

ATS-16-348

Form 3160-3  
(June 2015)

MAY 16 2016

FORM APPROVED  
OMB No 1004-0137  
Expires January 31, 2018

HIGH CAVEKARST UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

Closed Loop System

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		8. Lease Name and Well No. Hayduke 34-27 Federal Com #5H
1c. Type of Completion <input checked="" type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		9. API Well No. 30 015 43794
2. Name of Operator Cimarex Energy Co.		10. Field and Pool, or Exploratory WC-015 G-03-942623M, BS, K2
3a. Address 202 S. Cheyenne Ave., Ste 1000, Tulsa, OK 74103	3b. Phone No. (include area code) 918-585-1100	11. Sec., T. R. M. or Blk. and Survey or Area 34, 25S, 26E
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At Surface 1980 FNL & 832 FEL; Sec 34-25S-26E At proposed prod. Zone 330 FNL & 660 FEL; Sec. 27-25S-26E Bone Spring		12. County or Parish Eddy
14. Distance in miles and direction from nearest town or post office* Loving NM is +/- 17.2 miles northeasterly		13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line if any) 660	16. No of acres in lease NMNM019423=2560.00 acres NMNM092160=1320.00 acres NMNM094840=40.00 acres	17. Spacing Unit dedicated to this well 240.00
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 363' to the #6 well.	19. Proposed Depth Pilot Hole TD: N/A 14,230 MD 7,505 TVD	20. BLM/BIA Bond No. in file NMB001187, NMB001188
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3345 GR	22. Approximate date work will start* 2/1/16	23. Estimated duration 35 days

24. Attachments

- The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)
- Well plat certified by a registered surveyor
  - A Drilling Plan
  - A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
  - Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
  - Operator Certification
  - Such other site specific information and/or plans as may be required by the BLM.

25. Signature <i>Aricka Easterling</i>	Name (Printed/Typed) Aricka Easterling	Date 12/10/15
Title Regulatory Compliance		
Approved By (Signature) <i>/s/George MacDonell</i>	Name (Printed/Typed) Office CARLSBAD FIELD OFFICE	Date MAY 13 2016
Title FIELD MANAGER		

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.C. 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.

Carlsbad Controlled Water Basin

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

Approval Subject to General Requirements  
& Special Stipulations Attached

\*(Instructions on page 2)

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 **NM OIL CONSERVATION** Form C-102  
Energy, Minerals & Natural Resources Department **DISTRICT** Revised August 1, 2011  
OIL CONSERVATION DIVISION **MAY 16 2016** Submit one copy to appropriate District Office  
1220 South St. Francis Dr.  AMENDED REPORT  
Santa Fe, NM 87505 **RECEIVED**

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-015 43794	<sup>2</sup> Pool Code 97018	<sup>3</sup> Well Name WC-015 6-03 52520 (B.M.) Wildcat, Bone Spring
<sup>4</sup> Property Code 316222	<sup>5</sup> Property Name HAYDUKE 34-27 FEDERAL COM	<sup>6</sup> Well Number 5H
<sup>7</sup> OGRID No. 215099	<sup>8</sup> Operator Name CIMAREX ENERGY CO.	<sup>9</sup> Elevation 3344.5'

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	34	25S	26E		1980	NORTH	832	EAST	EDDY

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	27	25S	26E		330	NORTH	660	EAST	EDDY

<sup>12</sup> Dedicated Acres 240	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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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> NOTE:  
Distances referenced on plat to section lines and are perpendicular.

<b>NAD 83 (SURFACE HOLE LOCATION)</b>	
LATITUDE = 32°05'17.16" (32.088100)	
LONGITUDE = 104°16'29.67" (104.274908)	
<b>NAD 27 (SURFACE HOLE LOCATION)</b>	
LATITUDE = 32°05'16.73" (32.087981)	
LONGITUDE = 104°16'27.88" (104.274411)	
<b>STATE PLANE NAD 83 (N.M. EAST)</b>	
N: 395792.85 E: 559431.43	
<b>STATE PLANE NAD 27 (N.M. EAST)</b>	
N: 395735.98 E: 518248.34	

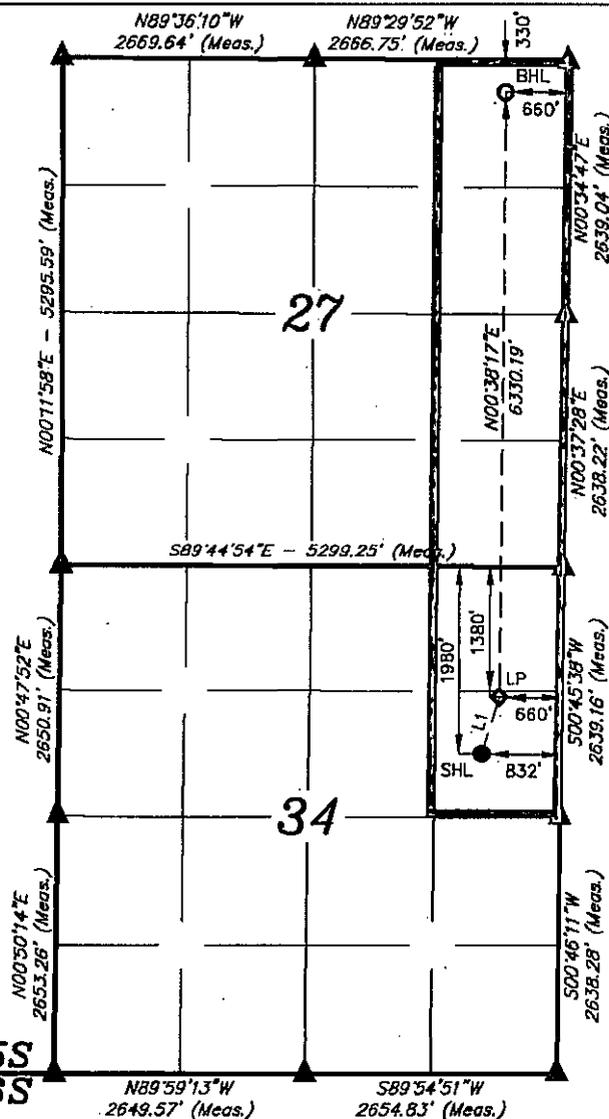
<b>NAD 83 (BOTTOM HOLE LOCATION)</b>	
LATITUDE = 32°06'25.72" (32.107144)	
LONGITUDE = 104°16'26.79" (104.274108)	
<b>NAD 27 (BOTTOM HOLE LOCATION)</b>	
LATITUDE = 32°06'25.29" (32.107025)	
LONGITUDE = 104°16'24.99" (104.273608)	
<b>STATE PLANE NAD 83 (N.M. EAST)</b>	
N: 402720.42 E: 559675.49	
<b>STATE PLANE NAD 27 (N.M. EAST)</b>	
N: 402663.43 E: 518492.51	

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N16°43'01"E	625.61'



SCALE  
DRAWN BY: T.E. 11-16-15

▲ = SECTION CORNERS LOCATED.



**<sup>17</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.

Signature: *Aricka Easterling* Date: 12/08/15  
Printed Name: Aricka Easterling  
E-mail Address: aeasterling@cimarex.com

**<sup>18</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.

November 13, 2015  
Date of Survey  
Signature and Seal of Professional Surveyor:



Certificate Number:

Operator Certification Statement  
**Hayduke 34-27 Federal Com #5H**  
Cimarex Energy Co.  
UL: H, Sec. 34, 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. NMB001187, NMB001188.

Executed this 10 day of December 2015

NAME:

*Aricka Easterling*  
Aricka Easterling

**TITLE:** Regulatory Compliance

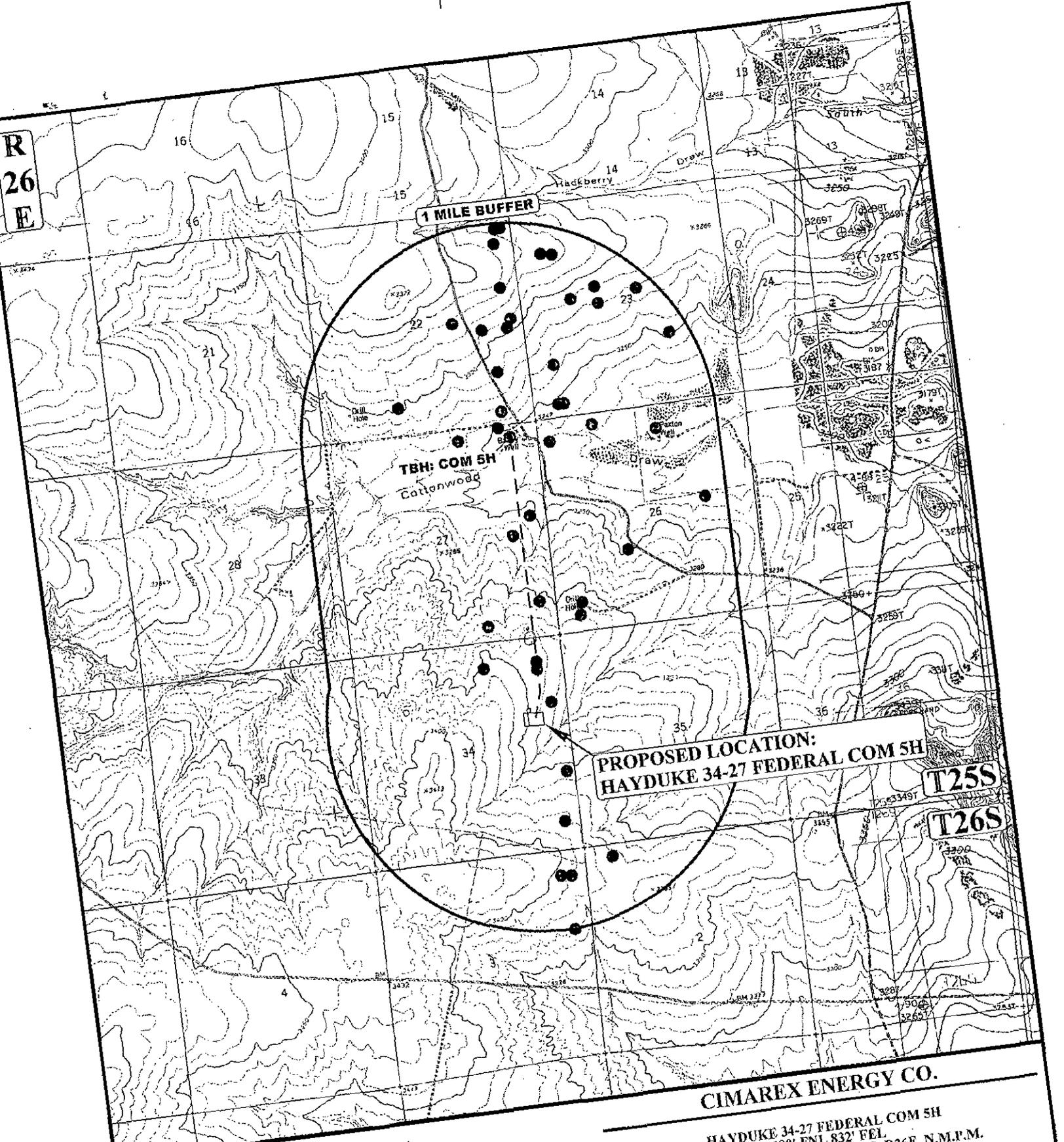
**ADDRESS:** 202 S. Cheyenne Ave., Ste 1000, Tulsa, OK 74103

**TELEPHONE:** 918-585-1100

**EMAIL:** AEasterling@cimarex.com

**Field Representative:** Same as above

R  
26  
E



**LEGEND:**  
 ● EXISTING WELLS

**PROPOSED LOCATION:  
 HAYDUKE 34-27 FEDERAL COM 5H**

**T25S  
 T26S**

**CIMAREX ENERGY CO.**

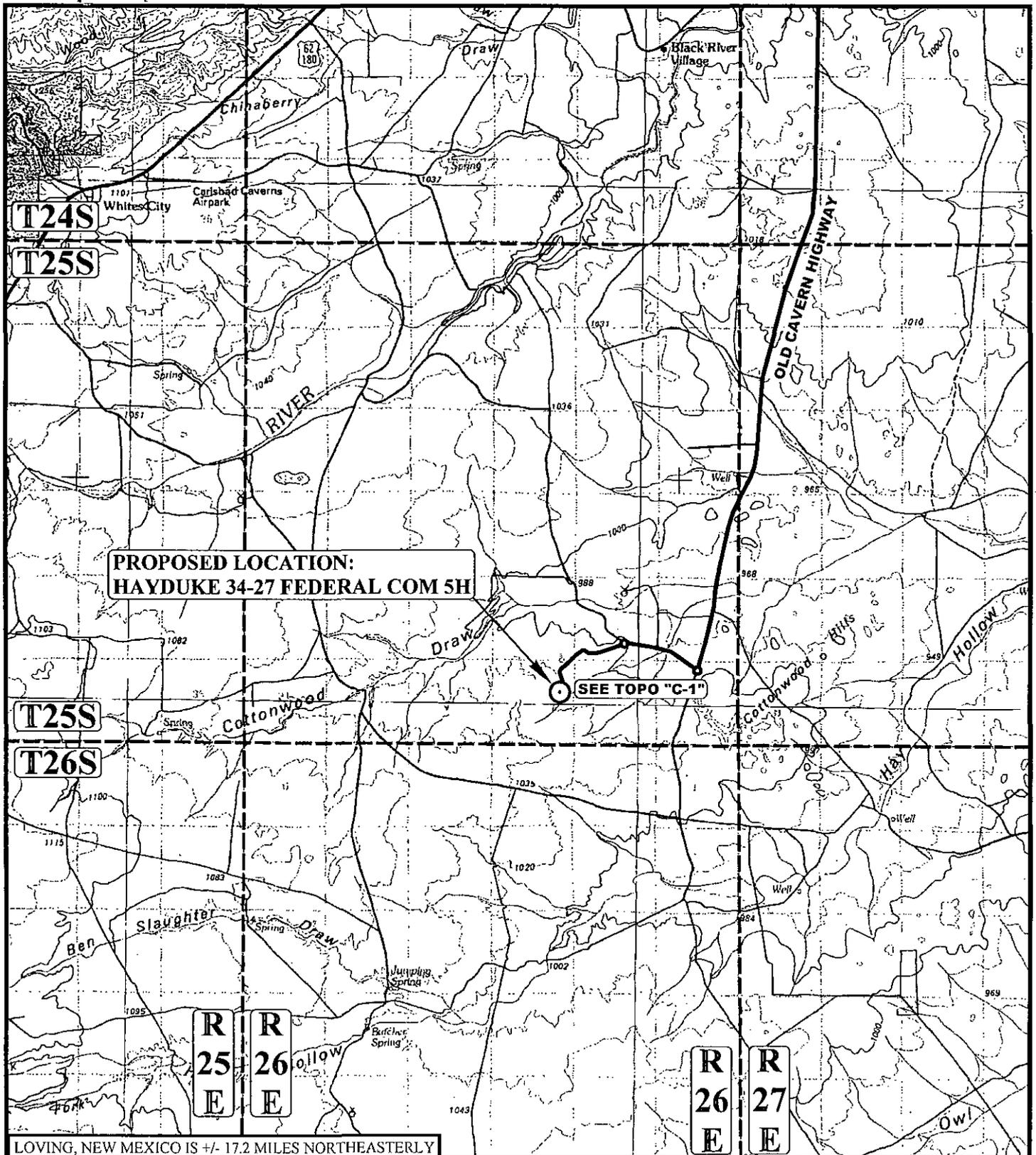
HAYDUKE 34-27 FEDERAL COM 5H  
 1980' FNL 832' FEL  
 SE 1/4 NE 1/4, SECTION 34, T25S, R26E, N.M.P.M.  
 EDDY COUNTY, NEW MEXICO



DRAWN BY: Z.H.F.	DATE DRAWN: 11-17-15
SCALE: 1" = 3000'	REVISED: 00-00-00
<b>ONE MILE RADIUS PLAT</b>	
<b>EXHIBIT A</b>	



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



**PROPOSED LOCATION:  
HAYDUKE 34-27 FEDERAL COM 5H**

**SEE TOPO "C-1"**

LOVING, NEW MEXICO IS +/- 17.2 MILES NORTHEASTERLY

**LEGEND:**

⊙ PROPOSED LOCATION

**CIMAREX ENERGY CO.**

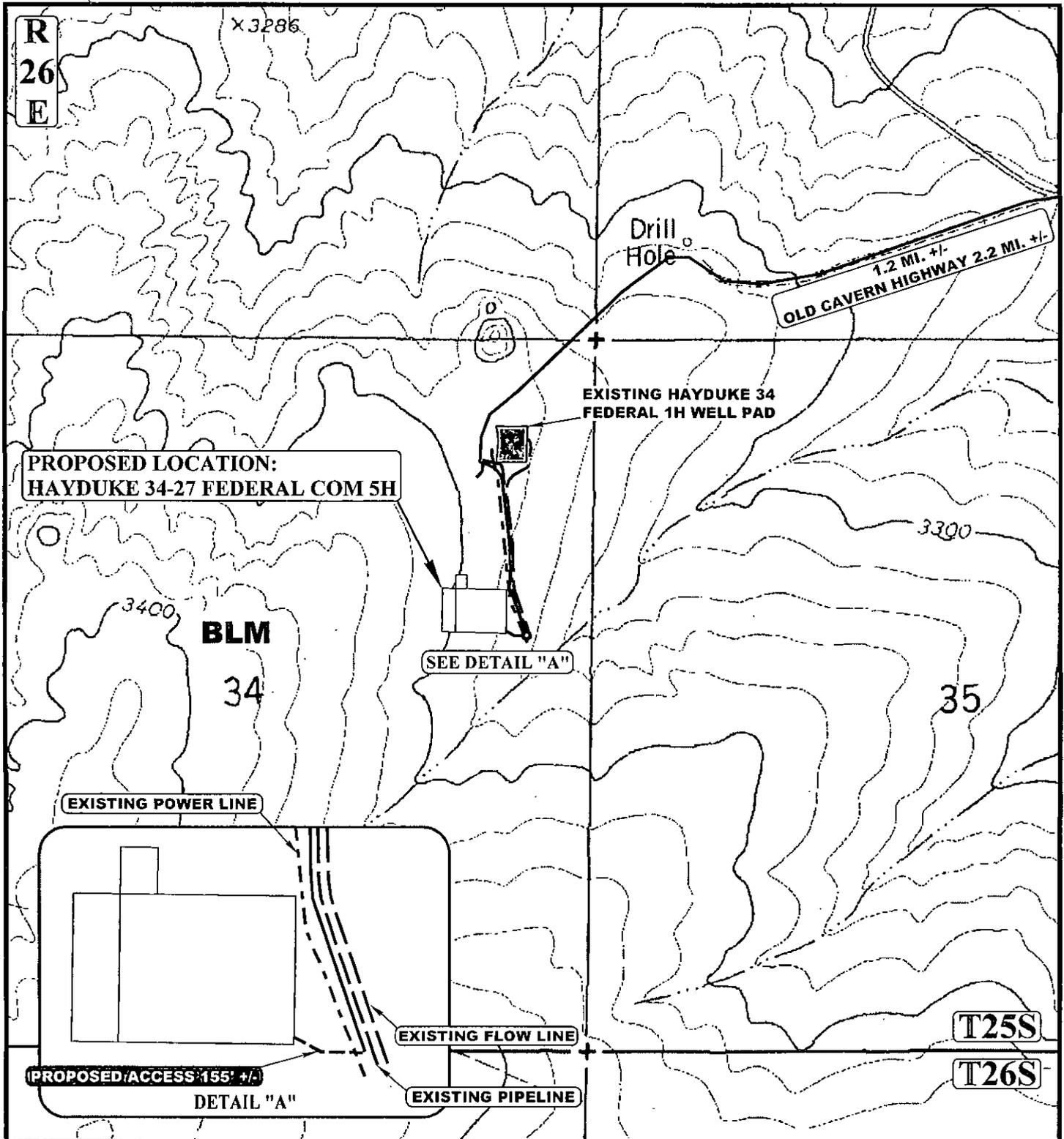
HAYDUKE 34-27 FEDERAL COM 5H  
1980' FNL 832' FEL  
SE 1/4 NE 1/4, SECTION 34, T25S, R26E, N.M.P.M.  
EDDY COUNTY, NEW MEXICO



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

DRAWN BY: Z.H.F.	DATE DRAWN: 11-17-15
SCALE: 1:100,000	REVISED: 00-00-00

**PUBLIC ACCESS ROAD MAP EXHIBIT 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
- - - EXISTING POWER LINE
- - - EXISTING PIPELINE

**CIMAREX ENERGY CO.**

HAYDUKE 34-27 FEDERAL COM 5H  
 1980' FNL 832' FEL  
 SE 1/4 NE 1/4, SECTION 34, T25S, R26E, N.M.P.M.  
 EDDY COUNTY, NEW MEXICO

