PROPOSED ELECTRIC LINE

I, R. M. Howell, a N. M. Professional Surveyor, hereby certify that I prepared this plat from an actual survey made on the ground under my direct supervision, said survey and plot meet the Min. Sids. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief.

*Robert M. Howell*  
 Robert M. Howell NM PS 19680



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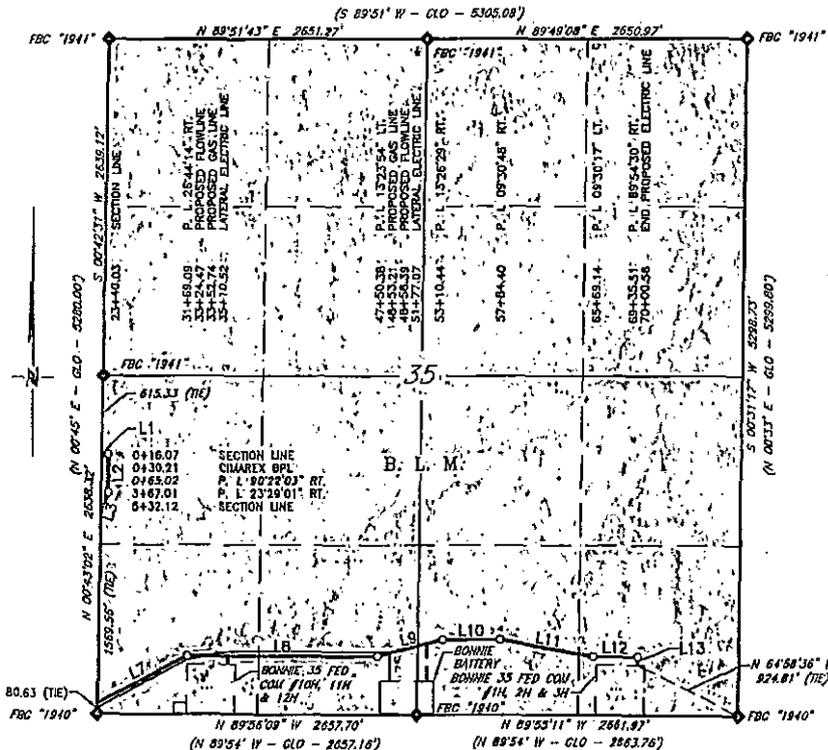
**RRC**

308 W. BROADWAY ST., HOBBS, NM 08240 (575) 964-8200

NO.	REVISION	DATE
JOB NO.: LS1502054		
DWG. NO.: 1502054-3		

SCALE: 1" = 1000'
DATE: 2-19-2015
SURVEYED BY: ML/AA
DRAWN BY: CMJ
APPROVED BY: RMH
SHEET: 3 OF 6

**CIMAREX ENERGY COMPANY**  
**PROPOSED ELECTRIC LINE FROM THE HAYDUKE 34 #3 BATTERY TO**  
**THE BONNIE 35 FED COM #1, 2 & 3H WELL LOCATIONS**  
 SECTION 35 T26S, R26E,  
 N. M. P. M., EDDY CO., NEW MEXICO



LINE TABLE		
LINE	BEARING	LENGTH
L1	N 88°13'18" E	48.95'
L2	S 01°24'39" E	301.99'
L3	S 22°04'22" W	165.11'
L7	N 63°15'28" E	829.06'
L8	S 89°57'17" E	1581.29'
L9	N 76°38'49" E	580.06'
L10	S 89°54'42" E	473.96'
L11	S 80°23'54" E	784.74'
L12	S 89°54'11" E	386.37'
L13	S 00°00'19" W	65.05'

SCALE: 1" = 1000'  
 0 500' 1000'

BEARINGS ARE GRID NAD 83  
 RM EAST  
 DISTANCES ARE HORIZ. GROUND.

LEGEND  
 ( ) RECORD DATA - CLO  
 ♦ FOUND MONUMENT AS NOTED  
 — PROPOSED ELECTRIC LINE

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plot from an actual survey made on the ground under my direct supervision, said survey and plot meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief.

*Robert M. Howett*  
 Robert M. Howett NM PS 19680



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NO.	REVISION	DATE

JOB NO.: LS1502054  
 DIV. NO.: 1502054-5

308 W. BROADWAY ST., HOOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1000'  
 DATE: 2-19-2015  
 SURVEYED BY: BK/ML  
 DRAWN BY: CMJ  
 APPROVED BY: RMH  
 SHEET: 5 OF 6

**CIMAREX ENERGY COMPANY**  
**PROPOSED ELECTRIC LINE FROM THE HAYDUKE 34 #3 BATTERY TO**  
**THE BONNIE 35 FED COM #1, 2 & 3H WELL LOCATIONS**  
**SECTION 35 T25S, R28E,**  
**N. M. P. M., EDDY CO., NEW MEXICO**

DESCRIPTION

A strip of land 30 feet wide, being 5,176.58 feet or 313.732 rods in length lying in Section 35, Township 25 South, Range 28 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across B. L. M. Land;

BEGINNING at Engr. Sta. 0+16.07, a point on the West line of Section 35, which bears S 00°43'02" W, 615.33 feet from a brass cap, stamped "1941", found for the East quarter corner of Section 35;

Thence N 88°13'18" E, 48.95 feet, to Engr. Sta. 0+65.02, a P. I. of 90°22'03" right;

Thence S 01°24'39" E, 301.99, to Engr. Sta. 3+67.01, a P. I. of 23°29'01" right;

Thence S 22°04'2" W, 165.11 feet, to Engr. Sta. 5+32.12, a point on the West line of Section 35, which bears N 00°43'02" E, 1,569.56 feet from a brass cap, stamped "1940", found for the Southwest corner of Section 35.

Thence BEGINNING AGAIN, at Engr. Sta. 23+40.03, a point on the West line of Section 35, which bears N 00°43'02" E, 80.63 feet from a brass cap, stamped "1941", found for the Southwest corner of Section 35;

Thence N 63°15'28" E, 829.05 feet, to Engr. Sta. 31+69.09, a P. I. of 26°44'14" right;

Thence S 89°57'17" E, 1,581.29 feet, to Engr. Sta. 47+50.38, a P. I. of 13°23'54" left;

Thence N 76°38'49" E, 560.06 feet, to Engr. Sta. 53+10.44, a P. I. of 13°26'29" right;

Thence S 89°54'42" E, 473.96 feet, to Engr. Sta. 57+84.40, a P. I. of 09°30'48" right;

Thence S 80°23'54" E, 784.74 feet, to Engr. Sta. 65+69.14, a P. I. of 09°30'17" left;

Thence S 89°54'11" E, 366.37 feet, to Engr. Sta. 69+35.51, a P. I. of 89°54'30" right;

Thence S 00°00'19" W, 65.05 feet, to Engr. Sta. 70+00.56, the End of Survey, a point in the Southeast quarter of Section 35, which bears N 64°58'36" W, 924.81 feet from a brass cap, stamped "1940", found for the Southeast corner of Section 35.

Said strip of land contains 3.565 acres, more or less, and is allocated by forties as follows:

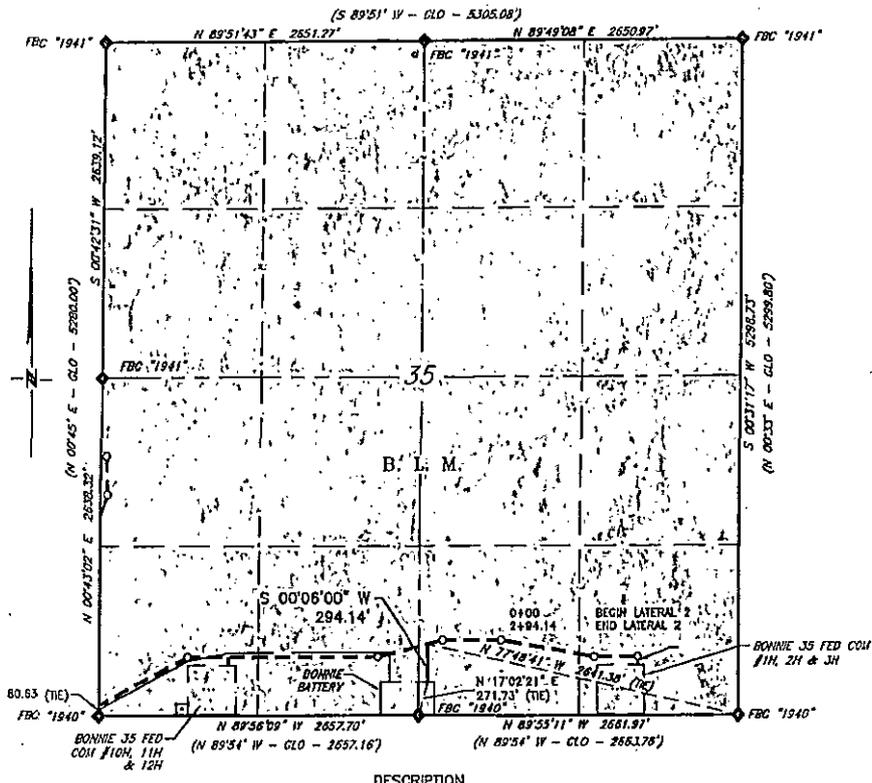
NW 1/4 SW 1/4	31.276 Rods	0.355 Acres
SW 1/4 SW 1/4	86.175 Rods	0.979 Acres
SE 1/4 SW 1/4	81.149 Rods	0.923 Acres
SW 1/4 SE 1/4	81.499 Rods	0.926 Acres
SE 1/4 SE 1/4	33.633 Rods	0.382 Acres

Firm No.: TX 10193838 III 465451

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			<b>RRC</b>		SCALE: 1"=1000'
					DATE: 2-19-15
					SURVEYED BY: ML/AA
					DRAWN BY: CMJ
					APPROVED BY: RMH
					SHEET : 6 OF 6
NO.	REVISION	DATE			
JOB NO.: LS1502054			308 W. BROADWAY ST., HOBBS, NM 88240 (575) 984-0200		
DWG. NO.: 1502054-B					

**CIMAREX ENERGY COMPANY**  
**PROPOSED ELECTRIC LINE LATERAL FROM THE HAYDUKE -**  
**BONNIE MAINLINE TO THE BONNIE BATTERY**  
 SECTION 35 T26S, R26E,  
 N. M. P. M., EDDY CO., NEW MEXICO



**DESCRIPTION**

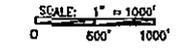
A strip of land 30 feet wide, being 294.14 feet or 17.827 rods in length lying in Section 35, Township 25 South, Range 26 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across B. L. M. Land;

BEGINNING at Engr. Sta. 0+00, a point in the Southeast quarter of Section 35, which bears N 77°48'41\" W, 2,641.38 feet from a brass cap, stamped "1940", found for the Southeast corner of Section 35;

Thence S 00°06'00\" W, 294.14 feet to Engr. Sta. 2+94.14, a point on the North line of the Bonnie Battery, which bears N 17°02'21\" E, 271.73 feet from a brass cap, stamped "1940", found for the South quarter corner of Section 35.

Said strip of land contains 0.203 acres, more or less, and is allocated by forties as follows:

SW 1/4 SE 1/4      17.827 Rods      0.203 Acres



BEARINGS ARE GRID AND BS  
 NH EAST  
 DISTANCES ARE HORIZ. GROUND.

- LEGEND**
- ( ) RECORD DATA - GLO
  - ◆ FOUND MONUMENT AS NOTED
  - PROPOSED ELECTRIC LINE

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plot from an actual survey made on the ground under my direct supervision, said survey and plot meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief.

