

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTOCD Artesia  
NM OIL CONSERVATION  
ARTESIA DISTRICTFORM APPROVED  
OMB NO. 1004-0135  
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*

JAN 23 2017

5. Lease Serial No.  
NMLC067849

6. If Indian, Allottee or Tribe Name

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

**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

## 1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

## 2. Name of Operator

Contact: MIKE PIPPIN  
LIME ROCK RESOURCES II-A, L.P. E-Mail: MIKE@PIPPINLLC.COM

## 3a. Address

C/O MIKE PIPPIN 3104 N. SULLIVAN  
FARMINGTON, NM 87401

## 3b. Phone No. (include area code)

Ph: 505-327-4573

## 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 34 T17S R27E NESW 2405FNL 2440FWL

8. Well Name and No.  
EAGLE 34 K FEDERAL 77

308957

## 9. API Well No.

30-015-43886

## 10. Field and Pool, or Exploratory

RED LAKE, GL-YESO NE 95836

## 11. County or Parish, and State

EDDY COUNTY, NM

## 12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original A
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	PD

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

THIS IS FOR A CHANGE TO THE ORIGINAL APD. THE SURFACE LOCATION WILL NOW BE AT 2405' FNL & 2440' FWL SEC 34, T17S R27E.

The surface location on the original APD for this new well became unacceptable when a buried gas line was discovered across the middle of the proposed location. It was therefore necessary to move the surface location to 2405' FNL & 2440' FWL SEC 34 T17S R27E. The proposed bottom hole location will remain the same. Please see the attached new C-102 and its accompanied data and the new directional drilling plan.

Accepted for record - NMOCD



## 14. I hereby certify that the foregoing is true and correct.

Electronic Submission #353584 verified by the BLM Well Information System  
For LIME ROCK RESOURCES II-A, L.P., sent to the Carlsbad  
Committed to AFMSS for processing by DEBORAH MCKINNEY on 10/07/2016 ()

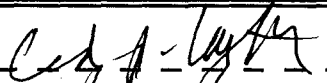

Name (Printed/Typed) MIKE PIPPIN

Title PETROLEUM ENGINEER

Signature (Electronic Submission)

Date 10/05/2016

## THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By 	Title  FIELD MANAGER	Date 1/19/17
Conditions of approval, if any are attached. Approval of this notice 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.		Office CARLSBAD FIELD OFFICE

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.

**\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\***

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

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

NM OIL CONSERVATION  
ARTESIA DISTRICT

Form C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

RECEIVED

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-15-43886</b>	<sup>2</sup> Pool Code	<sup>3</sup> Pool Name <b>95836 Red Lake, GL-YESONE</b>
<sup>4</sup> Property Code <b>308957</b>	<sup>5</sup> Property Name <b>EAGLE 34 K FEDERAL</b>	<sup>6</sup> Well Number <b>77</b>
<sup>7</sup> OGRID No. <b>277558</b>	<sup>8</sup> Operator Name <b>LIME ROCK RESOURCES II-A, L.P.</b>	<sup>9</sup> Elevation <b>3564.5</b> ✓

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>F</b>	<b>34</b>	<b>17 S</b>	<b>27 E</b>		<b>2405</b>	<b>NORTH</b>	<b>2440</b>	<b>WEST</b>	<b>EDDY</b>

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

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>K</b>	<b>34</b>	<b>17 S</b>	<b>27 E</b>		<b>2310</b>	<b>SOUTH</b>	<b>2285</b>	<b>WEST</b>	<b>EDDY</b>

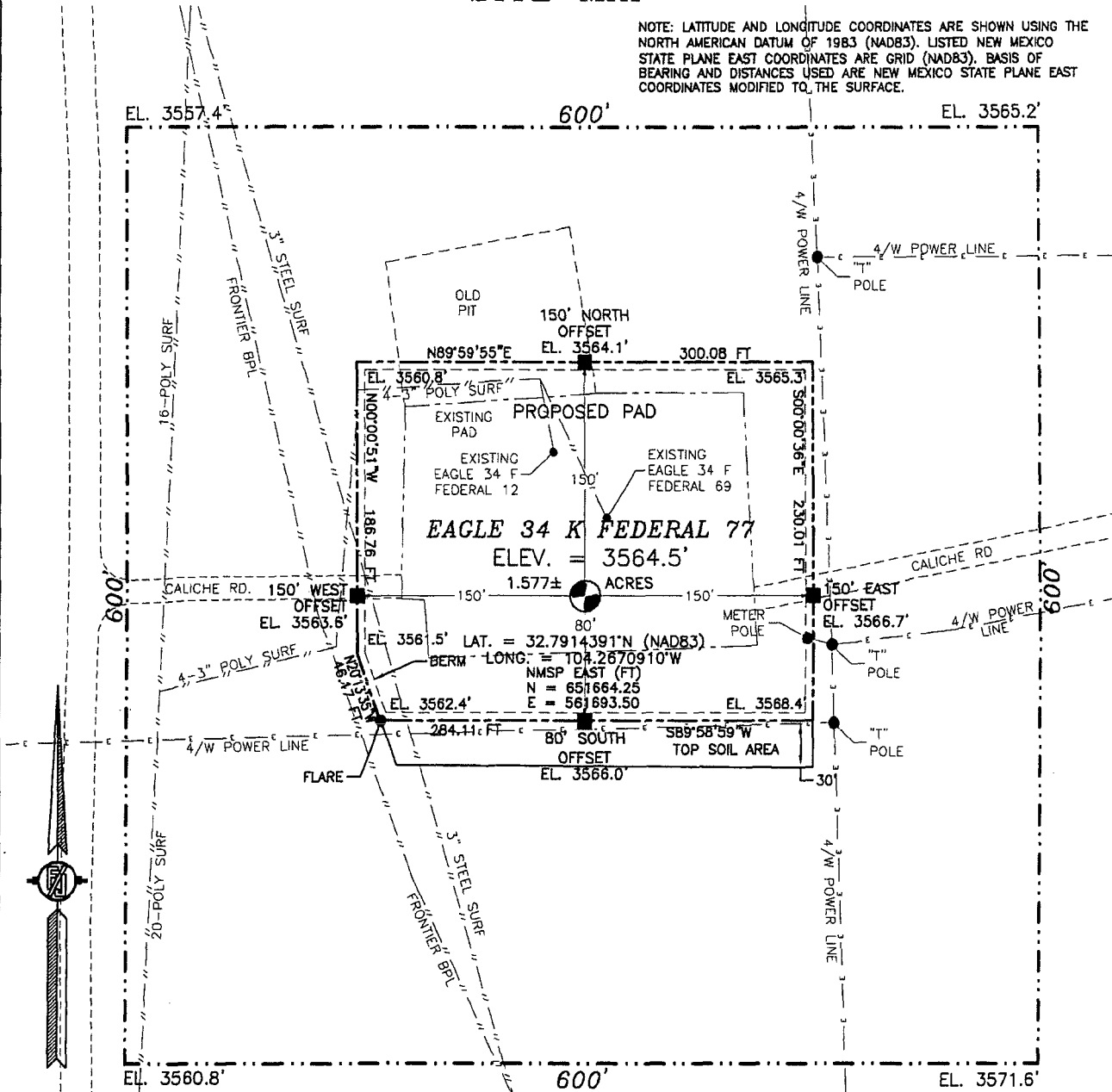
<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<p>N89°05'18"E 2595.15 FT</p> <p>NW CORNER SEC. 34 LAT. = 32.7979460°N LONG. = 104.2750255°W NMSP EAST (FT) N = 654030.12 E = 559253.94</p> <p><b>EAGLE 34 K FEDERAL 77</b> ELEV. = 3564.5' LAT. = 32.7914391°N (NAD83) LONG. = 104.2670910°W NMSP EAST (FT) N = 651664.25 E = 561693.50</p> <p>W/4 CORNER SEC. 34 LAT. = 32.7906614°N LONG. = 104.2750296°W NMSP EAST (FT) N = 651379.86 E = 559254.14</p> <p>SW CORNER SEC. 34 LAT. = 32.7833815°N LONG. = 104.2750310°W NMSP EAST (FT) N = 648731.32 E = 559255.19</p> <p>S89°52'34"W 2631.33 FT</p>		<p>N89°05'43"E 2594.17 FT</p> <p>N/4 CORNER SEC. 34 LAT. = 32.7980553°N LONG. = 104.2665830°W NMSP EAST (FT) N = 654071.39 E = 561848.10</p> <p>NE CORNER SEC. 34 LAT. = 32.7981630°N LONG. = 104.2581435°W NMSP EAST (FT) N = 654112.34 E = 564441.27</p> <p>E/4 CORNER SEC. 34 LAT. = 32.7907869°N LONG. = 104.2580275°W NMSP EAST (FT) N = 651428.83 E = 564478.85</p> <p>SE CORNER SEC. 34 LAT. = 32.7834033°N LONG. = 104.2579143°W NMSP EAST (FT) N = 648742.59 E = 564515.53</p> <p>S89°52'42"W 2630.39 FT</p>	<p><b>" OPERATOR CERTIFICATION</b></p> <p>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 undivided 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.</p> <p>Signature _____ Date _____</p> <p>Printed Name _____</p> <p>E-mail Address _____</p> <p><b>"SURVEYOR CERTIFICATION</b></p> <p>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.</p> <p>SEPTEMBER 29, 2016</p> <p>Date of Survey _____</p> <p>Signature and Seal of Professional Surveyor _____</p> <p>Certificate Number: FJRMON E. JARAMILLO, PLS 12797</p> <p>SURVEY NO. 2341A</p>
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SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
SITE MAP

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE.