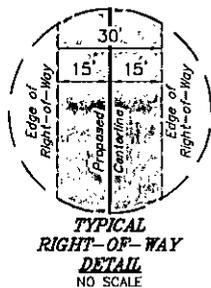


DRAWN BY: Z.H.F.	DATE DRAWN: 11-17-15
SCALE: 1" = 1000'	REVISED: 00-00-00

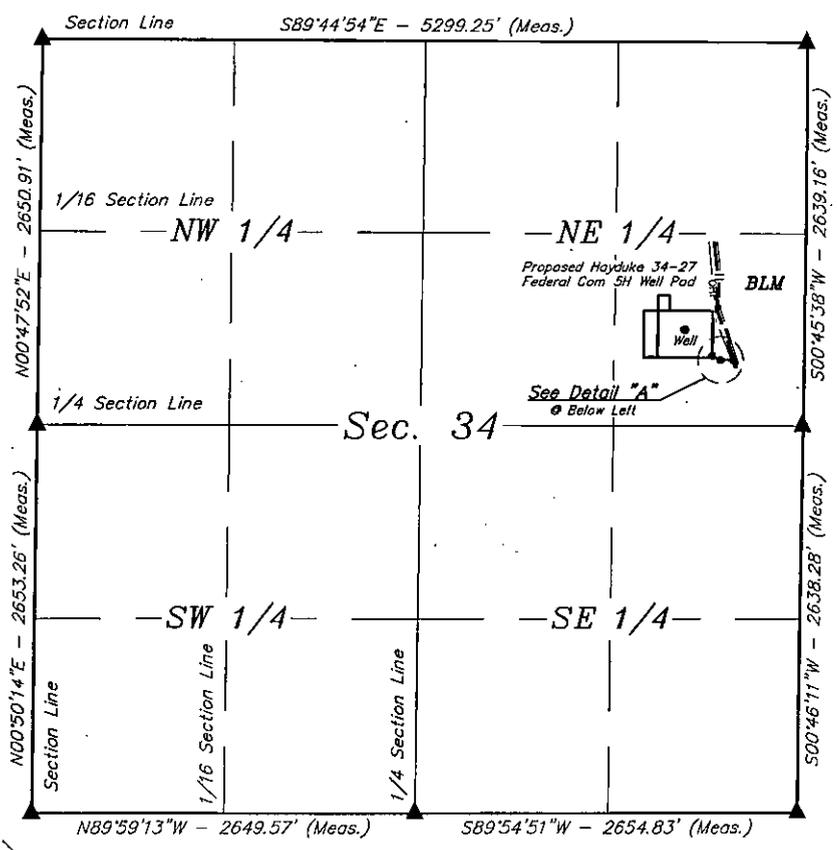
**ACCESS ROAD MAP**      **EXHIBIT C-1**



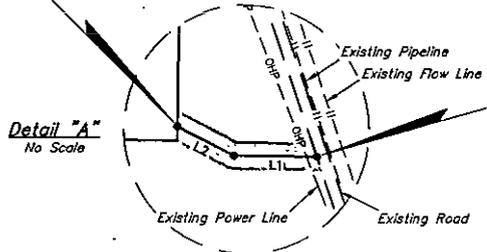
**UELS, LLC**  
 Corporate Office \* 85 South 200 East  
 Vernal, UT 84078 \* (435) 789-1017



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N89°13'36"W	88.04'
L2	N62°42'03"W	67.07'



**END OF PROPOSED  
ROAD RIGHT-OF-WAY  
STA. 1+55.11**  
(At Edge of Proposed Hayduke  
34-27 Federal Com 5H Well Pad)



**BEGINNING OF PROPOSED  
ROAD RIGHT-OF-WAY  
STA. 0+00**  
(At Edge of Existing Road)

**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 SE 1/4 NE 1/4 OF SECTION 34, T25S, R26E, N.M.P.M., WHICH BEARS N47°06'47"W 665.96' FROM THE EAST 1/4 CORNER OF SAID SECTION 34, THENCE N89°13'36"W 88.04'; THENCE N62°42'03"W 67.07' TO A POINT IN THE SE 1/4 NE 1/4 OF SAID SECTION 34, WHICH BEARS N52°38'37"W 799.59' FROM THE EAST 1/4 CORNER OF SAID SECTION 34. 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 0.107 ACRES MORE OR LESS.

BEGINNING OF ROAD STA. 0+00 BEARS N47°06'47"W 665.96' FROM THE EAST 1/4 CORNER OF SECTION 34, T25S, R26E, N.M.P.M.

END OF ROAD STA. 1+55.11 BEARS N52°38'37"W 799.59' FROM THE EAST 1/4 CORNER OF SECTION 34, T25S, R26E, N.M.P.M.



ACREAGE / LENGTH TABLE				
	OWNERSHIP	FEET	RODS	ACRES
ACCESS ROAD	BLM	155.11	9.40	0.107

▲ = 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 J. Marshall*  
 REGISTERED LAND SURVEYOR  
 REGISTRATION NO. 12446  
 STATE OF NEW MEXICO  
 11-17-15

Sheet 1 of 2

**NOTES:**

- The maximum grade of existing ground for the proposed access road is 4%.
- Basis of bearing is a G.P.S. observation (Vertical Control Datum: NAVD83)



**CIMAREX ENERGY CO.**

HAYDUKE 34-27 FEDERAL COM 5H  
SECTION 34, T25S, R26E, N.M.P.M.  
EDDY COUNTY, NEW MEXICO

DRAWN BY: T.E.	DATE DRAWN: 11-16-15
SCALE: 1" = 1000'	REVISED: 00-00-00



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

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

NUMBER	STATION	LATITUDE (NAD 83)	LONGITUDE (NAD 83)
BEGIN	0+00.00	N 32°05'15.09"	W 104°16'25.78"
1	0+88.04	N 32°05'15.10"	W 104°16'26.79"
END	1+55.11	N 32°05'15.41"	W 104°16'27.49"

SECTION CORNER	LATITUDE (NAD 83)	LONGITUDE (NAD 83)
SW COR. SEC. 34-T25S-R26E	N 32°04'44.45"	W 104°17'22.14"
W 1/4 COR. SEC. 34-T25S-R26E	N 32°05'10.70"	W 104°17'21.70"
NW COR. SEC. 34-T25S-R26E	N 32°05'36.93"	W 104°17'21.29"
NE COR. SEC. 34-T25S-R26E	N 32°05'36.72"	W 104°16'19.70"
E 1/4 COR. SEC. 34-T25S-R26E	N 32°05'10.61"	W 104°16'20.10"
SE COR. SEC. 34-T25S-R26E	N 32°04'44.51"	W 104°16'20.50"
S 1/4 COR. SEC. 34-T25S-R26E	N 32°04'44.46"	W 104°16'51.35"

CERTIFICATE OF PROFESSIONAL SURVEYOR  
 THIS IS TO CERTIFY THAT THE ABOVE PLANS WERE PREPARED FROM A 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  
 11-17-15

Sheet 2 of 2

**CIMAREX ENERGY CO.**

**HAYDUKE 34-27 FEDERAL COM 5H  
 SECTION 34, T25S, R26E, N.M.P.M.  
 EDDY COUNTY, NEW MEXICO**

DRAWN BY: T.E.	DATE DRAWN: 11-16-15
SCALE: NONE	REVISED: 00-00-00

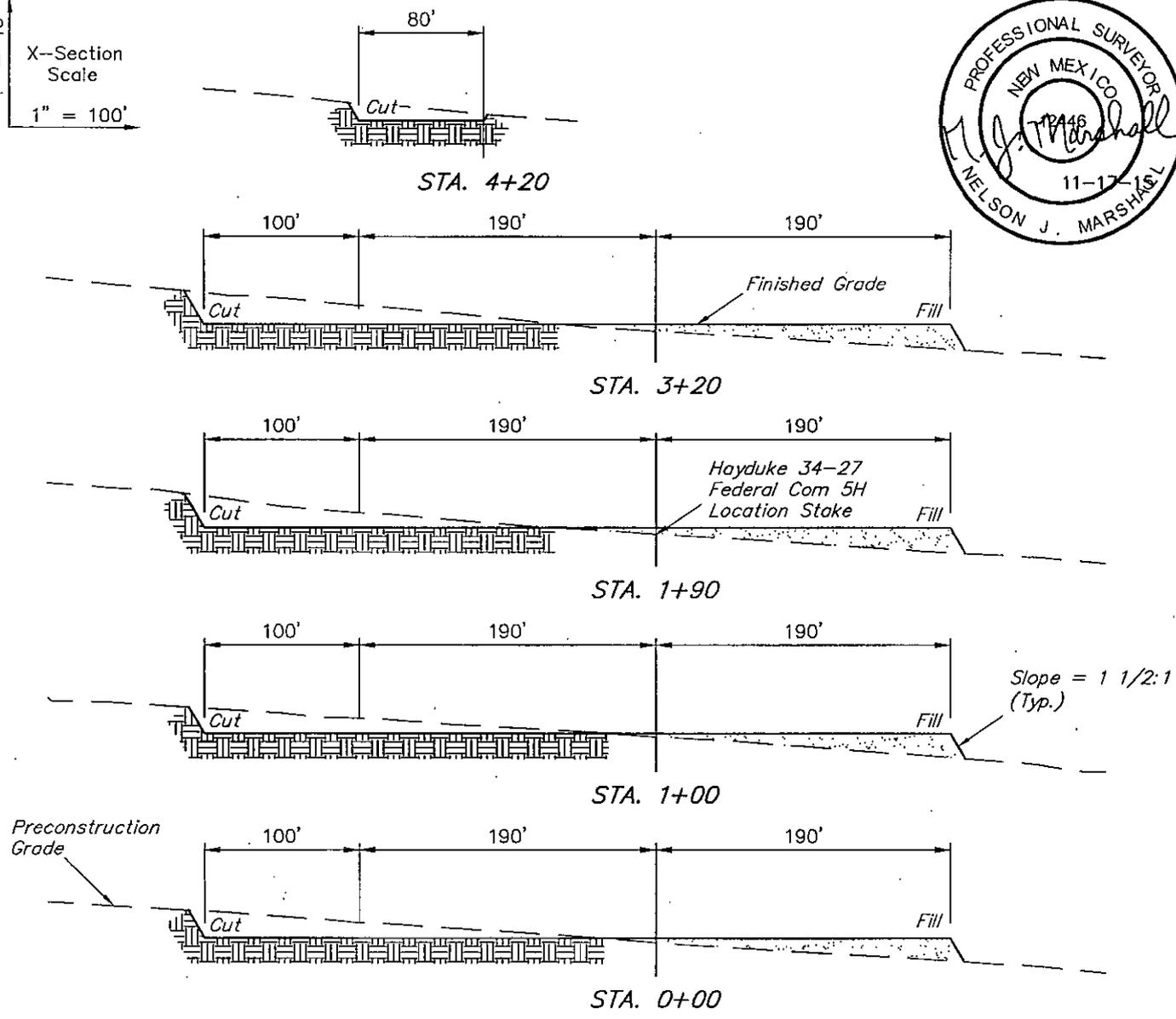
**ACCESS ROAD R-O-W EXHIBIT C-2**



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



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



APPROXIMATE EARTHWORK QUANTITIES	
(4") TOPSOIL STRIPPING	2,160 Cu. Yds.
REMAINING LOCATION	10,890 Cu. Yds.
<b>TOTAL CUT</b>	<b>13,050 Cu. Yds.</b>
<b>FILL</b>	<b>10,890 Cu. Yds.</b>
EXCESS MATERIAL	2,160 Cu. Yds.
TOPSOIL	2,160 Cu. Yds.
<b>EXCESS UNBALANCE</b> (After Interim Rehabilitation)	<b>0 Cu. Yds.</b>

APPROXIMATE SURFACE DISTURBANCE AREAS		
	DISTANCE	ACRES
WELL SITE DISTURBANCE	NA	±4.012
30' WIDE ACCESS ROAD R-O-W DISTURBANCE	±155.11'	±0.107
30' WIDE POWER LINE R-O-W DISTURBANCE	±389.39'	±0.274
30' WIDE (2) 4" GAS PIPELINE R-O-W DISTURBANCE	±648.31'	±0.446
30' WIDE 4" GAS PIPELINE R-O-W DISTURBANCE	±1,660.31'	±1.143
30' WIDE 8" SALES PIPELINE R-O-W DISTURBANCE	±589.18'	±0.406
30' WIDE SWD FLOW LINE R-O-W DISTURBANCE	±1,809.30'	±1.246
<b>TOTAL SURFACE USE AREA</b>		<b>±7.634</b>

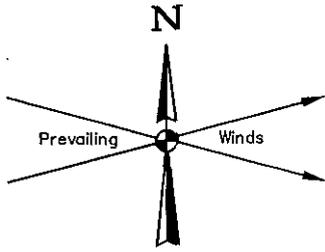
**NOTES:**  
 • Fill quantity includes 5% for compaction.

**CIMAREX ENERGY CO.**  
**HAYDUKE 34-27 FEDERAL COM 5H**  
**1980' FNL 832' FEL**  
**SE 1/4 NE 1/4, SECTION 34, T25S, R26E, N.M.P.M.**  
**EDDY COUNTY, NEW MEXICO**

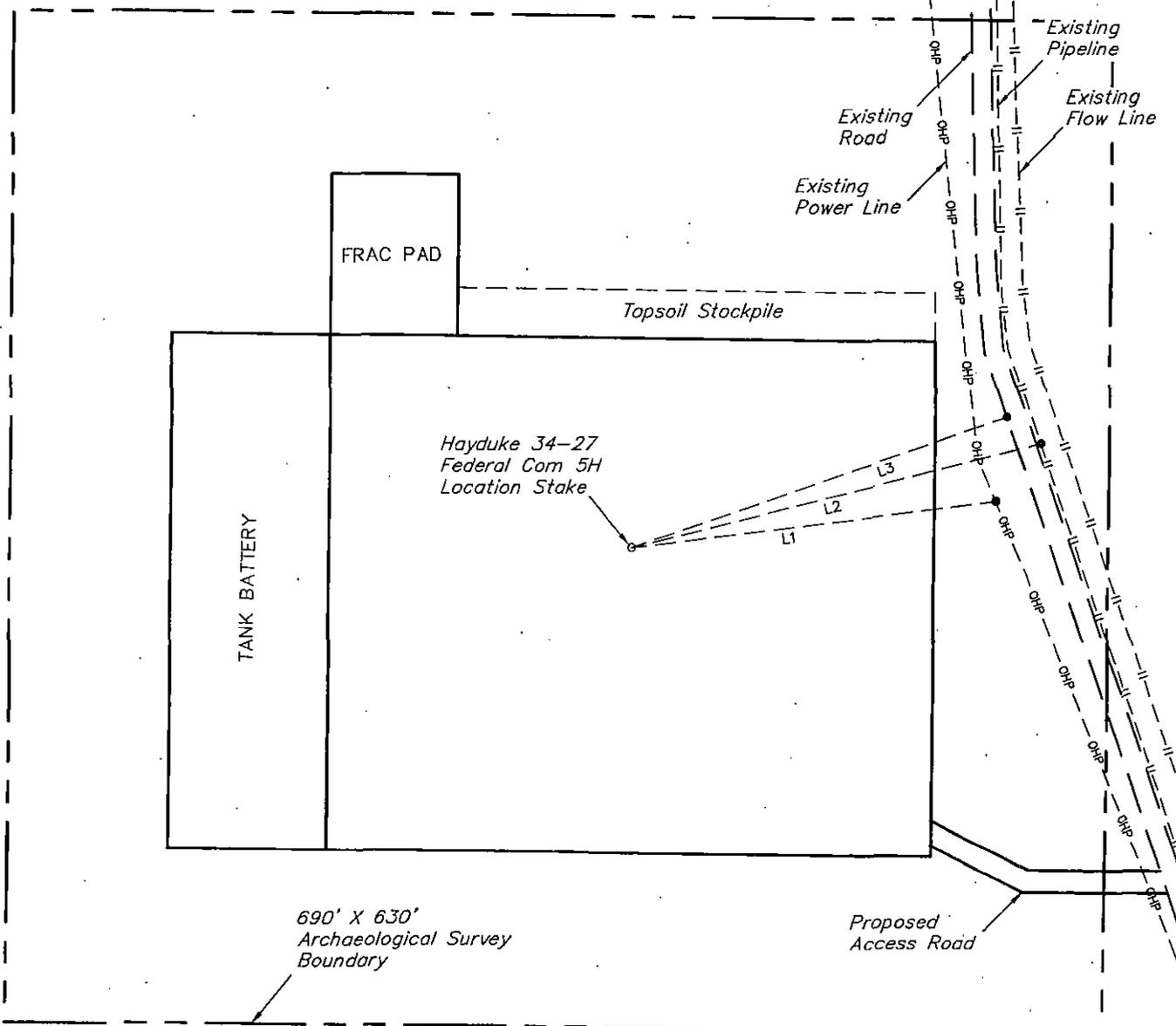
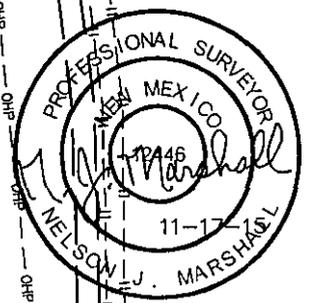


**UELS, LLC**  
 Corporate Office \* 85 South 200 East  
 Vernal, UT 84078 \* (435) 789-1017

DRAWN BY: T.E.	DATE DRAWN: 11-16-15
SCALE: AS SHOWN	REVISED: 00-00-00
<b>TYPICAL CROSS SECTIONS</b>	
<b>EXHIBIT D</b>	



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N83°E	231'
L2	N76°E	266'
L3	N71°E	250'



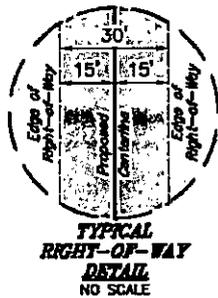
NOTES:

**CIMAREX ENERGY CO.**  
**HAYDUKE 34-27 FEDERAL COM 5H**  
 1980' FNL 832' FEL  
 SE 1/4 NE 1/4, SECTION 34, T25S, R26E, N.M.P.M.  
 EDDY COUNTY, NEW MEXICO

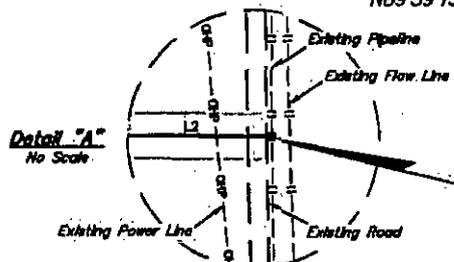
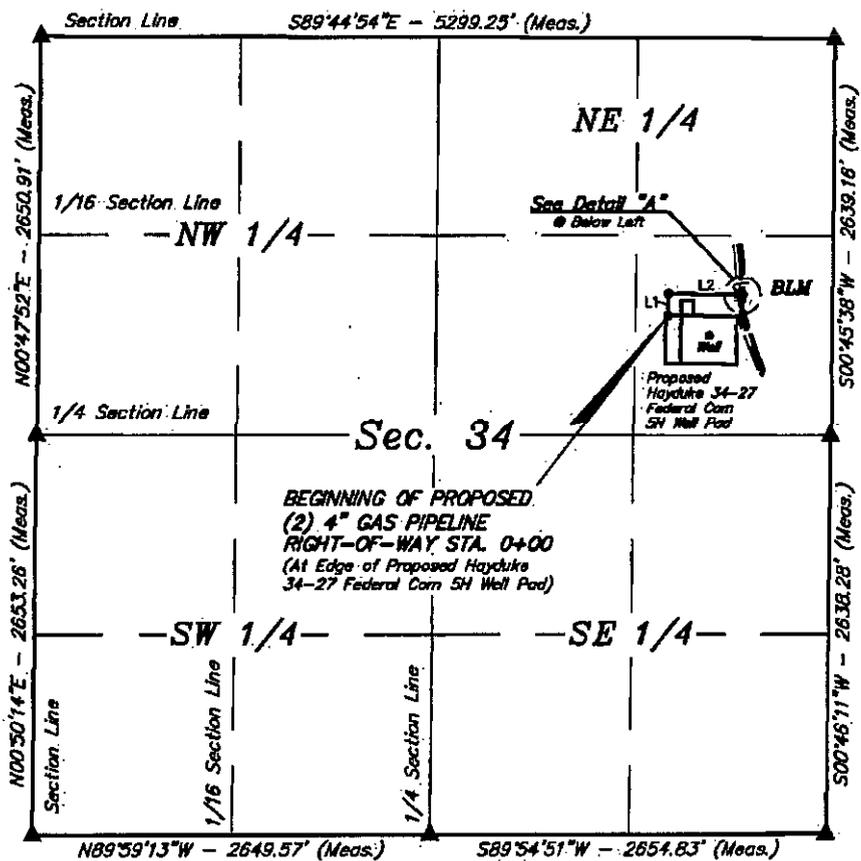


**UELS, LLC**  
 Corporate Office \* 85 South 200 East  
 Vernal, UT 84078 \* (435) 789-1017

DRAWN BY: T.E.	DATE DRAWN: 11-16-15
SCALE: 1" = 100'	REVISED: 00-00-00
<b>ARCHAEOLOGICAL SURVEY BOUNDARY</b>	<b>EXHIBIT D</b>



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N00°44'12"E	144.89'
L2	S89°15'20"E	503.43'



END OF PROPOSED (2) 4" GAS PIPELINE RIGHT-OF-WAY STA. 6+48.31 (At Existing Pipeline)

**4" GAS PIPELINE 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 SE 1/4 NE 1/4 OF SECTION 34, T25S, R26E, N.M.P.M., WHICH BEARS N54°00'44"W 1355.19' FROM THE EAST 1/4 CORNER OF SAID SECTION 34, THENCE N00°44'12"E 144.89'; THENCE S89°15'20"E 503.43' TO A POINT IN THE SE 1/4 NE 1/4 OF SAID SECTION 34, WHICH BEARS N32°19'06"W 1105.99' FROM THE EAST 1/4 CORNER OF SAID SECTION 34. 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 0.446 ACRES MORE OR LESS.  
 BEGINNING OF PIPELINE STA. 0+00 BEARS N54°00'44"W 1355.19' FROM THE EAST 1/4 CORNER OF SECTION 34, T25S, R26E, N.M.P.M.  
 END OF PIPELINE STA. 6+48.31 BEARS N32°19'06"W 1105.99' FROM THE EAST 1/4 CORNER OF SECTION 34, T25S, R26E, N.M.P.M.