*Robert M. Howett*  
 Robert M. Howett      NM PS 19680



Firm No.: TX 10193838    NM 4555451

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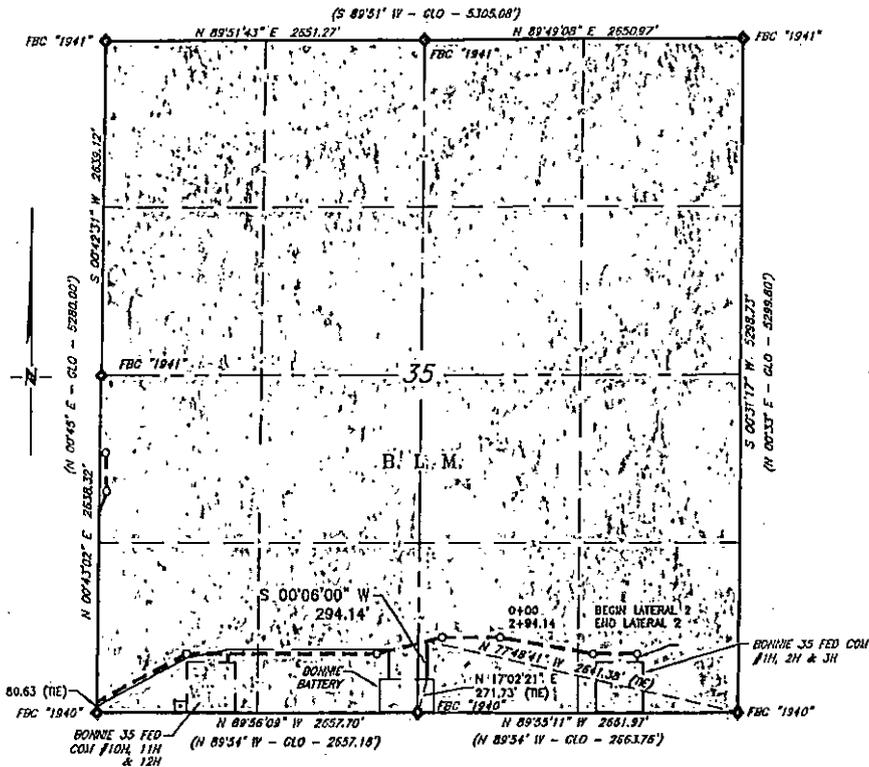
NO.	REVISION	DATE

**RRC**

308 W. BROADWAY ST., HOBBS, NM 88240    (575) 984-8200

SCALE: 1" = 1000'
DATE: 2-19-2015
SURVEYED BY: BK/ML
DRAWN BY: CMJ
APPROVED BY: RMH
SHEET : 2 OF 2

**CIMAREX ENERGY COMPANY**  
**PROPOSED ELECTRIC LINE LATERAL FROM THE HAYDUKE -**  
**BONNIE MAINLINE TO THE BONNIE BATTERY**  
**SECTION 35 T25S, R26E,**  
**N. M. P. M., EDDY CO., NEW MEXICO**



**DESCRIPTION**

A strip of land 30 feet wide, being 294.14 feet or 17.827 rods in length lying in Section 35, Township 25 South, Range 26 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across B. L. M. Land;

**BEGINNING** at Engr. Sta. 0+00, a point in the Southeast quarter of Section 35, which bears N 77°48'41" W, 2,641.38 feet from a brass cap, stamped "1940", found for the Southeast corner of Section 35;

Thence S 00°06'00" W, 294.14 feet to Engr. Sta. 2+94.14, a point on the North line of the Bonnie Battery, which bears N 17°02'21" E, 271.73 feet from a brass cap, stamped "1940", found for the South quarter corner of Section 35.

Said strip of land contains 0.203 acres, more or less, and is allocated by forties as follows:

SW 1/4 SE 1/4      17.827 Rods      0.203 Acres

SCALE: 1" = 1000'  
 0      500'      1000'

BEARINGS ARE GRID MAG BY  
 N14 EAST  
 DISTANCES ARE HORIZ. GROUND.

**LEGEND**

- ( ) RECORD DATA - GLO
- ◆ FOUND MONUMENT AS NOTED
- PROPOSED ELECTRIC LINE

I, R. M. Howell, a N. M. Professional Surveyor, hereby certify that I prepared this plat from an actual survey made on the ground under my direct supervision, said survey and plat meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief.

*Robert M. Howell*  
 Robert M. Howell



Firm No. TX 10192338 N11 485451

NM PS 19680

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NO.	REVISION	DATE
JOB NO.:	LS1502054	
DWG. NO.:	1502054-2	

**RRC**

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 984-8200

SCALE: 1" = 1000'
DATE: 2-19-2015
SURVEYED BY: BK/ML
DRAWN BY: CMJ
APPROVED BY: RMH
SHEET : 2 OF 2

**1. Geological Formations**

TVD of target 7,505  
MD at TD 12,000

Pilot Hole TD N/A  
Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
QUATERNARY FILL		N/A	
RUSTLER		N/A	
SALADO (TOP SALT)	1199	N/A	H2S POSSIBLE
CASYILE (BASE SALT)	1763	N/A	
LAMAR	1956	N/A	
BELL CANYON (Delaware Group)	2007	N/A	H2S POSSIBLE
CHERRY CANYON	2969	N/A	H2S POSSIBLE
BRUSHY CANYON	3959	N/A	
BRUSHY CANYON LOWER	5264	N/A	
BONE SPRING	5524	N/A	
BONE SPRING "A" SHALE	5645	N/A	
BONE SPRING "C" SHALE	6031	N/A	
1ST BONE SPRING Ss	6496	N/A	
2ND BONE SPRING Ls	6761	N/A	
2nd Bone Spring Ss	7040	N/A	
2nd Bone Spring Ss Horz target	7510	N/A	
3rd Bone Spring Limestone	7550	N/A	

**2. Casing Program**

Hole Size	Casing Depth From	Casing Depth To	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17 1/2	0	450	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	3.59	8.40	14.91
12 1/4	0	1916	9-5/8"	36.00	J-55	LT&C	1.99	3.46	6.57
8 3/4	0	6984	5-1/2"	17.00	L-80	LT&C	1.88	2.32	2.52
8 3/4	6984	11976	5-1/2"	17.00	L-80	BT&C	1.67	2.05	25.89
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Cimarex Energy Co., Bonnie 35 Federal Com #4H

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	N
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	N
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	N
Is 2nd string set 100' to 600' below the base of salt?	N
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	N
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	N

**3. Cementing Program**

Casing	# Sks	Wt. lb/gal	Yld ft3/sack	H2O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	91	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	195	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	395	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	112	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	991	10.80	2.35	9.60	17:43	Lead: Tuned Light I Class H
	595	14.80	1.34	6.32	9.5	Tail: Class C + LCM
	613	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

Casing String	TOC	% Excess
Surface	0	33
Intermediate	0	44
Production	1716	21
Production	1716	21

**4. Pressure Control Equipment**

A variance is requested for the use of a diverter on the surface casing. See attached for schematic.					
BOP installed and tested before drilling which hole?	Size	Min Required WP	Type		Tested To
17 1/2	13 5/8	2M	Annular	X	50% of working pressure
			Blind Ram		2M
			Pipe Ram		
			Double Ram	X	
			Other	0	
12 1/4	13 5/8	3M	Annular	X	50% of working pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	X	
			Other		
8 3/4	13 5/8	3M	Annular	X	50% of working pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	X	
			Other		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.	
X	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
N	Are anchors required by manufacturer? <i>See COA</i>

**5. Mud Program**

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' to 450'	FW Spud Mud	8.30 - 8.80	28	N/C
450' to 1916'	Brine Water	9.70 - 10.20	30-32	N/C
1916' to 11976'	FW/Cut Brine	8.70 - 9.20	30-32	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
---	-----------------------------

**6. Logging and Testing Procedures**

Logging, Coring and Testing	
X	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No logs are planned based on well control or offset log information.
	Drill stem test?
	Coring?

Additional Logs Planned	Interval

**7. Drilling Conditions**

Condition	
BH Pressure at deepest TVD	3772 psi
Abnormal Temperature	No

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
X	H2S is present
X	H2S plan is attached

**8. Other Facets of Operation**

Summary of Drilling Operations

**Bonnie 35 Federal Com #4H**

Cimarex Energy Co.

UL: O, Sec. 35, 25S, 26E

Eddy Co., NM

Wellpad Size: 380 x 400

Other wells to be drilled from this well pad: #5 and #6

Proposed New Road: 4738.5'

Proposed New Electric Line: 7489.49'

Proposed New Flowline: 860.21'

Production will be sent to a battery at Bonnie 35 Fed Central Battery well location.

Exhibit F-1 – Co-Flex Hose Hydrostatic Test

Bonnie 35 Federal Com #4H

Cimarex Energy Co.

35-25S-26E

SHL 330 FSL & 2190 FEL

BHL 330 FNL & 1940 FEL

Eddy County, NM



## Midwest Hose & Specialty, Inc.

INTERNAL HYDROSTATIC TEST REPORT		
Customer: <b>Oderco Inc</b>		P.O. Number: <b>odyd-271</b>
HOSE SPECIFICATIONS		
Type: <b>Stainless Steel Armor Choke &amp; Kill Hose</b>	Hose Length: <b>45'ft.</b>	
I.D. <b>4 INCHES</b>	O.D. <b>9 INCHES</b>	
WORKING PRESSURE <b>10,000 PSI</b>	TEST PRESSURE <b>15,000 PSI</b>	BURST PRESSURE <b>0 PSI</b>
COUPLINGS		
Stem Part No. <b>OKC OKC</b>	Ferrule No. <b>OKC OKC</b>	
Type of Coupling: <b>Swage-It</b>		
PROCEDURE		
<i>Hose assembly pressure tested with water at ambient temperature.</i>		
TIME HELD AT TEST PRESSURE <b>15 MIN.</b>	ACTUAL BURST PRESSURE: <b>0 PSI</b>	
Hose Assembly Serial Number: <b>79793</b>	Hose Serial Number: <b>OKC</b>	
Comments:		
Date: <b>3/8/2011</b>	Tested: <i>A. James Jones</i>	Approved: <i>[Signature]</i>

March 3, 2011

# Internal Hydrostatic Test Graph

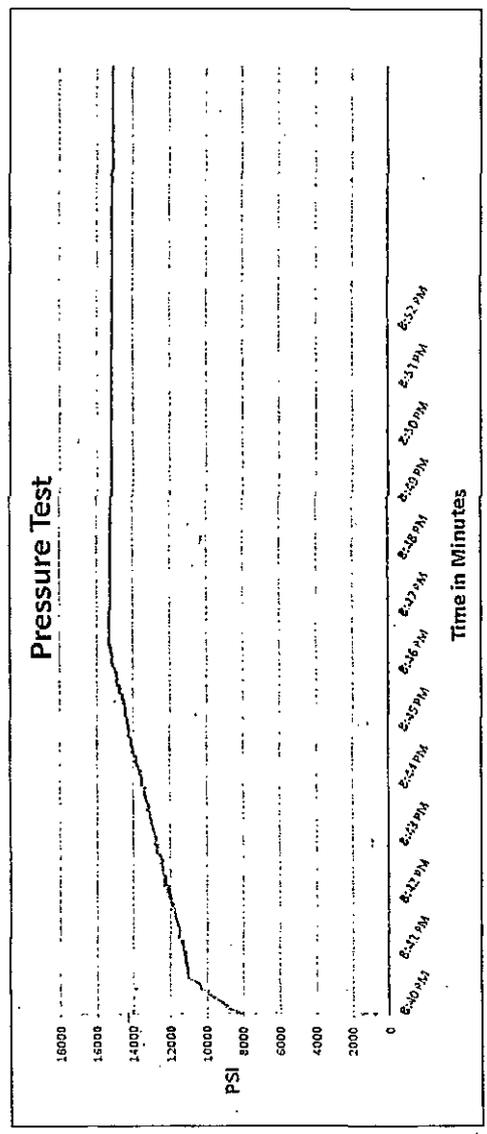


Midwest Hose & Specialty, Inc.