010 50 100 200

SCALE 1" = 100'  
DIRECTIONS TO LOCATION

FROM CR. 225 (EMPIRE) AND CR. 227 (LITTLE DIAMOND) GO  
SOUTHWEST ON CR. 227 0.5 MILE, TURN RIGHT ON CALICHE ROAD  
AND GO NORTHWEST 0.75 MILE, BEND RIGHT AND GO NORTHEAST  
750', BEND LEFT AND GO NORTH 0.2 MILE, TURN RIGHT AND GO  
EAST 165' TO THE WEST EDGE OF PAD FOR THIS LOCATION.

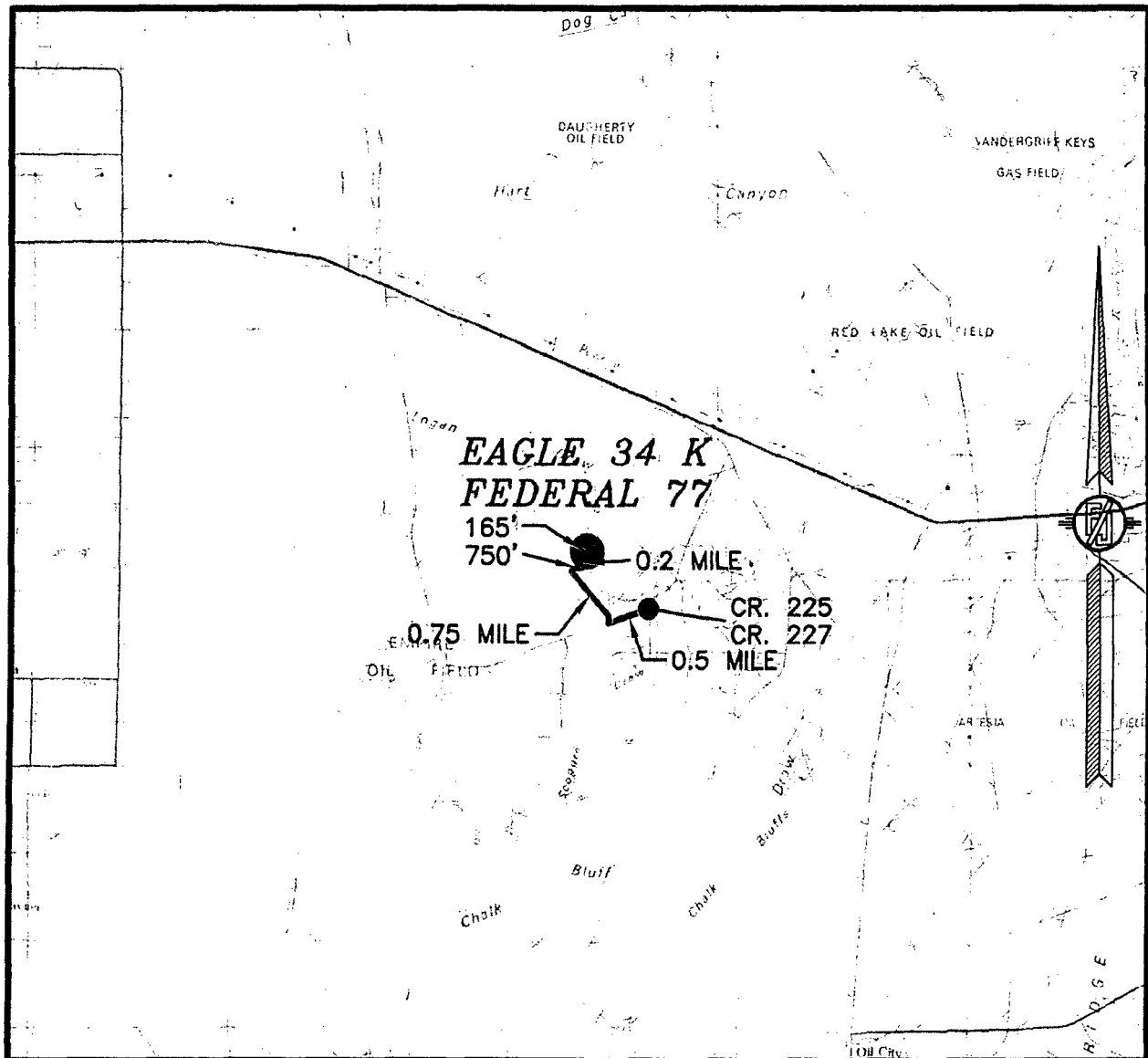
LIME ROCK RESOURCES II-A, L.P.  
**EAGLE 34 K FEDERAL 77**  
LOCATED 2405 FT. FROM THE NORTH LINE  
AND 2440 FT. FROM THE WEST LINE OF  
SECTION 34, TOWNSHIP 17 SOUTH,  
RANGE 27 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO

SEPTEMBER 29, 2016

SURVEY NO. 2341A

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

**DIRECTIONS TO LOCATION**

FROM CR. 225 (EMPIRE) AND CR. 227 (LITTLE DIAMOND) GO  
SOUTHWEST ON CR. 227 0.5 MILE, TURN RIGHT ON CALICHE ROAD  
AND GO NORTHWEST 0.75 MILE, BEND RIGHT AND GO NORTHEAST  
750', BEND LEFT AND GO NORTH 0.2 MILE, TURN RIGHT AND GO  
EAST 165' TO THE WEST EDGE OF PAD FOR THIS LOCATION.