ACREAGE / LENGTH TABLE				
	OWNERSHIP	FEET	RODS	ACRES
PIPELINE	BLM	648.31	39.29	0.446

▲ = SECTION CORNERS LOCATED.

CERTIFIED 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  
 REGISTERED LAND SURVEYOR  
 REGISTRATION NO. 12446  
 STATE OF NEW MEXICO MARSHAL  
 11-17-15

Sheet 1 of 2

**CIMAREX ENERGY CO.**

HAYDUKE 34-27 FEDERAL COM 5H  
 SECTION 34, T25S, R26E, N.M.P.M.  
 EDDY COUNTY, NEW MEXICO

DRAWN BY: T.E.	DATE DRAWN: 11-16-15
SCALE: 1" = 1000'	REVISED: 00-00-00

**4" Pipeline R-O-W**      **EXHIBIT G**

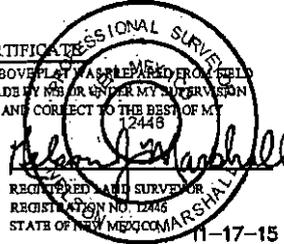


UELS, LLC  
 Corporate Office \* 85 South 200 East  
 Vernal, UT 84078 \* (435) 789-1017



NUMBER	STATION	LATITUDE (NAD 83)	LONGITUDE (NAD 83)
BEGIN	0+00.00	N 32°05'18.48"	W 104°16'32.84"
1	1+44.89	N 32°05'19.92"	W 104°16'32.82"
END	6+48.31	N 32°05'19.85"	W 104°16'26.96"

SECTION CORNER	LATITUDE (NAD 83)	LONGITUDE (NAD 83)
SW COR. SEC. 34-T25S-R26E	N 32°04'44.45"	W 104°17'22.14"
W 1/4 COR. SEC. 34-T25S-R26E	N 32°05'10.70"	W 104°17'21.70"
NW COR. SEC. 34-T25S-R26E	N 32°05'36.93"	W 104°17'21.29"
NE COR. SEC. 34-T25S-R26E	N 32°05'36.72"	W 104°16'19.70"
E 1/4 COR. SEC. 34-T25S-R26E	N 32°05'10.61"	W 104°16'20.10"
SE COR. SEC. 34-T25S-R26E	N 32°04'44.51"	W 104°16'20.50"
S 1/4 COR. SEC. 34-T25S-R26E	N 32°04'44.46"	W 104°16'51.35"

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 J. Marshall  
 REGISTERED LAND SURVEYOR  
 REGISTRATION NO. 12448  
 STATE OF NEW MEXICO  
 11-17-15

Sheet 2 of 2

**CIMAREX ENERGY CO.**

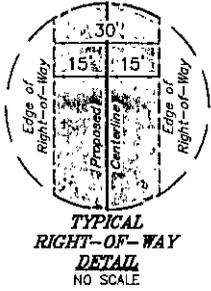
HAYDUKE 34-27 FEDERAL COM 5H  
 SECTION 34, T25S, R26E, N.M.P.M.  
 EDDY COUNTY, NEW MEXICO



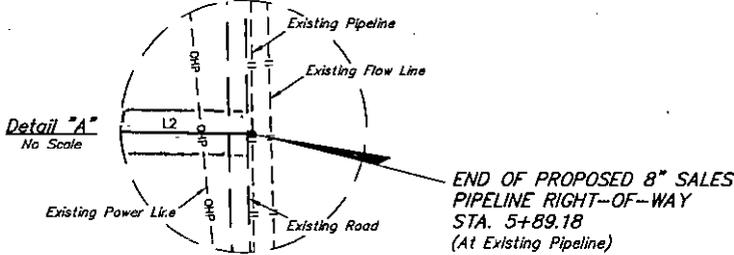
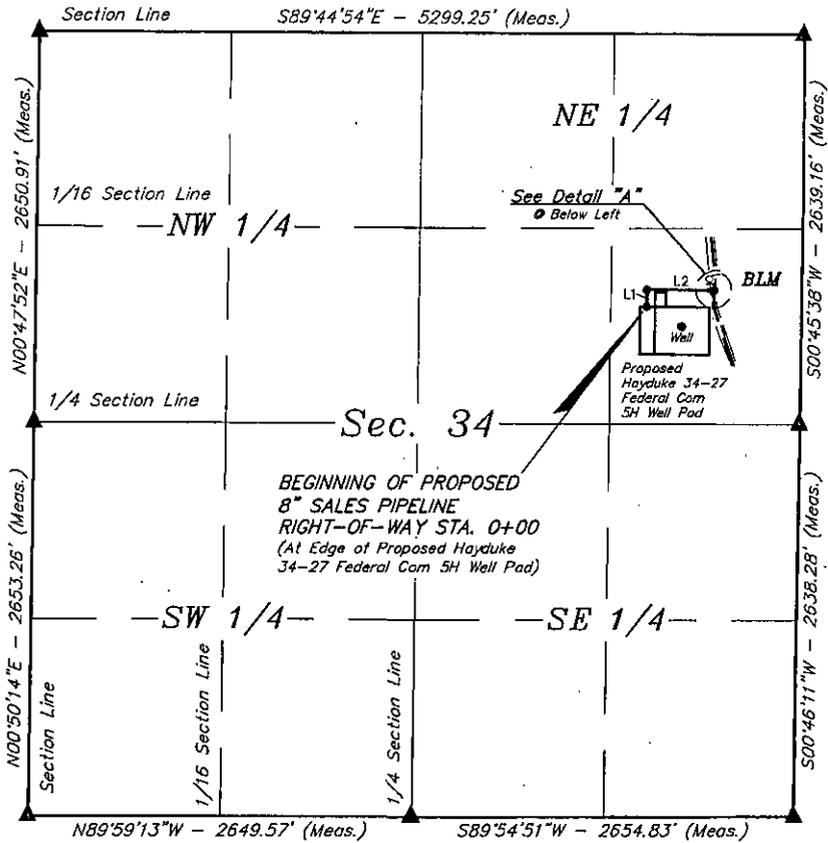
DRAWN BY: T.E.	DATE DRAWN: 11-16-15
SCALE: NONE	REVISED: 00-00-00
<b>4" Pipeline R-O-W</b>	<b>EXHIBIT G</b>



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



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N00°45'56"E	115.02'
L2	S89°14'25"E	474.16'



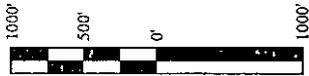
**8" SALES PIPELINE RIGHT-OF-WAY DESCRIPTION**

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

BEGINNING AT A POINT IN THE SE 1/4 NE 1/4 OF SECTION 34, T25S, R26E, N.M.P.M., WHICH BEARS N53°16'02"W 1330.81' FROM THE EAST 1/4 CORNER OF SAID SECTION 34, THENCE N00°45'56"E 115.02'; THENCE S89°14'25"E 474.16' TO A POINT IN THE SE 1/4 NE 1/4 OF SAID SECTION 34, WHICH BEARS N33°09'05"W 1080.54' FROM THE EAST 1/4 CORNER OF SAID SECTION 34. 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 0.406 ACRES MORE OR LESS.

BEGINNING OF 8" SALES PIPELINE STA. 0+00 BEARS N53°16'02"W 1330.81' FROM THE EAST 1/4 CORNER OF SECTION 34, T25S, R26E, N.M.P.M.

END OF 8" SALES PIPELINE STA. 5+89.18 BEARS N33°09'05"W 1080.54' FROM THE EAST 1/4 CORNER OF SECTION 34, T25S, R26E, N.M.P.M.



ACREAGE / LENGTH TABLE				
	OWNERSHIP	FEET	RODS	ACRES
8" SALES PIPELINE	BLM	589.18	35.71	0.406

▲ = SECTION CORNERS LOCATED.

NOTES:  
 \* Basis of bearing is a G.P.S. observation (Vertical Control Datum: NAVD88)

CERTIFICATE OF PROFESSIONAL SURVEY

THIS IS TO CERTIFY THAT THE ABOVE WAS MADE 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  
 11-17-15

Sheet 1 of 2

**CIMAREX ENERGY CO.**

HAYDUKE 34-27 FEDERAL COM 5H  
 SECTION 34, T25S, R26E, N.M.P.M.  
 EDDY COUNTY, NEW MEXICO

DRAWN BY: T.E.	DATE DRAWN: 11-16-15
SCALE: 1" = 1000'	REVISED: 00-00-00
<b>SALES PIPELINE R-O-W</b>	<b>EXHIBIT G</b>

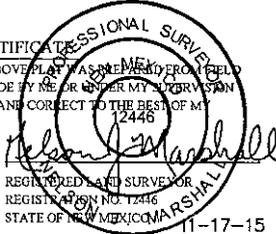


**UELS, LLC**  
 Corporate Office \* 85 South 200 East  
 Vernal, UT 84078 \* (435) 789-1017



NUMBER	STATION	LATITUDE (NAD 83)	LONGITUDE (NAD 83)
BEGIN	0+00.00	N 32°05'18.48"	W 104°16'32.50"
1	1+15.02	N 32°05'19.62"	W 104°16'32.48"
END	5+89.18	N 32°05'19.56"	W 104°16'26.96"

SECTION CORNER	LATITUDE (NAD 83)	LONGITUDE (NAD 83)
SW COR. SEC. 34-T25S-R26E	N 32°04'44.45"	W 104°17'22.14"
W 1/4 COR. SEC. 34-T25S-R26E	N 32°05'10.70"	W 104°17'21.70"
NW COR. SEC. 34-T25S-R26E	N 32°05'36.93"	W 104°17'21.29"
NE COR. SEC. 34-T25S-R26E	N 32°05'36.72"	W 104°16'19.70"
E 1/4 COR. SEC. 34-T25S-R26E	N 32°05'10.61"	W 104°16'20.10"
SE COR. SEC. 34-T25S-R26E	N 32°04'44.51"	W 104°16'20.50"
S 1/4 COR. SEC. 34-T25S-R26E	N 32°04'44.46"	W 104°16'51.35"


  
 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  
 REGISTERED LAND SURVEYOR  
 REGISTRATION NO. 12446  
 STATE OF NEW MEXICO

Sheet 2 of 2

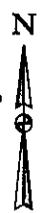
**CIMAREX ENERGY CO.**

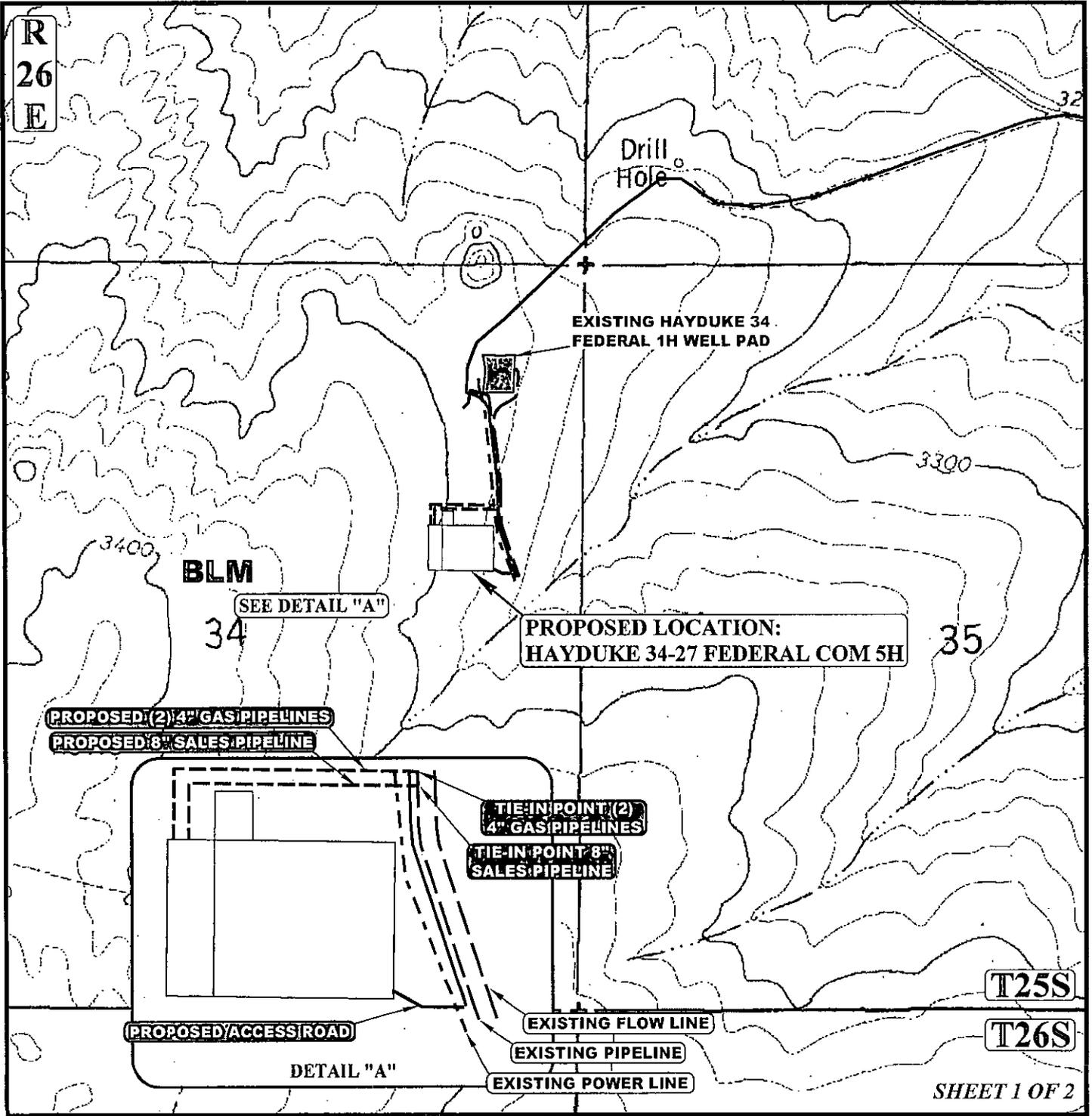
**HAYDUKE 34-27 FEDERAL COM 5H**  
**SECTION 34, T25S, R26E, N.M.P.M.**  
**EDDY COUNTY, NEW MEXICO**

DRAWN BY: T.E.	DATE DRAWN: 11-16-15
SCALE: NONE	REVISED: 00-00-00
<b>SALES PIPELINE R-O-W</b>	<b>EXHIBIT G</b>



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





SHEET 1 OF 2

APPROXIMATE TOTAL 4" GAS PIPELINE DISTANCE = 648' +/-

APPROXIMATE TOTAL 8" SALES PIPELINE DISTANCE = 589' +/-

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 (2) 4" GAS PIPELINE
- PROPOSED 8" SALES PIPELINE
- EXISTING POWER LINE
- EXISTING PIPELINE

**CIMAREX ENERGY CO.**

HAYDUKE 34-27 FEDERAL COM 5H  
 1980' FNL 832' FEL  
 SE 1/4 NE 1/4, SECTION 34, T25S, R26E, N.M.P.M.  
 EDDY COUNTY, NEW MEXICO



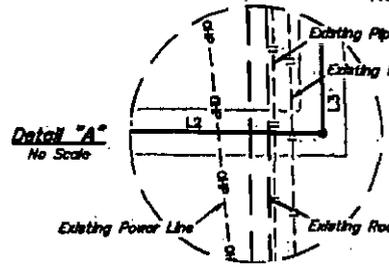
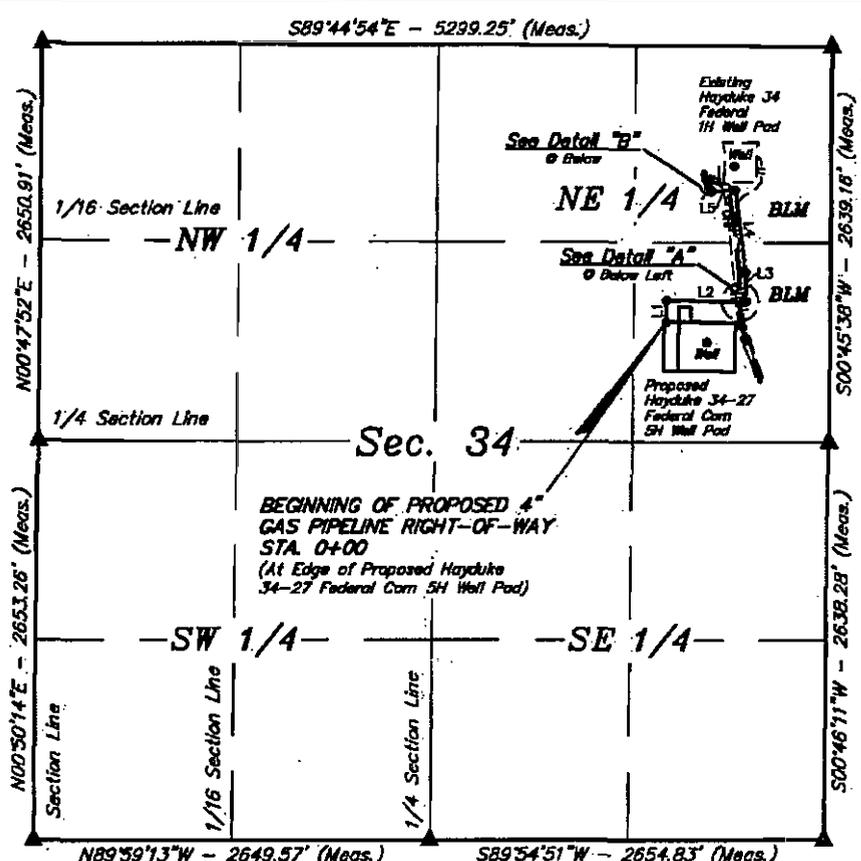
DRAWN BY: Z.H.F.	DATE DRAWN: 11-17-15
SCALE: 1" = 1000'	REVISED: 00-00-00
<b>PIPELINE MAP</b>	<b>EXHIBIT G</b>



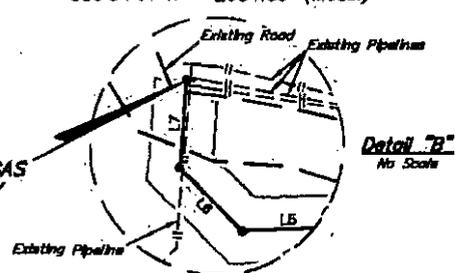
**UELS, LLC**  
 Corporate Office \* 85 South 200 East  
 Vernal, UT 84078 \* (435) 789-1017



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N00°44'12"E	144.89'
L2	S89°15'20"E	534.45'
L3	N00°19'02"W	187.78'
L4	N07°00'22"W	559.67'
L5	S87°52'01"W	154.00'
L6	N45°47'42"W	40.08'
L7	N04°14'28"E	39.48'



END OF PROPOSED 4" GAS PIPELINE RIGHT-OF-WAY STA. 16+60.31 (At Existing Pipeline Rear)



### 4" GAS LIFT 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 SE 1/4 NE 1/4 OF SECTION 34, T25S, R26E, N.M.P.M., WHICH BEARS N54°00'44"W 1355.19' FROM THE EAST 1/4 CORNER OF SAID SECTION 34, THENCE N00°44'12"E 144.89'; THENCE S89°15'20"E 534.45'; THENCE N00°19'02"W 187.78'; THENCE N07°00'22"W 559.67'; THENCE S87°52'01"W 154.00'; THENCE N45°47'42"W 40.08'; THENCE N04°14'28"E 39.48' TO A POINT IN THE NE 1/4 NE 1/4 OF SAID SECTION 34, 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 1.143 ACRES MORE OR LESS.

BEGINNING OF PIPELINE STA. 0+00 BEARS N54°00'44"W 1355.19' FROM THE EAST 1/4 CORNER OF SECTION 34, T25S, R26E, N.M.P.M.

END OF PIPELINE STA. 16+60.31 BEARS S43°10'33"W 1233.92' FROM THE NORTHEAST CORNER OF SECTION 34, T25S, R26E, N.M.P.M.

ACREAGE / LENGTH TABLE				
	OWNERSHIP	FEET	RODS	ACRES
PIPELINE	BLM	1660.31	100.62	1.143

▲ = SECTION CORNERS LOCATED.