Customer: Houston Pick Ticket #: 94260

Hose Specifications		Verification	
Hose Type	Length	Type of Fittings	Coupling Method
C & K	45'	47/16 10K	Swage
I.D.	O.D.	Final O.D.	
4"	6.05"	6.38"	
Working Pressure	Burst Pressure	Hose Serial #	Hose Assembly Serial #
10000 PSI	30000 PSI	5544	79793

Exhibit F-1 – Co-Flex Hose Hydrostatic Test  
**Bonnie 35 Federal Com #4H**  
 Cimarex Energy Co.  
 35-25S-26E  
 SHL 330 FSL & 2190 FEL  
 BHL 330 FNL & 1940 FEL  
 Eddy County, NM



Test Pressure 15000 PSI      Time Held at Test Pressure 11 Minutes      Actual Burst Pressure 15483 PSI      Peak Pressure 15483 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.  
 Tested By: *Zac McConnell*  
 Approved By: *Kim Thomas*

Exhibit F-2 – Co-Flex Hose  
Bonnie 35 Federal Com #4H  
Cimarex Energy Co.  
35-25S-26E  
SHL 330 FSL & 2190 FEL  
BHL 330 FNL & 1940 FEL  
Eddy County, NM



## Midwest Hose & Specialty, Inc.

### Certificate of Conformity

<b>Customer:</b>		<b>PO</b>	
DEM		ODYD-271	
<b>SPECIFICATIONS</b>			
<b>Sales Order</b>		<b>Dated:</b>	
79793		3/8/2011	
<p>We hereby certify that the material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards</p> <p>Supplier: Midwest Hose &amp; Specialty, Inc. 10640 Tanner Road Houston, Texas 77041</p>			
<b>Comments:</b>			
<b>Approved:</b>		<b>Date:</b>	
<i>James Bladen</i>		3/8/2011	



Midwest Hose  
& Specialty, Inc.

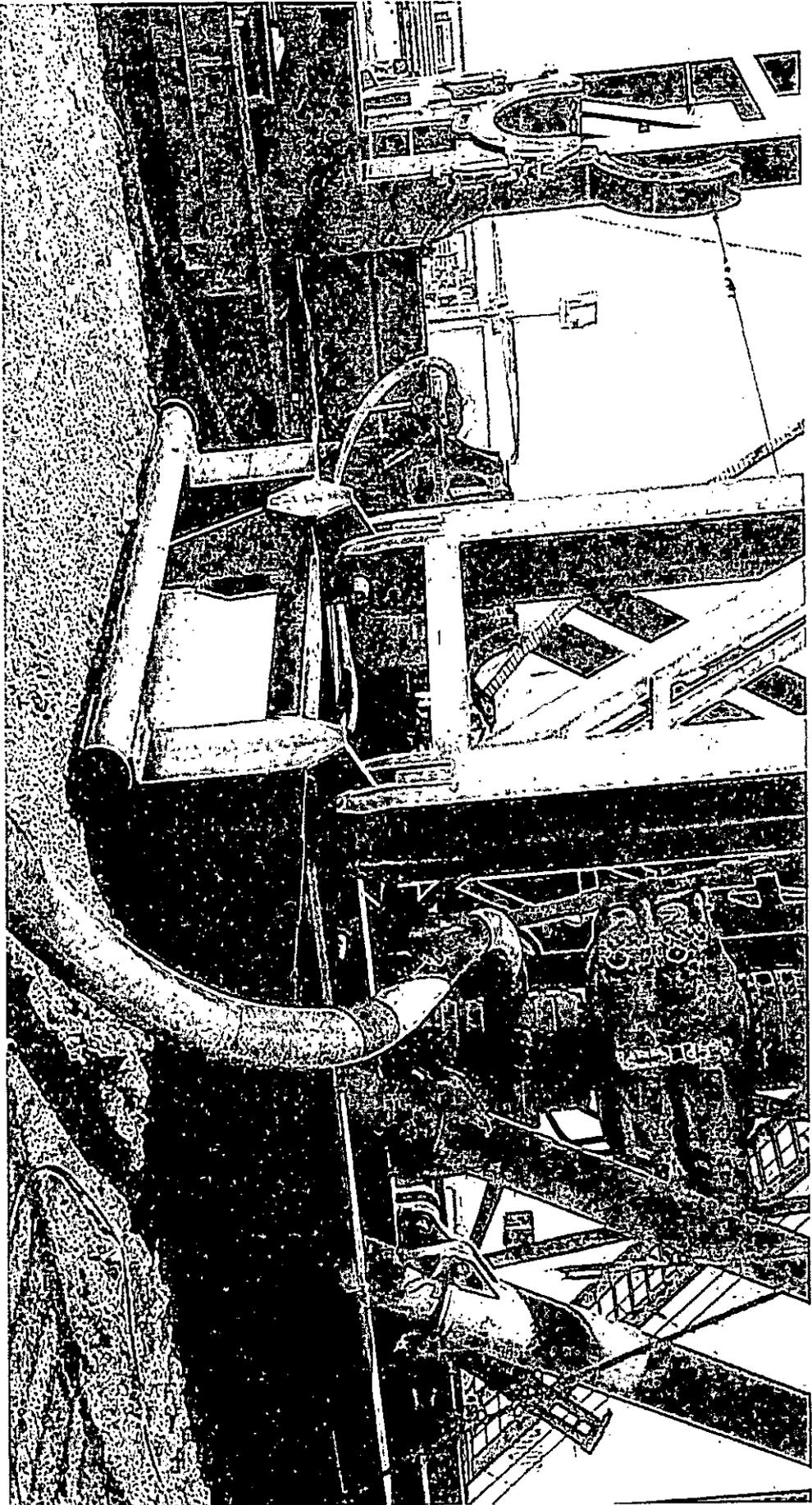
Exhibit F-3- Co-Flex Hose  
Bonnie 35 Federal Com #4H.  
Cimarex Energy Co.  
35-25S-26E  
SHL 330 FSL & 2190 FEL  
BHL 330 FNL & 1940 FEL  
Eddy County, NM

## Specification Sheet Choke & Kill Hose

The Midwest Hose & Specialty Choke & Kill hose is manufactured with only premium components. The reinforcement cables, inner liner and cover are made of the highest quality material to handle the tough drilling applications of today's industry. The end connections are available with API flanges, API male threads, hubs, hammer unions or other special fittings upon request. Hose assembly is manufactured to API 7K. This assembly is wrapped with fire resistant vermiculite coated fiberglass insulation, rated at 2000 degrees with stainless steel armor cover.

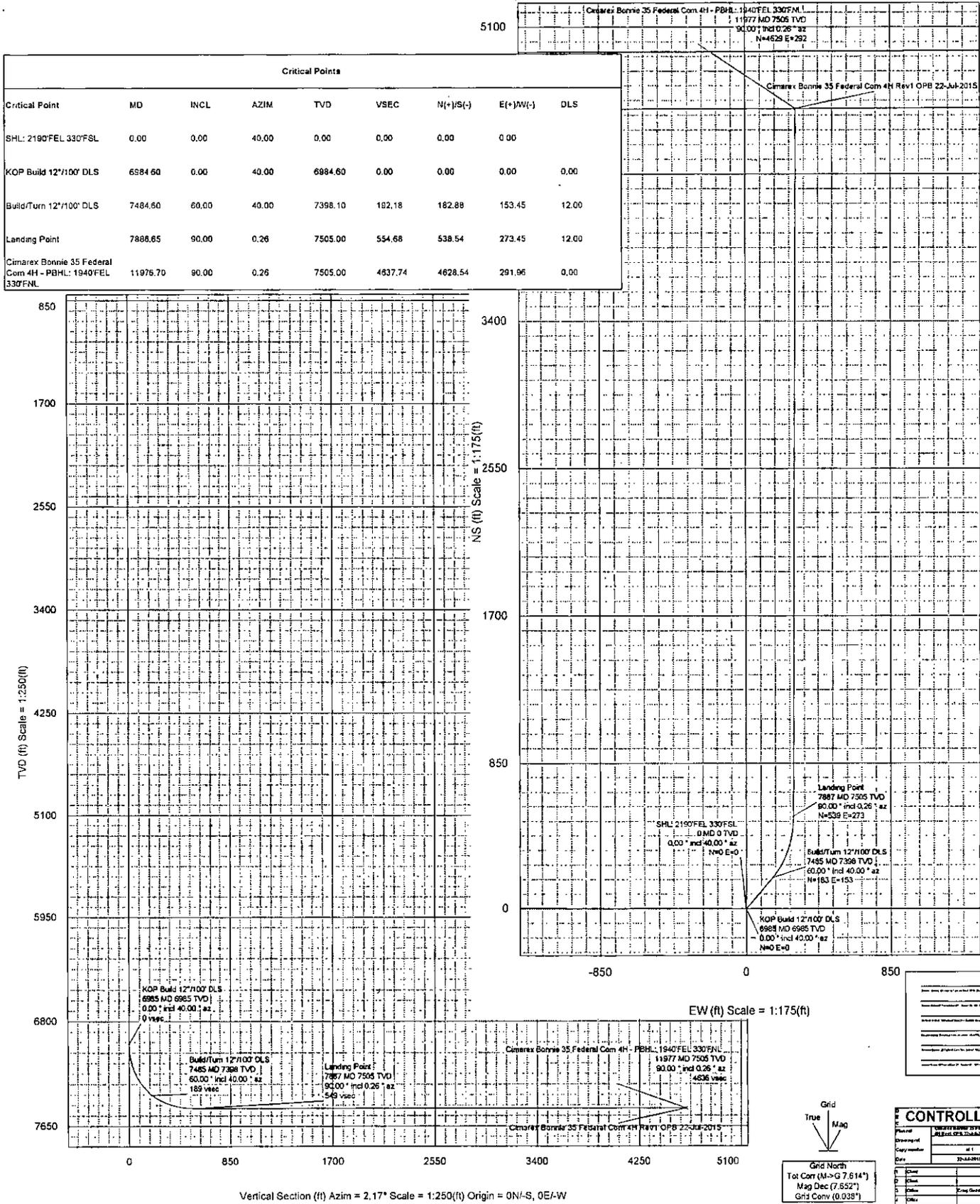
<b>Working Pressure:</b>	5,000 or 10,000 psi working pressure
<b>Test Pressure:</b>	10,000 or 15,000 psi test pressure
<b>Reinforcement:</b>	Multiple steel cables
<b>Cover:</b>	Stainless Steel Armor
<b>Inner Tube:</b>	Petroleum resistant, Abrasion resistant
<b>End Fitting:</b>	API flanges, API male threads, threaded or butt weld hammer unions, unbolt and other special connections
<b>Maximum Length:</b>	110 Feet
<b>ID:</b>	2-1/2", 3", 3-1/2", 4"
<b>Operating Temperature:</b>	-22 deg F to +180 deg F (-30 deg C to +82 deg C)

Exhibit F – Co-Flex Hose  
**Bonnie 35 Federal Com #4H**  
Cimarex Energy Co.  
35-25S-26E  
SHL 330 FSL & 2190 FEL  
BHL 330 FNL & 1940 FEL  
Eddy County, NM





Borehole: Original Borehole	Well: Cimarex Bonnie 35 Federal Com 4H	Field: NM Eddy County (NAD 83)	Structure: TBD
Gravity & Magnetics Parameters Model: HDGM 2015 Dip: 59.007° Date: 22-Jul-2015 MagDec: 7.652° FS: 48182.138mT Gravity FS: 998.427mgal (SROBMS Based)	Surface Location Lat: N 32 4 47.72 Lon: W 104 16 44.19	NADE3 New Mexico State Plane Eastern Zone, US Feet Northing: 392818.891193 Easting: 563352.731913	Well Information Slot: 35 Federal Com TVD Ref: Ground Elevation(2355.58 above MSL) Plan: Cimarex Bonnie 35 Federal Com 4H Rev1 OPB 22-Jul-2015



# Cimarex Bonnie 35 Federal Com 4H Rev1 OPB 22-Jul-2015 Proposal Geodetic Report (Non-Def Plan)

**Report Date:** July 22, 2015 - 10:54 AM  
**Client:** Cimarex  
**Field:** NM Eddy County (NAD 83)  
**Structure / Slot:** Cimarex Bonnie 35 Federal Com 4H / Cimarex Bonnie 35 Federal Com 4H  
**Well:** Cimarex Bonnie 35 Federal Com 4H  
**Borehole:** Original Borehole  
**UWI / AP#:** Unknown / Unknown  
**Survey Name:** Cimarex Bonnie 35 Federal Com 4H Rev1 OPB 22-Jul-2015  
**Survey Date:** December 03, 2014  
**Tort / AHD / DDI / ERD Ratio:** 108.247° / 4711.513 ft / 5.911 / 0.628  
**Coordinate Reference System:** NAD83 New Mexico State Plane, Eastern Zone, US Feet  
**Location Lat / Long:** N 32° 4' 47.71742", W 104° 15' 44.09561"  
**Location Grid N/E Y/X:** N 392819.860 ftUS, E 563353.730 ftUS  
**CRS Grid Convergence Angle:** 0.0378°  
**Grid Scale Factor:** 0.99990965  
**Version / Patch:** 2.8.572.0