**LIME ROCK RESOURCES II-A, L.P.  
EAGLE 34 K FEDERAL 77**

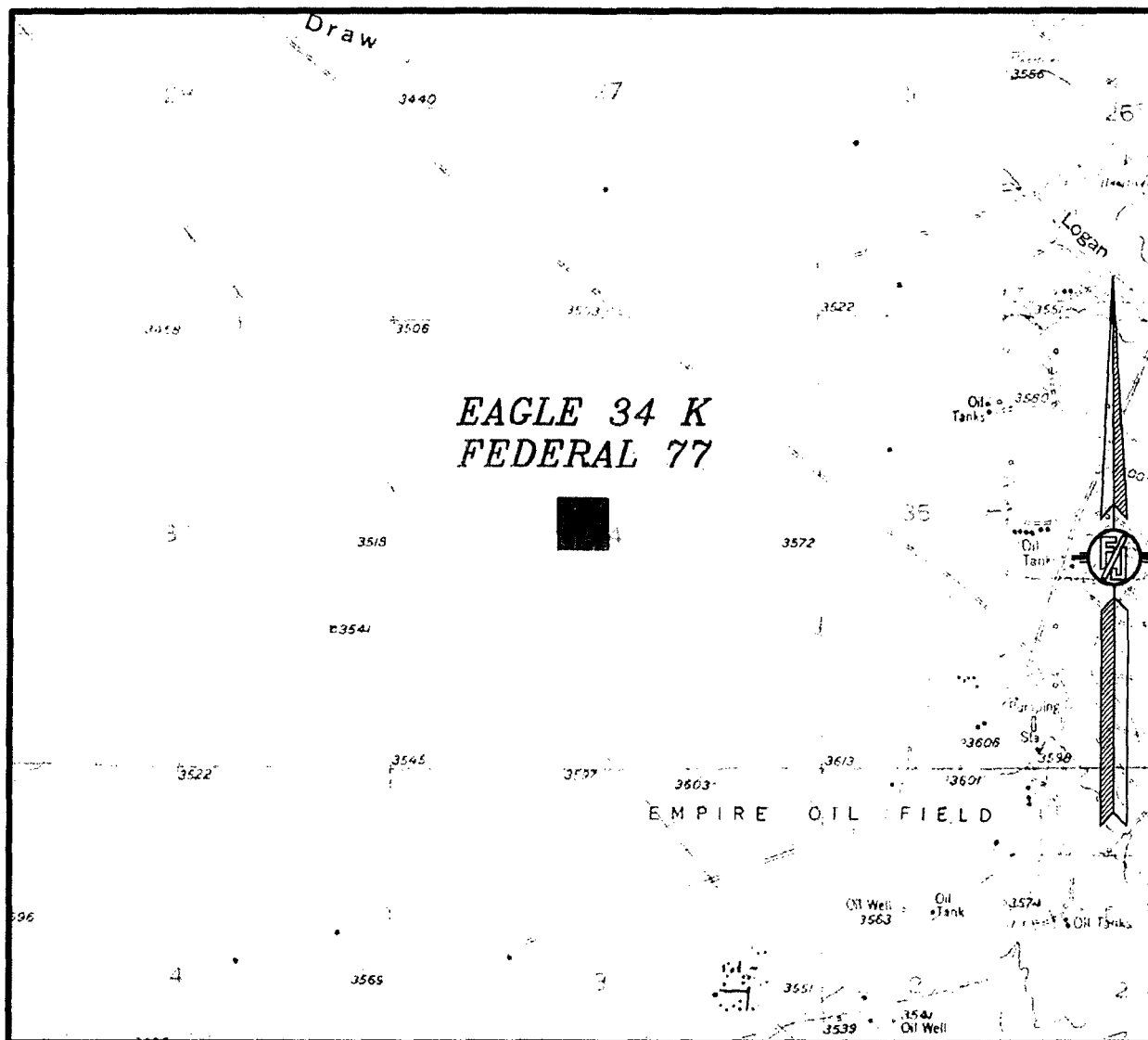
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RANGE 27 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO

SEPTEMBER 29, 2016

SURVEY NO. 2341A

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
LOCATION VERIFICATION MAP



USGS QUAD MAP:  
SPRING LAKE

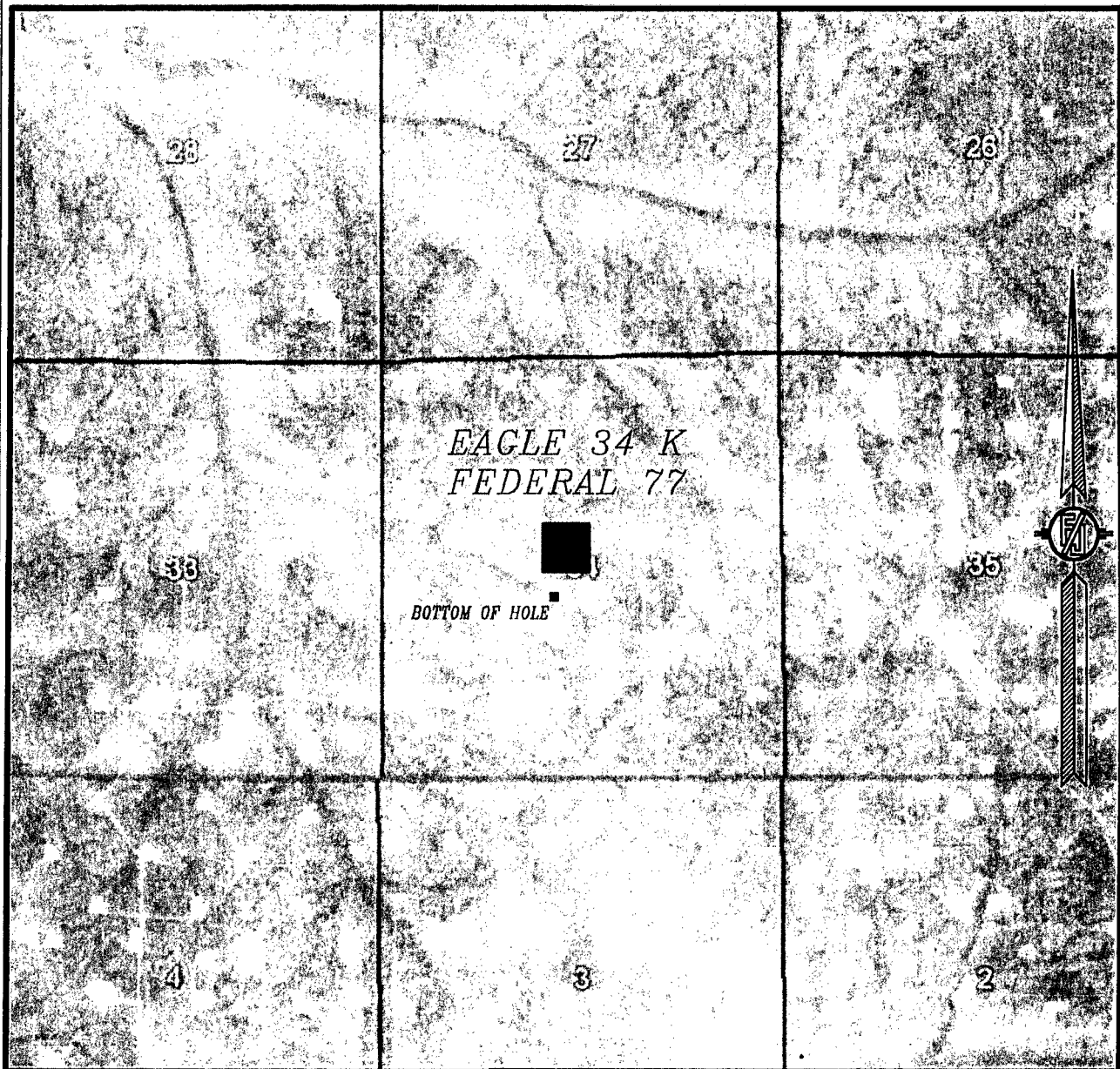
NOT TO SCALE

LIME ROCK RESOURCES II-A, L.P.  
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RANGE 27 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO

SEPTEMBER 29, 2016

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO  
SURVEY NO. 2341A

SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
AERIAL PHOTO



NOT TO SCALE  
AERIAL PHOTO:  
GOOGLE EARTH  
MAR. 2016

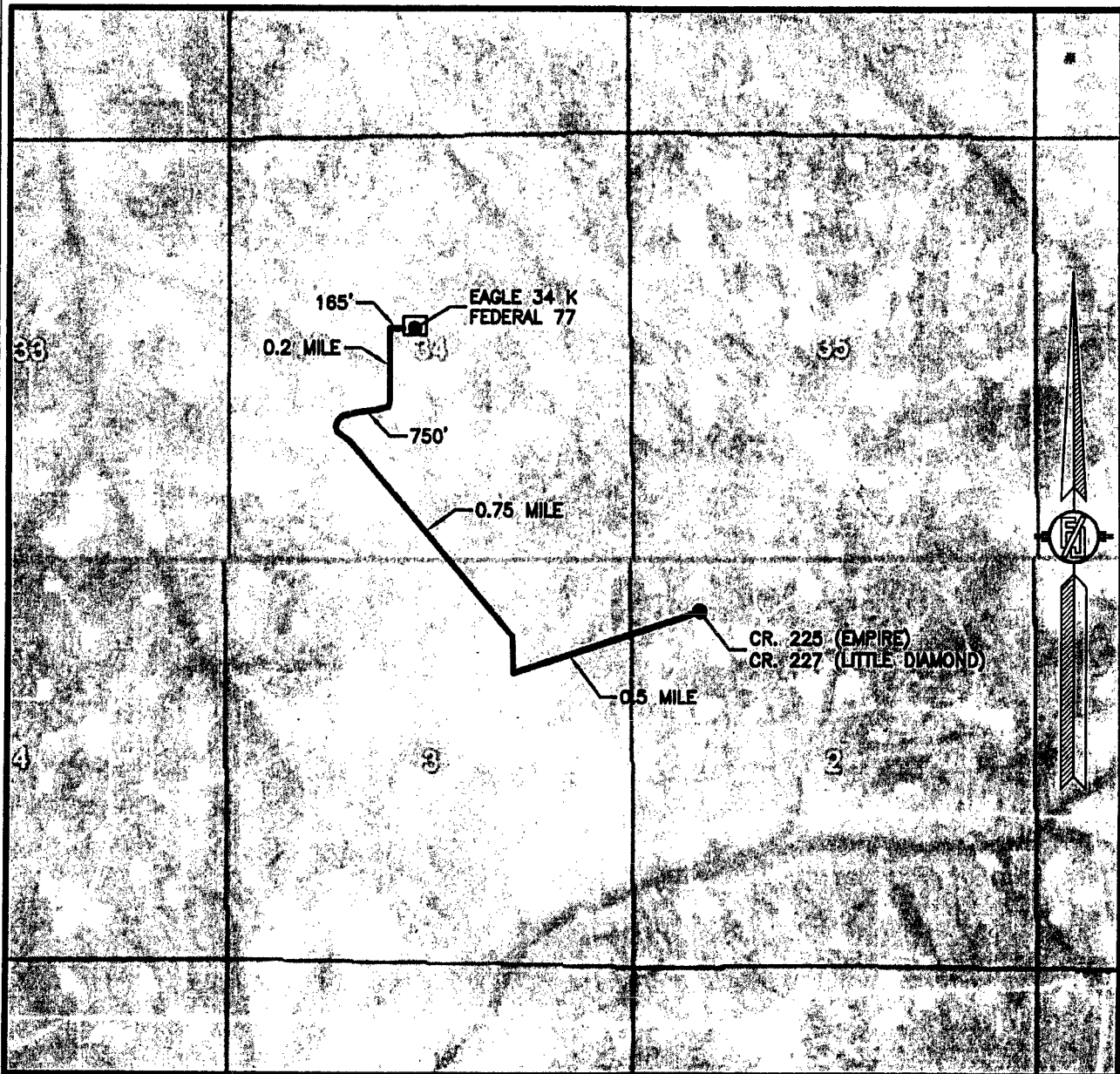
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RANGE 27 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO

SEPTEMBER 29, 2016

SURVEY NO. 2341A

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.  
 EDDY COUNTY, STATE OF NEW MEXICO  
 AERIAL ACCESS ROUTE MAP



NOT TO SCALE  
 AERIAL PHOTO:  
 GOOGLE EARTH  
 MAR. 2016

*LIME ROCK RESOURCES II-A, L.P.*  
**EAGLE 34 K FEDERAL 77**  
 LOCATED 2405 FT. FROM THE NORTH LINE  
 AND 2440 FT. FROM THE WEST LINE OF  
 SECTION 34, TOWNSHIP 17 SOUTH,  
 RANGE 27 EAST, N.M.P.M.  
 EDDY COUNTY, STATE OF NEW MEXICO

SEPTEMBER 29, 2016

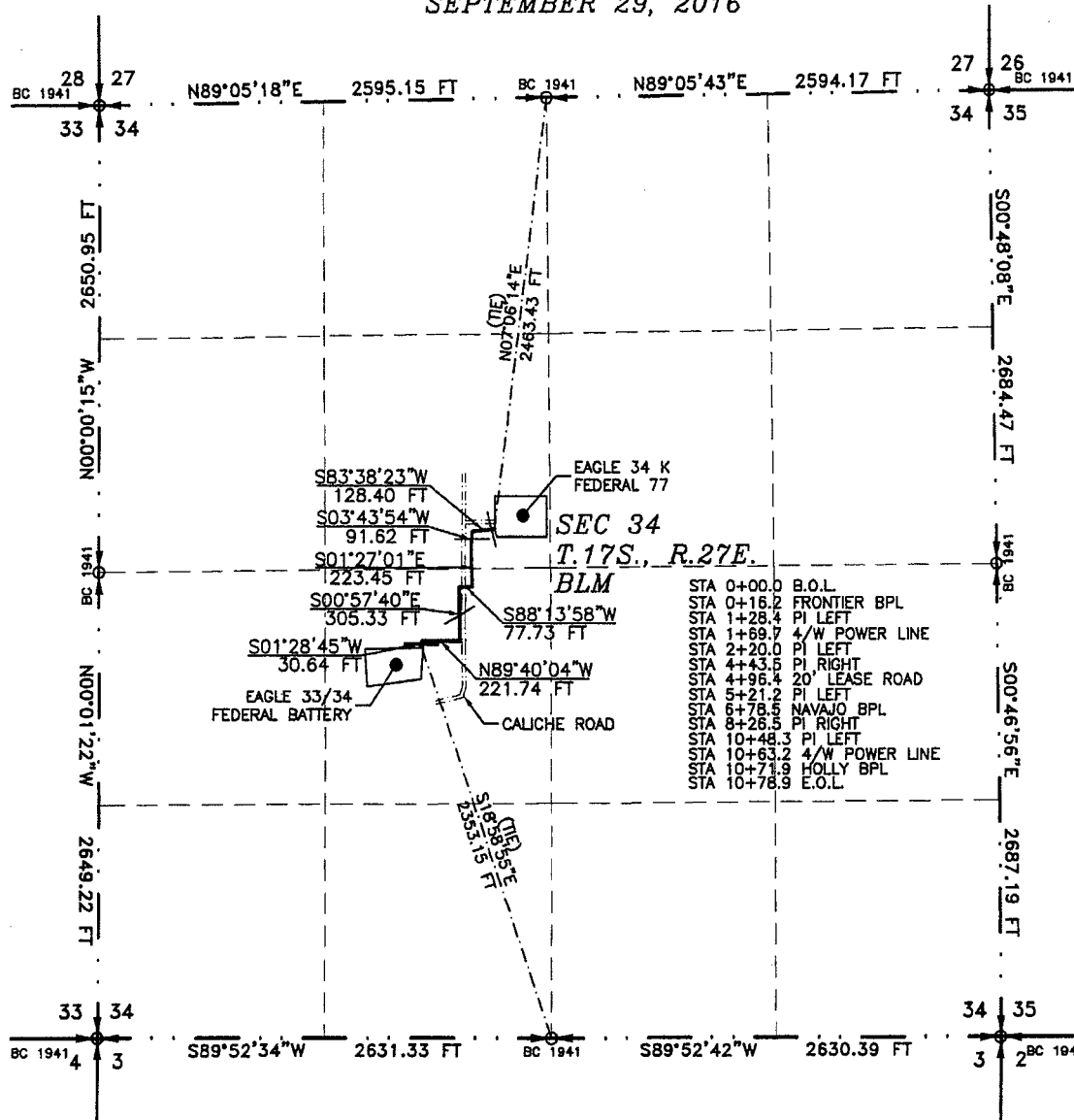
SURVEY NO. 2341A

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

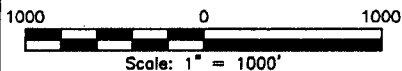
# FLOWLINE PLAT

TWO 3" SURFACE POLY LINES (ONE GAS AND ONE PRODUCTION) FROM  
EAGLE 34 K FEDERAL 77 TO EAGLE 33/34 FEDERAL BATTERY

LIME ROCK RESOURCES II-A, L.P.  
CENTERLINE SURVEY OF A PIPELINE CROSSING  
SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
SEPTEMBER 29, 2016



SEE NEXT SHEET (2-4) FOR DESCRIPTION



## GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING IS NMSP EAST MODIFIED TO SURFACE COORDINATES.

## SURVEYOR CERTIFICATE

I, FILMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 50 DAY OF SEPTEMBER 2016

MADRON SURVEYING, INC.  
301 SOUTH CANAL  
CARLSBAD, NEW MEXICO 88220  
Phone (575) 234-3341

SHEET: 1-4

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

FILMON F. JARAMILLO - PLS. 12797

SURVEY NO. 2341A



# FLOWLINE PLAT

TWO 3" SURFACE POLY LINES (ONE GAS AND ONE PRODUCTION) FROM  
EAGLE 34 K FEDERAL 77 TO EAGLE 33/34 FEDERAL BATTERY

## LIME ROCK RESOURCES II-A, L.P. CENTERLINE SURVEY OF A PIPELINE CROSSING SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO SEPTEMBER 29, 2016

### DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE SE/4 NW/4 OF SAID SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M., WHENCE THE NORTH QUARTER CORNER OF SAID SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M. BEARS N07°06'14"E, A DISTANCE OF 2463.43 FEET;  
THENCE S83°38'23"W A DISTANCE OF 128.40 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;  
THENCE S03°43'54"W A DISTANCE OF 91.62 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;  
THENCE S01°27'01"E A DISTANCE OF 223.45 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;  
THENCE S88°13'58"W A DISTANCE OF 77.73 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;  
THENCE S00°57'40"E A DISTANCE OF 305.33 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;  
THENCE N89°40'04"W A DISTANCE OF 221.74 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;  
THENCE S01°28'45"W A DISTANCE OF 30.64 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE SOUTH QUARTER CORNER OF SAID SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M. BEARS S18°58'55"E, A DISTANCE OF 2353.15 FEET;