CERTIFIED PROFESSIONAL SURVEYOR

THIS IS TO CERTIFY THAT THE ABOVE IS A TRUE AND CORRECT COPY OF THE ORIGINAL 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/MARSHALL

11-17-15

NOTES:  
\* Basis of bearing is a G.P.S. observation (Vertical Control Datum: NAVD88)

Sheet 1 of 2

### CIMAREX ENERGY CO.

HAYDUKE 34-27 FEDERAL COM 5H  
SECTION 34, T25S, R26E, N.M.P.M.  
EDDY COUNTY, NEW MEXICO

DRAWN BY: T.E.	DATE DRAWN: 11-16-15
SCALE: 1" = 1000'	REVISED: 00-00-00
4" Gas Lift R-O-W	EXHIBIT G

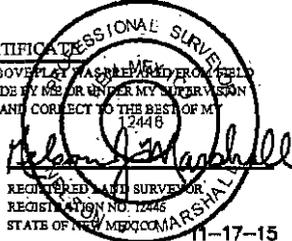


UELS, LLC  
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017



NUMBER	STATION	LATITUDE (NAD 83)	LONGITUDE (NAD 83)
BEGIN	0+00.00	N 32°05'18.48"	W 104°16'32.84"
1	1+44.89	N 32°05'19.92"	W 104°16'32.82"
2	6+79.34	N 32°05'19.85"	W 104°16'26.61"
3	8+67.13	N 32°05'21.71"	W 104°16'26.63"
4	14+26.80	N 32°05'27.20"	W 104°16'27.42"
5	15+80.80	N 32°05'27.15"	W 104°16'29.20"
6	16+20.85	N 32°05'27.42"	W 104°16'29.54"
END	16+60.31	N 32°05'27.81"	W 104°16'29.51"

SECTION CORNER	LATITUDE (NAD 83)	LONGITUDE (NAD 83)
SW COR. SEC. 34-T25S-R26E	N 32°04'44.45"	W 104°17'22.14"
W 1/4 COR. SEC. 34-T25S-R26E	N 32°05'10.70"	W 104°17'21.70"
NW COR. SEC. 34-T25S-R26E	N 32°05'36.93"	W 104°17'21.29"
NE COR. SEC. 34-T25S-R26E	N 32°05'36.72"	W 104°16'19.70"
E 1/4 COR. SEC. 34-T25S-R26E	N 32°05'10.61"	W 104°16'20.10"
SE COR. SEC. 34-T25S-R26E	N 32°04'44.51"	W 104°16'20.50"
S 1/4 COR. SEC. 34-T25S-R26E	N 32°04'44.46"	W 104°16'51.35"


  
 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  
 REGISTERED PROFESSIONAL SURVEYOR  
 REGISTRATION NO. 12446  
 STATE OF NEW MEXICO

Sheet 2 of 2

CIMAREX ENERGY CO.

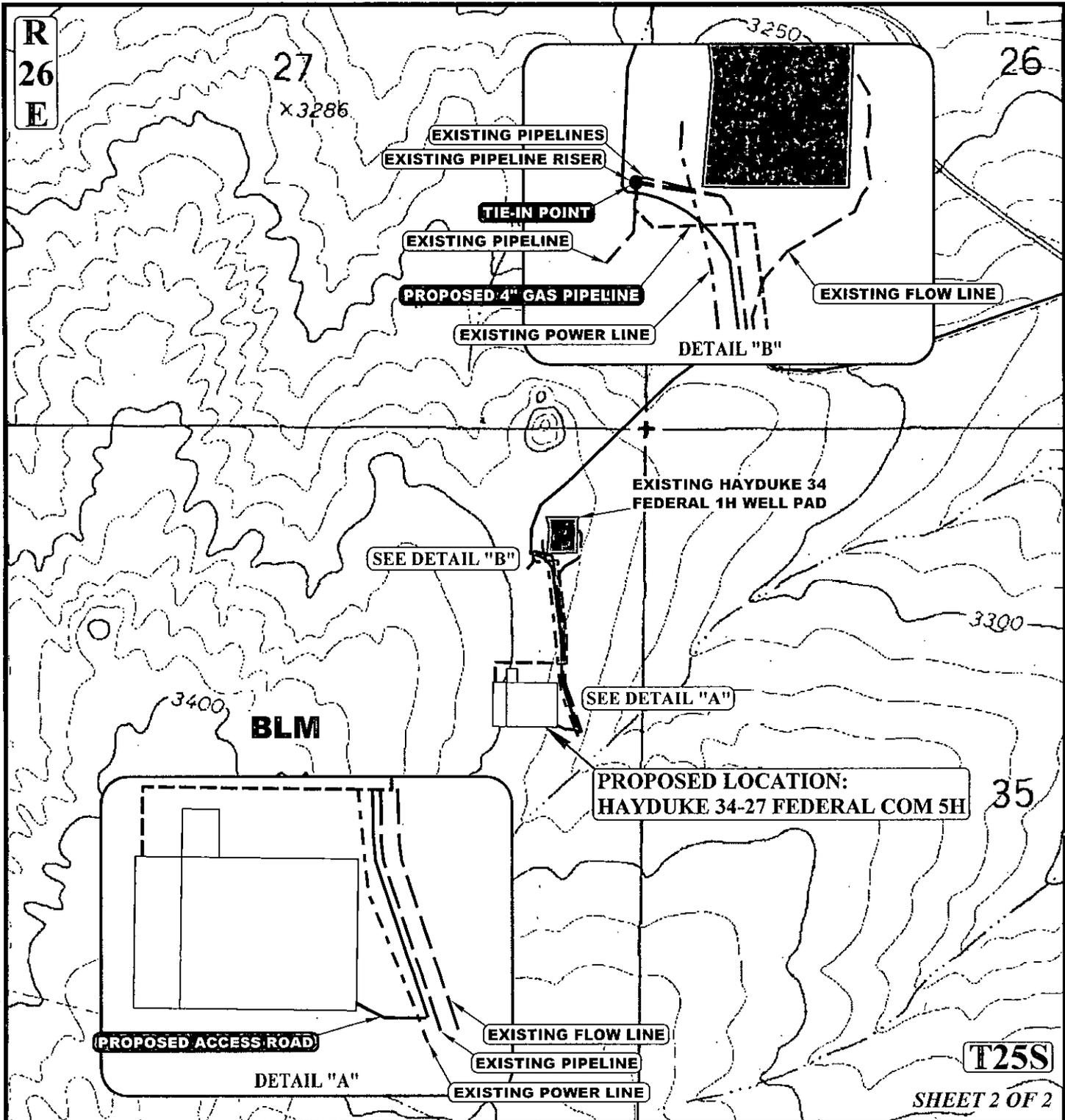
HAYDUKE 34-27 FEDERAL COM SH  
 SECTION 34, T25S, R26E, N.M.P.M.  
 EDDY COUNTY, NEW MEXICO



DRAWN BY: T.E.	DATE DRAWN: 11-16-15
SCALE: NONE	REVISED: 00-00-00
<b>4" Gas Lift R-O-W</b>	
<b>EXHIBIT G</b>	



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



**APPROXIMATE TOTAL 4" GAS PIPELINE DISTANCE = 1,660' +/-**

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 4" GAS PIPELINE
- - - EXISTING POWER LINE
- - - EXISTING PIPELINE

**CIMAREX ENERGY CO.**

HAYDUKE 34-27 FEDERAL COM 5H  
 1980' FNL 832' FEL  
 SE 1/4 NE 1/4, SECTION 34, T25S, R26E, N.M.P.M.  
 EDDY COUNTY, NEW MEXICO

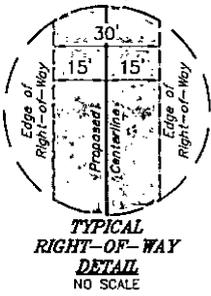


DRAWN BY: Z.H.F.	DATE DRAWN: 11-17-15
SCALE: 1" = 1000'	REVISED: 00-00-00

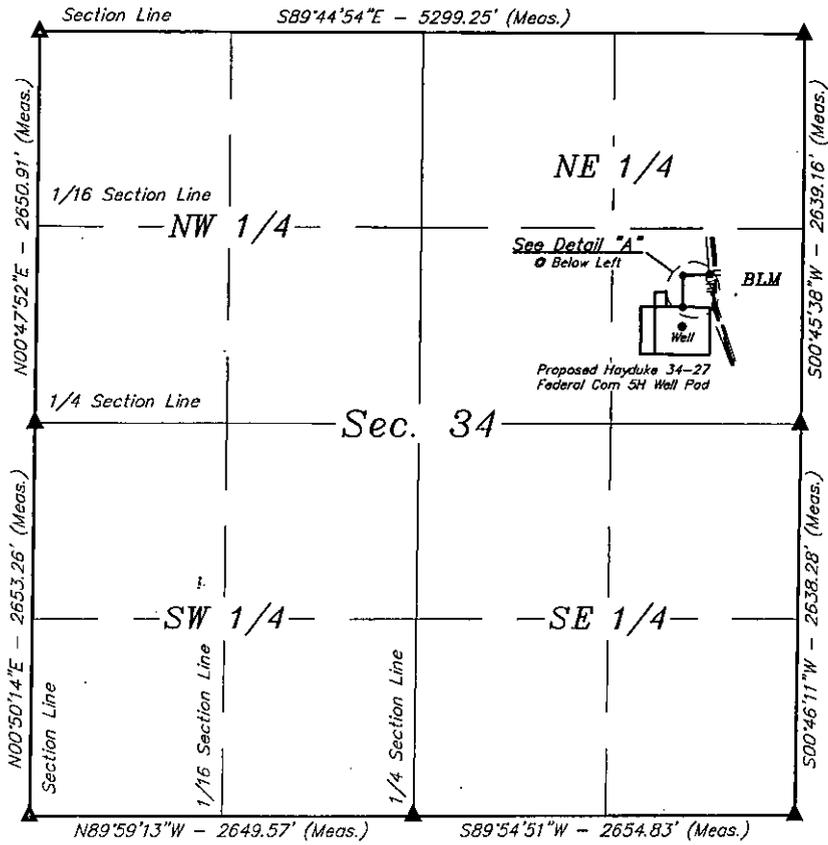
**PIPELINE MAP**      **EXHIBIT G**



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

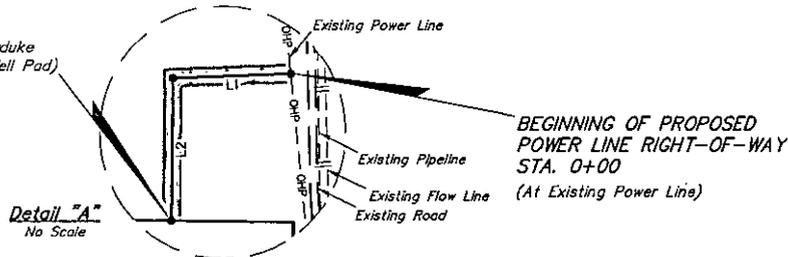


LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S88°01'07"W	183.40'
L2	S00°45'37"W	215.00'



END OF PROPOSED POWER LINE RIGHT-OF-WAY STA. 3+98.39

(At Edge of Proposed Hayduke 34-27 Federal Com 5H Well Pad)



**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 SE 1/4 NE 1/4 OF SECTION 34, T25S, R26E, N.M.P.M., WHICH BEARS N32°04'15"W 1196.65' FROM THE EAST 1/4 CORNER OF SAID SECTION 34, THENCE S88°01'07"W 183.40'; THENCE S00°45'37"W 215.00' TO A POINT IN THE SE 1/4 NE 1/4 OF SAID SECTION 34, WHICH BEARS N46°01'21"W 1141.62' FROM THE EAST 1/4 CORNER OF SAID SECTION 34. 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 0.274 ACRES MORE OR LESS.

BEGINNING OF POWER LINE STA. 0+00 BEARS N32°04'15"W 1196.65' FROM THE EAST 1/4 CORNER OF SECTION 34, T25S, R26E, N.M.P.M.

END OF POWER LINE STA. 3+98.39 BEARS N46°01'21"W 1141.62' FROM THE EAST 1/4 CORNER OF SECTION 34, T25S, R26E, N.M.P.M.



ACREAGE / LENGTH TABLE				
	OWNERSHIP	FEET	RODS	ACRES
POWER LINE	BLM	398.39	24.14	0.274

▲ = SECTION CORNERS LOCATED.

CERTIFICATE OF PROFESSIONAL SURVEYOR

THIS IS TO CERTIFY THAT THE ABOVE-PLANNED POWER LINE RIGHT-OF-WAY 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

11-17-15

Sheet 1 of 2

NOTES:  
• Basis of bearing is a G.P.S. observation (Vertical Control Datum: NAVD88)

**CIMAREX ENERGY CO.**

HAYDUKE 34-27 FEDERAL COM 5H SECTION 34, T25S, R26E, N.M.P.M. EDDY COUNTY, NEW MEXICO

DRAWN BY: T.E.	DATE DRAWN: 11-16-15
SCALE: 1" = 1000'	REVISED: 00-00-00
<b>POWERLINE R-O-W</b>	<b>EXHIBIT H</b>



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



NUMBER	STATION	LATITUDE (NAD 83)	LONGITUDE (NAD 83)
BEGIN	0+00.00	N 32°05'20.64"	W 104°16'27.49"
1	1+83.40	N 32°05'20.58"	W 104°16'29.62"
END	3+98.39	N 32°05'18.45"	W 104°16'29.65"

SECTION CORNER	LATITUDE (NAD 83)	LONGITUDE (NAD 83)
SW COR. SEC. 34-T25S-R26E	N 32°04'44.45"	W 104°17'22.14"
W 1/4 COR. SEC. 34-T25S-R26E	N 32°05'10.70"	W 104°17'21.70"
NW COR. SEC. 34-T25S-R26E	N 32°05'36.93"	W 104°17'21.29"
NE COR. SEC. 34-T25S-R26E	N 32°05'36.72"	W 104°16'19.70"
E 1/4 COR. SEC. 34-T25S-R26E	N 32°05'10.61"	W 104°16'20.10"
SE COR. SEC. 34-T25S-R26E	N 32°04'44.51"	W 104°16'20.50"
S 1/4 COR. SEC. 34-T25S-R26E	N 32°04'44.46"	W 104°16'51.35"

CERTIFICATE  
 THIS IS TO CERTIFY THAT THE ABOVE PLANS WERE 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.

PROFESSIONAL SURVEYOR  
 NEW MEXICO  
 12446  
*Nelson Marshall*  
 REGISTERED LAND SURVEYOR  
 REGISTRATION NO 12446  
 STATE OF NEW MEXICO  
 MARSHALL

Sheet 2 of 2

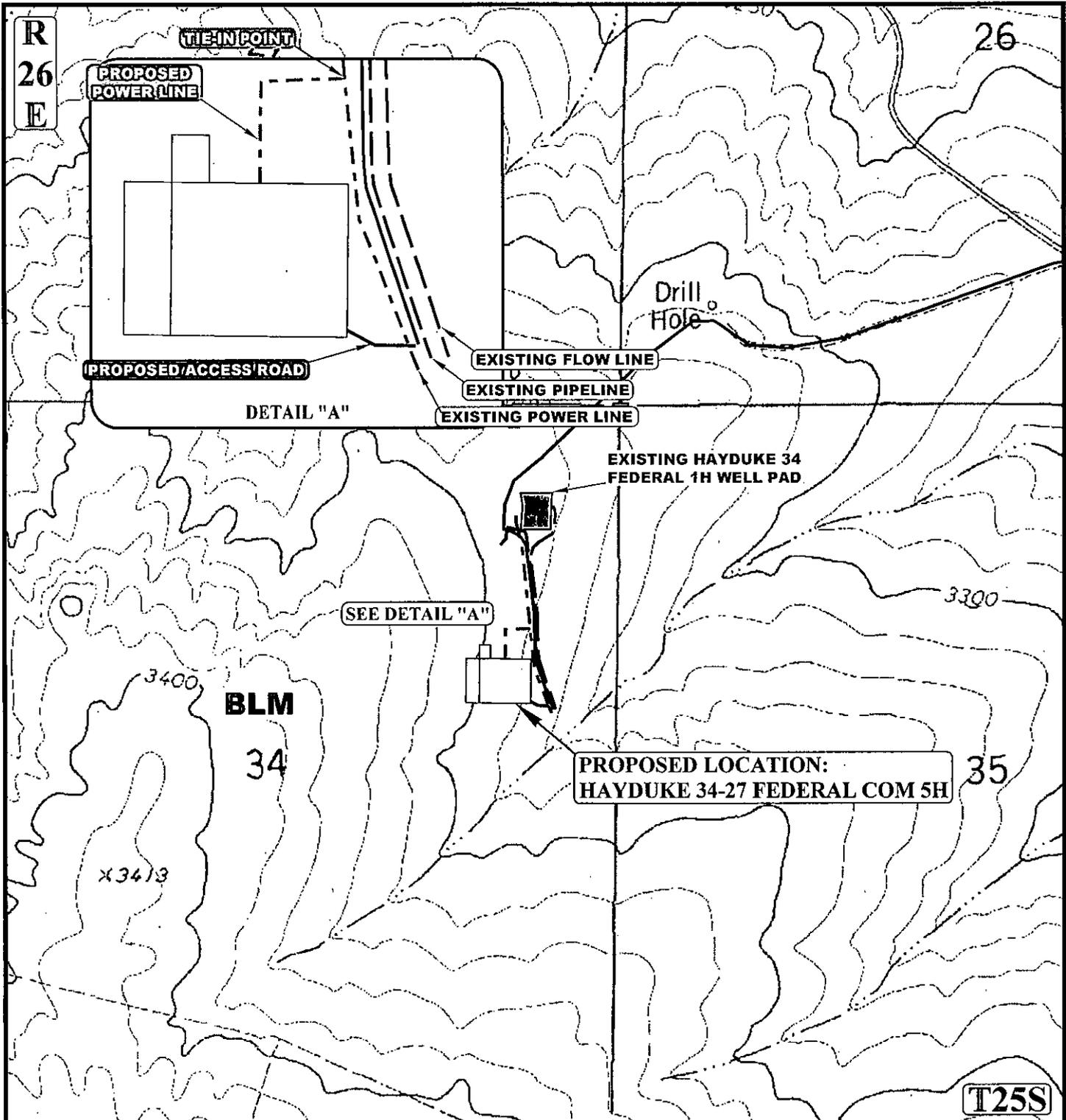
**CIMAREX ENERGY CO.**

HAYDUKE 34-27 FEDERAL COM 5H  
 SECTION 34, 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: T.E.	DATE DRAWN: 11-16-15
SCALE: NONE	REVISED: 00-00-00
<b>POWER LINE R-O-W</b>	<b>EXHIBIT H</b>



APPROXIMATE TOTAL POWER LINE DISTANCE = 389' +/-

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 UINTEH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

**LEGEND:**

- EXISTING ROAD
- - - - PROPOSED ROAD
- - - - PROPOSED POWER LINE
- - - - EXISTING POWER LINE
- - - - EXISTING PIPELINE

**CIMAREX ENERGY CO.**

HAYDUKE 34-27 FEDERAL COM 5H  
 1980' FNL 832' FEL  
 SE 1/4 NE 1/4, SECTION 34, T25S, R26E, N.M.P.M.  
 EDDY COUNTY, NEW MEXICO

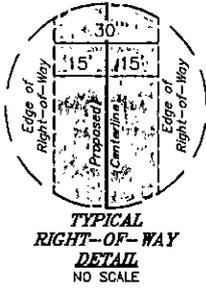


DRAWN BY: Z.H.F.	DATE DRAWN: 11-17-15
SCALE: 1" = 1000'	REVISED: 00-00-00

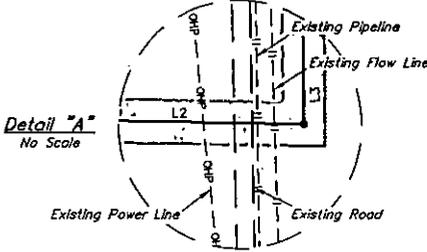
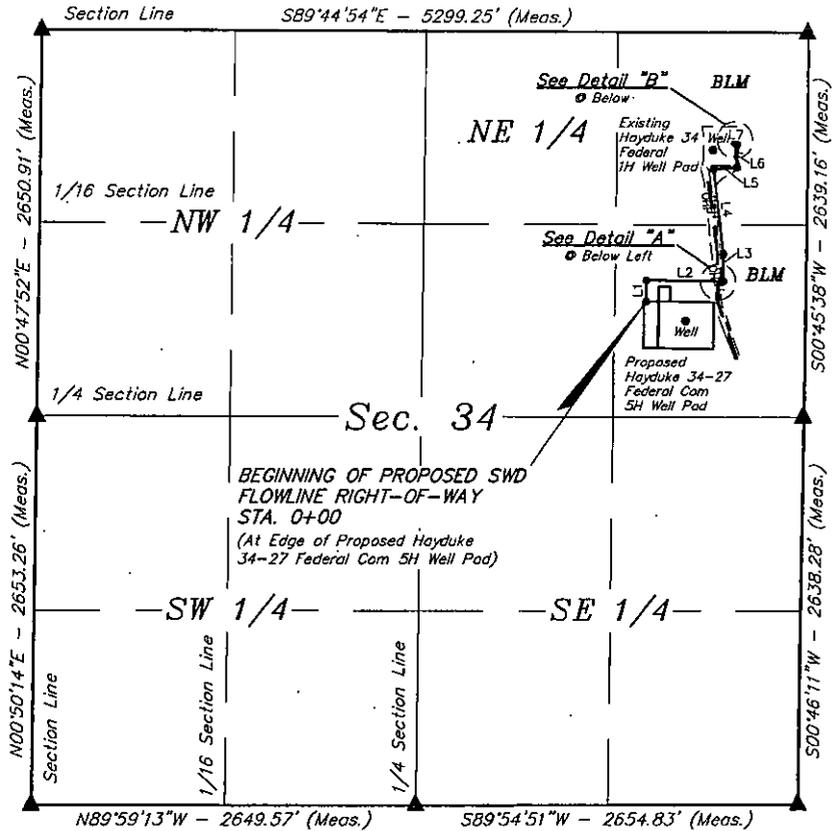
**POWER LINE MAP**      **EXHIBIT H**



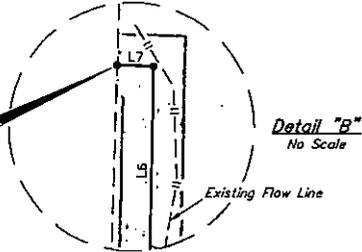
**UELS, LLC**  
 Corporate Office \* 85 South 200 East  
 Vernal, UT 84078 \* (435) 789-1017



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N00°44'12"E	144.89'
L2	S89°15'20"E	534.45'
L3	N00°19'02"W	187.79'
L4	N06°59'08"W	590.81'
L5	N87°02'27"E	168.30'
L6	N01°16'03"E	165.86'
L7	N87°58'27"W	17.21'



END OF PROPOSED SWD FLOW LINE RIGHT-OF-WAY STA. 18+09.30 (At Existing Hayduke 34 Federal 1H Well Pad)



**SWD 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 SE 1/4 NE 1/4 OF SECTION 34, T25S, R26E, N.M.P.M., WHICH BEARS N54°00'44"W 1355.19' FROM THE EAST 1/4 CORNER OF SAID SECTION 34, THENCE N00°44'12"E 144.89'; THENCE S89°15'20"E 534.45'; THENCE N00°19'02"W 187.79'; THENCE N06°59'08"W 590.81'; THENCE N87°02'27"E 168.30'; THENCE N01°16'03"E 165.86'; THENCE N87°58'27"W 17.21' TO A POINT IN THE NE 1/4 NE 1/4 OF SAID SECTION 34, WHICH BEARS S34°12'59"W 913.44' FROM THE NORTHEAST CORNER OF SAID SECTION 34. 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 1.246 ACRES MORE OR LESS.