**Survey / DLS Computation:** Minimum Curvature / Lubinski  
**Vertical Section Azimuth:** 3.509° (Grid North)  
**Vertical Section Origin:** 0.000 ft, 0.000 ft  
**TVD Reference Datum:** Ground Elevation  
**TVD Reference Elevation:** 3355.500 ft above MSL  
**Seabed / Ground Elevation:** 3355.500 ft above MSL  
**Magnetic Declination:** 7.652°  
**Total Gravity Field Strength:** 998.4270mg (9.80665 Based)  
**Gravity Model:** GARM  
**Total Magnetic Field Strength:** 48182.439 nT  
**Magnetic Dip Angle:** 59.807°  
**Declination Date:** July 22, 2015  
**Magnetic Declination Model:** HDGM 2015  
**North Reference:** Grid North  
**Grid Convergence Used:** 0.0378°  
**Total Corr Mag North->Grid North:** 7.6142°  
**Local Coord Referenced To:** Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL: 2190/FEL	0.00	0.00	40.00	0.00	0.00	0.00	0.00	N/A	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
330/FSL	100.00	0.00	40.00	100.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	200.00	0.00	40.00	200.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	300.00	0.00	40.00	300.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	400.00	0.00	40.00	400.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	500.00	0.00	40.00	500.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	600.00	0.00	40.00	600.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	700.00	0.00	40.00	700.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	800.00	0.00	40.00	800.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	900.00	0.00	40.00	900.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	1000.00	0.00	40.00	1000.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	1100.00	0.00	40.00	1100.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	1200.00	0.00	40.00	1200.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	1300.00	0.00	40.00	1300.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	1400.00	0.00	40.00	1400.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	1500.00	0.00	40.00	1500.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	1600.00	0.00	40.00	1600.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	1700.00	0.00	40.00	1700.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	1800.00	0.00	40.00	1800.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	1900.00	0.00	40.00	1900.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	2000.00	0.00	40.00	2000.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10

Comments	MD (ft)	Incl (°)	Azimuth Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S °.')	Longitude (E/W °.')
	2100.00	0.00	40.00	2100.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	2200.00	0.00	40.00	2200.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	2300.00	0.00	40.00	2300.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	2400.00	0.00	40.00	2400.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	2500.00	0.00	40.00	2500.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	2600.00	0.00	40.00	2600.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	2700.00	0.00	40.00	2700.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	2800.00	0.00	40.00	2800.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	2900.00	0.00	40.00	2900.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	3000.00	0.00	40.00	3000.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	3100.00	0.00	40.00	3100.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	3200.00	0.00	40.00	3200.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	3300.00	0.00	40.00	3300.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	3400.00	0.00	40.00	3400.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	3500.00	0.00	40.00	3500.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	3600.00	0.00	40.00	3600.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	3700.00	0.00	40.00	3700.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	3800.00	0.00	40.00	3800.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	3900.00	0.00	40.00	3900.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	4000.00	0.00	40.00	4000.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	4100.00	0.00	40.00	4100.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	4200.00	0.00	40.00	4200.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	4300.00	0.00	40.00	4300.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	4400.00	0.00	40.00	4400.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	4500.00	0.00	40.00	4500.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	4600.00	0.00	40.00	4600.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	4700.00	0.00	40.00	4700.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	4800.00	0.00	40.00	4800.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	4900.00	0.00	40.00	4900.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	5000.00	0.00	40.00	5000.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	5100.00	0.00	40.00	5100.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	5200.00	0.00	40.00	5200.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	5300.00	0.00	40.00	5300.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	5400.00	0.00	40.00	5400.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	5500.00	0.00	40.00	5500.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	5600.00	0.00	40.00	5600.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	5700.00	0.00	40.00	5700.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	5800.00	0.00	40.00	5800.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	5900.00	0.00	40.00	5900.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	6000.00	0.00	40.00	6000.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	6100.00	0.00	40.00	6100.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	6200.00	0.00	40.00	6200.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	6300.00	0.00	40.00	6300.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	6400.00	0.00	40.00	6400.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	6500.00	0.00	40.00	6500.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	6600.00	0.00	40.00	6600.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	6700.00	0.00	40.00	6700.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	6800.00	0.00	40.00	6800.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	6900.00	0.00	40.00	6900.00	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
KOP Build 12*100' DLS	6984.60	0.00	40.00	6984.60	0.00	0.00	0.00	0.00	392819.86	563353.73	N 32 4 47.72	W 104 15 44.10
	7000.00	1.85	40.00	7000.00	0.20	0.19	0.16	12.00	392820.05	563353.89	N 32 4 47.72	W 104 15 44.09
	7100.00	13.85	40.00	7098.88	11.17	10.63	8.92	12.00	392830.49	563362.65	N 32 4 47.82	W 104 15 43.99
	7200.00	25.85	40.00	7192.77	38.45	36.59	30.71	12.00	392856.45	563384.43	N 32 4 48.08	W 104 15 43.74
	7300.00	37.85	40.00	7277.56	80.85	76.94	64.56	12.00	392886.79	563418.28	N 32 4 48.48	W 104 15 43.34
	7400.00	49.85	40.00	7349.54	136.52	129.91	109.01	12.00	392849.76	563462.73	N 32 4 49.00	W 104 15 42.83
Build/Turn 12*100' DLS	7484.60	60.00	40.00	7398.10	192.18	182.88	153.45	12.00	393002.72	563507.17	N 32 4 49.53	W 104 15 42.31
	7500.00	60.96	38.19	7405.68	203.09	193.28	161.90	12.00	393013.12	563515.62	N 32 4 49.63	W 104 15 42.21
	7600.00	67.75	27.20	7449.04	281.78	269.08	210.26	12.00	393088.91	563563.97	N 32 4 50.38	W 104 15 41.65
	7700.00	75.20	17.27	7480.86	371.50	356.72	245.89	12.00	393176.55	563599.60	N 32 4 51.25	W 104 15 41.24
	7800.00	83.05	8.01	7499.75	468.31	452.38	267.24	12.00	393272.20	563620.94	N 32 4 52.19	W 104 15 40.99
Landing Point	7886.65	90.00	0.26	7505.00	554.68	538.54	273.45	12.00	393358.35	563627.15	N 32 4 53.04	W 104 15 40.91
	7900.00	90.00	0.26	7505.00	568.01	551.88	273.51	0.00	393371.69	563627.21	N 32 4 53.18	W 104 15 40.91
	8000.00	90.00	0.26	7505.00	667.83	651.88	273.96	0.00	393471.68	563627.66	N 32 4 54.17	W 104 15 40.91
	8100.00	90.00	0.26	7505.00	767.66	751.88	274.41	0.00	393571.67	563628.12	N 32 4 55.16	W 104 15 40.90
	8200.00	90.00	0.26	7505.00	867.49	851.88	274.86	0.00	393671.66	563628.57	N 32 4 56.15	W 104 15 40.89
	8300.00	90.00	0.26	7505.00	967.32	951.88	275.32	0.00	393771.65	563629.02	N 32 4 57.13	W 104 15 40.89
	8400.00	90.00	0.26	7505.00	1067.15	1051.88	275.77	0.00	393871.64	563629.47	N 32 4 58.12	W 104 15 40.88
	8500.00	90.00	0.26	7505.00	1166.98	1151.88	276.22	0.00	393971.63	563629.93	N 32 4 59.11	W 104 15 40.88
	8600.00	90.00	0.26	7505.00	1266.81	1251.88	276.67	0.00	394071.62	563630.38	N 32 5 0 10	W 104 15 40.87
	8700.00	90.00	0.26	7505.00	1366.64	1351.87	277.13	0.00	394171.61	563630.83	N 32 5 1 09	W 104 15 40.86
	8800.00	90.00	0.26	7505.00	1466.47	1451.87	277.58	0.00	394271.60	563631.28	N 32 5 2 08	W 104 15 40.86
	8900.00	90.00	0.26	7505.00	1566.30	1551.87	278.03	0.00	394371.59	563631.74	N 32 5 3 07	W 104 15 40.85
	9000.00	90.00	0.26	7505.00	1666.13	1651.87	278.48	0.00	394471.58	563632.19	N 32 5 4 06	W 104 15 40.85
	9100.00	90.00	0.26	7505.00	1765.96	1751.87	278.94	0.00	394571.57	563632.64	N 32 5 5 05	W 104 15 40.84
	9200.00	90.00	0.26	7505.00	1865.78	1851.87	279.39	0.00	394671.56	563633.09	N 32 5 6 04	W 104 15 40.83
	9300.00	90.00	0.26	7505.00	1965.61	1951.87	279.84	0.00	394771.55	563633.55	N 32 5 7 03	W 104 15 40.83
	9400.00	90.00	0.26	7505.00	2065.44	2051.87	280.29	0.00	394871.54	563634.00	N 32 5 8 02	W 104 15 40.82
	9500.00	90.00	0.26	7505.00	2165.27	2151.87	280.75	0.00	394971.53	563634.45	N 32 5 9 01	W 104 15 40.82
	9600.00	90.00	0.26	7505.00	2265.10	2251.87	281.20	0.00	395071.52	563634.90	N 32 5 10 00	W 104 15 40.81
	9700.00	90.00	0.26	7505.00	2364.93	2351.86	281.65	0.00	395171.51	563635.36	N 32 5 10 99	W 104 15 40.80
	9800.00	90.00	0.26	7505.00	2464.76	2451.86	282.11	0.00	395271.50	563635.81	N 32 5 11 98	W 104 15 40.80
	9900.00	90.00	0.26	7505.00	2564.59	2551.86	282.56	0.00	395371.49	563636.25	N 32 5 12 97	W 104 15 40.79
	10000.00	90.00	0.26	7505.00	2664.42	2651.86	283.01	0.00	395471.48	563636.71	N 32 5 13 96	W 104 15 40.79
	10100.00	90.00	0.26	7505.00	2764.25	2751.86	283.46	0.00	395571.47	563637.17	N 32 5 14 95	W 104 15 40.78
	10200.00	90.00	0.26	7505.00	2864.08	2851.86	283.92	0.00	395671.46	563637.62	N 32 5 15 94	W 104 15 40.77
	10300.00	90.00	0.26	7505.00	2963.90	2951.86	284.37	0.00	395771.45	563638.07	N 32 5 16 93	W 104 15 40.77
	10400.00	90.00	0.26	7505.00	3063.73	3051.86	284.82	0.00	395871.44	563638.52	N 32 5 17 91	W 104 15 40.76
	10500.00	90.00	0.26	7505.00	3163.56	3151.86	285.27	0.00	395971.42	563638.98	N 32 5 18 90	W 104 15 40.76
	10600.00	90.00	0.26	7505.00	3263.39	3251.85	285.73	0.00	396071.41	563639.43	N 32 5 19 89	W 104 15 40.75
	10700.00	90.00	0.26	7505.00	3363.22	3351.85	286.18	0.00	396171.40	563639.88	N 32 5 20 88	W 104 15 40.74
	10800.00	90.00	0.26	7505.00	3463.05	3451.85	286.63	0.00	396271.39	563640.33	N 32 5 21 87	W 104 15 40.74
	10900.00	90.00	0.26	7505.00	3562.88	3551.85	287.08	0.00	396371.38	563640.79	N 32 5 22 86	W 104 15 40.73
	11000.00	90.00	0.26	7505.00	3662.71	3651.85	287.54	0.00	396471.37	563641.24	N 32 5 23 85	W 104 15 40.73
	11100.00	90.00	0.26	7505.00	3762.54	3751.85	287.99	0.00	396571.36	563641.69	N 32 5 24 84	W 104 15 40.72