SAID STRIP OF LAND BEING 1078.92 FEET OR 65.39 RODS IN LENGTH, CONTAINING 0.743 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SE/4 NW/4	341.88 L.F.	20.72 RODS	0.235 ACRES
NE/4 SW/4	737.04 L.F.	44.67 RODS	0.508 ACRES

### SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD,  
NEW MEXICO, THIS 30 DAY OF SEPTEMBER 2016

FILIMON F. JARAMILLO, PLS. 12797  
MADRON SURVEYING, INC.  
301 SOUTH CANAL  
CARLSBAD, NEW MEXICO 88220  
Phone (575) 234-3341

SURVEY NO. 2341A

### GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING IS NMSP EAST MODIFIED TO SURFACE COORDINATES.

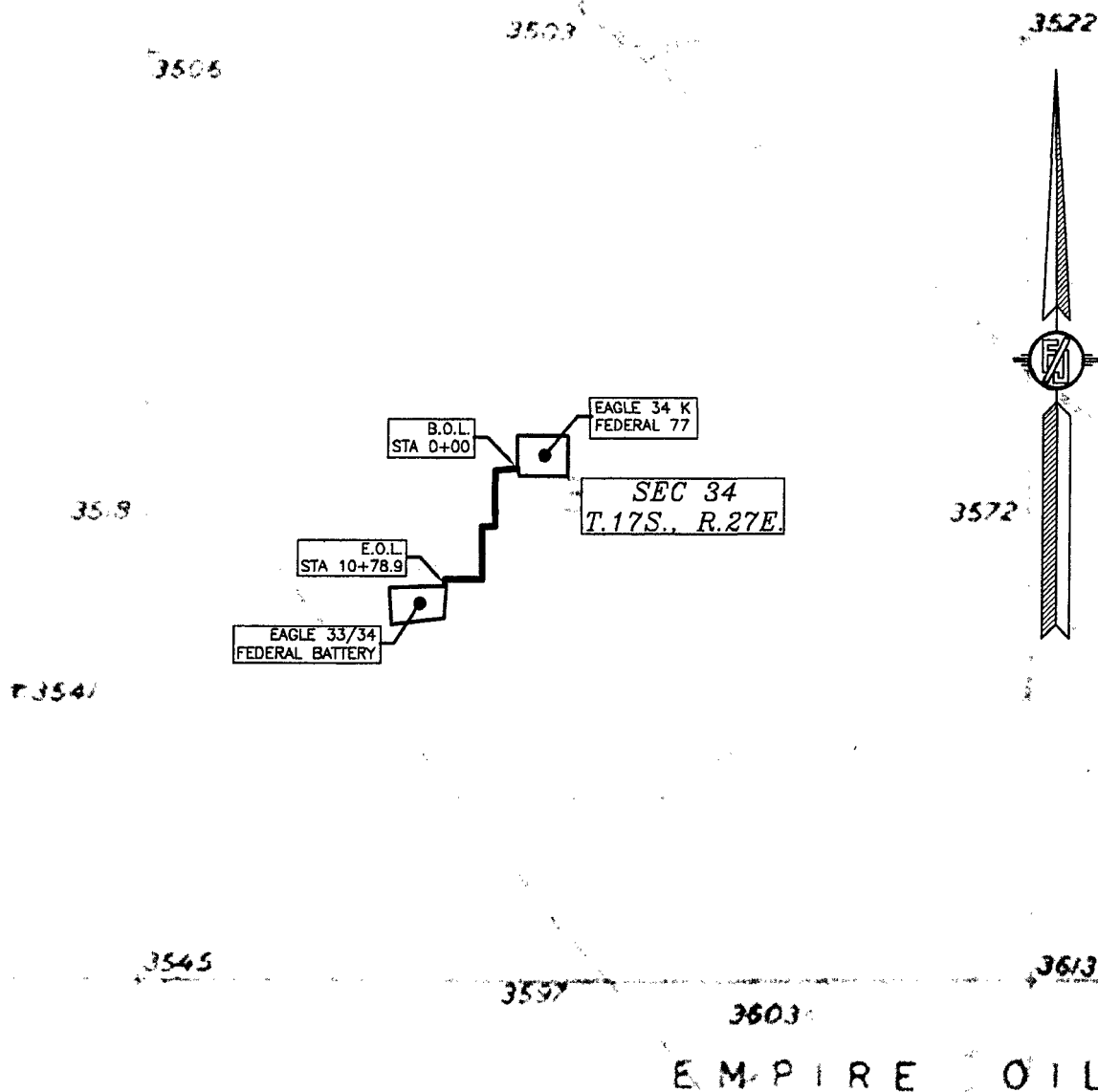
SHEET: 2-4

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO  
(575) 234-3341

**FLOWLINE PLAT**

TWO 3" SURFACE POLY LINES (ONE GAS AND ONE PRODUCTION) FROM  
EAGLE 34 K FEDERAL 77 TO EAGLE 33/34 FEDERAL BATTERY

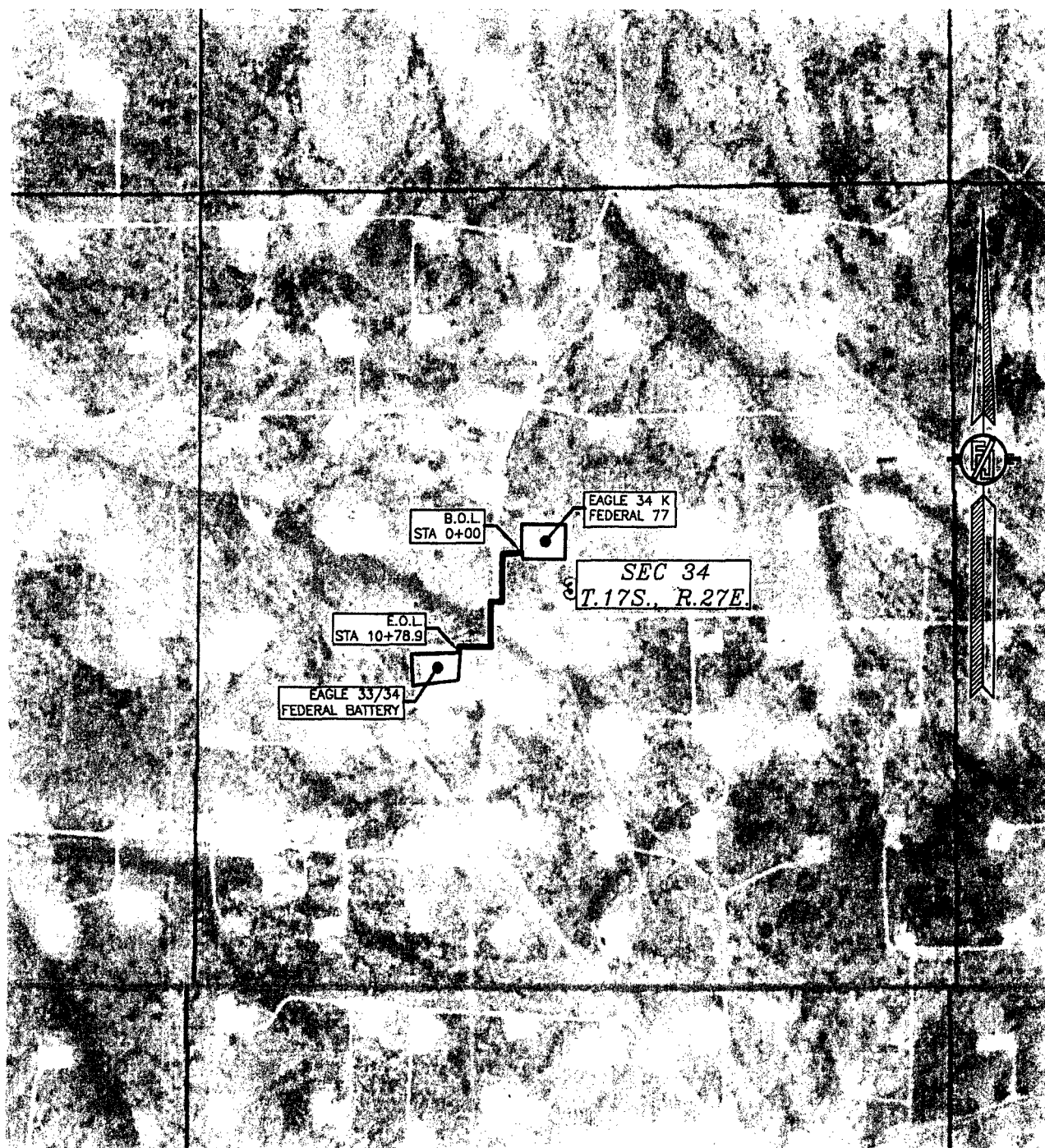
LIME ROCK RESOURCES II-A, L.P.  
CENTERLINE SURVEY OF A PIPELINE CROSSING  
SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
SEPTEMBER 29, 2016