BEGINNING OF SWD FLOW LINE STA. 0+00 BEARS N54°00'44"W 1355.19' FROM THE EAST 1/4 CORNER OF SECTION 34, T25S, R26E, N.M.P.M.

END OF SWD FLOW LINE STA. 18+09.30 BEARS S34°12'59"W 913.44' FROM THE NORTHEAST CORNER OF SECTION 34, T25S, R26E, N.M.P.M.



ACREAGE / LENGTH TABLE				
	OWNERSHIP	FEET	RODS	ACRES
SWD FLOW LINE	BLM	1809.30	109.65	1.246

▲ = SECTION CORNERS LOCATED.

NOTES:  
\* Basis of bearing is a G.P.S. observation (Vertical Control Datum: NAVD88)

CERTIFICATE OF PROFESSIONAL SURVEYOR

THIS IS TO CERTIFY THAT THE ABOVE PLANS WERE MADE 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.

12446

*Nelson Marshall*

REGISTERED LAND SURVEYOR  
REGISTRATION NO. 12446  
STATE OF NEW MEXICO MAR 1984

11-17-15

Sheet 1 of 2

**CIMAREX ENERGY CO.**

HAYDUKE 34-27 FEDERAL COM 5H  
SECTION 34, T25S, R26E, N.M.P.M.  
EDDY COUNTY, NEW MEXICO

DRAWN BY: T.E.	DATE DRAWN: 11-16-15
SCALE: 1" = 1000'	REVISED: 00-00-00
<b>SWD FLOW LINE R-O-W</b>	<b>EXHIBIT 1</b>

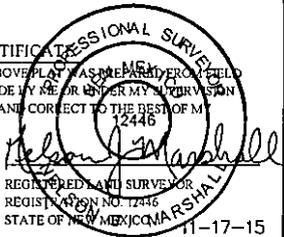


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Vernal, UT 84078 \* (435) 789-1017



NUMBER	STATION	LATITUDE (NAD 83)	LONGITUDE (NAD 83)
BEGIN	0+00.00	N 32°05'18.48"	W 104°16'32.84"
1	1+44.89	N 32°05'19.92"	W 104°16'32.82"
2	6+79.34	N 32°05'19.85"	W 104°16'26.61"
3	8+67.13	N 32°05'21.71"	W 104°16'26.63"
4	14+57.94	N 32°05'27.51"	W 104°16'27.46"
5	16+26.24	N 32°05'27.60"	W 104°16'25.51"
6	17+92.09	N 32°05'29.24"	W 104°16'25.66"
END	18+09.30	N 32°05'29.24"	W 104°16'25.47"

SECTION CORNER	LATITUDE (NAD 83)	LONGITUDE (NAD 83)
SW COR. SEC. 34-T25S-R26E	N 32°04'44.45"	W 104°17'22.14"
W 1/4 COR. SEC. 34-T25S-R26E	N 32°05'10.70"	W 104°17'21.70"
NW COR. SEC. 34-T25S-R26E	N 32°05'36.93"	W 104°17'21.29"
NE COR. SEC. 34-T25S-R26E	N 32°05'36.72"	W 104°16'19.70"
E 1/4 COR. SEC. 34-T25S-R26E	N 32°05'10.61"	W 104°16'20.10"
SE COR. SEC. 34-T25S-R26E	N 32°04'44.51"	W 104°16'20.50"
S 1/4 COR. SEC. 34-T25S-R26E	N 32°04'44.46"	W 104°16'51.35"


  
 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 J. Marshall  
 REGISTERED LAND SURVEYOR  
 REGISTRATION NO. 12446  
 STATE OF NEW MEXICO

Sheet 2 of 2

**CIMAREX ENERGY CO.**

**HAYDUKE 34-27 FEDERAL COM 5H**  
**SECTION 34, T25S, R26E, N.M.P.M.**  
**EDDY COUNTY, NEW MEXICO**

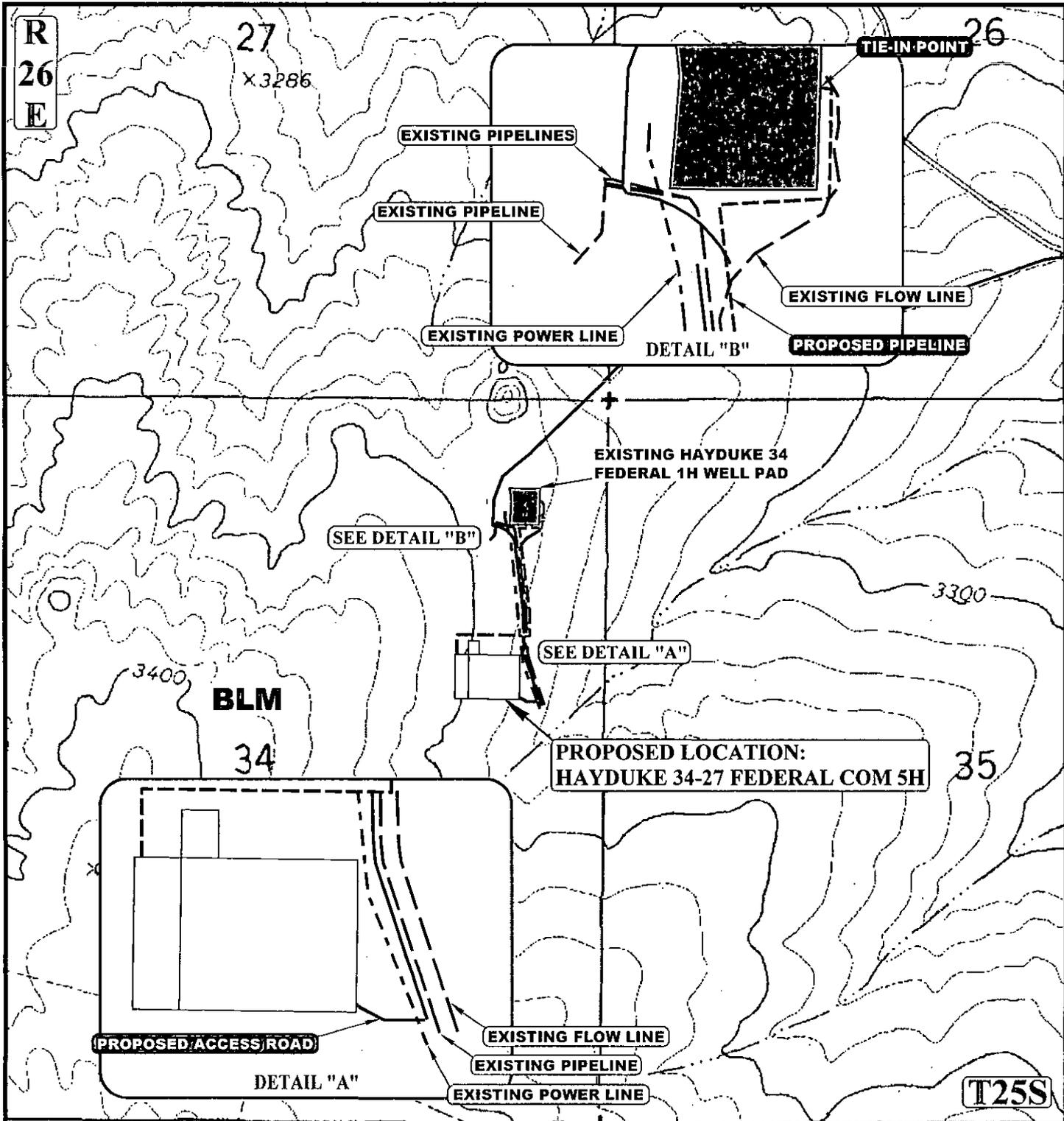
DRAWN BY: T.E.	DATE DRAWN: 11-16-15
SCALE: NONE	REVISED: 00-00-00

**SWD FLOWLINE R-O-W EXHIBIT I**



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**APPROXIMATE TOTAL SWD FLOW LINE DISTANCE = 1,809' +/-**

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 UINAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

**LEGEND:**

- EXISTING ROAD
- PROPOSED ROAD
- PROPOSED SWD FLOW LINE
- EXISTING POWER LINE
- EXISTING PIPELINE

**CIMAREX ENERGY CO.**

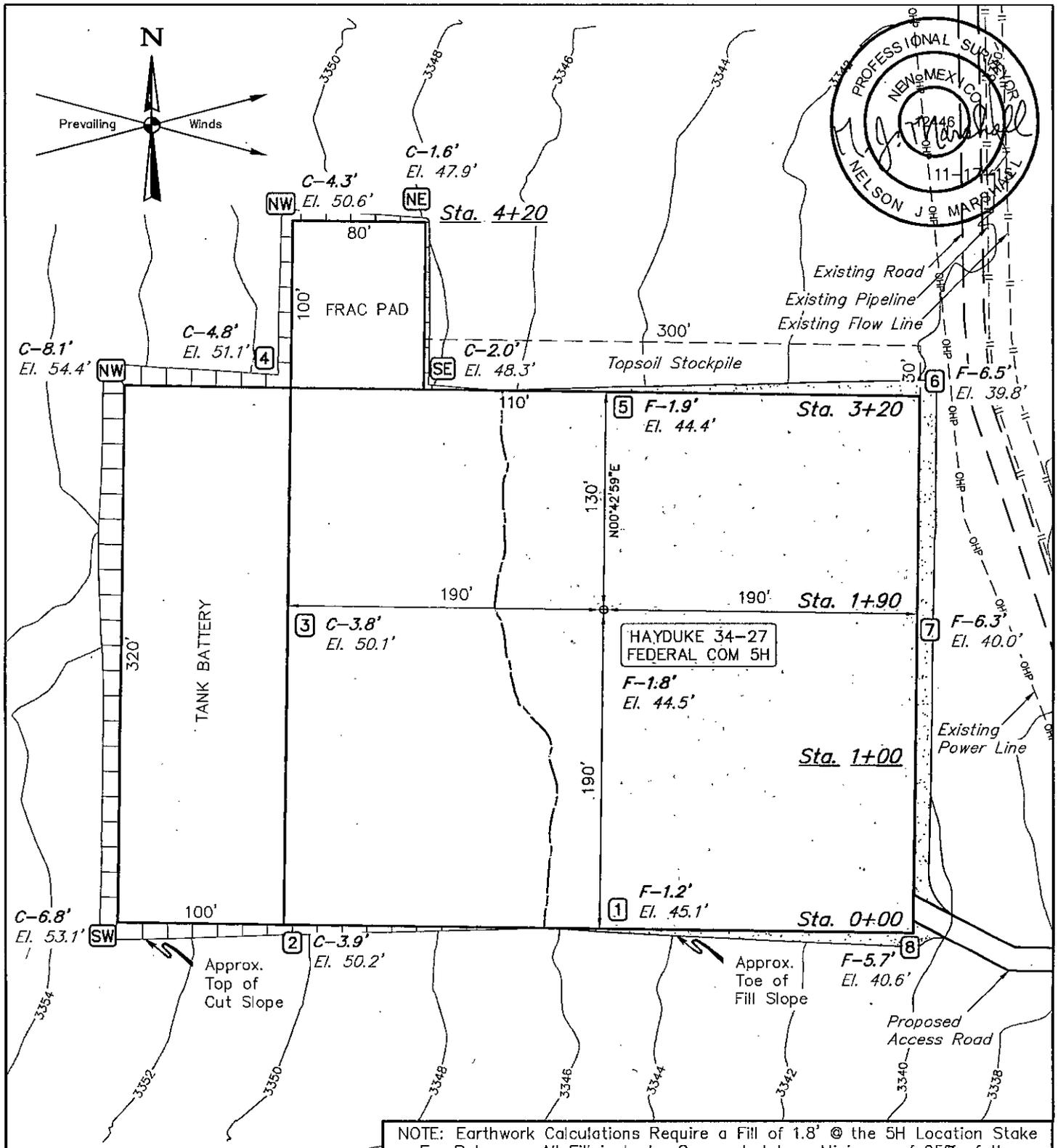
HAYDUKE 34-27 FEDERAL COM 5H  
 1980' FNL 832' FEL  
 SE 1/4 NE 1/4, SECTION 34, T25S, R26E, N.M.P.M.  
 EDDY COUNTY, NEW MEXICO



DRAWN BY: Z.H.F.	DATE DRAWN: 11-17-15
SCALE: 1" = 1000'	REVISED: 00-00-00
<b>SWD FLOW LINE MAP</b>	<b>EXHIBIT I</b>



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



NOTE: Earthwork Calculations Require a Fill of 1.8' @ the 5H Location Stake For Balance. All Fill is to be Compacted to a Minimum of 95% of the Maximum Dry Density Obtained by AASHTO Method t-99.

FINISHED GRADE ELEVATION = 3346.3'

- NOTES:**
- Flare pit is to be located a min. of 100' from the wellhead.
  - Contours shown at 2' intervals.
  - Underground utilities shown on this sheet are for visualization purposes only, actual locations to be determined prior to construction.

**CIMAREX ENERGY CO.**  
**HAYDUKE 34-27 FEDERAL COM 5H**  
**1980' FNL 832' FEL**  
**SE 1/4 NE 1/4, SECTION 34, 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: T.E.	DATE DRAWN: 11-16-15
SCALE: 1" = 80'	REVISED: 00-00-00
<b>LOCATION LAYOUT</b>	<b>EXHIBIT D</b>

**1. Geological Formations**

TVD of target 7,505  
MD at TD 14,230

Pilot Hole TD N/A  
Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
OSE Groundwater		N/A	
Quaternary Fill	0	N/A	
Rustler	0	N/A	
Salado	1115	N/A	
Castille	1700	N/A	
Bell Canyon	1896	N/A	
Cherry Canyon	2900	N/A	
Brushy Canyon	3900	N/A	
Brushy Canyon Lower	5160	N/A	
Bone Spring	5410	Hydrocarbons	
Bone Spring A Shale	5645	Hydrocarbons	
Bone Spring C Shale	6031	Hydrocarbons	
1st Bone Spring Ss	6400	Hydrocarbons	
2nd Bone Spring Ls	6677	Hydrocarbons	
2nd BS Ss Horz Target	7410	Hydrocarbons	
3rd Bone Spring Limestone	7460	Hydrocarbons	

**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	<del>380</del> 400	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	5.39	12.60	22.36
12 1/4	0	1860	9-5/8"	36.00	J-55	LT&C	2.05	3.57	6.77
8 3/4	0	6764	5-1/2"	17.00	L-80	LT&C	1.94	2.39	2.65
8 3/4	6764	14230	5-1/2"	17.00	L-80	BT&C	1.75	2.16	31.52
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet

See  
LOA

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

Cimarex Energy Co., Hayduke 34-27 Federal Com #5H

	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?	N
If yes, are there two strings cemented to surface?	N
(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. ft <sup>3</sup> /sack	H <sub>2</sub> O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface →	195	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	358	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	109	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production →	683	10.80	2.35	9.60	17:43	Lead: Tuned Light I Class H
	1597	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

See COA

Casing String	TOC	% Excess
Surface		25
Intermediate		45
Production	0 <del>1660</del>	16

See COA ↗  
 in Critical Cave Karst  
 must be cemented to surface.

**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
12 1/4	13 5/8	2M	Annular	X	50% of working pressure
			Blind Ram		
			Pipe Ram		
			Double Ram	X	
			Other		
8 3/4	13 5/8	3M	Annular	X	50% of working pressure
			Blind Ram		
			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?

**5. Mud Program**

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' to 300'	FW Spud Mud	8.30 - 8.80	28	N/C
300' to 1860'	Brine Water	9.70 - 10.20	30-32	N/C
1860' to 14230'	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	
<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	No logs are planned based on well control or offset log information.
<input type="checkbox"/>	Drill stem test?
<input type="checkbox"/>	Coring?

Additional Logs Planned	Interval

**7. Drilling Conditions**

Condition	
BH Pressure at deepest TVD	3590 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.

<input checked="" type="checkbox"/>	H2S is present
<input checked="" type="checkbox"/>	H2S plan is attached

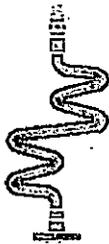
**8. Other Facets of Operation**

Exhibit F-1  
 Hayduke 34-27 Fed Com 5H  
 Cimarex Energy Company  
 34 & 27-25S-26E  
 Eddy County, NM



## Midwest Hose & Specialty, Inc.

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



Midwest Hose & Specialty, Inc.