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Eastings (ftUS)	Latitude (N/S °.')	Longitude (E/W °.')
	11200.00	90.00	0.26	7505.00	3862.37	3851.85	288.44	0.00	398671.35	563642.15	N 32 5 25.83	W 104 15 40.71
	11300.00	90.00	0.26	7505.00	3962.20	3951.85	288.89	0.00	396771.34	563642.60	N 32 5 26.82	W 104 15 40.71
	11400.00	90.00	0.26	7505.00	4062.03	4051.85	289.35	0.00	396871.33	563643.05	N 32 5 27.81	W 104 15 40.70
	11500.00	90.00	0.26	7505.00	4161.85	4151.85	289.80	0.00	396971.32	563643.50	N 32 5 28.80	W 104 15 40.70
	11600.00	90.00	0.26	7505.00	4261.68	4251.84	290.25	0.00	397071.31	563643.96	N 32 5 29.79	W 104 15 40.69
	11700.00	90.00	0.26	7505.00	4361.51	4351.84	290.70	0.00	397171.30	563644.41	N 32 5 30.78	W 104 15 40.68
	11800.00	90.00	0.26	7505.00	4461.34	4451.84	291.16	0.00	397271.29	563644.86	N 32 5 31.77	W 104 15 40.68
	11900.00	90.00	0.26	7505.00	4561.17	4551.84	291.61	0.00	397371.28	563645.31	N 32 5 32.76	W 104 15 40.67
Cimarex Bonnie 35 Federal Com 4H - PBHL; 1940/FEL 330FNL	11976.70	90.00	0.26	7505.00	4637.74	4628.54	291.96	0.00	397447.97	563645.66	N 32 5 33.52	W 104 15 40.67

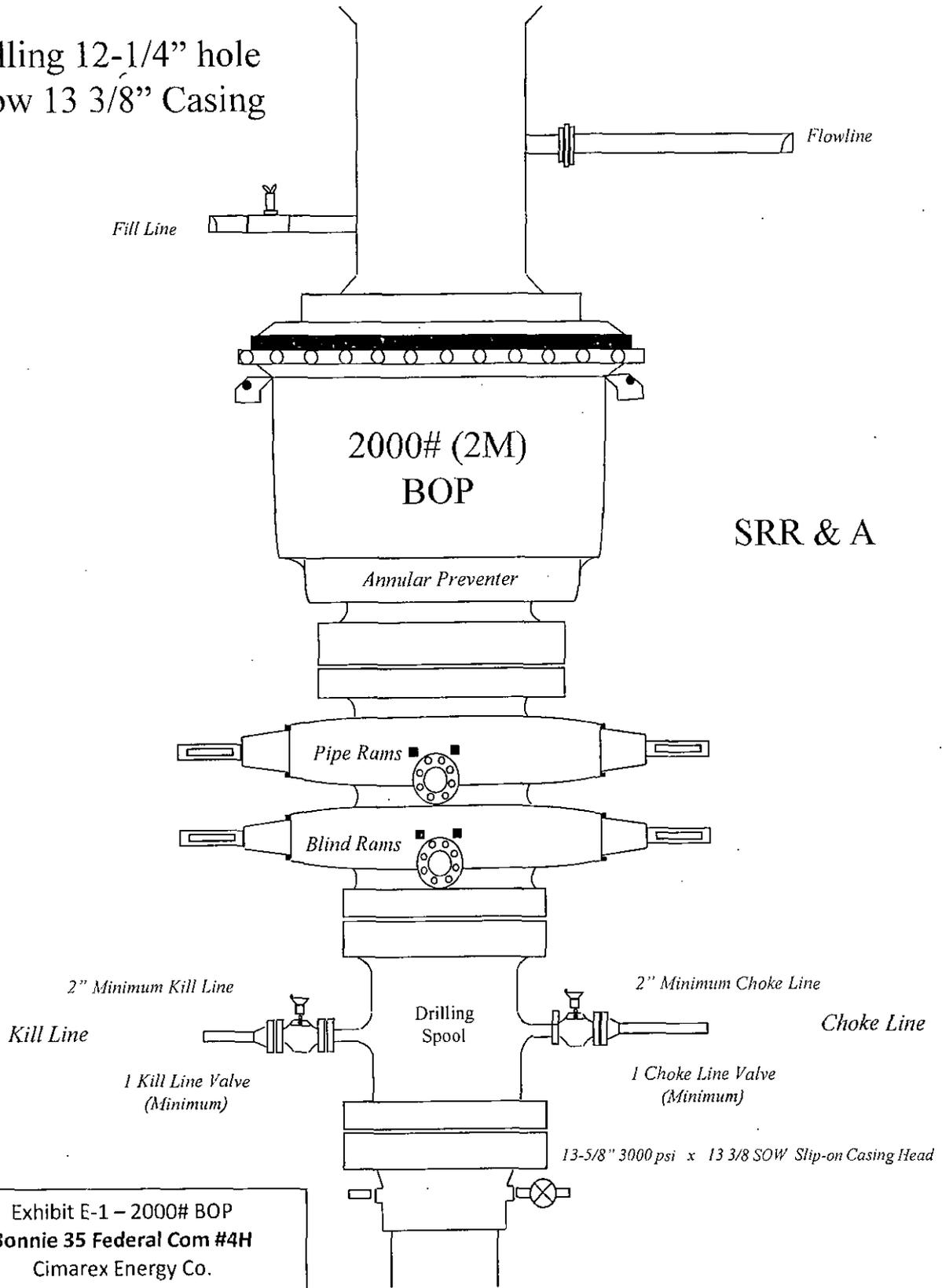
Survey Type: Non-Def Plan

Survey Error Model: ISWWSA Rev 0 \*\*\* 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	11976.697	1/160.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Bonnie 35 Federal Com 4H Rev1

Drilling 12-1/4" hole  
below 13 3/8" Casing



SRR & A

Exhibit E-1 – 2000# BOP  
Bonnie 35 Federal Com #4H  
Cimarex Energy Co.  
35-25S-26E  
SHL 330 FSL & 2190 FEL  
BHL 330 FNL & 1940 FEL  
Eddy County, NM

Drilling 8-3/4" hole  
below 9 5/8" Casing

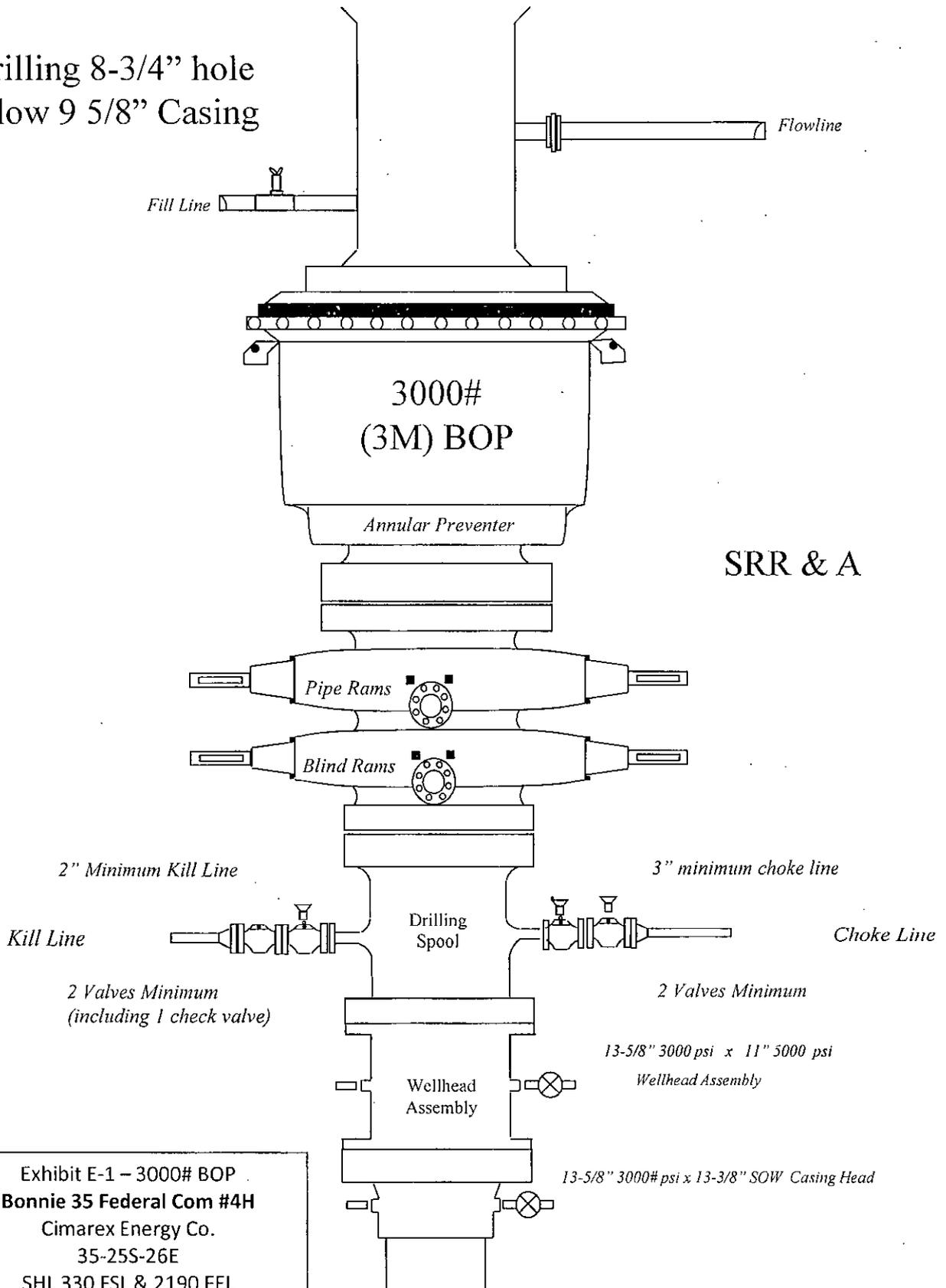
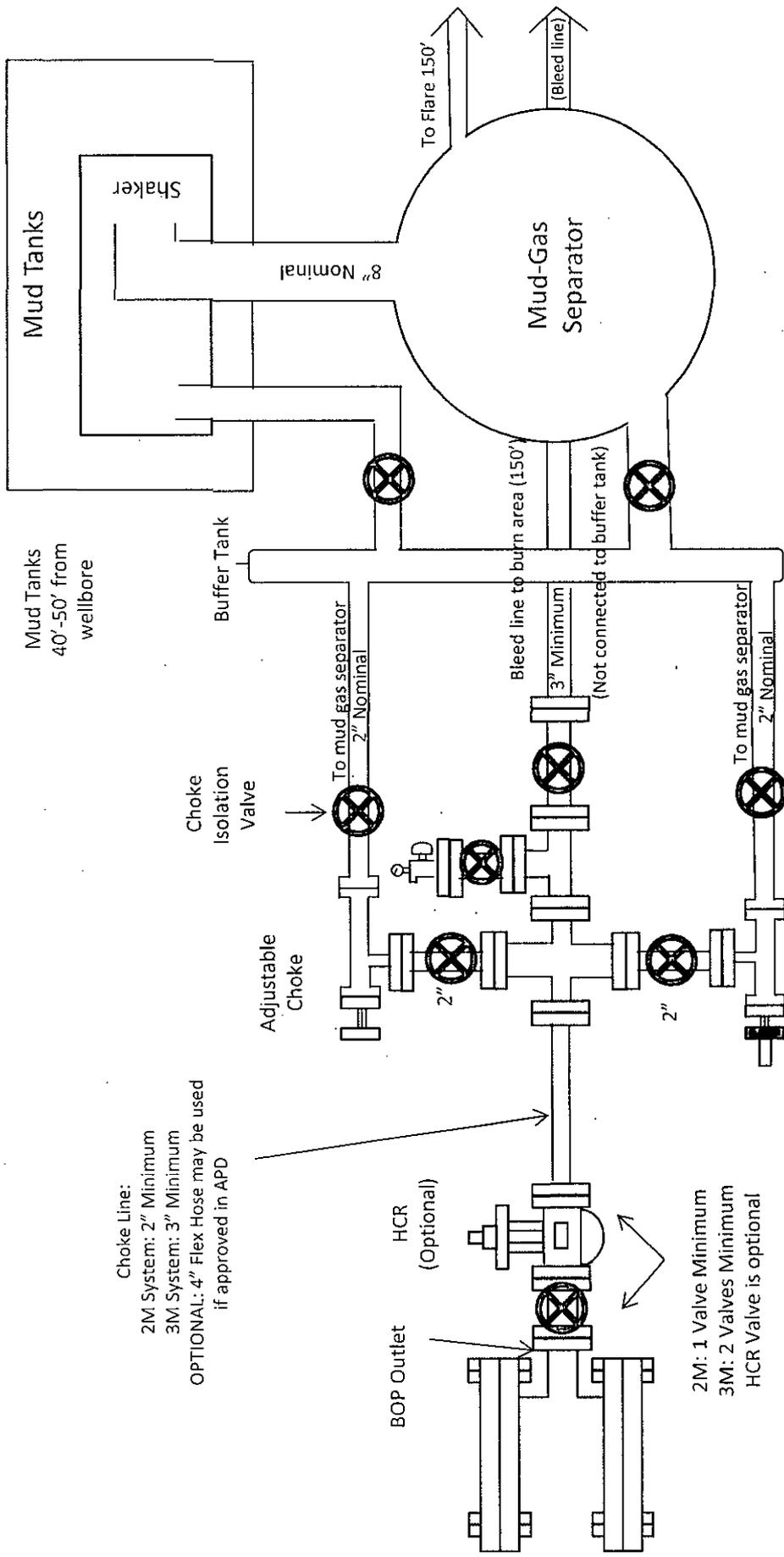