# FLOWLINE PLAT

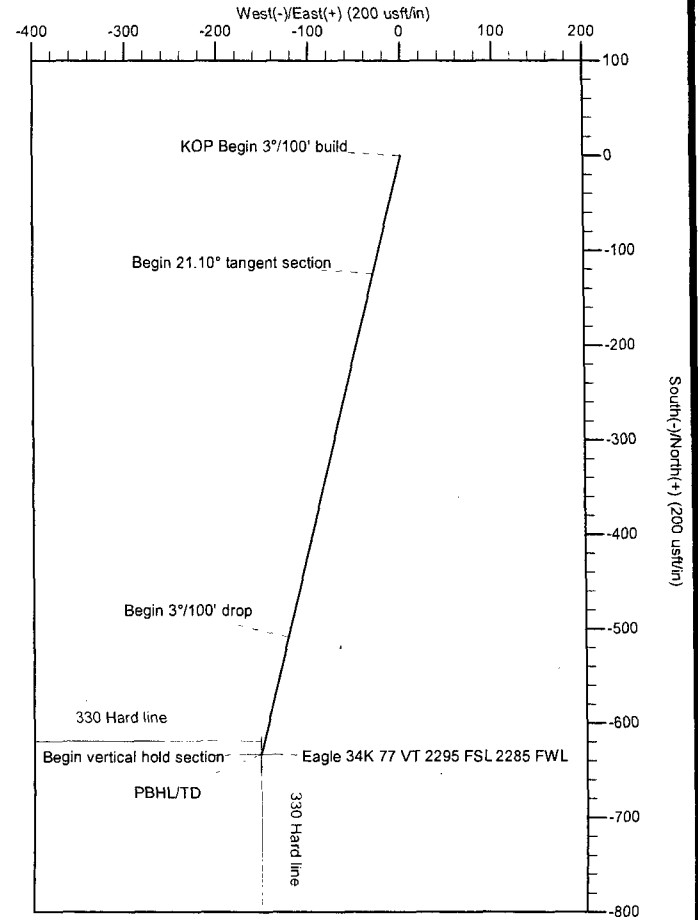
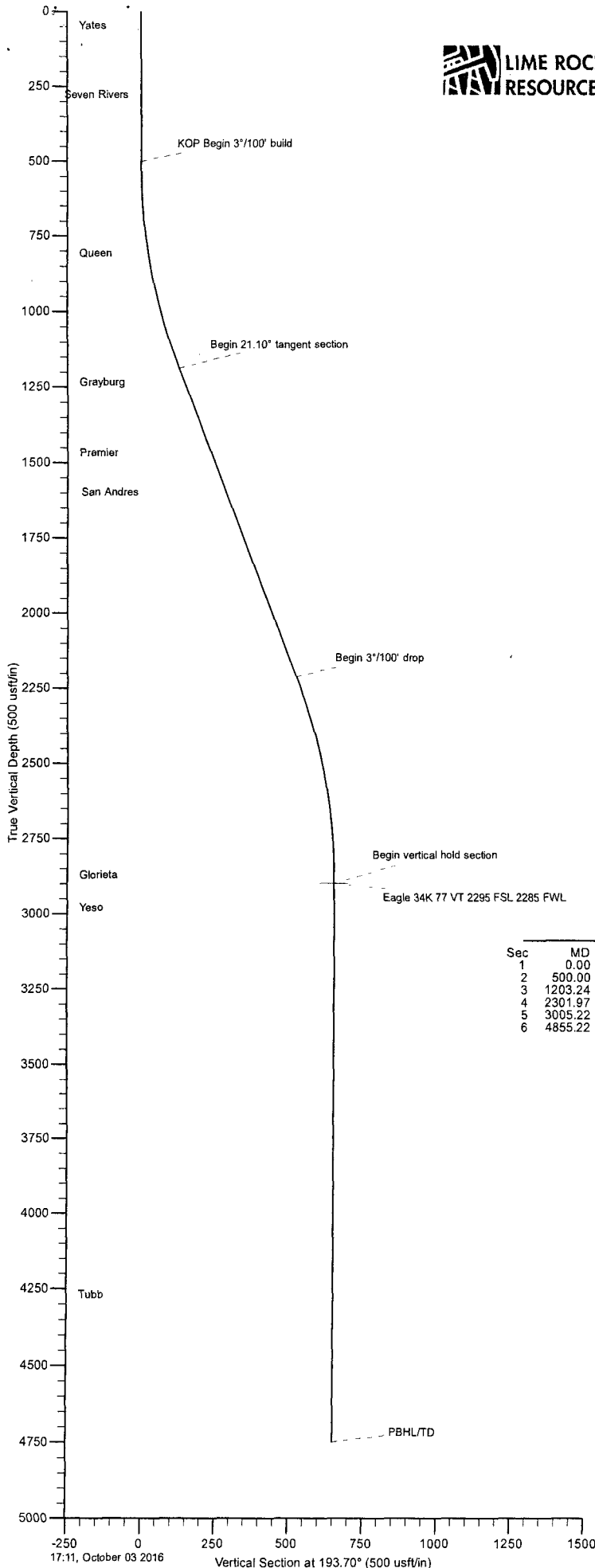
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LIME ROCK RESOURCES II-A, L.P.  
CENTERLINE SURVEY OF A PIPELINE CROSSING  
SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
SEPTEMBER 29, 2016





Well: Eagle 34K Federal Well No. 77  
 Site: Eagle 34K Federal  
 Project: Eddy County, New Mexico NAD83  
 Design: rev0  
 Rig:



#### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 3°/100' build
3	1203.24	21.10	193.70	1187.46	-124.38	-30.31	3.00	193.70	128.02	Begin 21.10° tangent section
4	2301.97	21.10	193.70	2212.54	-508.62	-123.95	0.00	0.00	523.51	Begin 3°/100' drop
5	3005.22	0.00	193.70	2900.00	-633.00	-154.26	3.00	180.00	651.53	Begin vertical hold section
6	4855.22	0.00	193.70	4750.00	-633.00	-154.26	0.00	193.70	651.53	PBHL/TD

Surface Location: RKB=3564.5+12.8 @ 3577.30usft  
 US State Plane 1983

New Mexico Eastern Zone

Northing 651664.25 Easting 561693.50 Latitude 32.79143914 Longitude -104.26709098

Total Correction: 1M = - G To convert a Magnetic Direction to a Grid Direction, Add 7.36°



Azimuths to Grid North  
 True North: -0.04°  
 Magnetic North: 7.36°

Magnetic Field  
 Strength: 48271.0snT  
 Dip Angle: 60.48°  
 Date: 10/3/2016  
 Model: IGRF2015





# Standard\_Report

Company: Lime Rock Resources  
Project: Eddy County, New Mexico NAD83  
Site: Eagle 34K Federal  
Well: Eagle 34K Federal Well No. 77  
Design: Original hole  
rev0

Local Co-ordinate Reference:  
TVD Reference:  
MD Reference:  
North Reference:  
Survey Calculation Method:  
Database:

Well Eagle 34K Federal Well No. 77  
RKB=3564.5+12.8 @ 3577.30usft  
RKB=3564.5+12.8 @ 3577.30usft  
Grid  
Minimum Curvature  
DB Jul2216dt

Project	Eddy County, New Mexico NAD83			System Datum:	Mean Sea Level
Map System:	US State Plane 1983				
Geo Datum:	North American Datum 1983				
Map Zone:	New Mexico Eastern Zone				

Site	Eagle 34K Federal				
Site Position:				Latitude:	32.79001075
From:	Map	Northing:	651,144.01 usft	Longitude:	-104.27013362
Position Uncertainty:	0.00 usft	Easting:	560,758.82 usft	Grid Convergence:	0.03 °
		Slot Radius:	13-3/16 "		

Well	Eagle 34K Federal Well No. 77, Surf Loc: 2405 FNL 2440 FWL Sec34-T17S-R27E					
Well Position	+N/-S	0.00 usft	Northing:	651,664.25 usft	Latitude:	32.79143914
	+E/-W	0.00 usft	Easting:	561,693.50 usft	Longitude:	-104.26709098
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,564.50 usft

Wellbore	Original hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/3/2016	7.39	60.48	48,271

Design	rev0				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	193.70	

Survey Tool Program	Date	10/3/2016			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	4,855.22	rev0 (Original hole)	MWD	MWD - Standard	



Standard\_Report

Company: Lime Rock Resources  
Project: Eddy County, New Mexico NAD83  
Site: Eagle 34K Federal  
Well: Eagle 34K Federal Well No. 77  
Wellbore: Original hole  
Design: rev0

Local Co-ordinate Reference: Well Eagle 34K Federal Well No. 77  
TVD Reference: RKB=3564.5+12.8 @ 3577.30usft  
MD Reference: RKB=3564.5+12.8 @ 3577.30usft  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: DB Jul2216cd

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	V. Sec (usft)	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	651,664.25	561,693.50
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	651,664.25	561,693.50
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	651,664.25	561,693.50
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	651,664.25	561,693.50
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	651,664.25	561,693.50
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	651,664.25	561,693.50
KOP Begin 3°/100' build									
600.00	3.00	193.70	599.95	-2.54	-0.62	3.00	2.62	651,661.71	561,692.88
700.00	6.00	193.70	699.63	-10.16	-2.48	3.00	10.46	651,654.09	561,691.02
800.00	9.00	193.70	798.77	-22.84	-5.57	3.00	23.51	651,641.41	561,687.93
900.00	12.00	193.70	897.08	-40.55	-9.88	3.00	41.74	651,623.70	561,683.62
1,000.00	15.00	193.70	994.31	-63.23	-15.41	3.00	65.08	651,601.02	561,678.09
1,100.00	18.00	193.70	1,090.18	-90.82	-22.13	3.00	93.48	651,573.43	561,671.37
1,200.00	21.00	193.70	1,184.43	-123.25	-30.03	3.00	126.85	651,541.00	561,663.47
1,203.24	21.10	193.70	1,187.46	-124.38	-30.31	3.00	128.02	651,539.87	561,663.19
Begin 21.10° tangent section									
1,300.00	21.10	193.70	1,277.73	-158.21	-38.56	0.00	162.84	651,506.04	561,654.94
1,400.00	21.10	193.70	1,371.03	-193.19	-47.08	0.00	198.84	651,471.06	561,646.42
1,500.00	21.10	193.70	1,464.32	-228.16	-55.60	0.00	234.84	651,436.09	561,637.90
1,600.00	21.10	193.70	1,557.62	-263.13	-64.12	0.00	270.83	651,401.12	561,629.38
1,700.00	21.10	193.70	1,650.92	-298.10	-72.65	0.00	306.83	651,366.15	561,620.85
1,800.00	21.10	193.70	1,744.22	-333.07	-81.17	0.00	342.82	651,331.18	561,612.33
1,900.00	21.10	193.70	1,837.51	-368.05	-89.69	0.00	378.82	651,296.20	561,603.81
2,000.00	21.10	193.70	1,930.81	-403.02	-98.21	0.00	414.81	651,261.23	561,595.29
2,100.00	21.10	193.70	2,024.11	-437.99	-106.74	0.00	450.81	651,226.26	561,586.76
2,200.00	21.10	193.70	2,117.40	-472.96	-115.26	0.00	486.80	651,191.29	561,578.24
2,300.00	21.10	193.70	2,210.70	-507.93	-123.78	0.00	522.80	651,156.32	561,569.72



Standard\_Report

Company: Lime Rock Resources  
Project: Eddy County, New Mexico NAD83  
Site: Eagle 34K Federal  
Well: Eagle 34K Federal Well No. 77  
Wellbore: Original hole  
Design: rev0

Local Co-ordinate Reference: Well Eagle 34K Federal Well No. 77  
TVD Reference: RKB=3564.5+12.8 @ 3577.30usft  
MD Reference: RKB=3564.5+12.8 @ 3577.30usft  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: DB Jul2216dt

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	V. Sec (usft)	Northing (usft)	Easting (usft)
2,301.97	21.10	193.70	2,212.54	-508.62	-123.95	0.00	523.51	651,155.63	561,569.55
Begin 3°/100' drop									
2,400.00	18.16	193.70	2,304.86	-540.61	-131.74	3.00	556.43	651,123.64	561,561.76
2,500.00	15.16	193.70	2,400.66	-568.46	-138.53	3.00	585.09	651,095.79	561,554.97
2,600.00	12.16	193.70	2,497.82	-591.39	-144.12	3.00	608.70	651,072.86	561,549.38
2,700.00	9.16	193.70	2,596.08	-609.36	-148.50	3.00	627.19	651,054.89	561,545.00
2,800.00	6.16	193.70	2,695.18	-622.30	-151.65	3.00	640.51	651,041.95	561,541.85
2,900.00	3.16	193.70	2,794.84	-630.18	-153.57	3.00	648.63	651,034.07	561,539.93
3,000.00	0.16	193.70	2,894.78	-632.99	-154.26	3.00	651.52	651,031.26	561,539.24
3,005.22	0.00	193.70	2,900.00	-633.00	-154.26	3.00	651.53	651,031.25	561,539.24
Begin vertical hold section									
3,100.00	0.00	0.00	2,994.78	-633.00	-154.26	0.00	651.53	651,031.25	561,539.24
3,200.00	0.00	0.00	3,094.78	-633.00	-154.26	0.00	651.53	651,031.25	561,539.24
3,300.00	0.00	0.00	3,194.78	-633.00	-154.26	0.00	651.53	651,031.25	561,539.24
3,400.00	0.00	0.00	3,294.78	-633.00	-154.26	0.00	651.53	651,031.25	561,539.24
3,500.00	0.00	0.00	3,394.78	-633.00	-154.26	0.00	651.53	651,031.25	561,539.24
3,600.00	0.00	0.00	3,494.78	-633.00	-154.26	0.00	651.53	651,031.25	561,539.24
3,700.00	0.00	0.00	3,594.78	-633.00	-154.26	0.00	651.53	651,031.25	561,539.24
3,800.00	0.00	0.00	3,694.78	-633.00	-154.26	0.00	651.53	651,031.25	561,539.24
3,900.00	0.00	0.00	3,794.78	-633.00	-154.26	0.00	651.53	651,031.25	561,539.24
4,000.00	0.00	0.00	3,894.78	-633.00	-154.26	0.00	651.53	651,031.25	561,539.24
4,100.00	0.00	0.00	3,994.78	-633.00	-154.26	0.00	651.53	651,031.25	561,539.24
4,200.00	0.00	0.00	4,094.78	-633.00	-154.26	0.00	651.53	651,031.25	561,539.24
4,300.00	0.00	0.00	4,194.78	-633.00	-154.26	0.00	651.53	651,031.25	561,539.24
4,400.00	0.00	0.00	4,294.78	-633.00	-154.26	0.00	651.53	651,031.25	561,539.24
4,500.00	0.00	0.00	4,394.78	-633.00	-154.26	0.00	651.53	651,031.25	561,539.24
4,600.00	0.00	0.00	4,494.78	-633.00	-154.26	0.00	651.53	651,031.25	561,539.24



# Standard\_Report

**Company:** Lime Rock Resources  
**Project:** Eddy County, New Mexico NAD83  
**Site:** Eagle 34K Federal  
**Well:** Eagle 34K Federal Well No. 77  
**Wellbore:** Original hole  
**Design:** rev0

**Local Co-ordinate Reference:** Well Eagle 34K Federal Well No. 77  
**TVD Reference:** RKB=3564.5+12.8 @ 3577.30usft  
**MD Reference:** RKB=3564.5+12.8 @ 3577.30usft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** DB Jul2216dt

## Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	V. Sec (usft)	Northing (usft)	Easting (usft)
4,700.00	0.00	0.00	4,594.78	-633.00	-154.26	0.00	651.53	651,031.25	561,539.24
4,800.00	0.00	0.00	4,694.78	-633.00	-154.26	0.00	651.53	651,031.25	561,539.24
4,855.22	0.00	0.00	4,750.00	-633.00	-154.26	0.00	651.53	651,031.25	561,539.24
PBHL/TD									

## Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,283.14	1,262.00	Grayburg		0.00	
3,113.22	3,008.00	Yeso		0.00	
311.00	311.00	Seven Rivers		0.00	
837.76	836.00	Queen		0.00	
75.00	75.00	Yates		0.00	
1,533.95	1,496.00	Premier		0.00	
4,403.22	4,298.00	Tubb		0.00	
3,005.22	2,900.00	Glorieta		0.00	
1,590.76	1,549.00	San Andres		0.00	

## Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
500.00	500.00	0.00	0.00	KOP Begin 3°/100' build
1,203.24	1,187.46	-124.38	-30.31	Begin 21.10° tangent section
2,301.97	2,212.54	-508.62	-123.95	Begin 3°/100' drop
3,005.22	2,900.00	-633.00	-154.26	Begin vertical hold section
4,855.22	4,750.00	-633.00	-154.26	PBHL/TD



JAN 23 2017

# **PECOS DISTRICT CONDITIONS OF APPROVAL**

RECEIVED

OPERATOR'S NAME:	Lime Rock Resources II-A, L.P.
LEASE NO.:	NMLC-067849
WELL NAME & NO.:	Eagle 34 K Federal 77
SURFACE HOLE FOOTAGE:	2405'FSL & 2440'FWL
BOTTOM HOLE FOOTAGE	
LOCATION:	Section 34 , T. 17 S., R. 27 E., NMPM
COUNTY:	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
- ☐ **Construction**
  - Notification
  - Topsoil
  - Closed Loop System
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- ☐ **Road Section Diagram**
- ☒ **Production (Post Drilling)**
  - Well Structures & Facilities
  - Pipelines
- ☐ **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:**

1. 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.
2. 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.
3. 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/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 pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the pad

#### **Closed Mud System Using Steel Tanks with All Fluids and Cuttings Hauled Off.**

A closed mud system using steel tanks for all cuttings and fluids is required. All fluids and cuttings will be hauled off site for disposal. No pits are allowed.

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

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

**Leak Detection System:**

A method of detecting leaks is required. The method could incorporate gauges to measure loss, siting 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.

## **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**

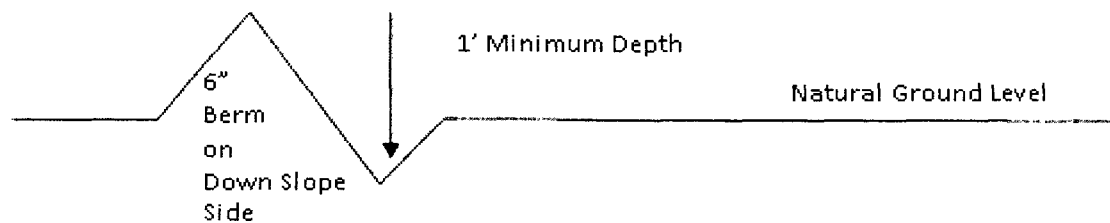
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

**Drainage**

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill out sloping 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

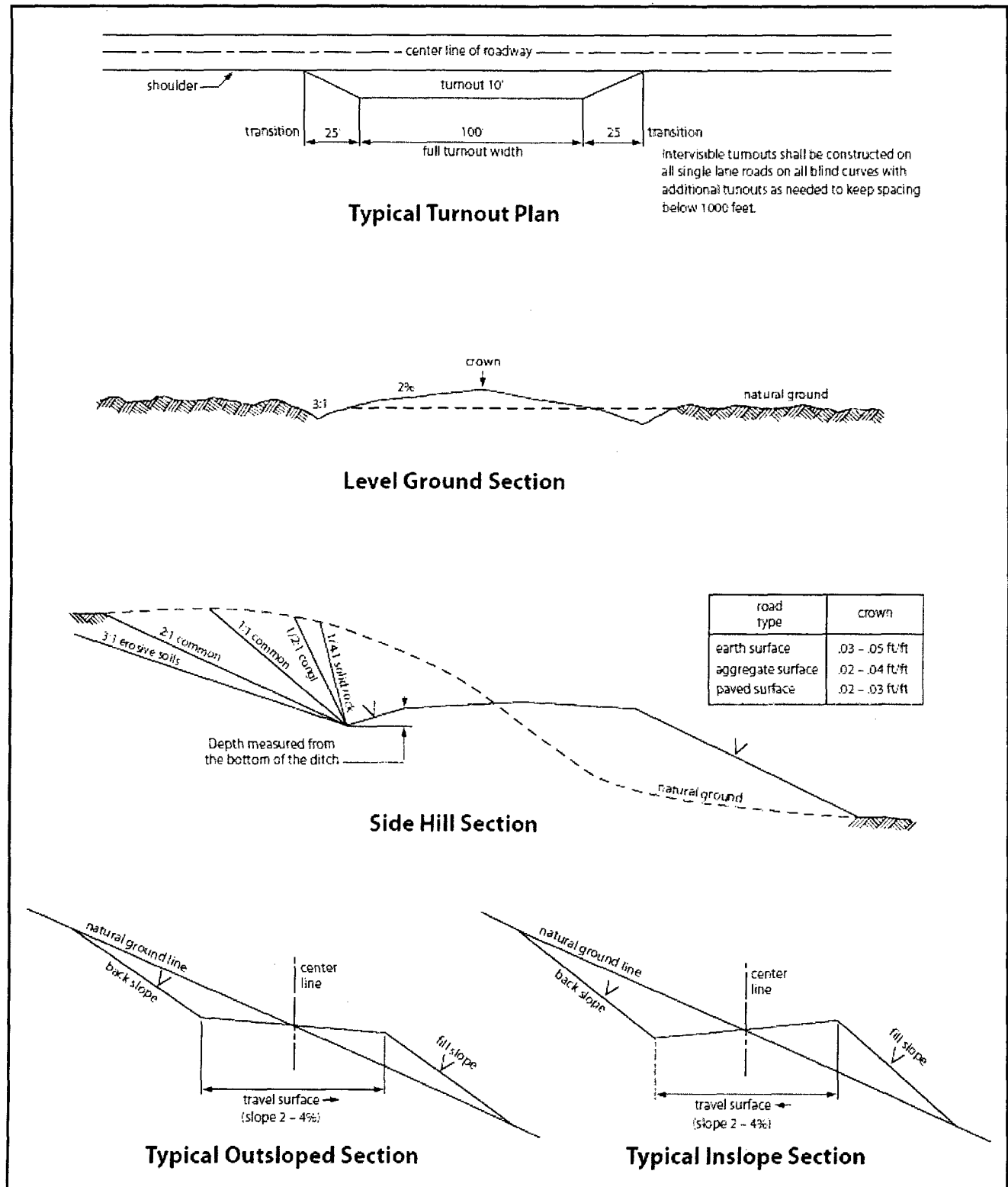


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.



## **VII. 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**

#### **STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES**

**A copy of the Grant and attachments, including stipulations, survey plat(s) and/or map(s), shall be on location during construction. BLM personnel may request to review 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. 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. Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, Holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC § 2601 *et seq.* (1982) with regard 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 in particular, 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. 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 activity of 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 provision applies without regard to whether a release is caused by Holder, its agent, or unrelated third parties.

4. Holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. Holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

- a. Activities of Holder including, but not limited to: construction, operation, maintenance, and termination of the facility;
- b. Activities of other parties including, but not limited to:
  - (1) Land clearing
  - (2) Earth-disturbing and earth-moving work
  - (3) Blasting
  - (4) Vandalism and sabotage;

c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars (\$1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, 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, salt water, 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/she 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 Holder. Such action by the Authorized Officer shall not relieve Holder of any responsibility as provided herein.

6. All construction and maintenance activity shall be confined to the authorized right-of-way width of 20 feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline shall be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline shall be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity shall be confined to existing roads or right-of-ways.

7. No blading or clearing of any vegetation shall be allowed unless approved in writing by the Authorized Officer.

8. Holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of dune areas, the pipeline shall be "snaked" around hummocks and dunes rather than suspended across these features.
9. The pipeline shall be buried with a minimum of 24 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.
10. 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.
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. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.
13. 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. Signs will be maintained in a legible condition for the life of the pipeline.
14. 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. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.
15. 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 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.

16. 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, powerline 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.

17. Surface pipelines shall be less than or equal to 4 inches and a working pressure below 125 psi.

## **VIII. 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