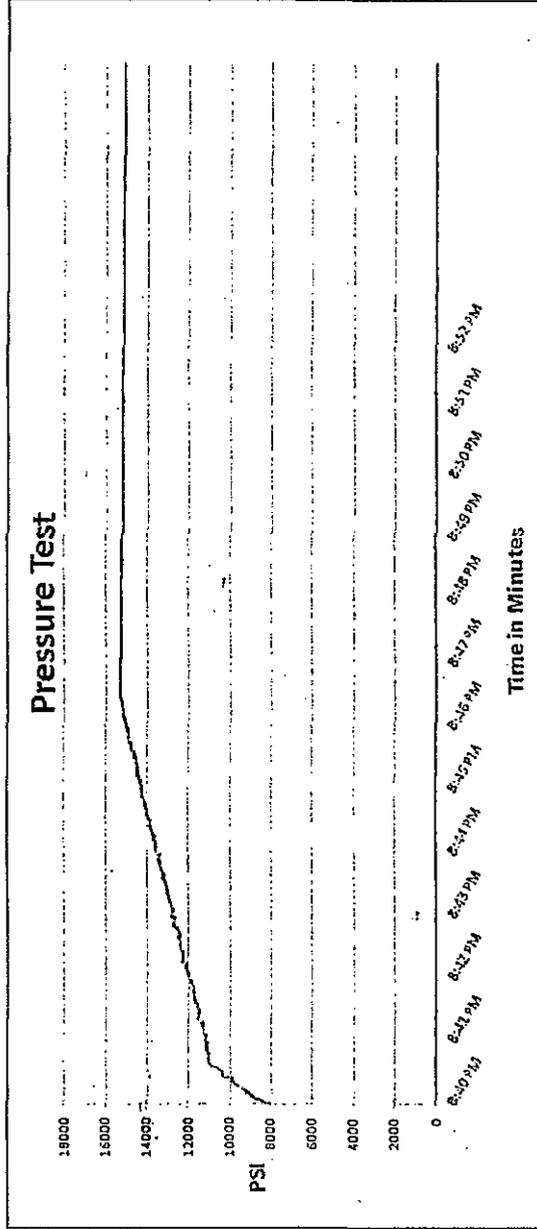
# Internal Hydrostatic Test Graph

Customer: Houston

Pick Ticket #: 94260

Hose Specifications		Verification	
Hose Type C.S.K	Length 45'	Type of Fittings 4 1/16 10K	Couplings Method Swage
I.D. 4"	O.D. 6.09"	Die Size 6.38"	Final O.D. 6.25"
Working Pressure 10000 PSI	Burst Pressure Standard Safety Multiplier Applied	Hose Serial # 5544	Hose Assembly Serial # 79793

Exhibit F-1 – Co-Flex Hose Hydrostatic Test  
 Hayduke 34-27 Fed Com 5H  
 Cimarex Energy Company  
 34 & 27-25S-26E  
 Eddy County, NM



Test Pressure 15000 PSI      Time Held at Test Pressure 11 Minutes      Actual Burst Pressure 8:11 PM      Peak Pressure 15483 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: *Joe McConnell*

Approved By: *Kim Thomas*

Exhibit F-2 – Co-Flex Hose  
Hayduke 34-27 Fed Com 5H  
Cimarex Energy Company  
34 & 27-25S-26E  
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>Janet Garcia</i>		3/8/2011



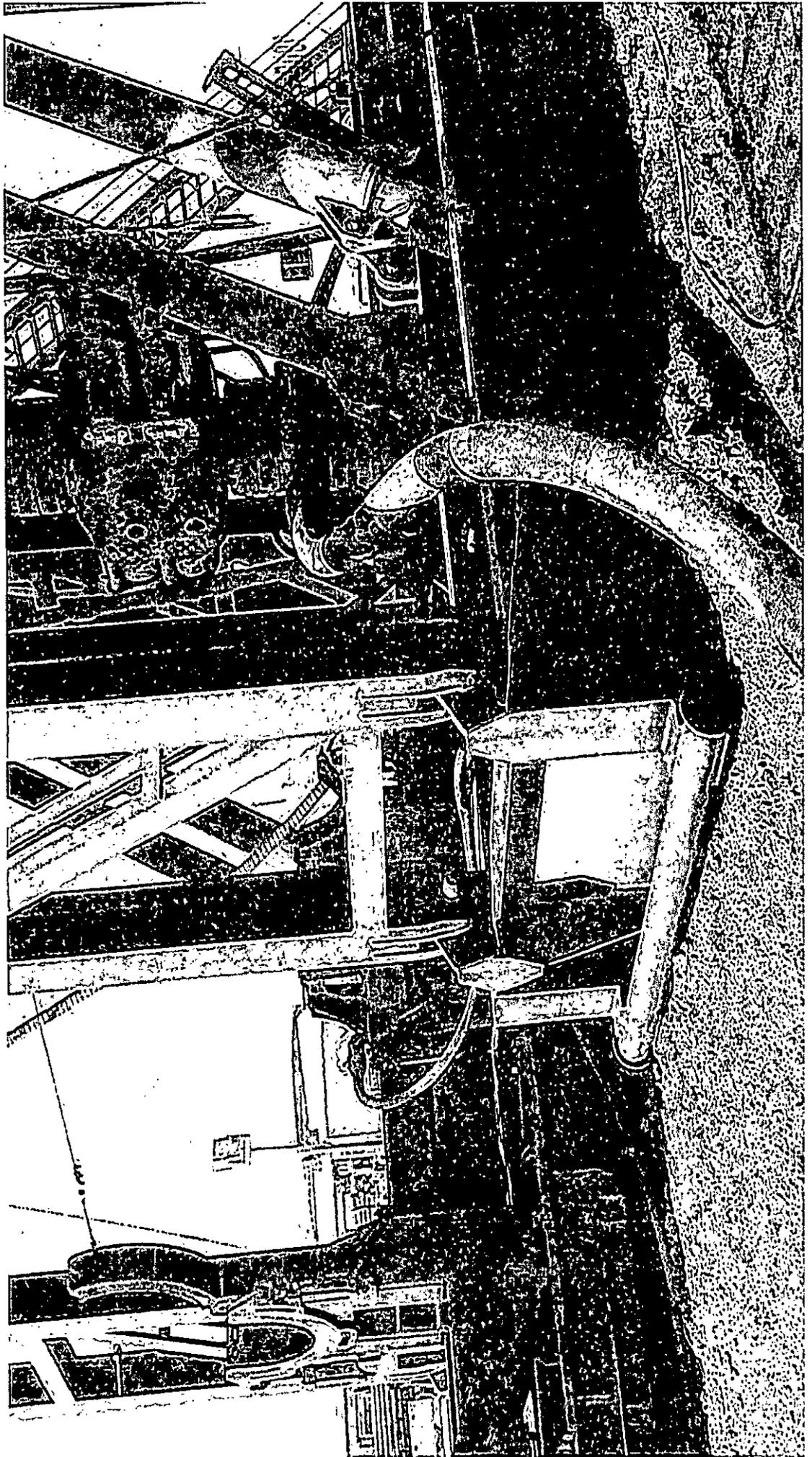
Exhibit F -3- Co-Flex Hose  
Hayduke 34-27 Fed Com 5H  
Cimarex Energy Company  
34 & 27-25S-26E  
Eddy County, NM

## 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.

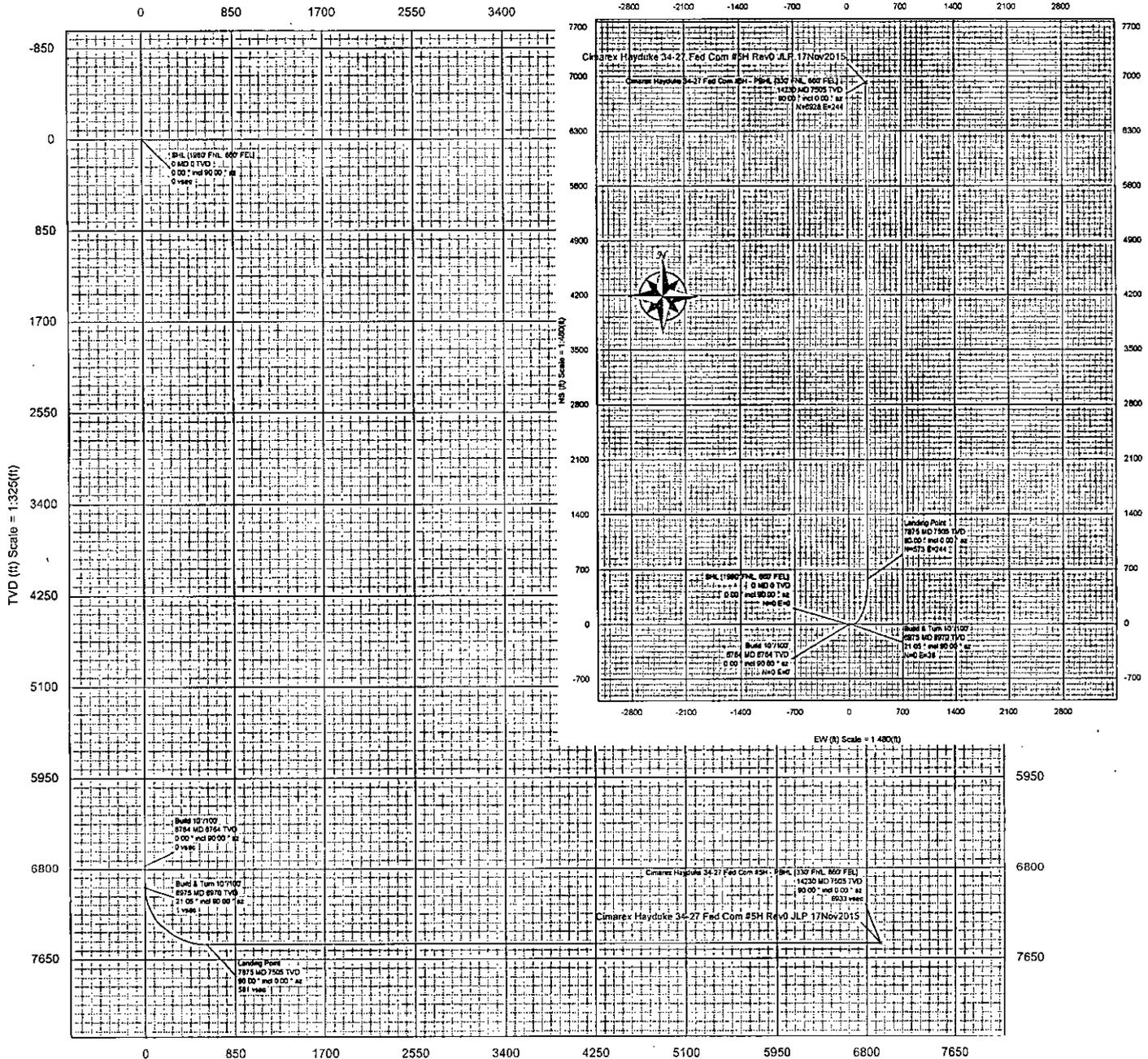
<b>Working Pressure:</b>	5,000 or 10,000 psi working pressure
<b>Test Pressure:</b>	10,000 or 15,000 psi test pressure
<b>Reinforcement:</b>	Multiple steel cables
<b>Cover:</b>	Stainless Steel Armor
<b>Inner Tube:</b>	Petroleum resistant, Abrasion resistant
<b>End Fitting:</b>	API flanges, API male threads, 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  
Hayduke 34-27 Fed Com 5H  
Cimarex Energy Company  
34 & 27-25S-26E  
Eddy County, NM



<b>Borehole:</b> Original Borehole	<b>Well:</b> Hayduke 34-27 Fed Com #5H	<b>Field:</b> NM Eddy County (NAD 83)	<b>Structure:</b> TBD
---------------------------------------	---	--	--------------------------

<b>Gravity &amp; Magnetic Parameters</b>	<b>Surface Location</b>	<b>Miscellaneous</b>
Mode: HDGM 2015 Dip: 59.811° Date: 17-Nov-2015 MagDec: 7.628° FS: 49145.862mT Gravity FS: 998.43mgm (8.80665 Based)	NAD83 New Mexico State Plane, Eastern Zone, US Feet Lat: N 32 5 17.16 Northing: 398792.851US Grid Conv: 0.031° Lon: W 104 16 29.67 Easting: 559431.431US Scale Fact: 0.99980547	Sit: #5H TVD Ref: Unknown(344.5R above MSL) Plan: Rev0 JLP 17Nov2015



Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL (1980 FNL, 660 FEL)	0.00	0.00	90.00	0.00	0.00	0.00	0.00	
Build 10°/100'	5784.48	0.00	90.00	6764.48	0.00	0.00	0.00	0.00
Build & Turn 10°/100'	6974.38	21.05	90.00	6970.28	1.35	0.00	36.24	10.00
Landing Point	7874.86	90.00	0.00	7505.00	581.19	572.96	244.04	10.00
Cimarex Hayduke 34-27 Fed Com #5H - PB#L (330 FNL, 660 FEL)	14230.23	90.00	0.00	7505.00	6932.51	6926.21	244.06	0.00

True  
Grid  
Mag

Grid North  
Tot Corr (M+G 7.587°)  
Mag Dec (7.628°)  
Grid Conv (0.031°)

**CONTROLLED**

Plan no: Cimarex Hayduke 34-27 Fed Com #5H Rev0 JLP 17Nov2015

Drawn by: [Blank]

Check number: 02

Date: 17-Nov-2015

1. Draw	
2. Check	
3. Office	
4. Office	

Copy number: [Blank]



Schlumberger

# Cimarex Hayduke 34-27 Fed Com #5H Rev0 JLP 17Nov2015 Proposal

## Geodetic Report

(Non-Def Plan)

**Report Date:** November 17, 2015 - 04:33 PM  
**Client:** Cimarex  
**Field:** NM Eddy County (NAD 83)  
**Structure / Slot:** Cimarex Hayduke 34-27 Fed Com #5H / Cimarex Hayduke 34-27 Fed Com #5H  
**Well:** Cimarex Hayduke 34-27 Fed Com #5H  
**Borehole:** Original Borehole  
**UWI / API#:** Unknown / Unknown  
**Survey Name:** Cimarex Hayduke 34-27 Fed Com #5H Rev0 JLP 17Nov2015  
**Survey Date:** November 17, 2015  
**Tort / AHD / DDI / ERD Ratio:** 111.050° / 7039.612 ft / 6.171 / 0.938  
**Coordinate Reference System:** NAD83 New Mexico State Plane, Eastern Zone, US Feet  
**Location Lat / Long:** N 32° 5' 17.16226", W 104° 16' 29.65750"  
**Location Grid N/E Y/X:** N 395792.850 ftUS, E 559431.430 ftUS  
**CRS Grid Convergence Angle:** 0.0310°  
**Grid Scale Factor:** 0.99990947  
**Version / Patch:** 2.8.572.0

**Survey / DLS Computation:** Minimum Curvature / Lubinski  
**Vertical Section Azimuth:** 2.018° (Grid North)  
**Vertical Section Origin:** 0.000 ft, 0.000 ft  
**TVD Reference Datum:** Unknown  
**TVD Reference Elevation:** 3344.500 ft above MSL  
**Seabed / Ground Elevation:** 3344.500 ft above MSL  
**Magnetic Declination:** 7.628°  
**Total Gravity Field Strength:** 998.4296mgm (9.80665 Based)  
**Gravity Model:** GARM  
**Total Magnetic Field Strength:** 48145.862 nT  
**Magnetic Dip Angle:** 59.811°  
**Declination Date:** November 17, 2015  
**Magnetic Declination Model:** HDGM 2015  
**North Reference:** Grid North  
**Grid Convergence Used:** 0.0310°  
**Total Corr Mag North->Grid North:** 7.5968°  
**Local Coord Referenced To:** Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL [1980' FNL, 660' FEL]	0.00	0.00	90.00	0.00	0.00	0.00	0.00	N/A	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	100.00	0.00	90.00	100.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	200.00	0.00	90.00	200.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	300.00	0.00	90.00	300.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	400.00	0.00	90.00	400.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	500.00	0.00	90.00	500.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	600.00	0.00	90.00	600.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	700.00	0.00	90.00	700.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	800.00	0.00	90.00	800.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	900.00	0.00	90.00	900.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	1000.00	0.00	90.00	1000.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	1100.00	0.00	90.00	1100.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	1200.00	0.00	90.00	1200.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	1300.00	0.00	90.00	1300.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	1400.00	0.00	90.00	1400.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	1500.00	0.00	90.00	1500.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	1600.00	0.00	90.00	1600.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	1700.00	0.00	90.00	1700.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	1800.00	0.00	90.00	1800.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	1900.00	0.00	90.00	1900.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	2000.00	0.00	90.00	2000.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	2100.00	0.00	90.00	2100.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	2200.00	0.00	90.00	2200.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	2300.00	0.00	90.00	2300.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	2400.00	0.00	90.00	2400.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67
	2500.00	0.00	90.00	2500.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16 W	104 16 29.67

Comments	MD (ft)	Incl (°)	Azimuth (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S °.')	Longitude (E/W °.')
	2600.00	0.00	90.00	2600.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	2700.00	0.00	90.00	2700.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	2800.00	0.00	90.00	2800.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	2900.00	0.00	90.00	2900.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	3000.00	0.00	90.00	3000.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	3100.00	0.00	90.00	3100.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	3200.00	0.00	90.00	3200.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	3300.00	0.00	90.00	3300.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	3400.00	0.00	90.00	3400.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	3500.00	0.00	90.00	3500.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	3600.00	0.00	90.00	3600.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	3700.00	0.00	90.00	3700.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	3800.00	0.00	90.00	3800.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	3900.00	0.00	90.00	3900.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	4000.00	0.00	90.00	4000.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	4100.00	0.00	90.00	4100.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	4200.00	0.00	90.00	4200.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	4300.00	0.00	90.00	4300.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	4400.00	0.00	90.00	4400.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	4500.00	0.00	90.00	4500.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	4600.00	0.00	90.00	4600.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	4700.00	0.00	90.00	4700.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	4800.00	0.00	90.00	4800.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	4900.00	0.00	90.00	4900.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	5000.00	0.00	90.00	5000.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	5100.00	0.00	90.00	5100.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	5200.00	0.00	90.00	5200.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	5300.00	0.00	90.00	5300.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	5400.00	0.00	90.00	5400.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	5500.00	0.00	90.00	5500.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	5600.00	0.00	90.00	5600.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	5700.00	0.00	90.00	5700.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	5800.00	0.00	90.00	5800.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	5900.00	0.00	90.00	5900.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	6000.00	0.00	90.00	6000.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	6100.00	0.00	90.00	6100.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	6200.00	0.00	90.00	6200.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	6300.00	0.00	90.00	6300.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	6400.00	0.00	90.00	6400.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	6500.00	0.00	90.00	6500.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	6600.00	0.00	90.00	6600.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	6700.00	0.00	90.00	6700.00	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
	6764.48	0.00	90.00	6764.48	0.00	0.00	0.00	0.00	395792.85	559431.43	N 32 5 17.16	W 104 16 29.67
Build 10°/100'	6800.00	-3.55	90.00	6799.98	0.04	0.00	1.10	10.00	395792.85	559432.53	N 32 5 17.16	W 104 16 29.65
	6900.00	13.55	90.00	6898.74	0.56	0.00	15.95	10.00	395792.85	559447.38	N 32 5 17.16	W 104 16 29.48
Build & Turn 10°/100'	6974.98	21.05	90.00	6970.28	1.35	0.00	38.24	10.00	395792.85	559469.66	N 32 5 17.16	W 104 16 29.22
	7000.00	21.19	83.06	6993.62	2.21	0.55	47.22	10.00	395793.40	559478.64	N 32 5 17.17	W 104 16 29.12
	7100.00	24.34	58.31	7086.03	16.49	13.59	82.78	10.00	395806.43	559514.21	N 32 5 17.30	W 104 16 28.71
	7200.00	30.43	40.93	7174.92	47.71	43.62	117.00	10.00	395836.47	559548.42	N 32 5 17.58	W 104 16 28.31
	7300.00	38.09	29.41	7257.50	94.92	89.74	148.82	10.00	395882.58	559580.23	N 32 5 18.05	W 104 16 27.94
	7400.00	46.52	21.40	7331.54	156.69	150.54	177.28	10.00	395943.38	559608.69	N 32 5 18.65	W 104 16 27.61
	7500.00	55.38	15.41	7394.51	231.13	224.18	201.51	10.00	396017.01	559632.92	N 32 5 19.38	W 104 16 27.32
	7600.00	64.48	10.59	7444.59	316.00	308.41	220.78	10.00	396101.23	559662.19	N 32 5 20.21	W 104 16 27.10
	7700.00	73.70	6.46	7480.26	408.69	400.69	234.51	10.00	396193.50	559685.92	N 32 5 21.13	W 104 16 26.94
	7800.00	83.01	2.71	7500.43	506.41	498.19	242.28	10.00	396291.00	559673.68	N 32 5 22.09	W 104 16 26.85
	7874.98	90.00	0.00	7505.00	581.19	572.96	244.04	10.00	396365.75	559675.44	N 32 5 22.83	W 104 16 26.83
Landing Point	7900.00	90.00	0.00	7505.00	606.20	597.98	244.04	0.00	396390.77	559675.44	N 32 5 23.08	W 104 16 26.83
	8000.00	90.00	0.00	7505.00	706.14	697.98	244.04	0.00	396490.76	559675.44	N 32 5 24.07	W 104 16 26.83

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 ° ' ")
	8100.00	90.00	0.00	7505.00	806.08	797.98	244.04	0.00	396590.75	559675.44	N 32 5 25.06 W	104 16 26.83
	8200.00	90.00	0.00	7505.00	906.01	897.98	244.04	0.00	396690.74	559675.45	N 32 5 25.05 W	104 16 26.83
	8300.00	90.00	0.00	7505.00	1005.95	997.98	244.04	0.00	396790.74	559675.45	N 32 5 27.04 W	104 16 26.82
	8400.00	90.00	0.00	7505.00	1105.89	1097.98	244.04	0.00	396890.73	559675.45	N 32 5 28.03 W	104 16 26.82
	8500.00	90.00	0.00	7505.00	1205.83	1197.98	244.04	0.00	396990.72	559675.45	N 32 5 29.02 W	104 16 26.82
	8600.00	90.00	0.00	7505.00	1305.77	1297.98	244.04	0.00	397090.71	559675.45	N 32 5 30.00 W	104 16 26.82
	8700.00	90.00	0.00	7505.00	1405.70	1397.98	244.04	0.00	397190.70	559675.45	N 32 5 30.98 W	104 16 26.82
	8800.00	90.00	0.00	7505.00	1505.64	1497.98	244.04	0.00	397290.69	559675.45	N 32 5 31.97 W	104 16 26.82
	8900.00	90.00	0.00	7505.00	1605.58	1597.98	244.04	0.00	397390.68	559675.45	N 32 5 32.97 W	104 16 26.82
	9000.00	90.00	0.00	7505.00	1705.52	1697.98	244.04	0.00	397490.67	559675.45	N 32 5 33.96 W	104 16 26.82
	9100.00	90.00	0.00	7505.00	1805.46	1797.98	244.04	0.00	397590.66	559675.45	N 32 5 34.95 W	104 16 26.82
	9200.00	90.00	0.00	7505.00	1905.39	1897.98	244.04	0.00	397690.65	559675.45	N 32 5 35.94 W	104 16 26.82
	9300.00	90.00	0.00	7505.00	2005.33	1997.98	244.05	0.00	397790.64	559675.45	N 32 5 36.93 W	104 16 26.82
	9400.00	90.00	0.00	7505.00	2105.27	2097.98	244.05	0.00	397890.63	559675.45	N 32 5 37.92 W	104 16 26.82
	9500.00	90.00	0.00	7505.00	2205.21	2197.98	244.05	0.00	397990.62	559675.46	N 32 5 38.91 W	104 16 26.82
	9600.00	90.00	0.00	7505.00	2305.15	2297.98	244.05	0.00	398090.62	559675.46	N 32 5 39.90 W	104 16 26.82
	9700.00	90.00	0.00	7505.00	2405.08	2397.98	244.05	0.00	398190.61	559675.46	N 32 5 40.89 W	104 16 26.82
	9800.00	90.00	0.00	7505.00	2505.02	2497.98	244.05	0.00	398290.60	559675.46	N 32 5 41.88 W	104 16 26.81
	9900.00	90.00	0.00	7505.00	2604.96	2597.98	244.05	0.00	398390.59	559675.46	N 32 5 42.87 W	104 16 26.81
	10000.00	90.00	0.00	7505.00	2704.90	2697.98	244.05	0.00	398490.58	559675.46	N 32 5 43.86 W	104 16 26.81
	10100.00	90.00	0.00	7505.00	2804.84	2797.98	244.05	0.00	398590.57	559675.46	N 32 5 44.85 W	104 16 26.81
	10200.00	90.00	0.00	7505.00	2904.77	2897.98	244.05	0.00	398690.56	559675.46	N 32 5 45.84 W	104 16 26.81
	10300.00	90.00	0.00	7505.00	3004.71	2997.98	244.05	0.00	398790.55	559675.46	N 32 5 46.83 W	104 16 26.81
	10400.00	90.00	0.00	7505.00	3104.65	3097.98	244.05	0.00	398890.54	559675.46	N 32 5 47.82 W	104 16 26.81
	10500.00	90.00	0.00	7505.00	3204.59	3197.98	244.06	0.00	398990.53	559675.46	N 32 5 48.81 W	104 16 26.81
	10600.00	90.00	0.00	7505.00	3304.53	3297.98	244.06	0.00	399090.52	559675.47	N 32 5 49.80 W	104 16 26.81
	10700.00	90.00	0.00	7505.00	3404.46	3397.98	244.06	0.00	399190.51	559675.48	N 32 5 50.79 W	104 16 26.81
	10800.00	90.00	0.00	7505.00	3504.40	3497.98	244.06	0.00	399290.50	559675.48	N 32 5 51.77 W	104 16 26.81
	10900.00	90.00	0.00	7505.00	3604.34	3597.98	244.06	0.00	399390.49	559675.47	N 32 5 52.75 W	104 16 26.81
	11000.00	90.00	0.00	7505.00	3704.28	3697.98	244.06	0.00	399490.49	559675.47	N 32 5 53.75 W	104 16 26.81
	11100.00	90.00	0.00	7505.00	3804.22	3797.98	244.06	0.00	399590.48	559675.47	N 32 5 54.74 W	104 16 26.81
	11200.00	90.00	0.00	7505.00	3904.15	3897.98	244.06	0.00	399690.47	559675.47	N 32 5 55.73 W	104 16 26.81
	11300.00	90.00	0.00	7505.00	4004.09	3997.98	244.06	0.00	399790.46	559675.47	N 32 5 56.72 W	104 16 26.81
	11400.00	90.00	0.00	7505.00	4104.03	4097.98	244.06	0.00	399890.45	559675.47	N 32 5 57.71 W	104 16 26.80
	11500.00	90.00	0.00	7505.00	4203.97	4197.98	244.06	0.00	399990.44	559675.47	N 32 5 58.70 W	104 16 26.80
	11600.00	90.00	0.00	7505.00	4303.91	4297.98	244.06	0.00	400090.43	559675.47	N 32 5 59.69 W	104 16 26.80
	11700.00	90.00	0.00	7505.00	4403.84	4397.98	244.06	0.00	400190.42	559675.47	N 32 6 0 68 W	104 16 26.80
	11800.00	90.00	0.00	7505.00	4503.78	4497.98	244.06	0.00	400290.41	559675.47	N 32 6 1 67 W	104 16 26.80
	11900.00	90.00	0.00	7505.00	4603.72	4597.98	244.07	0.00	400390.40	559675.47	N 32 6 2 66 W	104 16 26.80
	12000.00	90.00	0.00	7505.00	4703.66	4697.98	244.07	0.00	400490.39	559675.47	N 32 6 3 65 W	104 16 26.80
	12100.00	90.00	0.00	7505.00	4803.60	4797.98	244.07	0.00	400590.38	559675.47	N 32 6 4 64 W	104 16 26.80
	12200.00	90.00	0.00	7505.00	4903.53	4897.98	244.07	0.00	400690.37	559675.48	N 32 6 5 63 W	104 16 26.80
	12300.00	90.00	0.00	7505.00	5003.47	4997.98	244.07	0.00	400790.37	559675.48	N 32 6 6 62 W	104 16 26.80
	12400.00	90.00	0.00	7505.00	5103.41	5097.98	244.07	0.00	400890.36	559675.48	N 32 6 7 61 W	104 16 26.80
	12500.00	90.00	0.00	7505.00	5203.35	5197.98	244.07	0.00	400990.35	559675.48	N 32 6 8 60 W	104 16 26.80
	12600.00	90.00	0.00	7505.00	5303.29	5297.98	244.07	0.00	401090.34	559675.48	N 32 6 9 59 W	104 16 26.80
	12700.00	90.00	0.00	7505.00	5403.22	5397.98	244.07	0.00	401190.33	559675.48	N 32 6 10 58 W	104 16 26.80
	12800.00	90.00	0.00	7505.00	5503.16	5497.98	244.07	0.00	401290.32	559675.48	N 32 6 11 57 W	104 16 26.80
	12900.00	90.00	0.00	7505.00	5603.10	5597.98	244.07	0.00	401390.31	559675.48	N 32 6 12 55 W	104 16 26.79
	13000.00	90.00	0.00	7505.00	5703.04	5697.98	244.07	0.00	401490.30	559675.48	N 32 6 13 54 W	104 16 26.79
	13100.00	90.00	0.00	7505.00	5802.98	5797.98	244.07	0.00	401590.29	559675.48	N 32 6 14 53 W	104 16 26.79
	13200.00	90.00	0.00	7505.00	5902.91	5897.98	244.07	0.00	401690.28	559675.48	N 32 6 15 52 W	104 16 26.79
	13300.00	90.00	0.00	7505.00	6002.85	5997.98	244.08	0.00	401790.27	559675.48	N 32 6 16 51 W	104 16 26.79
	13400.00	90.00	0.00	7505.00	6102.79	6097.98	244.08	0.00	401890.26	559675.48	N 32 6 17 50 W	104 16 26.79
	13500.00	90.00	0.00	7505.00	6202.73	6197.98	244.08	0.00	401990.25	559675.48	N 32 6 18 49 W	104 16 26.79
	13600.00	90.00	0.00	7505.00	6302.67	6297.98	244.08	0.00	402090.24	559675.49	N 32 6 19 48 W	104 16 26.79
	13700.00	90.00	0.00	7505.00	6402.60	6397.98	244.08	0.00	402190.24	559675.49	N 32 6 20 47 W	104 16 26.79
	13800.00	90.00	0.00	7505.00	6502.54	6497.98	244.08	0.00	402290.23	559675.49	N 32 6 21 46 W	104 16 26.79
	13900.00	90.00	0.00	7505.00	6602.48	6597.98	244.08	0.00	402390.22	559675.49	N 32 6 22 45 W	104 16 26.79

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 ° ' ")
	14000.00	90.00	0.00	7505.00	6702.42	6697.98	244.08	0.00	402490.21	559675.49	N 32 6 23.44 W	104 16 26.79
	14100.00	90.00	0.00	7505.00	6802.36	6797.98	244.08	0.00	402590.20	559675.49	N 32 6 24.43 W	104 16 26.79
	14200.00	90.00	0.00	7505.00	6902.29	6897.98	244.08	0.00	402690.19	559675.49	N 32 6 25.42 W	104 16 26.79
Cimarex Hayduke 34-27 Fed Com #5H - PBHL [330' FNL, 660' FEL]	14230.23	90.00	0.00	7505.00	6932.51	6928.21	244.08	0.00	402720.42	559675.49	N 32 6 25.72 W	104 16 26.79

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA 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 (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	14230.233	1/100.000	30.000	30.000	SLB_IMWD-STD	Original Borehole / Cimarex Hayduke 34-27 Fed Com #5H

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

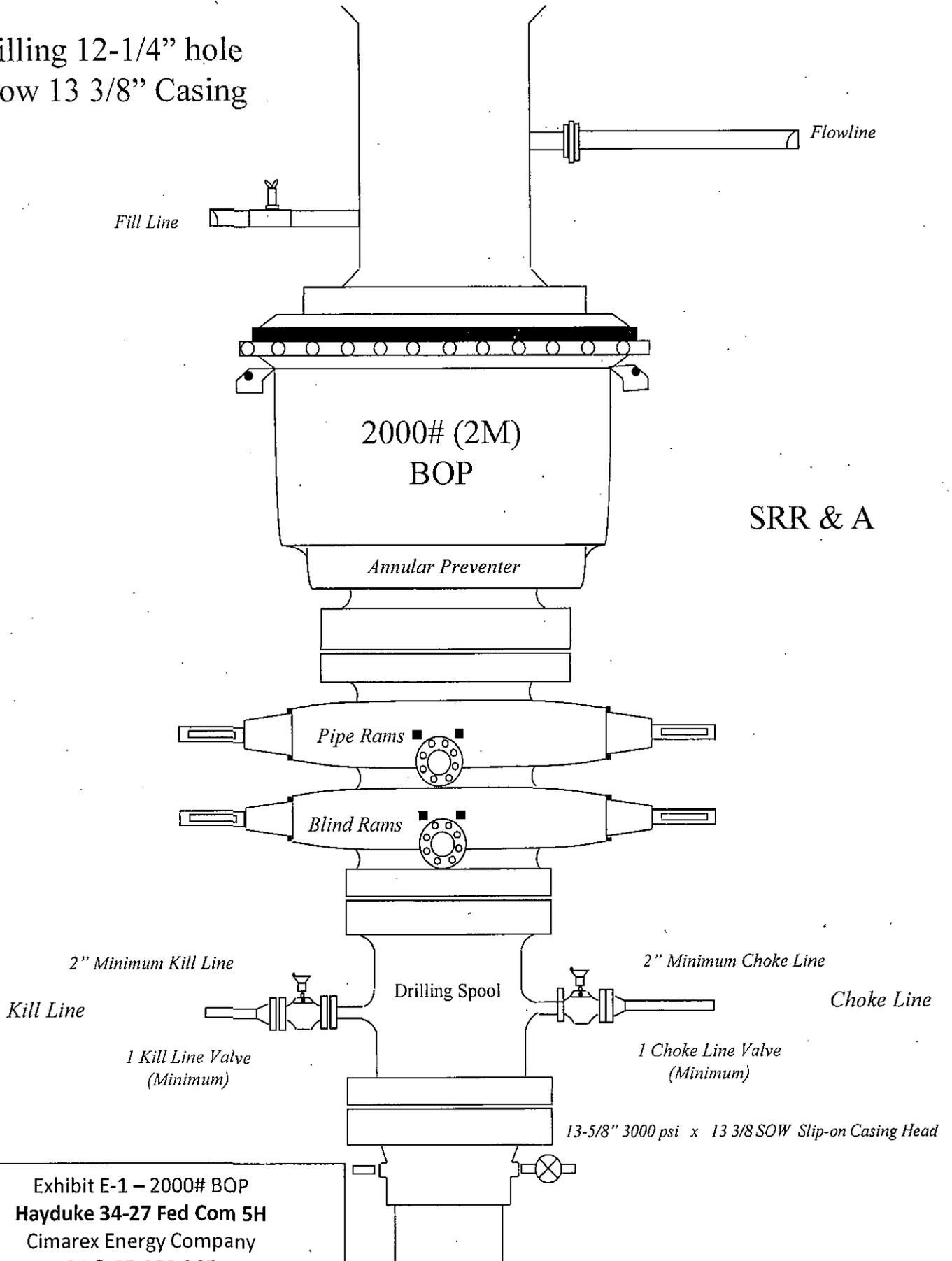


Exhibit E-1 – 2000# BOP  
Hayduke 34-27 Fed Com 5H  
Cimarex Energy Company  
34 & 27-25S-26E  
Eddy County, NM

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

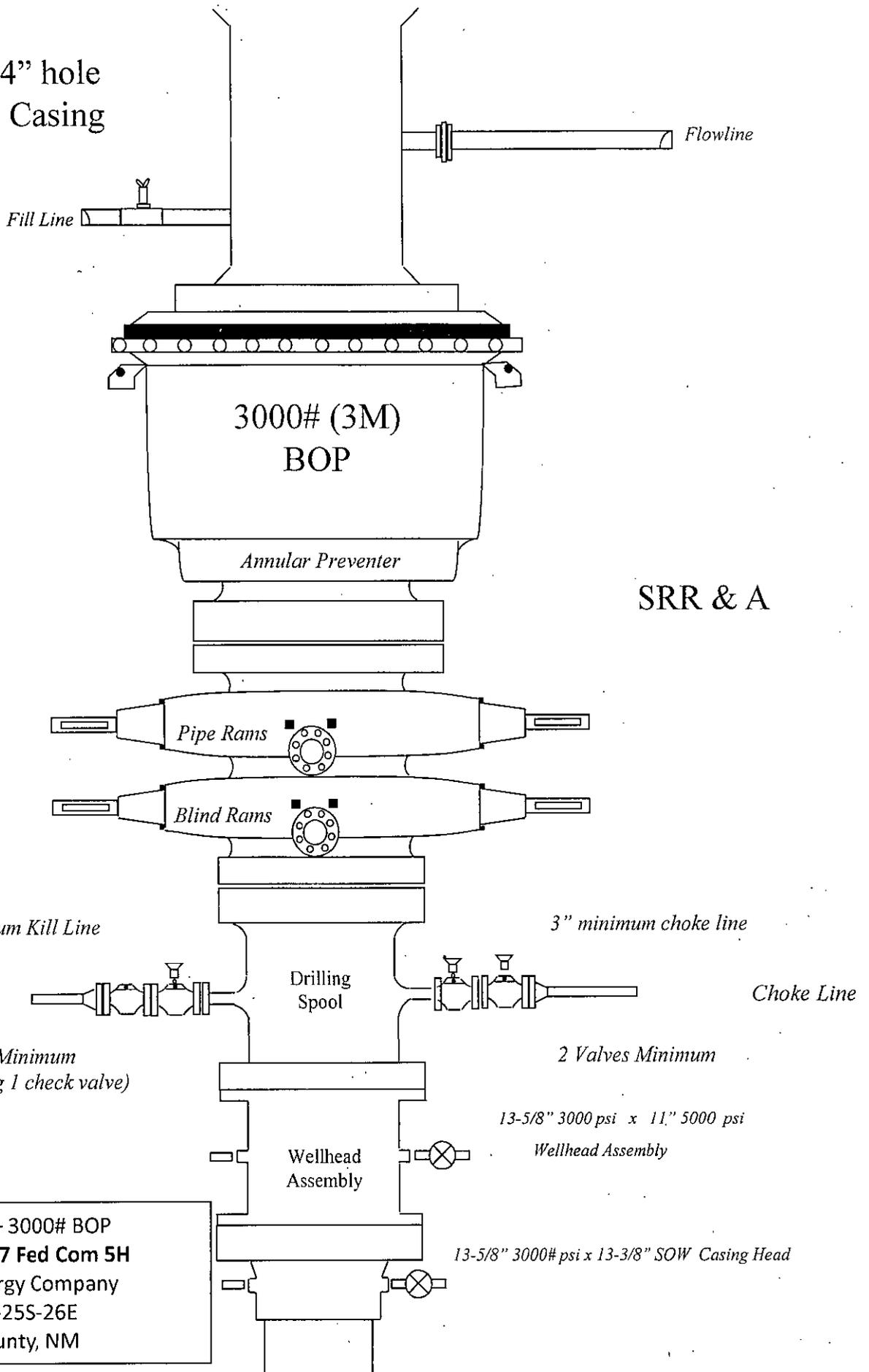
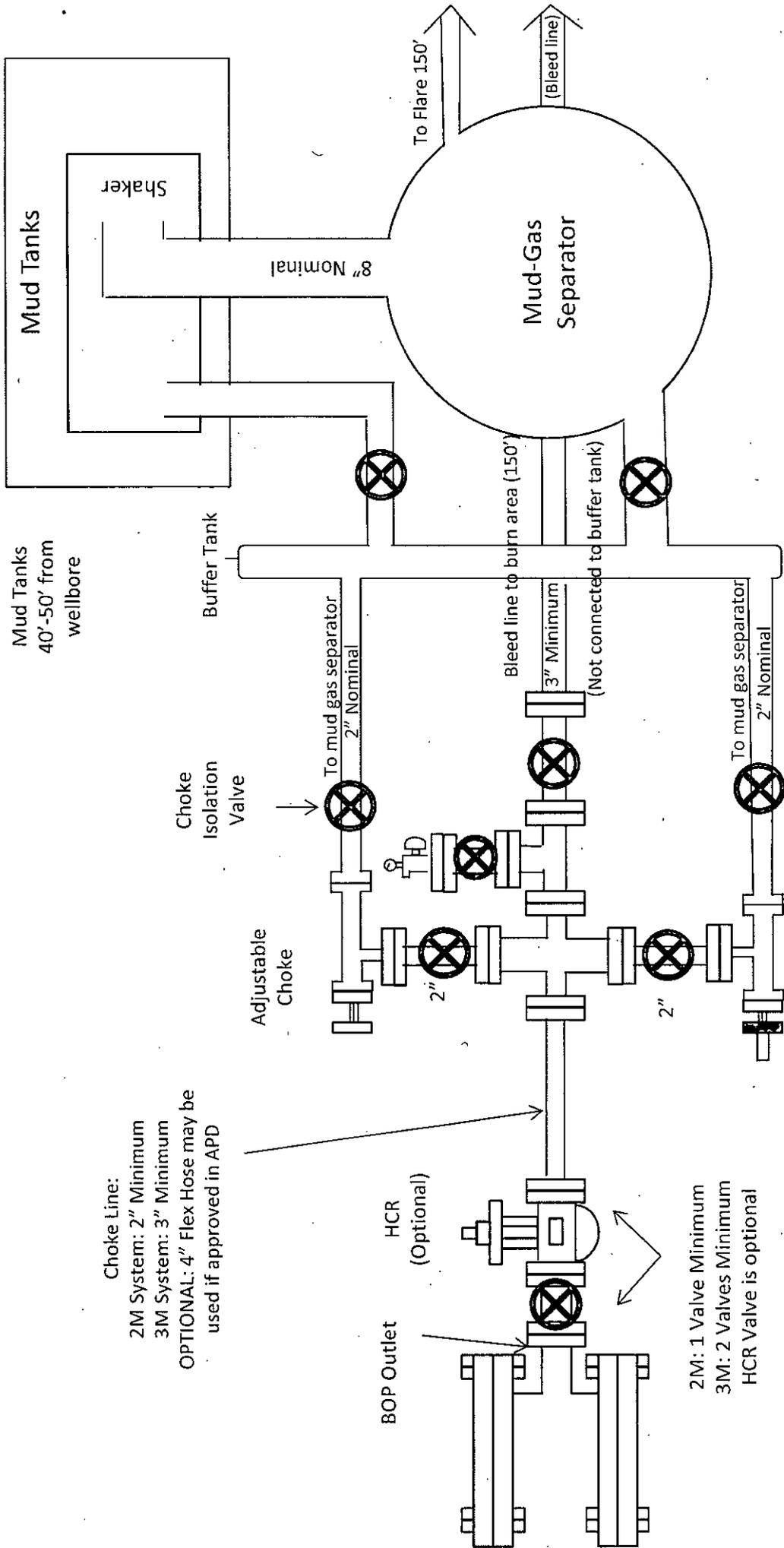


Exhibit E-1 – 3000# BOP  
Hayduke 34-27 Fed Com 5H  
Cimarex Energy Company  
34 & 27-25S-26E  
Eddy County, NM

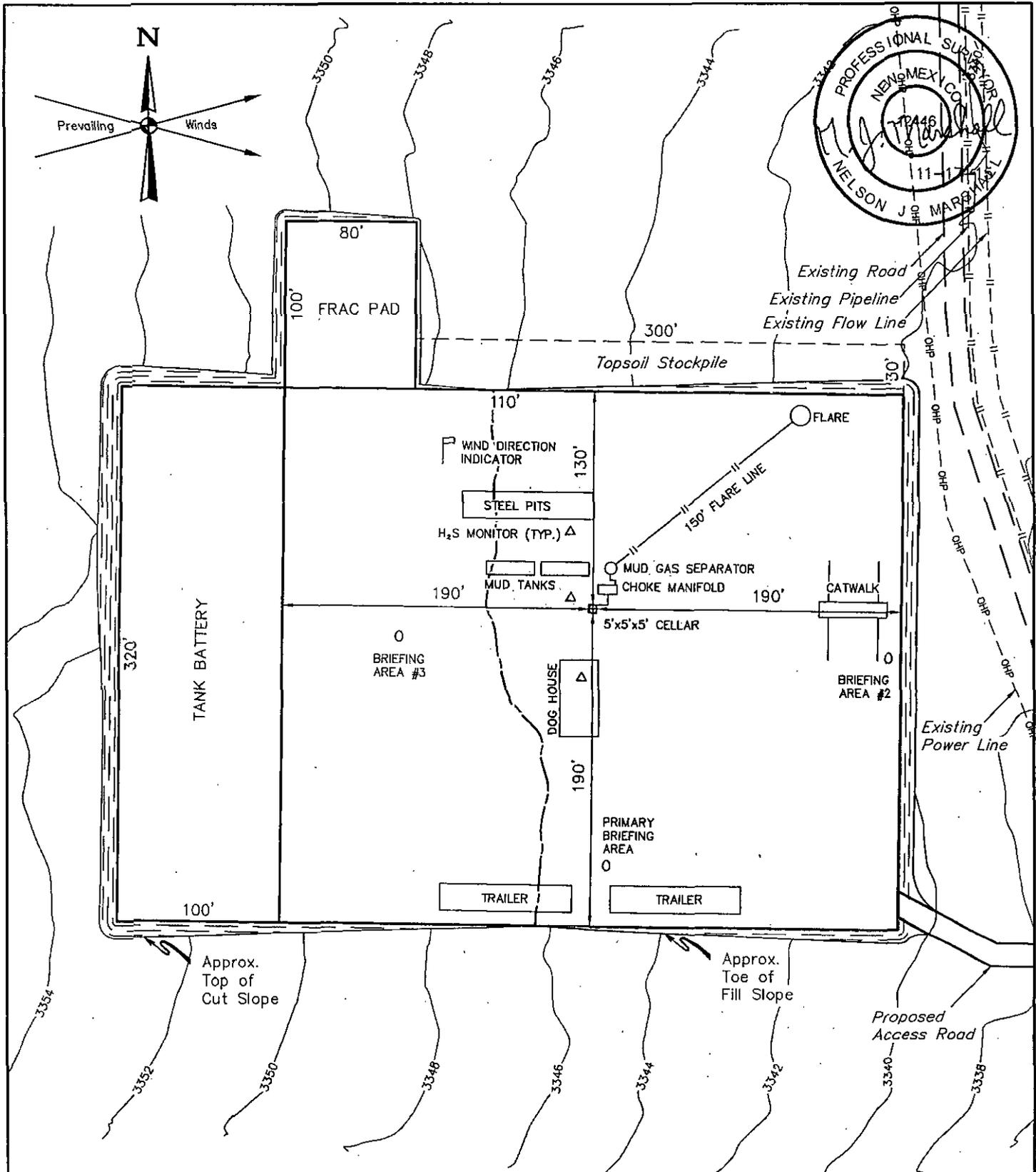


Choke Line:  
 2M System: 2" Minimum  
 3M System: 3" Minimum  
 OPTIONAL: 4" Flex Hose may be used if approved in APD

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

**Drilling Operations  
 Choke Manifold  
 2M/3M Service**

Exhibit E-1 – Choke Manifold Diagram  
**Hayduke 34-27 Fed Com 5H**  
 Cimarex Energy Company  
 34 & 27-25S-26E  
 Eddy County, NM



**NOTES:**

- Contours shown at 2' intervals.

**CIMAREX ENERGY CO.**

**HAYDUKE 34-27 FEDERAL COM 5H  
 1980' FNL 832' FEL  
 SE 1/4 NE 1/4, SECTION 34, T25S, R26E, N.M.P.M.  
 EDDY COUNTY, NEW MEXICO**

DRAWN BY: T.E.	DATE DRAWN: 11-16-15
SCALE: 1" = 80'	REVISED: 00-00-00
<b>TYPICAL RIG LAYOUT</b>	<b>EXHIBIT D</b>



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

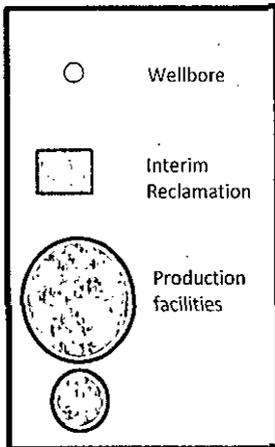
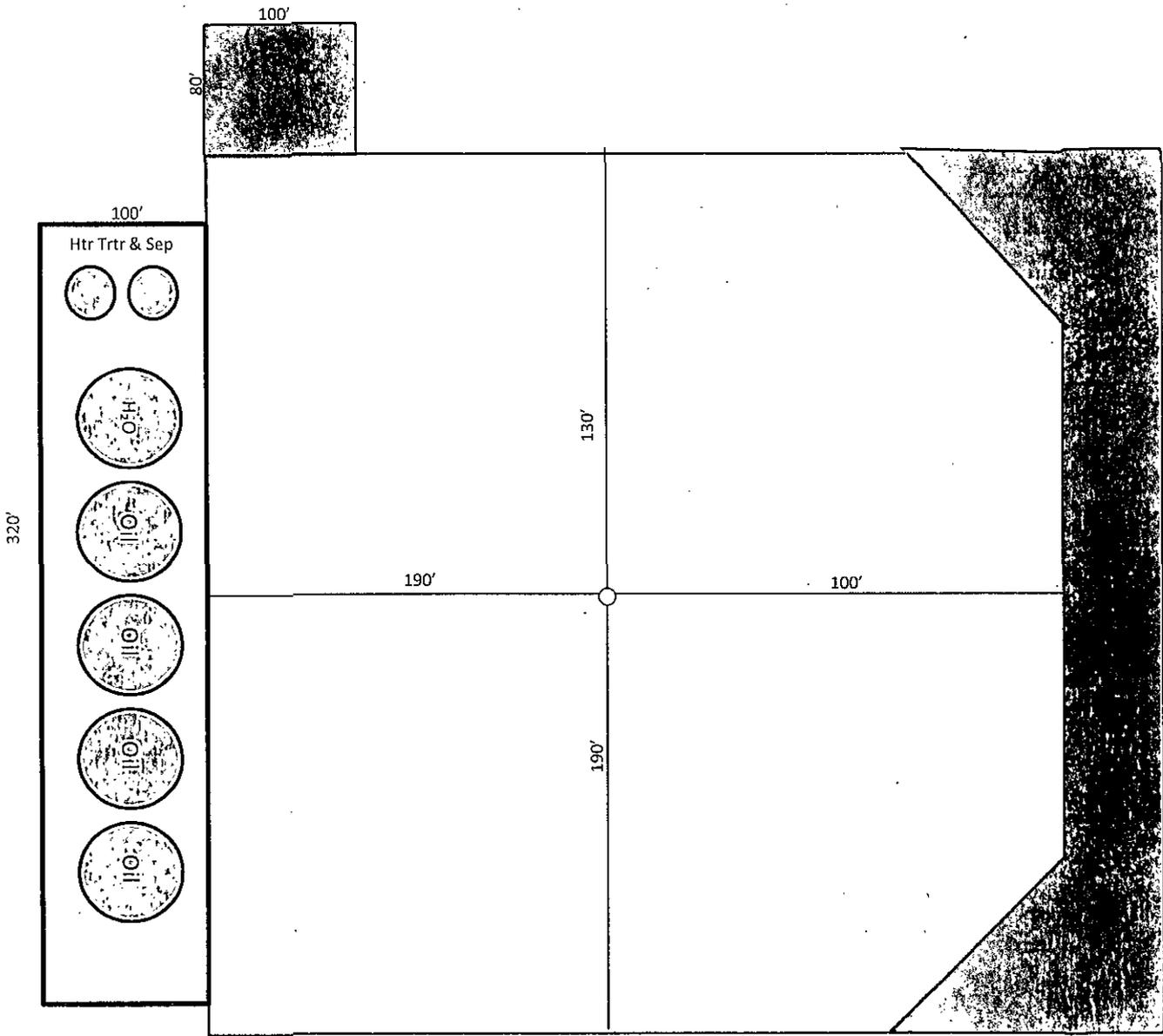


Exhibit D-1  
 Interim Reclamation Diagram  
**Hayduke 34-27 Fed Com 5H**  
 Cimarex Energy Company  
 34 & 27-25S-26E  
 Eddy County, NM

## Hayduke 34-27 Federal Com #5H

Cimarex Energy Co.  
UL: H, Sec. 34, 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 cattle guards, 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 Prickly Pear road to the Northwest located in the NW ¼ of Section 36, T25S, R26E, N.M.P.M. Proceed in a northwesterly direction approximately 1.0 miles to the junction of this road and an existing road to the southwest; turn left and proceed in a southwesterly, then northwesterly, then southwesterly, then southerly direction approximately 1.2 miles to the beginning of the proposed access road to the west; follow road flags in a westerly, direction approximately 155' to the proposed location.

### 2. New of Reconstructed Access Roads:

- A new road will be constructed for this project.
- Cimarex Energy plans to construct 155' of new on-lease access road to service the well. The planned access road does not cross lease boundaries, a right of way grant will not be acquired 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.

### 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 at the wellsite. Exhibit D-1 illustrates the proposed facility/battery. Any changes to the facility will be submitted via sundry notice.

### 5. Gas Pipeline

- Cimarex plans to construct an on lease gas pipeline to service this battery location.
- Please see Exhibit G for pipeline route.
- Specification of pipeline: 3 gas pipelines- One- 4" gas lift line from Hayduke 34 Fed 1H to the well, one- 4" Gas line tying into existing 4" line and one- 8" gas line from well to future tie in.
- Lines will be buried and will require a construction width of 30'.
- Length: Gas lift line will be 1660.31', 4" gas line will be 648.31', and 8" gas line will be 589.18'
- MAOP: 1440' (all lines)
- Anticipated working pressure: 1100' psi (all lines).

### 6. Flowlines

- Battery located on pad.

## Hayduke 34-27 Federal Com #5H

Cimarex Energy Co.  
UL: H, Sec. 34, 25S, 26E  
Eddy Co., NM

### 7. Salt Water Disposal

- Cimarex plans to construct an on lease SWD pipeline to service this battery location.
- SWD well name: Liberty 24, Well Number: 001
- Operator of SWD: Cimarex Energy Co. of Colorado
- API of SWD well: 30-015-33094
- SWD Permit #: SWD-1216
- Please see Exhibit I for pipeline route.
- Specification of pipeline: 4 inch
- Line will be buried and will require a construction width of 30'.
- Length: 1809'
- MAOP: 125 psi.
- Anticipated working pressure: 80 psi.
- Pipeline will be constructed 20-30' from and parallel to an existing route.

### 8. Electric Lines

- Cimarex Energy plans to construct a new on lease electric line to service the well.
- Cimarex Energy plans to install an overhead electric line from the proposed well to an existing overhead electric line located in NE of section 34. The proposed electric line will be 398' in length, 1-40 poles, 480 volt, 4 wire, 3 phase. The electric line will exit off the North side of the well location and travel East 398' until it would intercept the existing electric line.
- The electric line will be routed on the West side of lease road and 25-35' from and parallel to lease road.
- Route is within lease boundaries, a right of way grant will not be acquired from the BLM. Please see Exhibit H. Any changes to E-Line route will be submitted via sundry notice.

### 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.

## Hayduke 34-27 Federal Com #5H

Cimarex Energy Co.  
UL: H, Sec. 34, 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 recontoured 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 Street, Carlsbad, NM 88220, 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:

Onsite with BLM (Jeff Robertson & Jim Goodbar) and CHEMM and Cimarex (Barry Hunt) on 11/12/15. Location was moved 172' west due to the Hayduke #3 E-line too close. V-Door East. Frac pad Northwest corner (North). Top soil north. Interim reclamation: East, northeast and southeast. Battery on west side (320' x 100'). Access road from southeast corner, east. Staked 3 pipelines (One 8" gas) to east, to tie-in to existing line (two 4" gas in same ditch) to east, to tie-in to existing line (One 4" gas) to east and then north, following existing road and pipelines, to the Hayduke 34 Fed #1. Staked a surface 4" poly SWD line to east and then north, following existing road and pipeline, to the Hayduke 34 Fed #1. One pole required off existing E-line to the east. Construct an earthen berm along the south side of access road along entire south side of pad area. The buried gas lines and E-line (to the 6H) will run on north side of pad and surface SWD line and road off south side of pad.

Hydrogen Sulfide Drilling Operations Plan

Hayduke 34-27 Federal Com 5H

Cimarex Energy Co.

UL: H, Sec.34, 25S, 26E

Eddy Co., NM

- 1 All Company and Contract personnel admitted on location must be trained by a qualified H<sub>2</sub>S 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 Windsock and/or wind streamers:
  - A. Windsock at mudpit area should be high enough to be visible.
  - B. Windsock 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  
Hayduke 34-27 Federal Com 5H  
Cimarex Energy Co.  
UL: H, Sec.34, 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  
**Hayduke 34-27 Federal Com 5H**  
 Cimarex Energy Co.  
 UL: H, Sec.34, 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	

BEGINNING AT THE INTERSECTION OF OLD CAVERN HIGHWAY AND PRICKLY PEAR RD TO THE NORTHWEST LOCATED IN THE NW 1/4 OF SECTION 36, T25S, R26E, N.M.P.M. PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 1.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN LEFT AND PROCEED IN A SOUTHWESTERLY, THEN NORTHWESTERLY, THEN SOUTHWESTERLY, THEN SOUTHERLY DIRECTION APPROXIMATELY 1.2 MILES TO THE BEGINNING OF THE PROPOSED ACCESS TO THE WEST; FOLLOW ROAD FLAGS IN A WESTERLY, THEN NORTHWESTERLY DIRECTION APPROXIMATELY 155' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM THE INTERSECTION OF OLD CAVERN HIGHWAY AND PRICKLY PEAR RD TO THE NORTHWEST LOCATED IN THE NW 1/4 OF SECTION 36, T25S, R26E, N.M.P.M. TO THE PROPOSED LOCATION IS APPROXIMATELY 2.2 MILES.

**CIMAREX ENERGY CO.**

HAYDUKE 34-27 FEDERAL COM 5H  
1980' FNL 832' FEL  
SE 1/4 NE 1/4, SECTION 34, T25S, R26E, N.M.P.M.  
EDDY COUNTY, NEW MEXICO

DRAWN BY: Z.H.F.	DATE DRAWN: 11-17-15
	REVISED: 00-00-00
<b>ROAD DESCRIPTION</b>	<b>EXHIBIT J</b>



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

MAY 16 2016

## PECOS DISTRICT CONDITIONS OF APPROVAL

RECEIVED

OPERATOR'S NAME:	Cimarex Energy Co.
LEASE NO.:	NMNM19423
WELL NAME & NO.:	5H-Hayduke 34-27 Federal Com
SURFACE HOLE FOOTAGE:	1980'/N & 832'/E
BOTTOM HOLE FOOTAGE:	330'/N & 660'/E
LOCATION:	Section 34, 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**
  - Communitization Agreement
  - Cave/Karst
- Construction**
  - Notification
  - Topsoil
  - Closed Loop System
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- Road Section Diagram**
- Drilling**
  - Cement Requirements
  - Critical Cave/Karst
  - Logging Requirements
  - Waste Material and Fluids
- Production (Post Drilling)**
  - Well Structures & Facilities
  - Pipelines
  - Electric Lines
- 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)

### Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

### **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, situating valves 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.

**Powerlines:**

Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems. Larger powerlines will adjust their pole spacing to avoid cave and karst features. The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction and no further construction will be done until clearance has been issued by the Authorized Officer. Special restoration stipulations or realignment may be required.

## **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**

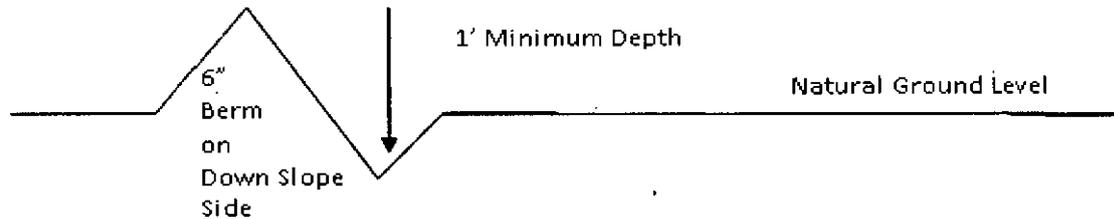
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

**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

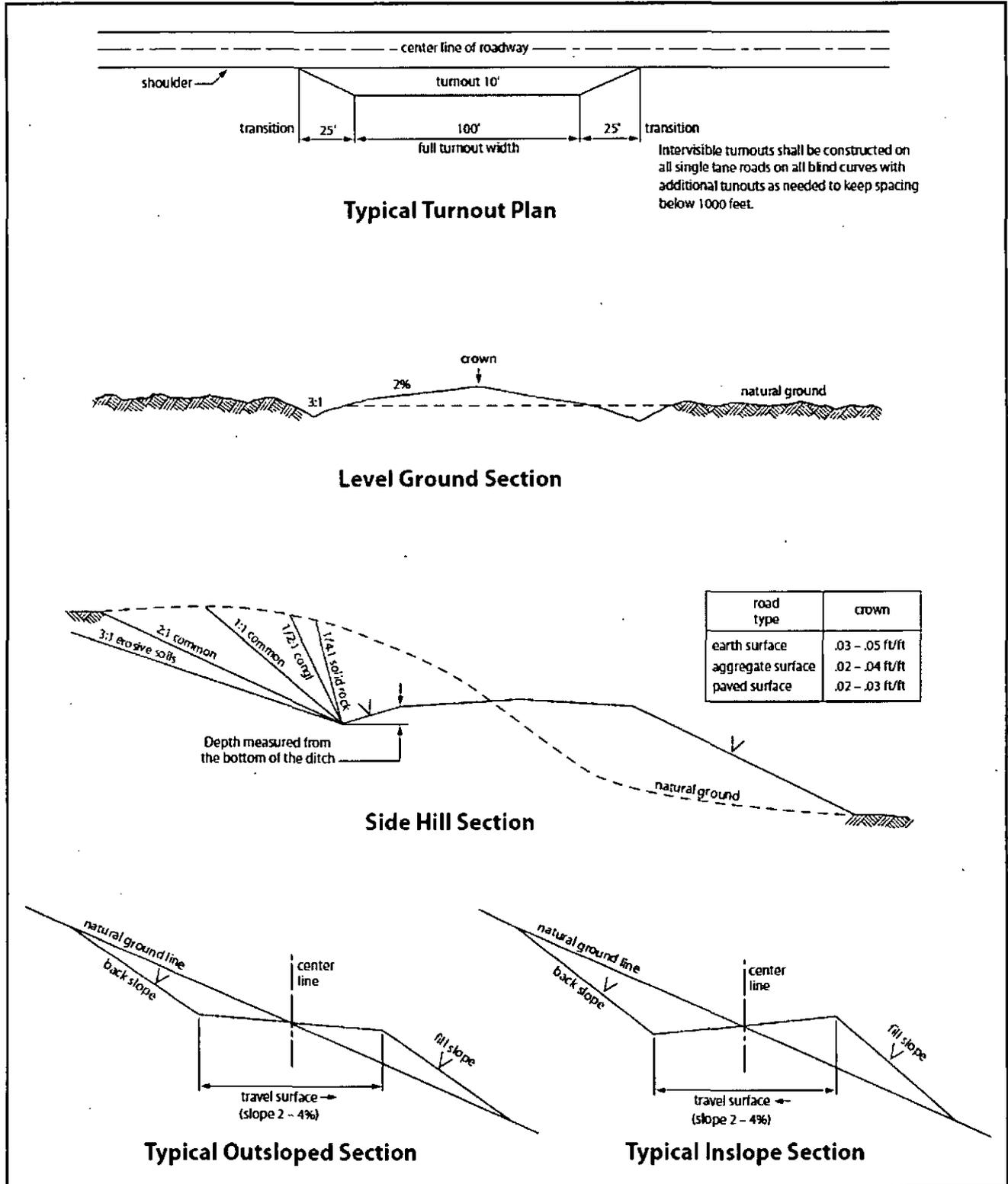


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

## 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 Castile.**

**Possibility of lost circulation in the Castile and Delaware.**

**CRITICAL CAVE/KARST – A MINIMUM OF THREE CASING STRINGS CEMENTED TO SURFACE IS REQUIRED IN CRITICAL CAVE/KARST AREAS. THE CEMENT MUST BE IN A SOLID SHEATH THEREFORE, ONE INCH OPERATIONS WILL NOT BE PERMITTED. CONTACT BLM WITH MODIFICATIONS TO CEMENT PROGRAM AS NEEDED.**

1. The 13-3/8 inch surface casing shall be set at approximately 400 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 -21% - 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 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. Excess calculates to 1% - Additional cement may be required.**
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**.
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.

**CLN 051216**

## **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 checked="" type="checkbox"/> seed mixture 1 | <input type="checkbox"/> seed mixture 3          |
| <input type="checkbox"/> seed mixture 2            | <input 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 1 for Loamy Sites**

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 shall 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 shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed shall be planted using a drill equipped with a depth regulator to ensure proper depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture shall be evenly and uniformly planted over the disturbed area (small/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed shall be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre shall be doubled. The seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may 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>
Plains lovegrass (Eragrostis intermedia)		0.5
Sand dropseed (Sporobolus cryptandrus)	1.0	
Sideoats grama (Bouteloua curtipendula)	5.0	
Plains bristlegrass (Setaria macrostachya)	2.0	

\*Pounds of pure live seed:

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

## NMOCD CONDITION OF APPROVAL

The *New* Gas Capture Plan (GCP) notice is posted on the NMOCD website under Announcements. The Plan became effective May 1, 2016. A copy of the GCP form is included with the NOTICE and is also in our FORMS section under Unnumbered Forms. Please review filing dates for all applicable activities currently approved or pending and submit accordingly. Failure to file a GCP may jeopardize the operator's ability to obtain C-129 approval to flare gas after the initial 60-day completion period.