Exhibit E-1 – 3000# BOP  
Bonnie 35 Federal Com #4H  
Cimarex Energy Co.  
35-25S-26E  
SHL 330 FSL & 2190 FEL  
BHL 330 FNL & 1940 FEL  
Eddy County, NM



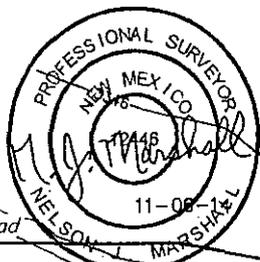
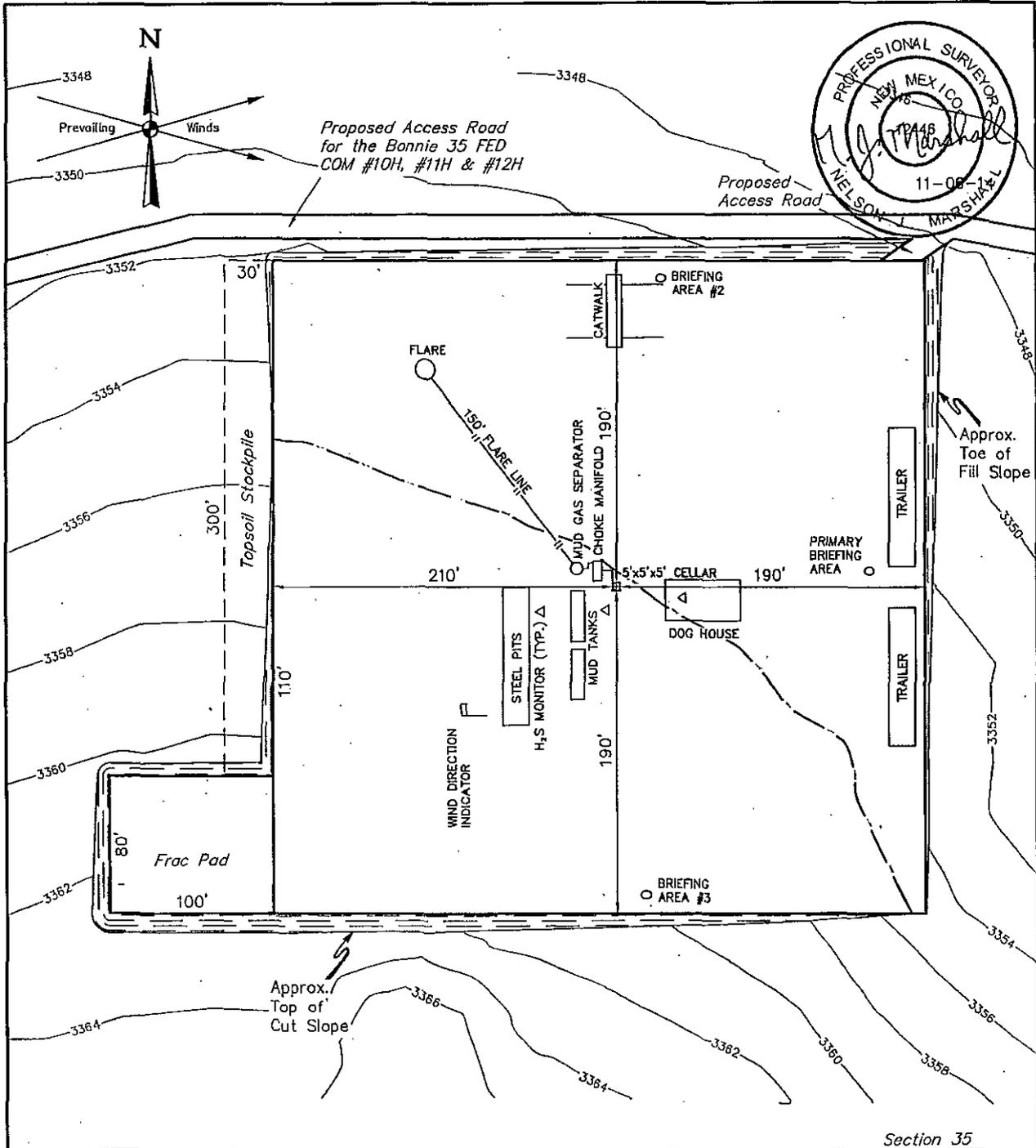
Choke Line:  
 2M System: 2" Minimum  
 3M System: 3" Minimum  
 OPTIONAL: 4" Flex Hose may be used  
 if approved in APD

BOP Outlet  
 HCR  
 (Optional)

2M: 1 Valve Minimum  
 3M: 2 Valves Minimum  
 HCR Valve is optional

Exhibit E-1 – Choke Manifold Diagram  
**Bonnie 35 Federal Com #4H**  
 Cimarex Energy Co.  
 35-25S-26E  
 SHL 330 FSL & 2190 FEL  
 BHL 330 FNL & 1940 FEL  
 Eddy County, NM

# Drilling Operations Choke Manifold 2M/3M Service



- NOTES:**
- Flare pit is to be located a min. of 160' from the wellhead.
  - Contours shown at 2' intervals.

**CIMAREX ENERGY CO.**

**BONNIE 35 FEDERAL COM #4H  
SECTION 35, T25S, R26E, N.M.P.M.  
330' FSL 2190' FEL**



**UELS, LLC**  
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017

DRAWN BY: S.F.	DATE DRAWN: 10-28-14
SCALE: 1" = 80'	REVISED: 00-00-00
<b>TYPICAL RIG LAYOUT</b>	<b>EXHIBIT D</b>

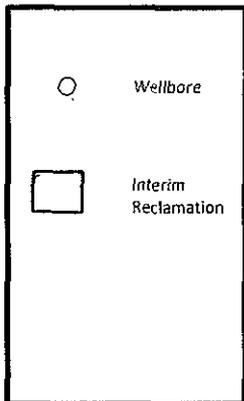
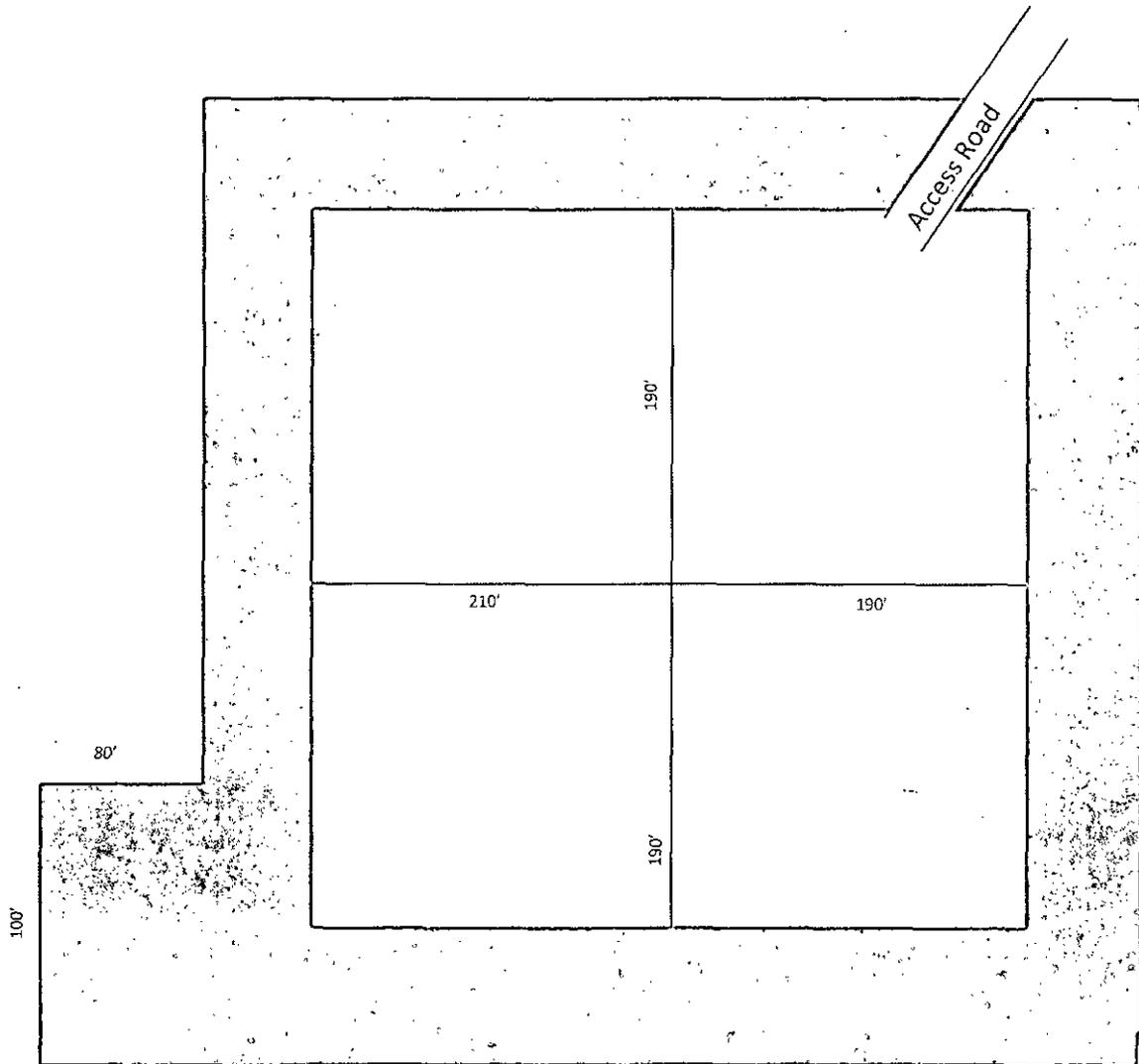


Exhibit D-1  
 Interim Reclamation Diagram  
**Bonnie 35 Federal Com #4H**  
 Cimarex Energy Co.  
 35-25S-26E  
 SHL 330 FSL & 2190 FEL  
 BHL 330 FNL & 1940 FEL  
 Eddy County, NM

Surface Use Plan  
**Bonnie 35 Federal Com #4H**

Cimarex Energy Co.  
UL: O, Sec. 35, 25S, 26E  
Eddy Co., NM

The following surface use plan of operations will be followed and carried out once the APD is approved. No other disturbance will be created other than what is submitted in this surface use plan without approval. If any other disturbance is needed after the APD is approved, a BLM approved sundry notice or right of way application will be submitted for approval prior to any new surface disturbance.

**1. Existing Roads:**

- Please see Exhibit B and C-1 for existing access road planned to be used to access the proposed project.
- Cimarex Energy will improve or maintain existing roads in a condition the same as or better than before the operations began. Cimarex Energy will repair pot holes, etc. All existing structures on the entire access route such as cattleguards, other range improvement projects, culverts, etc. will be properly repaired or replaced if they are damaged or have deteriorated beyond practical use.
- Cimarex Energy will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or other events.
- Cimarex Energy will obtain written BLM approval prior to the application of surfactants, binding agents, or other dust suppression chemicals on the roadways.
- The maximum width of the driving surface will be 14'. The road will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1' deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.
- Existing access road route to the proposed project is depicted on the public access point map if applicable. Improvements to the driving surface will be done where necessary. No new surface disturbance will be done, unless otherwise noted in the New or Reconstructed Access Roads section of the surface use plan.

Beginning at the intersection of Old Cavern highway and existing road to the west located in the NW 1/4 of sec. 1 -T26S-R26E. Proceed in a west direction approx 0.2 miles to the junct. of this road and the beginning of proposed access for the Bonnie 35 Federal Com #1, #2, #3 to the north; follow road flags in a northerly, then westerly direction approx 1205' to the beginning of the proposed access to the Bonnie #10, #11, #12H to the west. Follow road flags in a southwesterly direction approx 36' to the proposed location.

**2. New or Reconstructed Access Roads:**

- A new road will be constructed for this project.
- Cimarex Energy plans to construct 4738.5' of off-lease access road to service the well. The proposed access road does cross lease boundaries, a right of way grant will be submitted to and obtained from the BLM.
- The maximum width of the driving surface will be 14'. The road will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1' deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.
- Proposed and existing access road route to the proposed wellsite is depicted on Exhibit C-2. Improvements to the driving surface will be done where necessary. No new surface disturbance will be done without prior approval from the BLM.
- The operator will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or other events.

**3. Well Radius Map**

Please see Exhibit A for wells within one mile of the proposed well SHL and BHL.

Surface Use Plan  
**Bonnie 35 Federal Com #4H**  
Cimarex Energy Co.  
UL: O, Sec. 35, 25S, 26E  
Eddy Co., NM

**4. Proposed or Existing Production Facilities:**

- If on completion this well is a producer, a tank battery will be used and the necessary production equipment will be installed and production will be sent to the Bonnie 35 Fed Central Battery.
- Please see Exhibit P and Exhibit P-1 for location of the off pad central tank battery.
- Cimarex Energy proposes to install two 4 inch buried HP polylines down existing lease road to the Bonnie 35 Fed Central Battery battery.
- An additional road 416.63' to access the battery will be constructed. Please see Exhibit P-2.
- Allocation will be based on well test. Route is on lease, please see Exhibit G-1. Any changes to on lease route will be submitted via sundry notice. If route is off lease, a right of way will be submitted to the BLM for approval.

**5. Gas Pipeline**

- No pipeline proposed.

**6. Flowlines**

- Cimarex Energy plans to construct on lease flowlines to service the well.
- Specifications of Polyline: 1 HP polyline for oil, gas, and water production. 1 HP polyline for gas lift.
- Both lines will be buried 10'-20' North of the access road.
- Length of Gas Lift Line: 860.21'
- Length of Flowlines: 860.21'
- MAOP: 1500 psi.
- Anticipated working pressure: 200-300 psi.

**7. Salt Water Disposal**

- No pipeline proposed.

**8. Electric Lines**

- Cimarex Energy plans to construct an off-lease electric line to service the well. The proposed electric line does cross lease boundaries, a right of way grant will be submitted to and obtained from the BLM.
- Cimarex Energy plans to install an off lease overhead electric line from the proposed well to an existing overhead electric line at the Hayduke 34 Federal. The proposed electric line will be 7489.49' in length. 19-40' poles, 480 volt, 4 wire, 3 phase. The electric line will exit off the NW side of the well location and travel NW for 7489.49' along the access road until it would intercept the existing electric line. The electric line will be routed on the south side of the access road and 25-35' from and parallel to the access road. Please see Exhibit P for proposed route information.

**9. Water**

Cimarex Energy plans to purchase fresh water from a 3rd party company. A local commercial source will truck water utilizing the access road. Please see Exhibit C-1 for access road route.

**10. Construction Material**

If possible, native caliche will be obtained from the excavation of drill site. The primary way of obtaining caliche will be by "turning over" the location. This means caliche will be obtained from the actual well site. A caliche permit will be obtained from BLM prior to pushing up any caliche. 2400 cu yds is the max amount of caliche needed for pad and roads. Amount will vary for each pad. The procedure below has been approved by BLM personnel:

- The top 6 inches of topsoil is pushed off and stockpiled along the side of the location.
- An approximate 120' x 120' area is used within the proposed well site to remove caliche.
- Subsoil is removed and piled alongside the 120' by 120' area within the pad site.
- When caliche is found, material will be stockpiled within the pad site to build the location and road.
- Then subsoil is pushed back in the hole and caliche is spread accordingly across entire location and road.
- Once well is drilled, the stockpiled top soil will be used for interim reclamation and spread along areas where caliche is picked up and the location size is reduced. Neither caliche nor subsoil will be stockpiled outside of the well pad. Topsoil will be stockpiled along the edge of the pad as depicted in Exhibit D – Rig Layout Diagram.

In the event that no caliche is found onsite, caliche will be hauled in from BLM-approved caliche pit.

Surface Use Plan  
**Bonnie 35 Federal Com #4H**  
Cimarex Energy Co.  
UL: O, Sec. 35, 25S, 26E  
Eddy Co., NM

**11. Methods of Handling Waste**

- Drilling fluids, produced oil, and water from the well during drilling and completion operations will be stored safely and disposed of properly in a NMOCD approved disposal facility.
- Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility. All trash on and around well site will be collected for disposal.
- Human waste and grey water will be properly contained and disposed of properly at a state approved disposal site.
- After drilling and completion operations, trash, chemicals, salts, frac sand and other waste will be removed and disposed of properly at a state approved disposal site.
- The well will be drilled utilizing a closed loop system. Drill cuttings will be properly disposed of into steel tanks and taken to an NMOCD approved disposal facility.

**12. Ancillary Facilities:**

No camps or airstrips to be constructed.

**13. Well Site Layout:**

- Exhibit D: Rig Layout
- Exhibit D-2: Well Site layout plat
- Mud pits in the closed circulation system will be steel pits and the cuttings will be stored in steel containment pits.
- Cuttings will be stored in steel pits until they are hauled to a state-approved disposal facility.
- If the well is a producer, those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements. Exhibit D-1: Interim Reclamation Diagram.

**14. Interim and Final Reclamation**

- Rehabilitation of the location will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.
- In areas planned for interim and final reclamation, surfacing materials will be removed and returned to a mineral pit or recycled to repair or build roads and well pads.
- Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.
- If the well is a dry hole, the pad and road area will be recountoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.
- Should the well be a producer, those areas of the location not essential to production facilities and operations will be reclaimed and seeded per BLM requirements. Exhibit D-1 illustrates the proposed Interim Reclamation.

**15. Surface Ownership:**

- The wellsite is on surface owned by Bureau Of Land Management, 620 E. Greene St. Carlsbad NM 888220, 575-234-5972.
- A copy of Surface Use Agreement has been given to the surface owner.
- The land is used mainly for farming, cattle ranching, recreational use, and oil and gas production.

**16. Other Information:**

- Topography consists of a sloping plane with loose tan sands. Vegetation is mainly yucca, mesquite and shin oak.
- Archeological survey will be conducted for the well pad/location and proposed road and the arch report will be filed with the BLM.
- There are no known dwellings within 1½ miles of this location.

**17. On Site Notes and Information:**

On 9/24/14 Barry Hunt, Jesse Rice & Randall Kirkes on location. V-Door North. Frac pad southwest corner (West). Top soil west. Battery east. Interim reclamation: west, southwest, northwest. Access road from northeast corner, east, to #1-#3 wells.

Hydrogen Sulfide Drilling Operations Plan

**Bonnie 35 Fed Com #4H**

Cimarex Energy Co.

UL: O, Sec.35, 25S, 26E

Eddy Co., NM

- 1 All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:
  - A. Characteristics of H<sub>2</sub>S
  - B. Physical effects and hazards
  - C. Principal and operation of H<sub>2</sub>S detectors, warning system and briefing areas.
  - D. Evacuation procedure, routes and first aid.
  - E. Proper use of safety equipment & life support systems
  - F. Essential personnel meeting Medical Evaluation criteria will receive additional training on the proper use of 30 minute pressure demand air packs.
  
- 2 H<sub>2</sub>S Detection and Alarm Systems:
  - A. H<sub>2</sub>S sensors/detectors to be located on the drilling rig floor, in the base of the sub structure/cellar area, on the mud pits in the shale shaker area. Additional H<sub>2</sub>S detectors may be placed as deemed necessary.
  - B. An audio alarm system will be installed on the derrick floor and in the top doghouse.
  
- 3 Windsack and/or wind streamers:
  - A. Windsack at mudpit area should be high enough to be visible.
  - B. Windsack on the rig floor and / or top doghouse should be high enough to be visible.
  
- 4 Condition Flags and Signs
  - A. Warning sign on access road to location.
  - B. Flags to be displayed on sign at entrance to location. Green flag indicates normal safe condition. Yellow flag indicates potential pressure and danger. Red flag indicates danger (H<sub>2</sub>S present in dangerous concentration). Only H<sub>2</sub>S trained and certified personnel admitted to location.
  
- 5 Well control equipment:
  - A. See exhibit "E-1"
  
- 6 Communication:
  - A. While working under masks chalkboards will be used for communication.
  - B. Hand signals will be used where chalk board is inappropriate.
  - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.
  
- 7 Drillstem Testing:

No DSTs or cores are planned at this time.
  
- 8 Drilling contractor supervisor will be required to be familiar with the effects H<sub>2</sub>S has on tubular goods and other mechanical equipment.
  
- 9 If H<sub>2</sub>S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H<sub>2</sub>S scavengers if necessary.

H<sub>2</sub>S Contingency Plan  
**Bonnie 35 Fed Com #4H**  
Cimarex Energy Co.  
UL: O, Sec.35, 25S, 26E  
Eddy Co., NM

**Emergency Procedures**

In the event of a release of gas containing H<sub>2</sub>S, the first responder(s) must:

- « Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- « Evacuate any public places encompassed by the 100 ppm ROE.
- « Be equipped with H<sub>2</sub>S monitors and air packs in order to control the release.
- « Use the "buddy system" to ensure no injuries occur during the response.
- « Take precautions to avoid personal injury during this operation.
- « Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- « Have received training in the:
  - Detection of H<sub>2</sub>S, and
  - Measures for protection against the gas,
  - Equipment used for protection and emergency response.

**Ignition of Gas Source**

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas.

**Characteristics of H<sub>2</sub>S and SO<sub>2</sub>**

Please see attached International Chemical Safety Cards.

**Contacting Authorities**

Cimarex Energy Co. of Colorado's personnel must liaise with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. Cimarex Energy Co. of Colorado's response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

H<sub>2</sub>S Contingency Plan Emergency Contacts

**Bonnie 35 Fed Com #4H**

Cimarex Energy Co.

UL: O, Sec.35, 25S, 26E

Eddy Co., NM

<b>Company Office</b>			
Cimarex Energy Co. of Colorado		800-969-4789	
Co. Office and After-Hours Menu			
<b>Key Personnel</b>			
<b>Name</b>	<b>Title</b>	<b>Office</b>	<b>Mobile</b>
Larry Seigrist	Drilling Manager	432-620-1934	580-243-8485
Doug McQuitty	Drilling Superintendent	432-620-1933	806-640-2605
Scott Lucas	Drilling Superintendent	432-620-1989	432-894-5572
Roy Shirley	Construction Superintendent		432-634-2136
<b>Artesia</b>			
Ambulance		911	
State Police		575-746-2703	
City Police		575-746-2703	
Sheriff's Office		575-746-9888	
<b>Fire Department</b>		<b>575-746-2701</b>	
Local Emergency Planning Committee		575-746-2122	
New Mexico Oil Conservation Division		575-748-1283	
<b>Carlsbad</b>			
Ambulance		911	
State Police		575-885-3137	
City Police		575-885-2111	
Sheriff's Office		575-887-7551	
<b>Fire Department</b>		<b>575-887-3798</b>	
Local Emergency Planning Committee		575-887-6544	
US Bureau of Land Management		575-887-6544	
<b>Santa Fe</b>			
New Mexico Emergency Response Commission (Santa Fe)		505-476-9600	
New Mexico Emergency Response Commission (Santa Fe) 24 Hrs		505-827-9126	
New Mexico State Emergency Operations Center		505-476-9635	
<b>National</b>			
National Emergency Response Center (Washington, D.C.)		800-424-8802	
<b>Medical</b>			
Flight for Life - 4000 24th St.; Lubbock, TX		806-743-9911	
Aerocare - R3, Box 49F; Lubbock, TX		806-747-8923	
Med Flight Air Amb - 2301 Yale Blvd S.E., #D3; Albuquerque, NM		505-842-4433	
SB Air Med Service - 2505 Clark Carr Loop S.E.; Albuquerque, NM		505-842-4949	
<b>Other</b>			
Boots & Coots IWC		800-256-9688	or 281-931-8884
Cudd Pressure Control		432-699-0139	or 432-563-3356
Halliburton		575-746-2757	
B.J. Services		575-746-3569	

## PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Cimarex Energy Co.
LEASE NO.:	NMNM026870
WELL NAME & NO.:	4H – Bonnie 35 Federal Com
SURFACE HOLE FOOTAGE:	330'/S & 2190'/E
BOTTOM HOLE FOOTAGE:	330'/N & 1940'/E
LOCATION:	Section 35, T 25 S., R 26 E., NMPM
COUNTY:	Eddy County, New Mexico

### TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- General Provisions**
- Permit Expiration**
- Archaeology, Paleontology, and Historical Sites**
- Noxious Weeds**
- Special Requirements**
  - Well Name**
    - Cave/Karst
- Construction**
  - Notification
  - Topsoil
  - Closed Loop System
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- Road Section Diagram**
- Drilling**
  - Cement Requirements
  - High Cave/Karst
  - Logging Requirements
  - Waste Material and Fluids
- Production (Post Drilling)**
  - Well Structures & Facilities
  - Pipelines
  - Electric Lines

Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006. The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all power line structures

placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. The holder without liability or expense shall make such modifications and/or additions to the United States.

- Interim Reclamation**
- Final Abandonment & Reclamation**

## **I. GENERAL PROVISIONS**

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

## **II. PERMIT EXPIRATION**

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

## **III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES**

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

## **IV. NOXIOUS WEEDS**

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

## V. SPECIAL REQUIREMENT(S)

**Submit a name change via Sundry Notice to remove “Com” from the well name.**

### **Cave and Karst Conditions of Approval**

\*\* Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

### **Cave/Karst Surface Mitigation**

The following stipulations will be applied to minimize impacts during construction, drilling and production.

#### **Construction:**

In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

#### **No Blasting:**

No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

#### **Pad Berming:**

The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.

- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g. caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised. (Any access road crossing the berm cannot be lower than the berm height.)

#### **Tank Battery Liners and Berms:**

Tank battery locations and all facilities will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

**Leak Detection System:**

A method of detecting leaks is required. The method could incorporate gauges to measure loss, siting values and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

**Automatic Shut-off Systems:**

Automatic shut off, check valves, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

**Cave/Karst Subsurface Mitigation**

The following stipulations will be applied to protect cave/karst and ground water concerns:

**Rotary Drilling with Fresh Water:**

Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

**Directional Drilling:**

Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

**Lost Circulation:**

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

**Abandonment Cementing:**

Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

**Pressure Testing:**

Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.



## **VI. CONSTRUCTION**

### **A. NOTIFICATION**

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

### **B. TOPSOIL**

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

### **C. CLOSED LOOP SYSTEM**

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

### **D. FEDERAL MINERAL MATERIALS PIT**

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

### **E. WELL PAD SURFACING**

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

### **F. EXCLOSURE FENCING (CELLARS & PITS)**

**Exclosure Fencing**

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

**G. ON LEASE ACCESS ROADS****Road Width**

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

**Surfacing**

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

*Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.*

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

**Crowning**

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

**Ditching**

Ditching shall be required on both sides of the road.

**Turnouts**

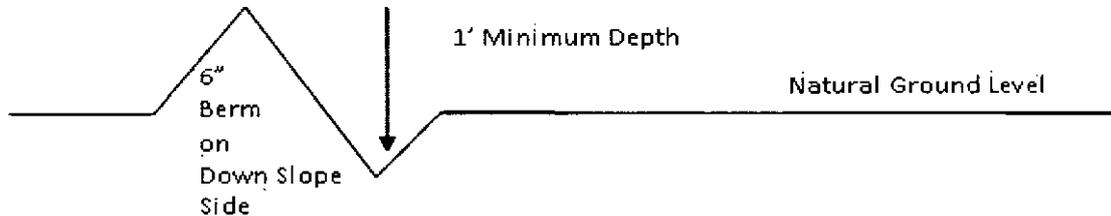
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

**Drainage**

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

### Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

### Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

### Cattleguards

An appropriately sized cattleguard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattleguards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguards that are in place and are utilized during lease operations.

### Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

### Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

**Construction Steps**

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes

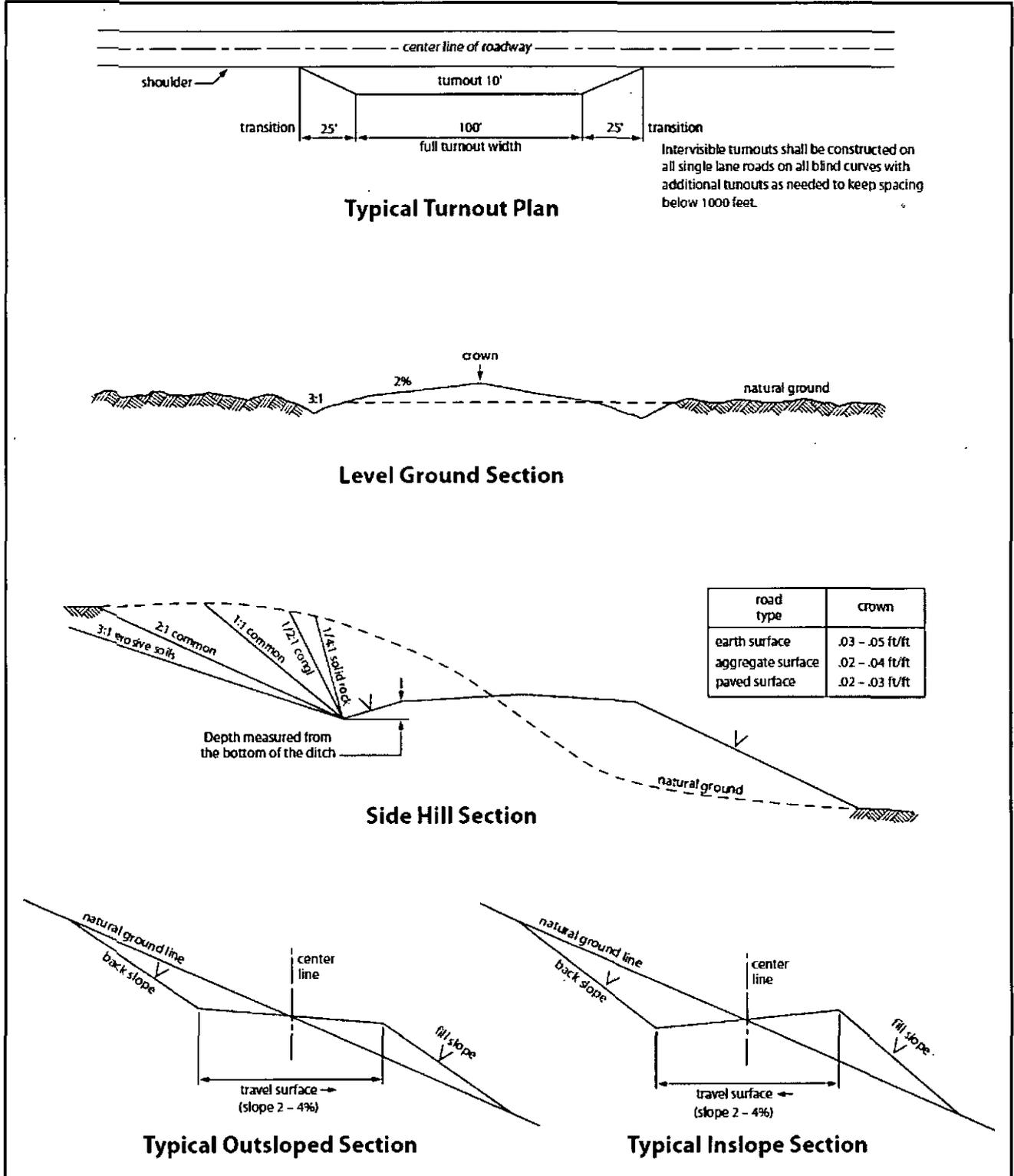


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

## VII. DRILLING

### A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

**Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,  
(575) 361-2822

1. **Hydrogen Sulfide (H<sub>2</sub>S) monitors shall be installed prior to drilling out the surface shoe. If H<sub>2</sub>S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.**
3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.
4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

## B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

### Wait on cement (WOC) for Water Basin:

After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Possibility of water flows in the Salado and Castile.

Possibility of lost circulation in the Delaware.

### HIGH CAVE/KARST

**A MINIMUM OF TWO CASING STRINGS CEMENTED TO SURFACE IS REQUIRED IN HIGH CAVE/KARST AREAS. THE CEMENT MUST BE IN A SOLID SHEATH. THEREFORE, ONE INCH OPERATIONS ARE NOT SUFFICIENT TO PROTECT CAVE KARST RESOURCES. A CASING DESIGN THAT HAS A ONE INCH JOB PERFORMED DOES NOT COUNT AS A SOLID SHEATH. ON A THREE STRING DESIGN; IF THE PRIMARY CEMENT JOB ON THE SURFACE CASING DOES NOT CIRCULATE, THEN THE NEXT TWO CASING STRINGS MUST BE CEMENTED TO SURFACE.**

1. The 13-3/8 inch surface casing shall be set at approximately 450 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt. Excess calculates to 20% - Additional cement may be required.**
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

- b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
    - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
    - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
  2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:
    - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.**
  3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
    - Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.
  4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

## **C. PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.
  - a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.
4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** intermediate casing shoe shall be **3000 (3M)** psi.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
  - c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
  - d. The results of the test shall be reported to the appropriate BLM office.
  - e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

- f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

#### **D. DRILL STEM TEST**

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

#### **E. WASTE MATERIAL AND FLUIDS**

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

**CRW 100915**

### **VIII. PRODUCTION (POST DRILLING)**

#### **A. WELL STRUCTURES & FACILITIES**

##### **Placement of Production Facilities**

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

##### **Exclosure Netting (Open-top Tanks)**

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

### **Chemical and Fuel Secondary Containment and Exclosure Screening**

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

### **Open-Vent Exhaust Stack Exclosures**

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

### **Containment Structures**

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

### **Painting Requirement**

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

## **B. PIPELINES**

### **BURIED PIPELINE STIPULATIONS**

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.
6. The pipeline will be buried with a minimum cover of 36 inches between the top of the pipe and ground level.
7. The maximum allowable disturbance for construction in this right-of-way will be 30 feet:
  - Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed 20 feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
  - Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed 30 feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
  - The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)
8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.
9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.
11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

- |   |  |
|---|--|
| <input type="checkbox"/> seed mixture 1     | <input type="checkbox"/> seed mixture 3            |
| <input type="checkbox"/> seed mixture 2     | <input checked="" type="checkbox"/> seed mixture 4 |
| <input type="checkbox"/> seed mixture 2/LPC | <input type="checkbox"/> Aplomado Falcon Mixture   |

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

17. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

18. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps,

ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

- a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
- b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

## C. ELECTRIC LINES

### STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

**A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.**

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to

whether a release is caused by the holder, its agent, or unrelated third parties.

4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.
5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

6. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.
8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.
9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.
10. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed

is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

11. Special Stipulations:

- For reclamation remove poles, lines, transformer, etc. and dispose of properly.
- Fill in any holes from the poles removed.

## **IX. INTERIM RECLAMATION**

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

## **X. FINAL ABANDONMENT & RECLAMATION**

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

#### Seed Mixture 4, for Gypsum Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)\* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed\* per acre:

<u>Species</u>	<u>lb/acre</u>
Alkali Sacaton ( <i>Sporobolus airoides</i> )	1.0
DWS Four-wing saltbush ( <i>Atriplex canescens</i> )	5.0

DWS: DeWinged Seed

\*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed