

OCD Artesia

14-693

TES  
8-9-2014

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

5. Lease Serial No.  
NMNM17224

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No.  
RUSTLER BLUFF 19 24 29 FED #3H

9. API Well No.  
30-015-42593

10. Field and Pool, or Exploratory  
PIERCE CROSSING BONE SPRING

11. Sec., T. R. M. or Blk. and Survey or Area  
SEC 19, T24S, R29E, UL: N

12. County or Parish  
EDDY

13. State  
NM

1a. Type of work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator CHEVRON U.S.A. INC.

3a. Address 15 SMITH ROAD  
MIDLAND, TEXAS 79705

3b. Phone No. (include area code)  
432-687-7375

4. Location of Well (Report location clearly and in accordance with any State requirements\*)

At surface 330' FSL, & 1490' FWL

At proposed prod. zone 330' FNL, & 1490' FWL

UNORTHODOX  
LOCATION

14. Distance in miles and direction from nearest town or post office\*  
1.3 MILES FROM MALAGA, NEW MEXICO

15. Distance from proposed\* location to nearest property or lease line, ft.  
(Also to nearest drig. unit line, if any)  
330' FSL, 170' N of Filed

16. No. of acres in lease  
959.1

17. Spacing Unit dedicated to this well  
160

18. Distance from proposed location\* to nearest well, drilling, completed, applied for, on this lease, ft.  
2550' TO COG MONGO FED 25-1

19. Proposed Depth  
TVD: 12,869'  
MD: 8420'

20. BLM/BIA Bond No. on file  
CA0329

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
2918' GL

22. Approximate date work will start\*

23. Estimated duration

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must be attached to this form:

- 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 must 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 *Denise Pinkerton*  
Title REGULATORY SPECIALIST

Name (Printed/Typed)  
DENISE PINKERTON

Date  
04/03/2014

Approved by *Steve Caffey*

Name (Printed/Typed)

Date  
AUG 12 2014

Title  
FIELD MANAGER

Office  
CARLSBAD FIELD OFFICE

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.

(Continued on page 2)

\*(Instructions on page 2)

Carlsbad Controlled Water Basin

NM OIL CONSERVATION  
ARTESIA DISTRICT

AUG 19 2014

RECEIVED

Approval Subject to General Requirements  
& Special Stipulations Attached

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

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 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 a false statement.

Executed this 28 day of March, 2014

Name: K. Wojtasek  
Kelly Wojtasek - Project Manager

Address: 1400 Smith Street, 40039  
Houston, TX 77027

Office 713-372-9691

E-mail: kellyanne@chevron.com

HOLLAND & HART<sup>LLP</sup>



**Michael H. Feldewert**  
Recognized Specialist in the Area of  
Natural Resources - oil and gas law -  
New Mexico Board of Legal  
Specialization  
mfeldewert@hollandhart.com

April 29, 2014

**VIA CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

**TO: Affected Parties**

**Re: Application of Chevron U.S.A., Inc. for administrative approval of an unorthodox well location for its Rustler Bluff 19 24 19 Federal 3H Well to be located in Section 19, Township 24 South, Range 29 East, N.M.P.M., Eddy County, New Mexico.**

Ladies and Gentlemen:

Enclosed is a copy of the above-referenced application which was filed with the New Mexico Oil Conservation Division on April 29, 2014 by Chevron U.S.A., Inc. for administrative approval of an unorthodox well location for its Rustler Bluff 19 24 19 Federal 3H well to be located in Section 19, Township 24 South, Range 29 East, N.M.P.M., Eddy County, New Mexico. This well will be drilled from a surface location 330 feet from the South line and 1490 feet from the West line (Unit N) with a bottom hole location 330 feet from the North line and 1490 feet from the West line (Unit C). Since this acreage is governed by the Division's statewide rules which provides for wells to be located no closer than 330 feet to the outer boundary of the spacing unit, the completed interval for this well will be unorthodox because it is closer than 330 feet to the Western boundary and, therefore, outside of the producing area.

As an owner of an offsetting interest that may be affected by the well, you may object to this application. Objections must be filed in writing within twenty days from this date at the Divisions Santa Fe office that is located at 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. If no objection is received within this twenty-day period, this application for an unorthodox well location may be approved.

If you have any questions about this application, please contact Dane Maxwell at [Dane.Maxwell@chevron.com](mailto:Dane.Maxwell@chevron.com) or (713) 372-0466.

Sincerely,

Michael H. Feldewert  
ATTORNEY FOR CHEVRON U.S.A., INC.

**Holland & Hart LLP**

Phone [505] 988-4421 Fax [505] 983-6043 [www.hollandhart.com](http://www.hollandhart.com)

110 North Guadalupe Suite 1 Santa Fe, NM 87501 Mailing Address P.O. Box 2208 Santa Fe, NM 87504-2208  
Aspen Billings Boise Boulder Cheyenne Colorado Springs Denver Denver Tech Center Jackson Hole Salt Lake City Santa Fe Washington, D.C. ☻

# Exhibit A-Z

**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 83210  
Phone: (575) 743-1283 Fax: (575) 743-9720  
**District III**  
1009 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-015-42593</b>	<sup>2</sup> Pool Code <b>50371</b>	<sup>3</sup> Pool Name <b>Pierce Crossing, Bone Spring</b>
<sup>4</sup> Property Code <b>313594</b>	<sup>5</sup> Property Name <b>RUSTLER BLUFF 19 24 29 FEDERAL</b>	
<sup>7</sup> OGRID No. <b>4323</b>	<sup>8</sup> Operator Name <b>CHEVRON U.S.A. INC.</b>	<sup>6</sup> Well Number <b>3H</b>
		<sup>9</sup> Elevation <b>2918'</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
N	19	24 SOUTH	29 EAST, N.M.P.M.		330'	SOUTH	1490'	WEST	EDDY

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

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	19	24 SOUTH	29 EAST, N.M.P.M.		330'	NORTH	1490'	WEST	EDDY

<sup>12</sup> Dedicated Acres <b>1.60</b>	<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.

	<b>PROPOSED BOTTOM HOLE LOCATION</b> X= 594,772 NAD 27 Y= 440,014 LAT. 32.209345 LONG. 104.026913 X= 635,956 NAD83 Y= 440,073 LAT. 32.209468 LONG. 104.027403	<b><sup>17</sup> OPERATOR CERTIFICATION</b> 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. Signature: <b>Denise Pinkerton</b> Date: <b>04/02/2014</b> Printed Name: <b>Denise Pinkerton</b> E-mail Address: <b>Lea.Kejda@Chevron.com</b>
	<b>RUSTLER BLUFF 19 24 29 FEDERAL NO.3H WELL</b> X= 594,822 NAD 27 Y= 435,360 LAT. 32.196550 LONG. 104.026797 X= 636,006 NAD83 Y= 435,418 LAT. 32.196672 LONG. 104.027266 ELEVATION +2918' NAVD 88	<b><sup>18</sup> SURVEYOR CERTIFICATION</b> 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. Date of Survey: <b>Nov 7 2014</b> Signature and Seal of Professional Surveyor: <b>Wm. J. Daniel III</b> <b>NEW MEXICO</b> <b>REGISTERED PROFESSIONAL SURVEYOR</b> <b>15078</b> Certificate Number: <b>15078</b>

<b>NW PAD CRN.</b>	<b>NW FLARE CORNER</b>	<b>NW PAD ARCH. AREA CRN.</b>	<b>RUSTLER BLUFF 19 24 29 FEDERAL NO. 3H WELL</b>
X= 594,627 NAD 27 Y= 435,585	X= 595,316 NAD 27 Y= 436,505	X= 594,512 NAD 27 Y= 435,708	X= 594,822 NAD 27 Y= 435,360
ELEVATION +2918' NAVD 88	ELEVATION +2931' NAVD 88	ELEVATION +2920' NAVD 88	LAT. 32.196550 LONG. 104.026797
<b>NE PAD CRN.</b>	<b>NE FLARE CORNER</b>	<b>NE PAD ARCH. AREA CRN.</b>	X= 594,997 NAD 27 Y= 435,585
X= 594,997 NAD 27 Y= 435,585	X= 595,382 NAD 27 Y= 436,465	X= 595,112 NAD 27 Y= 435,708	X= 594,822 NAD 27 Y= 435,360
ELEVATION +2921' NAVD 88	ELEVATION +2931' NAVD 88	ELEVATION +2927' NAVD 88	LAT. 32.196672 LONG. 104.027286
<b>SE PAD CRN/NE TOP SOIL AREA CORNER</b>	<b>SE FLARE CORNER</b>	<b>SE PAD ARCH. AREA CRN.</b>	ELEVATION +2918' NAVD 88
X= 594,996 NAD 27 Y= 435,235	X= 595,323 NAD 27 Y= 436,420	X= 595,111 NAD 27 Y= 435,108	
ELEVATION +2917' NAVD 88	ELEVATION +2929' NAVD 88	ELEVATION +2914' NAVD 88	
<b>SW PAD CRN/NW TOP SOIL AREA CORNER</b>	<b>SW FLARE CORNER</b>	<b>SW PAD ARCH. AREA CRN.</b>	
X= 594,627 NAD 27 Y= 435,235	X= 595,277 NAD 27 Y= 436,459	X= 594,511 NAD 27 Y= 435,108	
ELEVATION +2915' NAVD 88	ELEVATION +2930' NAVD 88	ELEVATION +2912' NAVD 88	
<b>SE TOP SOIL CORNER</b>	<b>NW FRAC POND CORNER</b>		
X= 594,996 NAD 27 Y= 435,195	X= 595,454 NAD 27 Y= 436,329		
<b>SW TOP SOIL CORNER</b>	<b>NE FRAC POND CORNER</b>		
X= 594,627 NAD 27 Y= 435,195	X= 595,689 NAD 27 Y= 436,112		
<b>NW FACILITY PAD CRN.</b>	ELEVATION +2927' NAVD 88		
X= 595,227 NAD 27 Y= 436,371	<b>SE FRAC POND CORNER</b>		
ELEVATION +2928' NAVD 88	X= 595,486 NAD 27 Y= 435,892		
<b>NE FACILITY PAD CRN.</b>	ELEVATION +2929' NAVD 88		
X= 595,371 NAD 27 Y= 436,247	<b>SW FRAC POND CORNER</b>		
ELEVATION +2926' NAVD 88	X= 595,252 NAD 27 Y= 436,108		
<b>SE FACILITY PAD CRN.</b>	ELEVATION +2924' NAVD 88		
X= 595,205 NAD 27 Y= 436,053			
ELEVATION +2923' NAVD 88			
<b>SW FACILITY PAD CRN.</b>			
X= 595,060 NAD 27 Y= 436,177			
ELEVATION +2923' NAVD 88			

R 29 E

FOR THE EXCLUSIVE USE OF  
CHEVRON U.S.A. INC.  
I, WM. J. Daniel III, Registered Professional  
Land Surveyor, do hereby state this plat is true  
and correct to the best of my knowledge.

Not to be used for construction, bidding,  
recording, conveyance, sales, or as the  
basis for the issuance of a permit.

**PRELIMINARY**

WM. J. Daniel III  
Registration No. 15078

T  
24  
S

Sec. 19

Bureau of Land Management  
(Total Proposed Access) ±2,627.33'  
±0.85 Acres, ±159.23 Rods

Existing 10' Wide  
Dirt Road

PROPOSED  
FLARE PAD  
±0.11 Acres

PROPOSED ACCESS  
ROAD 14' X ±1,952.91'  
±0.63 Acres  
±118.36 Rods

PROPOSED  
FACILITY PAD  
±1.11 Acres

PROPOSED  
ACCESS ROAD  
14' X ±674.42'  
±0.22 Acres  
±40.87 Rods

PROPOSED  
FRAC POND  
±2.20 Acres

Rustler Bluff 19 24 29  
Federal  
No. 3H Well  
FSL=330'  
FWL=1490'

PROPOSED PAD  
ARCHAEOLOGICAL  
AREA  
±5.46 Acres

PROPOSED PAD  
±2.80 Acres

PROPOSED TOP  
SOIL AREA  
±0.34 Acres

LEGEND

□ Proposed Well  
--- Section Line  
--- Existing Road

Sec. 30

State of New Mexico

DISCLAIMER: At this time, C.H. Fenstermaker & Associates, LLC has not performed nor was asked to perform any type of engineering, hydrological modeling, flood plain, or "No Rise" certification analyses, including but not limited to determining whether the project will impact flood hazards in connection with federal/FEMA, state, and/or local laws, ordinances and regulations. Accordingly, Fenstermaker makes no warranty or representation of any kind as to the foregoing issues, and persons or entities using this information shall do so at their own risk.

NOTE:

Please be advised, that while reasonable efforts are made to locate and verify pipelines and anomalies using our standard pipeline locating equipment, it is impossible to be 100% effective. As such, we advise using caution when performing work as there is a possibility that pipelines and other hazards, such as fiber optic cables, PVC pipelines, etc. may exist undetected on site.

NOTE:

Many states maintain information centers that establish links between those who dig (excavators) and those who own and operate underground facilities (operators). It is advisable and in most states, law, for the contractor to contact the center for assistance in locating and marking underground utilities. For guidance, New Mexico One Call System - [www.nmonecall.com](http://www.nmonecall.com).

CHEVRON U.S.A INC.

PROPOSED PAD, ACCESS ROADS, FACILITY PAD, FLARE PAD & FRAC POND  
RUSTLER BLUFF 19 24 29 FEDERAL NO. 3H WELL  
SECTION 19, T24S-R29E  
EDDY COUNTY, NEW MEXICO



135 Regency Sq. Lafayette, LA 70508  
Ph. 337-237-2200 Fax. 337-232-3299  
[www.fenstermaker.com](http://www.fenstermaker.com)

SCALE 1" = 300'  
300' 0 150' 300'

DRAWN BY: GDG	REVISIONS		
PROJ. MGR.: GDG	No. 4	DATE: 03/03/2014	REVISED BY: GDG
DATE: 12/31/2013	No. 5	DATE: 04/14/2014	REVISED BY: BMO
FILENAME: T:\2013\132453\DWG\Rustler Bluff 19-24-29 Federal 3H SUP.dwg			

"Exhibit A2"

**NOTE:**

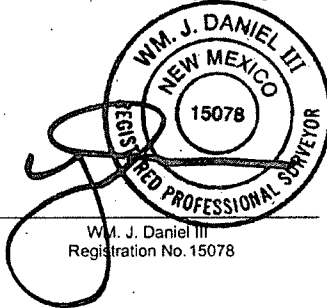
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FOR THE EXCLUSIVE USE OF  
CHEVRON U.S.A. INC.  
I, WM. J. DANIEL III, Registered Professional  
Land Surveyor, do hereby state this plat is true  
and correct to the best of my knowledge.



Wm. J. Daniel III  
Registration No. 15078

PROPOSED FLOWLINE  
±770.09', ±46.67 Rods

POINT OF BEGINNING  
(NAD 27)  
X= 594,957.37  
Y= 435,564.90

To Point of  
Commencement/  
Fnd. Concrete  
Monument

N 71° 35' 13" E  
1,708.72'

Proposed Pad for  
Rustler Bluff  
19 24 29 Federal  
No. 3H Well  
□



Proposed  
Facility Pad

POINT OF ENDING  
(NAD 27)  
X= 595,127.23  
Y= 436,119.79

R 29 E

Proposed  
Frac Pond

Proposed Access Road  
for Rustler Bluff 19 24  
29 Federal 3H

Sec. 19

Bureau of Land  
Management

T  
24  
S

COURSE	BEARING	DISTANCE
1	N 11° 16' 00" E	228.90'
2	N 00° 02' 45" W	258.01'
3	N 89° 57' 27" E	174.26'
4	N 45° 03' 59" E	21.11'
5	N 49° 24' 43" W	85.81'
6	N 40° 35' 17" E	2.00'

**METES AND BOUNDS DESCRIPTION OF A  
PROPOSED FLOWLINE LOCATED IN  
SECTION 19 OF T24S-R29E  
EDDY COUNTY, NEW MEXICO**

RUSTLER BLUFF 19 24 29 FEDERAL NO. 3H FLOWLINE  
SURVEY OF A PROPOSED FLOWLINE 770.09 FEET OR 46.67 RODS IN LENGTH CROSSING BUREAU  
OF LAND MANAGEMENT LAND IN SECTION 19 OF TOWNSHIP 24 SOUTH RANGE 29 EAST, EDDY  
COUNTY, NEW MEXICO.

COMMENCING AT THE SOUTHWEST CORNER OF SAID SECTION 19 TOWNSHIP 24 SOUTH RANGE  
29 EAST AT A FOUND CONCRETE MONUMENT; THENCE NORTH 71 DEGREES 35 MINUTES 13  
SECONDS EAST 1708.72 FEET TO THE POINT OF BEGINNING, SAID POINT OF BEGINNING HAVING  
THE FOLLOWING COORDINATES: X= 594,957.37 Y= 435,564.90 (NEW MEXICO STATE PLANE  
COORDINATE SYSTEM, EAST ZONE, NAD 27).

THENCE NORTH 11 DEGREES 16 MINUTES 01 SECONDS EAST 228.90 FEET;  
THENCE NORTH 00 DEGREES 02 MINUTES 45 SECONDS WEST 258.01 FEET;  
THENCE NORTH 89 DEGREES 57 MINUTES 27 SECONDS EAST 174.26 FEET;  
THENCE NORTH 45 DEGREES 03 MINUTES 59 SECONDS EAST 21.11 FEET;  
THENCE NORTH 49 DEGREES 24 MINUTES 43 SECONDS WEST 85.81 FEET;  
THENCE NORTH 40 DEGREES 35 MINUTES 17 SECONDS EAST 2.00 FEET TO THE POINT OF  
ENDING. SAID POINT OF ENDING HAVING THE FOLLOWING COORDINATES: X= 595,127.23,  
Y= 436,119.79 (NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD 27).  
THE BEARINGS RECITED HEREON ARE ORIENTED TO NEW MEXICO STATE PLANE COORDINATE  
SYSTEM, EAST ZONE, NAD 27.

THIS DESCRIPTION REPRESENTS A SURVEY MADE ON THE GROUND FOR A RIGHT OF WAY  
EASEMENT AND INTENDED SOLELY FOR THAT PURPOSE. THIS DESCRIPTION DOES NOT  
REPRESENT A BOUNDARY SURVEY.

SURFACE USE PLAT

Scale: 1"=100'

100' 0 50' 100'

**CHEVRON U.S.A. INC.**  
PROPOSED FLOWLINE  
RUSTLER BLUFF 19 24 29 FEDERAL NO. 3H WELL  
SECTION 19, T24S-R29E  
EDDY COUNTY, NEW MEXICO



135 Regency Sq. Lafayette, LA 70508  
Ph. 337-237-2200 Fax. 337-232-3299  
[www.fenstermaker.com](http://www.fenstermaker.com)

DRAWN BY: BMO

REVISIONS

PROJ. MGR.: GDG

No.

DATE:

REVISED BY:

DATE: MAY 05, 2014

No.

DATE:

REVISED BY:

FILENAME: T:\2013\2132453\DWG\Rustler Bluff 19 24 29 Federal 3H FLOWLINE.dwg

"Exhibit F"

This is a detailed topographic map of the New Mexico East Zone. The map features a grid system with coordinates ranging from 2920 to 2980 on the horizontal axis and 2920 to 2980 on the vertical axis. Contour lines are drawn at 10-foot intervals, with major contours labeled every 100 feet (e.g., 2900, 2910, 2920, 2930, 2940, 2950, 2960, 2970, 2980). Elevation points are marked with 'x' and numerical values (e.g., 29441, 29461, 29481, 29501, 29521, 29541, 29561, 29581, 29601, 29621, 29641, 29661, 29681, 29701, 29721, 29741, 29761, 29781, 29801). The map also shows various geographical features, including a river labeled 'RIVER' in the upper right, a 'LEVEE' in the lower left, and a 'SALT' flat area in the lower right. A north arrow is located in the bottom left corner, and a scale bar is provided below it. The map is titled 'NAD 27 NEW MEXICO EAST ZONE' in the bottom left corner.

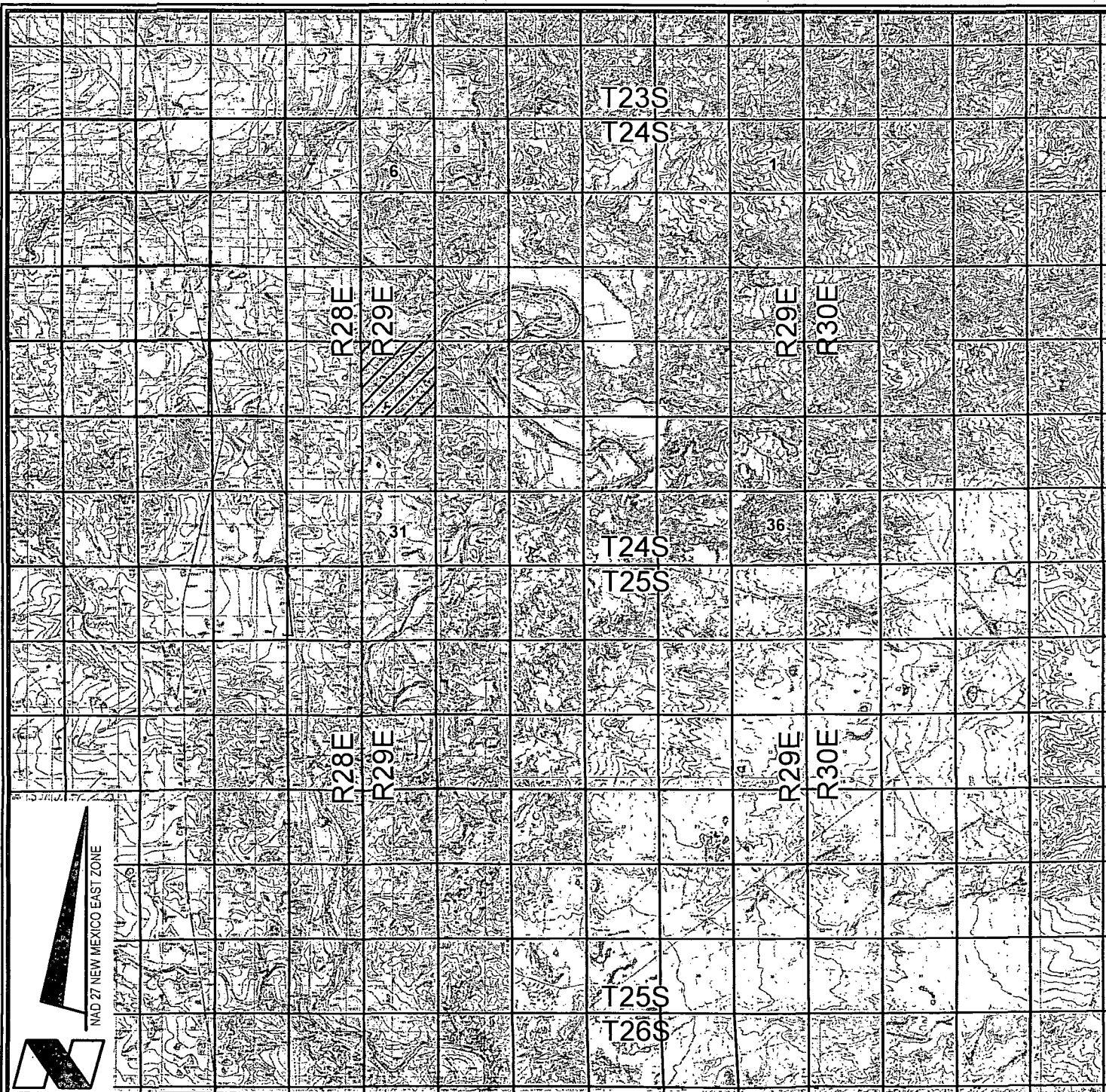
2,000' 0 1,000' 2,000'

Scale: 1" = 2,000'

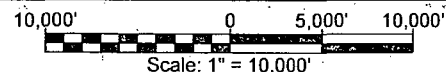
EDDY COUNTY, NEW MEXICO



FILENAME: T:\2013\2132453\DWG\Rustler Bluff 19-24-29 Federal 3H APD.dwg



VICINITY MAP



**CHEVRON U.S.A. INC.**

LOCATED 330' FSL AND 1490' FWL

**RUSTLER BLUFF 19 24 29 FEDERAL NO. 3H WELL**

**SECTION 19, T24S-R29E**

**EDDY COUNTY, NEW MEXICO**



Lafayette New Orleans Houston  
135 Regency Sq. Lafayette, LA 70508  
Ph. 337-237-2200 Fax. 337-232-3299  
[www.fenstermaker.com](http://www.fenstermaker.com)

DRAWN BY: VHV

PROJ. MGR.: GDG

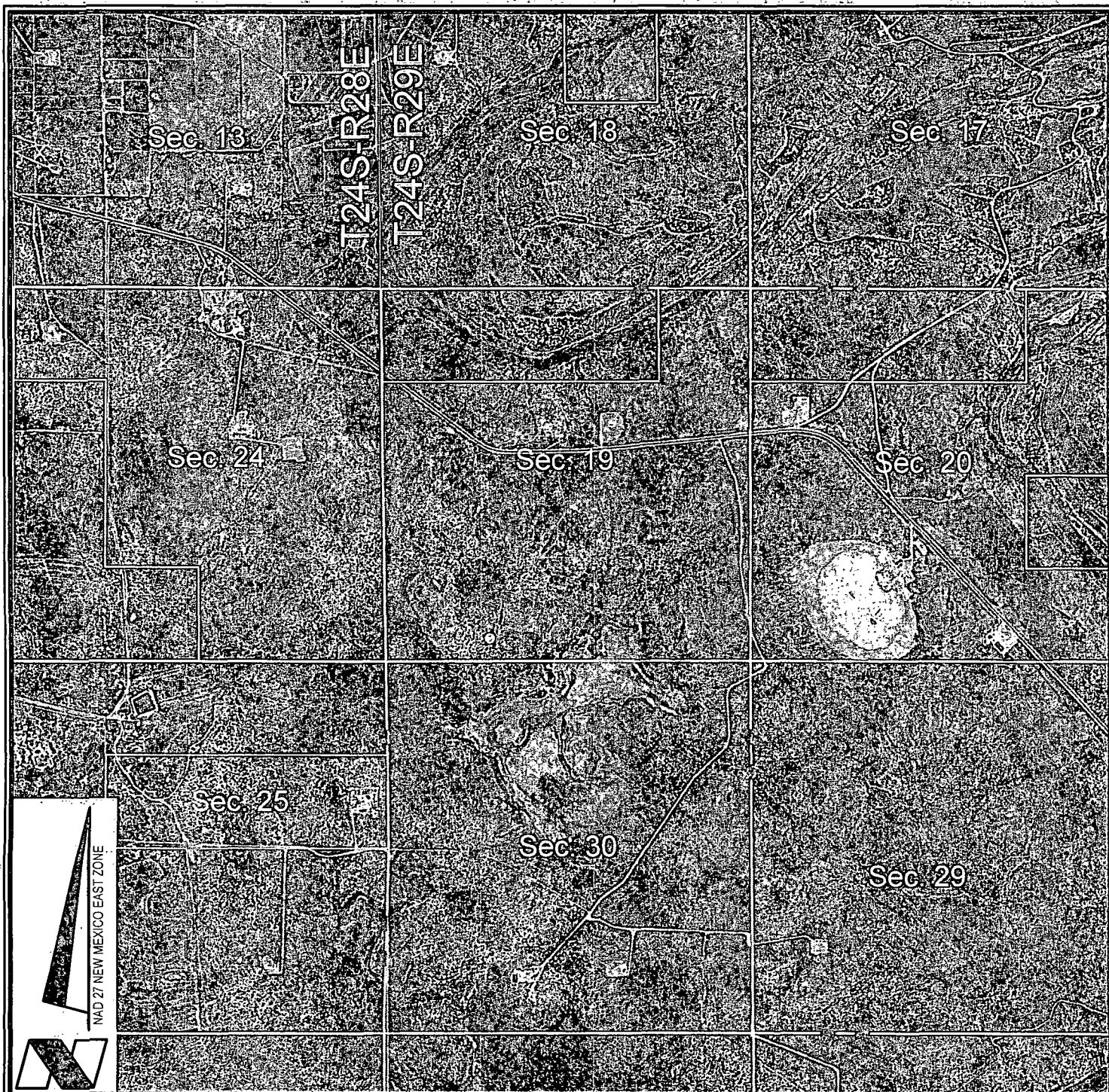
FILENAME: T:\2013\2132453\DWG\Rustler Bluff 19-24-29 Federal 3H APD.dwg

REVISED: 01/23/2014 BMO

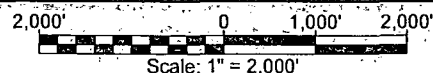
DATE: 01/02/2014




SHEET 2 OF 3 SHEETS





VICINITY MAP



-  = FEDERAL LAND
-  = FEE LAND
-  = STATE LAND

**CHEVRON U.S.A. INC.**  
 LOCATED 330' FSL AND 1490' FWL  
**RUSTLER BLUFF 19 24 29 FEDERAL NO. 3H WELL**  
 SECTION 19, T24S-R29E  
 EDDY COUNTY, NEW MEXICO



Lafayette New Orleans Houston  
 135 Regency Sq. Lafayette, LA 70508  
 Ph. 337-237-2200 Fax. 337-232-3299  
[www.fenstermaker.com](http://www.fenstermaker.com)

DRAWN BY: VHV

PROJ. MGR.: GDG

REVISED: 01/23/2014 BMO

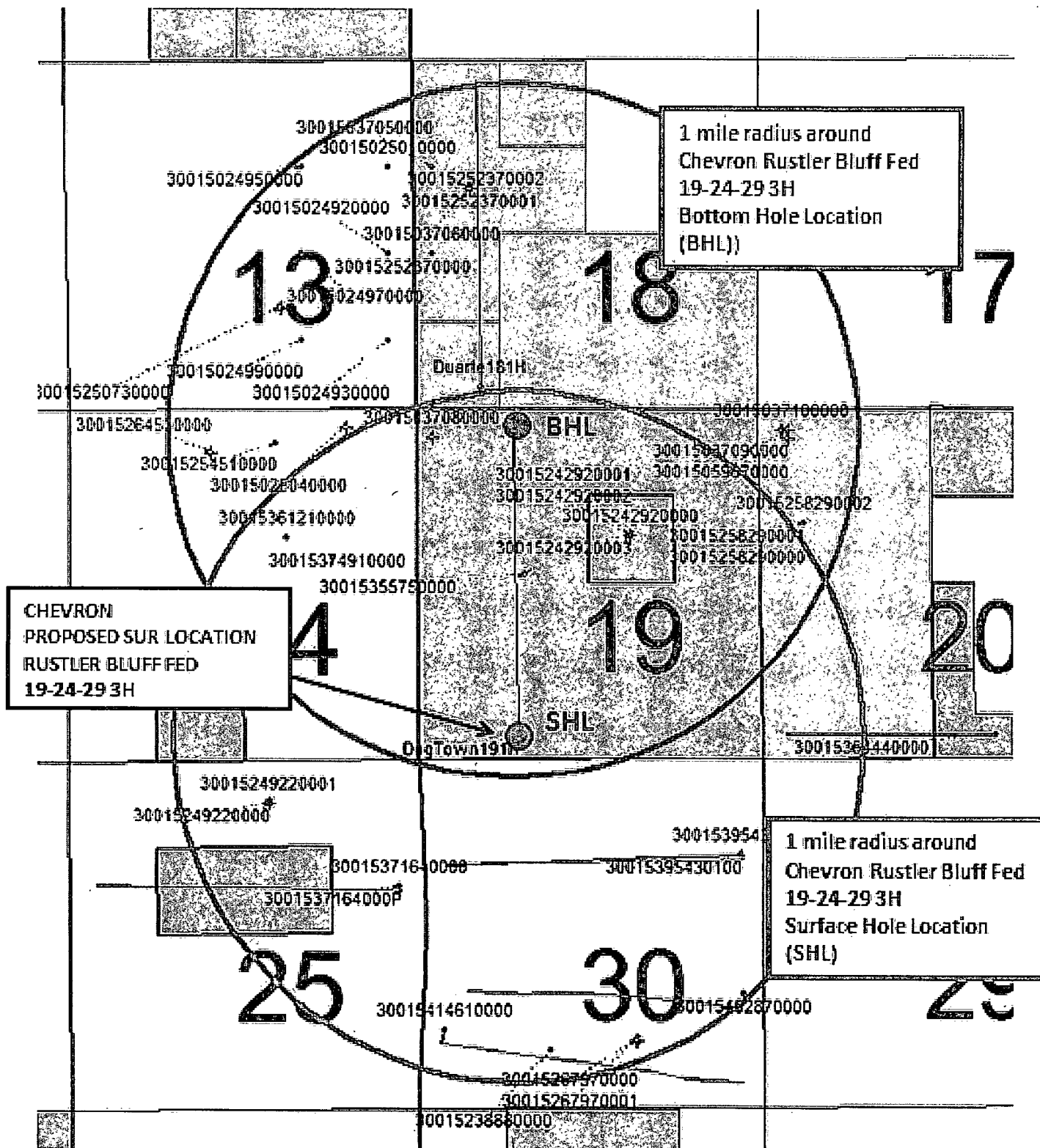
DATE: 01/02/2014

SHEET 3 OF 3 SHEETS

FILENAME: T:\2013\2132453\DWG\Rustler Bluff 19-24-29 Federal 3H APD.dwg

# Exhibit B

9-24-29-3H 1 Mile radii around surface and bottom hole location for  
Chevron Rustler Bluff Fed 19-24-29-3H



UWI (APINum)	Operator	Well Label	TWN	RNG	SEC
30015242920000	HEC PETROLEUM INCORPORATED	QUEEN LKE '19' FEDRL 1	24S	29E	19
30015242920003	CHEVRON U S A INCORPORATED	QUEEN LAKE 19 FEDER 1	24S	29E	19
30015024990000	CALVIN F TENNISON	MALAGA UNIT TR6 1	24S	28E	13
30015361210000	PPC OPERATING COMPANY LLC	JITTERBUG FEDERAL 1	24S	28E	24
30015037060000	AUSTIN GAS PURCHASING INCORPORATED	MALAGA UNIT TR11 3	24S	29E	18
30015024920000	AUSTIN GAS PURCHASING INCORPORATED	MALAGA UNIT TR8 1	24S	28E	13
30015024930000	AUSTIN GAS PURCHASING INCORPORATED	MALAGA UNIT TR7 1	24S	28E	13
30015025010000	AUSTIN GAS PURCHASING INCORPORATED	MALAGA UNIT TR9 2	24S	28E	13
30015037080000	SUNSHINE ROYALTY CO	BOB BAER 1	24S	29E	19
30015024950000	AUSTIN GAS PURCHASING INCORPORATED	MALAGA UNIT TR4 2	24S	28E	13
30015037050000	AUSTIN GAS PURCHASING INCORPORATED	MALAGA UNIT TR11 2	24S	29E	18
30015254510000	DINERO OPERATING COMPANY	DEWEY 2	24S	28E	24
30015252370001	HALLWOOD PETRLM INC	FORT '18' COM 1	24S	29E	18
30015252370000	HEC PETROLEUM INCORPORATED	FORT '18' COM 1	24S	29E	18
30015250730000	DEVON ENERGY CORPORATION	HARRISON 'CL-13' 1	24S	28E	13
30015025040000	SOUTHERN CA GAS CO	SOUTHERN CAL PET 1	24S	28E	24
30015024970000	AUSTIN GAS PURCHASING INCORPORATED	MALAGA UNIT TR5 1	24S	28E	13
30015249220001	HEC PETROLEUM INCORPORATED	CRAFT '25' COM 1	24S	28E	25
30015249220000	HEC PETROLEUM INCORPORATED	CRAFT '25' COM 1	24S	28E	25
30015267970000	NEARBURG PRODUCING COMPANY	RUBY '30' STATE COM 1	24S	29E	30
30015267970001	RSC RESOURCES LIMITED PARTNERSHIP	RUBY '30' STATE 1	24S	29E	30
30015258290002	CHEVRON U S A INCORPORATED	QUEEN LAKE '20' FED 1	24S	29E	20
30015364440000	CHEVRON U S A INCORPORATED	QUEEN LAKE 20 FEDER 2H	24S	29E	20
30015252370002	CHESAPEAKE OPERATING INCORPORATED	FORT '18' COM 1	24S	29E	18
30015258290001	QUINOCO PETRLM INC	QUEEN LAKE '20' FED 1	24S	29E	20
30015242920002	HALLWOOD PETRLM INC	QUEEN LAKE '19' FED 1	24S	29E	19
30015242920001	CHESAPEAKE OPERATING INCORPORATED	QUEEN LAKE '19' FED 1	24S	29E	19
30015258290000	QUINOCO PETROLEUM INCORPORATED	QUEEN LAKE '20' FED 1	24S	29E	20
30015355750000	CHESAPEAKE OPERG INC	QUEEN LAKE 19 FEDER 2	24S	29E	19
30015238880000	KAY JAY OIL COMPANY	MWJ STATE 1-Y	24S	29E	30
30015264530000	DINERO OPERATING CO	FEDERAL '24' COM 1	24S	28E	24
30015037090000	YORK & HARPER INC	BEAR X 1	24S	29E	20
30015037100000	MAY-FINCH	BEAR 1	24S	29E	20
30015059670000	YORK & HARPER INC	BEAR 1	24S	29E	20
30015371640000	COG PRODUCTION LLC	MONGO 25 FEDERAL CO 2H	24S	28E	25
30015374910000	PPC OPERATING COMPANY LLC	JITTERBUG FEDERAL 2	24S	28E	24
30015395430000	MURCHISON O&G INC	ROCK RIDGE FEDERAL 3H	24S	29E	30
30015395430100	MURCHISON OIL & GAS INCORPORATED	ROCK RIDGE FEDERAL 3H	24S	29E	30
3001537164000P	COG PRODUCTION LLC	MONGO 25 FEDERAL CO 2	24S	28E	25
30015402870000	MEWBOURNE OIL COMPANY	MALAGA 30 FEDERAL C 1H	24S	29E	30
30015414610000	MEWBOURNE OIL CO	MALAGA 30 MP FEDERA 1H	24S	29E	30
DogTown191H	CHEVRON U S A INCORPORATED	RUSTLER BLUFF FED 19-24-29 3H	24S	29E	19

DURING THE DRILLING OF THIS WELL, CHEVRON PROPOSES TO USE A CLOSED LOOP SYSTEM WITH A STEEL TANK AND HAUL TO THE REQUIRED DISPOSAL, PER THE OCD RULE 19.15.17.

PLEASE FIND THE FOLLOWING ATTACHMENTS:

C-102 (EXHIBIT A-2)

VICINITY MAPS (EXHIBIT A-1 through A-3)

MILE RADIUS MAP (EXHIBIT B)

DRILLING PLAN

DIRECTIONAL PLAN & PLOT

BOP SCHEMATIC

CHOKE MANIFOLD SCHEMATIC

BOPE TESTING

RIG LAYOUT/FACILITY PAD (EXHIBIT D)

SURFACE USE PLAN

OPERATOR CERTIFICATION – SIGNED

OIL & GAS MEASUREMENT SCHEMATIC (EXHIBIT C)

H2S PLAN

MISCELLANEOUS MAPS (PROPOSED PAD & ACCESS ROAD, EXISTING & PROPOSED ROW EASEMENT DETAIL, PROPOSED FLOWLINE

COFLEX HOSE TEST CERTIFICATION & CHART

WELLHEAD SCHEMATIC

NOT - PRESSURE CONTROL WELLHEAD EQPT RUNNING PROCEDURE

NEEDED

ARCH SURVEY

### 1. FORMATION TOPS

The estimated tops of important geologic markers are as follows:

FORMATION	SUB-SEA	KBTVD	MD
Rustler	2949	0	
Salado	2439	510	
Castile	1849	1100	
Lamar	261	2688	
Bell Canyon	211	2738	
Cherry Canyon	-643	3592	
Brushy Canyon	-1907	4856	
Bone Spring Limestone	-3501	6450	
Avalon	-3907	6856	
1st Bone Spring	-4441	7390	
2nd Bone Spring	-5240	8189	
Lateral TD (2nd Bone Spring)	(5,471)	8,420	12,869

### 2. ESTIMATED DEPTH OF WATER, OIL, GAS & OTHER MINERAL BEARING FORMATIONS

The estimated depths at which the top and bottom of the anticipated water, oil, gas, or other mineral bearing formations are expected to be encountered are as follows:

Substance	Formation	Depth
Deepest Expected Base of Fresh Water		350
Water	Rustler	0
Water	Bell Canyon	2738
Oil/Gas	Cherry Canyon	3592
Oil/Gas	Brushy Canyon	4856
Oil/Gas	Bone Spring Limestone	6450
Oil/Gas	Avalon	6856
Oil/Gas	1st Bone Spring	7390
Oil/Gas	2nd Bone Spring	8189

All shows of fresh water and minerals will be reported and protected.

### 3. BOP EQUIPMENT

Will have a minimum of a 5000 psi rig stack (see proposed schematic) for drill out below surface casing. Stack will be tested as specified in the attached testing requirements. Chevron requests a variance to use A coflex hose with a metal protective covering that will be utilized between the BOP and Choke manifold. Please see the attached testing and certification information.

*See also* Chevron requests a variance to use a GE/Vetco SH-2 Multibowl wellhead, which will be run through the rig floor on surface casing. BOPE will be nipped up and test after cementing surface casing. Subsequent tests will be performed as needed, not to exceed 30 days. The field report from GE/Vetco and BOP test information will be provided in a subsequent report at the end of the well. Please see the attached wellhead schematic. An installation manual has been placed on file with the BLM office and remains unchanged from previous submittal.

4. **CASING PROGRAM**

5

a. The proposed casing program will be as follows:

Purpose	From	To	Hole Size	Csg Size	Weight	Grade	Thread	Condition
Surface	0'	1,400'	17-1/2"	13-3/8"	48 #	H-40	STC	New
Intermediate	0'	26,000' 2,700'	12-1/4"	9-5/8"	40 #	HCK-55	LTC	New
Production	0'	12,869'	8-3/4"	5-1/2"	17.0 #	HCP-110	CDC	New

b. Casing design subject to revision based on geologic conditions encountered.

c. \*\*\*A "Worst Case" casing design for wells in a particular area is used below to calculate the Casing Safety Factors. If for any reason the casing design for a particular well requires setting casing deeper than the following "worst case" design, then the Casing Safety Factors will be recalculated & sent to the BLM prior to drilling.

d. Chevron will fill casing at a minimum of every 20 jts (840') while running for intermediate and production casing in order to maintain collapse SF.

**SF Calculations based on the following "Worst Case" casing design.**

Surface Casing: 1500'  
Intermediate Casing: 5300'  
Production Casing: 16,500' MD/11,500' TVD (5000' VS @ 90 deg inc)

Casing String	Min SF Burst	Min SF Collapse	Min SF Tension
Surface	1.28	1.14	1.6
Shallow Intermediate	1.28	1.25	1.6
Production	1.34	1.65	1.6

Min SF is the smallest of a group of safety factors that include the following considerations:

	Surf	Int	Prod
<b>Burst Design</b>			
Pressure Test- Surface, Int, Prod Csg P external: Water P internal: Test psi + next section heaviest mud in csg	X	X	X
Displace to Gas- Surf Csg P external: Water P internal: Dry Gas from Next Csg Point	X		
Frac at Shoe, Gas to Surf- Int Csg P external: Water P internal: Dry Gas, 15 ppg Frac Gradient		X	
Stimulation (Frac) Pressures- Prod Csg P external: Water P internal: Max inj pressure w/ heaviest injected fluid			X
Tubing leak- Prod Csg (packer at KOP) P external: Water P internal: Leak just below surf, 8.7 ppg packer fluid			X
<b>Collapse Design</b>			
Full Evacuation P external: Water gradient in cement, mud above TOC P internal: none	X	X	X
Cementing- Surf, Int, Prod Csg P external: Wet cement P internal: water	X	X	X
<b>Tension Design</b>			
100k lb overpull	X	X	X

##### 5. CEMENTING PROGRAM

Slurry	Type	Top	Bottom	Weight	Yield	%Excess	Sacks	Water
Surface				(ppg)	(sx/cu ft)	Open Hole		gal/sk
Tail	Class C+2%CaCl	0'	400'	14.8	1.36	125	472	6.39
Intermediate								
Lead	Class C+4%Gel +1%CaCl	0'	2,100'	13.7	1.68	100	724	9.72
Tail	Class C+1%CaCl	2,100'	2,700'	14.8	1.33	100	311	6.24
Production								
1st Lead	50% Class H+ 50% Silicalite +2% Gel	2,200'	7,642'	11.3	2.54	100	1034	15.07
2nd Lead	50% Class H+ 50% Silicalite +2% Gel	7,642'	11,840'	12.5	1.81	35	794	8.10
Tail	Acid Soluble Cement	11,840'	12,869'	15	2.6	0	100	11.2

1. Final cement volumes will be determined by caliper.
2. Surface casing shall have at least one centralizer installed on each of the bottom three joints starting with the shoe joint.
3. Production casing will have one horizontal type centralizer on every joint for the first 1000' from TD, then every other joint to EOB, and then every third joint to KOP. Bowspring type centralizers will be run from KOP to intermediate casing.

## 6. MUD PROGRAM

From	To	Type	Weight	F. Vis	Filtrate
0'	400'	Spud Mud	8.3 - 8.7	32 - 34	NC - NC
400'	<del>2,700'</del> 2,700'	Brine	9.5 - 10.1	28 - 29	NC - NC
<del>2,700'</del>	7,942'	FW/Cut Brine	8.3 - 9.5	28 - 29	NC - NC
7,942'	8,692'	Cut Brine	8.3 - 9.5	28 - 30	15 - 25
8,692'	12,869'	FW/Cut Brine	8.3 - 9.5	28 - 29	15 - 25

Curve

A closed system will be utilized consisting of above ground steel tanks. All wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited in an approved sanitary landfill. Sanitary wastes will be contained in a chemical porta-toilet and then hauled to an approved sanitary landfill.

All fluids and cuttings will be disposed of in accordance with New Mexico Oil Conservation Division rules and regulations.

A mud test shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.

Visual mud monitoring equipment shall be in place to detect volume changes indicating loss or gain of circulating fluid volume. When abnormal pressures are anticipated -- a pit volume totalizer (PVT), stroke counter, and flow sensor will be used to detect volume changes indicating loss or gain of circulating fluid volume.

A weighting agent and lost circulating material (LCM) will be onsite to mitigate pressure or lost circulation as hole conditions dictate.

## 7. TESTING, LOGGING, AND CORING

The anticipated type and amount of testing, logging, and coring are as follows:

- Drill stem tests are not planned.
- The logging program will be as follows:

TYPE	Logs	Interval	Timing	Vendor
Mudlogs	2 man mudlog	Int Csg to TD	Drillout of Int Csg	TBD
LWD	MWD Gamma	Curve and Lateral	While Drilling	TBD
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

- Conventional whole core samples are not planned.
- A Directional Survey will be run.

## 8. ABNORMAL PRESSURES AND HYDROGEN SULFIDE

- No abnormal pressures or temperatures are expected. Estimated BHP is: 3765 psi
- Hydrogen sulfide gas is not anticipated. An H2S Contingency plan is attached with this APD in the event that H2S is encountered



# Chevron USA, Inc.



Project: Eddy County, NM  
 Site: Rustler Bluff 19 24 29 Fed  
 Well: Rustler Bluff 19 24 29 Fed 3H  
 Wellbore: Wellbore #1  
 Plan: Plan #1  
 Rig: Ensign 767

## SURFACE LOCATION

US State Plane 1927 (Exact solution)  
 New Mexico East 3001  
 Elevation: GL 2918.0' + KB 25.0' @ 2943.00usft (Ensign 767)  
 Northing: 435360.00 Easting: 594822.00 Latitude: 32° 11' 47.581 N Longitude: 104° 1' 36.464 W

## WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Rustler Bluff 19 24 29 Fed 3H BHL	8420.00	4654.00	-50.00	440014.00	594772.00	32° 12' 33.839 N	104° 1' 36.892 W

## TARGET INFORMATION:

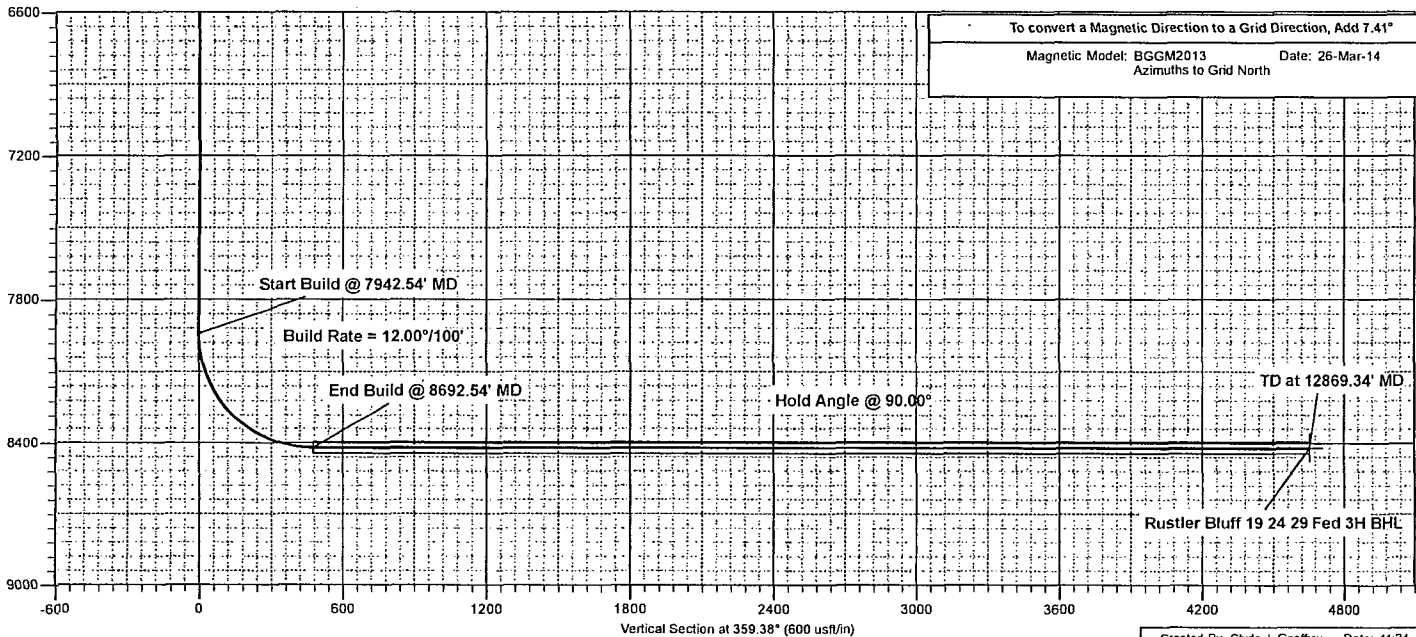
8420.0' TVD @ 0.0° VS w/0.00° Dip  
 25' Up & 25' Down  
 50' Left & 50' Right

## SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7942.54	0.00	0.00	7942.54	0.00	0.00	0.00	0.00	0.00	Start Build
8692.54	90.00	359.38	8420.00	477.44	-5.13	12.00	359.38	477.46	End Build
12869.34	90.00	359.38	8420.00	4654.00	-50.00	0.00	0.00	4654.27	TD

To convert a Magnetic Direction to a Grid Direction, Add 7.41°

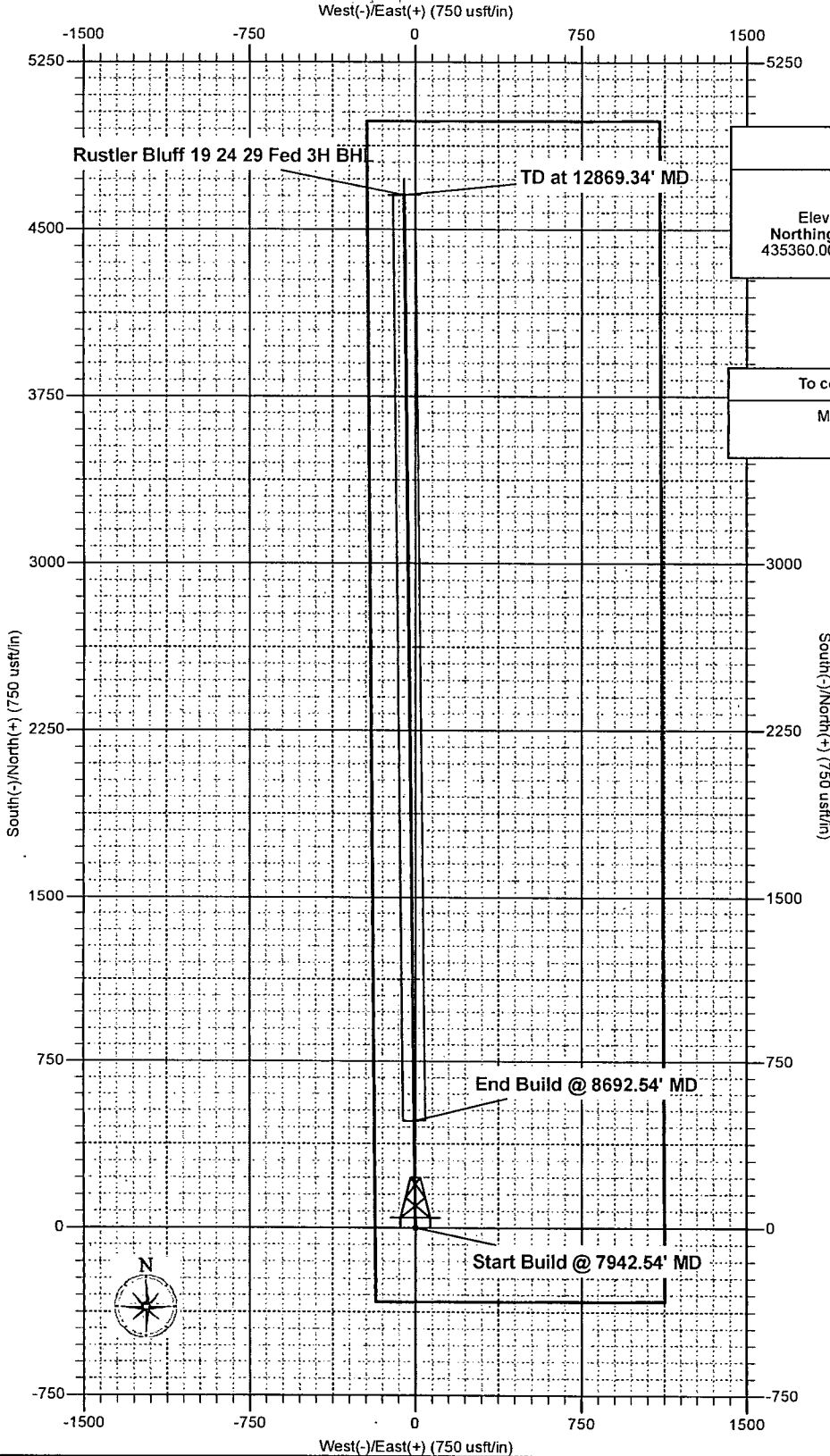
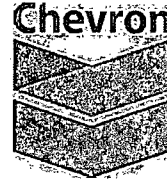
Magnetic Model: BGGM2013 Date: 26-Mar-14  
 Azimuths to Grid North



Created By: Clyde J. Geoffrey Date: 11:24, March 26 2014

# Chevron USA, Inc.

Project: Eddy County, NM  
Site: Rustler Bluff 19 24 29 Fed  
Well: Rustler Bluff 19 24 29 Fed 3H  
Wellbore: Wellbore #1  
Plan: Plan #1  
Rig: Ensign 767



## SURFACE LOCATION

US State Plane 1927 (Exact solution)  
New Mexico East 3001  
Elevation: GL 2918.0' + KB 25.0' @ 2943.00usft (Ensign 767)  
Northing 435360.00 Easting 594822.00 Latitude 32° 11' 47.581 N Longitude 104° 1' 36.464 W

To convert a Magnetic Direction to a Grid Direction, Add 7.41°

Magnetic Model: BGGM2013 Date: 26-Mar-14  
Azimuths to Grid North

## TARGET INFORMATION:

8420.0' TVD @ 0.0' VS w/0.00° Dip  
25' Up & 25' Down  
50' Left & 50' Right

# **Chevron USA, Inc.**

**Eddy County, NM**

**Rustler Bluff 19 24 29 Fed**

**Rustler Bluff 19 24 29 Fed 3H**

**Wellbore #1**

**Plan: Plan #1**

## **Standard Planning Report**

**26 March, 2014**

# Planning Report

Database:	STXWP-EDM	Local Co-ordinate Reference:	Well Rustler Bluff 19 24 29 Fed 3H
Company:	Chevron USA, Inc	TVD Reference:	GL 2918.0' +KB 25.0' @ 2943.00usft (Ensign 767)
Project:	Eddy County, NM	MD Reference:	GL 2918.0' +KB 25.0' @ 2943.00usft (Ensign 767)
Site:	Rustler Bluff 19 24 29 Fed	North Reference:	Grid
Well:	Rustler Bluff 19 24 29 Fed 3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Project: Eddy County, NM			
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Rustler Bluff 19 24 29 Fed					
Site Position:		Northing:	435,360.00 usft	Latitude:	32° 11' 47.581 N
From:	Map	Easting:	594,822.00 usft	Longitude:	104° 1' 36.464 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.16 °

Well:	Rustler Bluff 19 24 29 Fed 3H					
Well Position	+N/-S	0.00 usft	Northing:	435,360.00 usft	Latitude:	32° 11' 47.581 N
	+E/-W	0.00 usft	Easting:	594,822.00 usft	Longitude:	104° 1' 36.464 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	2,918.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	3/26/2014	7.57	60.00	48,249

Design: Plan #1				
Audit Notes:				
Version:		Phase:	PROTOTYPE	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.38

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,942.54	0.00	0.00	7,942.54	0.00	0.00	0.00	0.00	0.00	0.00	
8,692.54	90.00	359.38	8,420.00	477.44	-5.13	12.00	12.00	0.00	359.38	
12,869.34	90.00	359.38	8,420.00	4,654.00	-50.00	0.00	0.00	0.00	0.00	

# Planning Report

Database:	STXWP, EDM	Local Co-ordinate Reference:	Well: Rustler Bluff 19 24 29 Fed 3H
Company:	Chevron USA, Inc.	TVD Reference:	GL 2918.0' + KB 25.0' @ 2943.00usft (Ensign 767)
Project:	Eddy County, NM	MD Reference:	GL 2918.0' + KB 25.0' @ 2943.00usft (Ensign 767)
Site:	Rustler Bluff 19 24 29 Fed	North Reference:	Grid
Well:	Rustler Bluff 19 24 29 Fed 3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,942.54	0.00	0.00	7,942.54	0.00	0.00	0.00	0.00	0.00	0.00
Start Build @ 7942.54' MD - Build Rate = 12.00°/100'									
8,000.00	6.90	359.38	7,999.86	3.45	-0.04	3.45	12.00	12.00	0.00
8,100.00	18.90	359.38	8,097.16	25.73	-0.28	25.73	12.00	12.00	0.00
8,200.00	30.90	359.38	8,187.70	67.75	-0.73	67.75	12.00	12.00	0.00
8,300.00	42.90	359.38	8,267.53	127.67	-1.37	127.68	12.00	12.00	0.00
8,400.00	54.90	359.38	8,333.15	202.88	-2.18	202.89	12.00	12.00	0.00
8,500.00	66.90	359.38	8,381.70	290.09	-3.12	290.11	12.00	12.00	0.00
8,600.00	78.90	359.38	8,411.06	385.49	-4.14	385.51	12.00	12.00	0.00
8,692.54	90.00	359.38	8,420.00	477.44	-5.13	477.47	12.00	12.00	0.00
End Build @ 8692.54' MD - Hold Angle @ 90.00°									
8,700.00	90.00	359.38	8,420.00	484.90	-5.21	484.93	0.00	0.00	0.00
8,800.00	90.00	359.38	8,420.00	584.90	-6.28	584.93	0.00	0.00	0.00
8,900.00	90.00	359.38	8,420.00	684.89	-7.36	684.93	0.00	0.00	0.00
9,000.00	90.00	359.38	8,420.00	784.88	-8.43	784.93	0.00	0.00	0.00
9,100.00	90.00	359.38	8,420.00	884.88	-9.51	884.93	0.00	0.00	0.00
9,200.00	90.00	359.38	8,420.00	984.87	-10.58	984.93	0.00	0.00	0.00
9,300.00	90.00	359.38	8,420.00	1,084.87	-11.66	1,084.93	0.00	0.00	0.00
9,400.00	90.00	359.38	8,420.00	1,184.86	-12.73	1,184.93	0.00	0.00	0.00
9,500.00	90.00	359.38	8,420.00	1,284.86	-13.80	1,284.93	0.00	0.00	0.00
9,600.00	90.00	359.38	8,420.00	1,384.85	-14.88	1,384.93	0.00	0.00	0.00
9,700.00	90.00	359.38	8,420.00	1,484.84	-15.95	1,484.93	0.00	0.00	0.00
9,800.00	90.00	359.38	8,420.00	1,584.84	-17.03	1,584.93	0.00	0.00	0.00
9,900.00	90.00	359.38	8,420.00	1,684.83	-18.10	1,684.93	0.00	0.00	0.00
10,000.00	90.00	359.38	8,420.00	1,784.83	-19.18	1,784.93	0.00	0.00	0.00
10,100.00	90.00	359.38	8,420.00	1,884.82	-20.25	1,884.93	0.00	0.00	0.00
10,200.00	90.00	359.38	8,420.00	1,984.82	-21.32	1,984.93	0.00	0.00	0.00
10,300.00	90.00	359.38	8,420.00	2,084.81	-22.40	2,084.93	0.00	0.00	0.00
10,400.00	90.00	359.38	8,420.00	2,184.80	-23.47	2,184.93	0.00	0.00	0.00
10,500.00	90.00	359.38	8,420.00	2,284.80	-24.55	2,284.93	0.00	0.00	0.00
10,600.00	90.00	359.38	8,420.00	2,384.79	-25.62	2,384.93	0.00	0.00	0.00
10,700.00	90.00	359.38	8,420.00	2,484.79	-26.70	2,484.93	0.00	0.00	0.00
10,800.00	90.00	359.38	8,420.00	2,584.78	-27.77	2,584.93	0.00	0.00	0.00
10,900.00	90.00	359.38	8,420.00	2,684.77	-28.84	2,684.93	0.00	0.00	0.00
11,000.00	90.00	359.38	8,420.00	2,784.77	-29.92	2,784.93	0.00	0.00	0.00
11,100.00	90.00	359.38	8,420.00	2,884.76	-30.99	2,884.93	0.00	0.00	0.00
11,200.00	90.00	359.38	8,420.00	2,984.76	-32.07	2,984.93	0.00	0.00	0.00
11,300.00	90.00	359.38	8,420.00	3,084.75	-33.14	3,084.93	0.00	0.00	0.00
11,400.00	90.00	359.38	8,420.00	3,184.75	-34.22	3,184.93	0.00	0.00	0.00
11,500.00	90.00	359.38	8,420.00	3,284.74	-35.29	3,284.93	0.00	0.00	0.00
11,600.00	90.00	359.38	8,420.00	3,384.73	-36.36	3,384.93	0.00	0.00	0.00
11,700.00	90.00	359.38	8,420.00	3,484.73	-37.44	3,484.93	0.00	0.00	0.00
11,800.00	90.00	359.38	8,420.00	3,584.72	-38.51	3,584.93	0.00	0.00	0.00
11,900.00	90.00	359.38	8,420.00	3,684.72	-39.59	3,684.93	0.00	0.00	0.00
12,000.00	90.00	359.38	8,420.00	3,784.71	-40.66	3,784.93	0.00	0.00	0.00
12,100.00	90.00	359.38	8,420.00	3,884.71	-41.74	3,884.93	0.00	0.00	0.00
12,200.00	90.00	359.38	8,420.00	3,984.70	-42.81	3,984.93	0.00	0.00	0.00
12,300.00	90.00	359.38	8,420.00	4,084.69	-43.88	4,084.93	0.00	0.00	0.00
12,400.00	90.00	359.38	8,420.00	4,184.69	-44.96	4,184.93	0.00	0.00	0.00
12,500.00	90.00	359.38	8,420.00	4,284.68	-46.03	4,284.93	0.00	0.00	0.00
12,600.00	90.00	359.38	8,420.00	4,384.68	-47.11	4,384.93	0.00	0.00	0.00

# Planning Report

Database:	STXWP EDM	Local Co-ordinate Reference:	Well Rustler Bluff 19 24 29 Fed 3H
Company:	Chevron USA Inc	TVD Reference:	GL 2918.0' + KB 25.0' @ 2943.00usft (Ensign 767)
Project:	Eddy County, NM	MD Reference:	GL 2918.0' + KB 25.0' @ 2943.00usft (Ensign 767)
Site:	Rustler Bluff 19 24 29 Fed	North Reference:	Grid
Well:	Rustler Bluff 19 24 29 Fed 3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

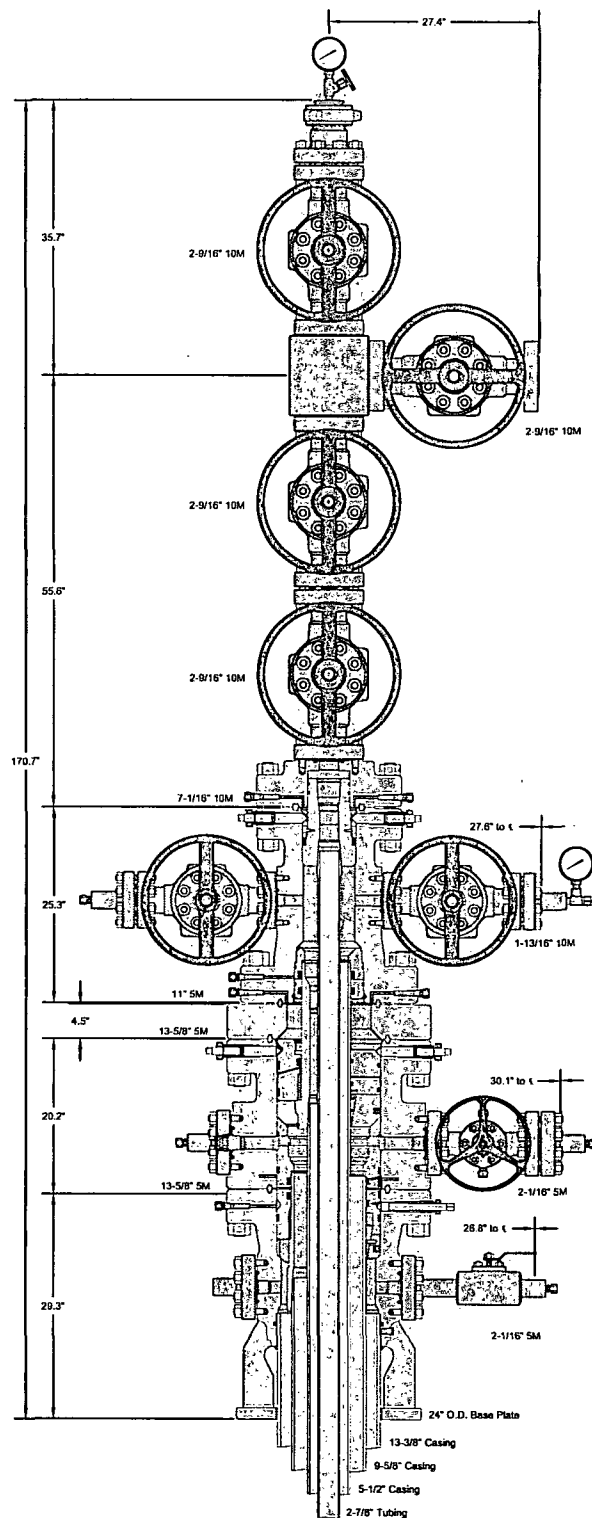
Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,700.00	90.00	359.38	8,420.00	4,484.67	-48.18	4,484.93	0.00	0.00	0.00
12,800.00	90.00	359.38	8,420.00	4,584.67	-49.26	4,584.93	0.00	0.00	0.00
12,869.34	90.00	359.38	8,420.00	4,654.00	-50.00	4,654.27	0.00	0.00	0.00
TD at 12869.34' MD Rustler Bluff 19 24 29 Fed 3H BHL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Rustler Bluff 19 24 29	0.00	359.38	8,420.00	4,654.00	-50.00	440,014.00	594,772.00	32° 12' 33.639 N	104° 1' 36.892 W
- plan hits target center									
- Rectangle (sides W100.00 H4,176.81 D50.00)									

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
7,942.54	7,942.54	0.00	0.00	Start Build @ 7942.54' MD	
7,942.54	7,942.54	0.00	0.00	Build Rate = 12.00°/100'	
8,692.54	8,420.00	477.44	-5.13	End Build @ 8692.54' MD	
8,692.54	8,420.00	477.44	-5.13	Hold Angle @ 90.00°	
12,869.34	8,420.00	4,654.00	-50.00	TD at 12869.34' MD	



GE Oil & Gas



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CHEVRON USA, INC.  
DELAWARE BASIN

13-3/8" x 9-5/8" x 5-1/2" x 2-7/8" 10M SH2/Conventional  
Wellhead Assembly, With DSA, T-EBS-F Tubing Head,  
T-EN Tubing Hanger and A5PEN Adapter Flange

DRAWN	VJK	19MAR13
APPRV	KN	19MAR13
FOR REFERENCE ONLY		
DRAWING NO.		AE23705

# BLOWOUT PREVENTOR SCHEMATIC

## Minimum Requirements

**OPERATION** : Intermediate and Production Hole Sections

**Minimum System**

**Pressure Rating** : 5,000 psi

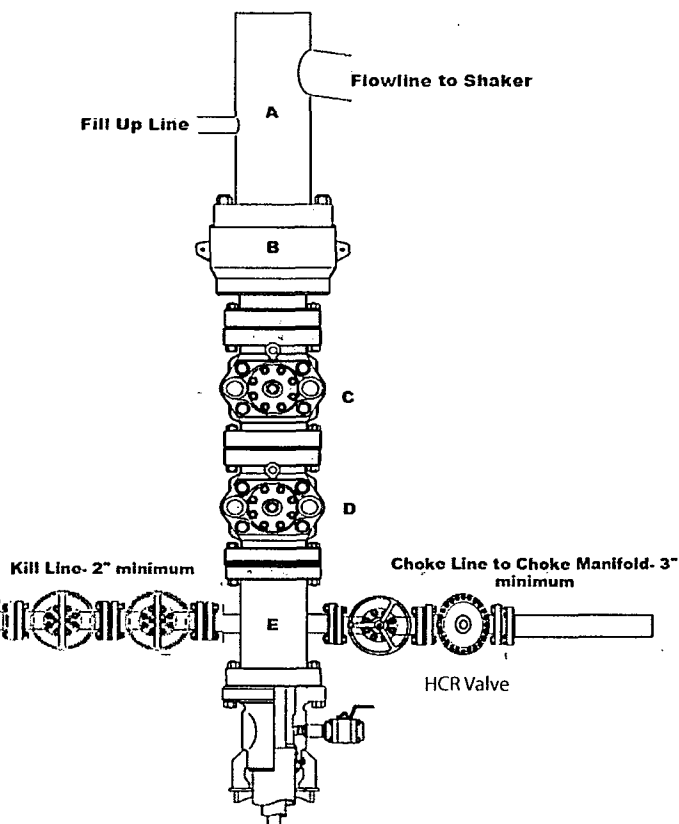
SIZE	PRESSURE	DESCRIPTION
A	N/A	Bell Nipple
B	13 5/8"	5,000 psi Annular
C	13 5/8"	5,000 psi Pipe Ram
D	13 5/8"	5,000 psi Blind Ram
E	13 5/8"	5,000 psi Mud Cross
F		
DSA	As required for each hole size	
C-Sec		
B-Sec	13-5/8" 5K x 11" 5K	
A-Sec	13-3/8" SOW x 13-5/8" 5K	

### Kill Line

SIZE	PRESSURE	DESCRIPTION
2"	5,000 psi	Gate Valve
2"	5,000 psi	Gate Valve
2"	5,000 psi	Check Valve

### Choke Line

SIZE	PRESSURE	DESCRIPTION
3"	5,000 psi	Gate Valve
3"	5,000 psi	HCR Valve



## Installation Checklist

The following item must be verified and checked off prior to pressure testing of BOP equipment.

- ☐ The installed BOP equipment meets at least the minimum requirements (rating, type, size, configuration) as shown on this schematic. Components may be substituted for equivalent equipment rated to higher pressures. Additional components may be put into place as long as they meet or exceed the minimum pressure rating of the system.
- ☐ All valves on the kill line and choke line will be full opening and will allow straight through flow.
- ☐ The kill line and choke line will be straight unless turns use tee blocks or are targeted with running tress, and will be anchored to prevent whip and reduce vibration.
- ☐ Manual (hand wheels) or automatic locking devices will be installed on all ram preventers. Hand wheels will also be installed on all manual valves on the choke line and kill line.
- ☐ A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve will remain open unless accumulator is inoperative.
- ☐ Upper kelly cock valve with handle will be available on rig floor along with safety valve and subs to fit all drill string connections in use.

After Installation Checklist is complete, fill out the Information below and email to Superintendent and Drilling Engineer

Wellname: \_\_\_\_\_

Representative: \_\_\_\_\_

Date: \_\_\_\_\_



# CHOKE MANIFOLD SCHEMATIC

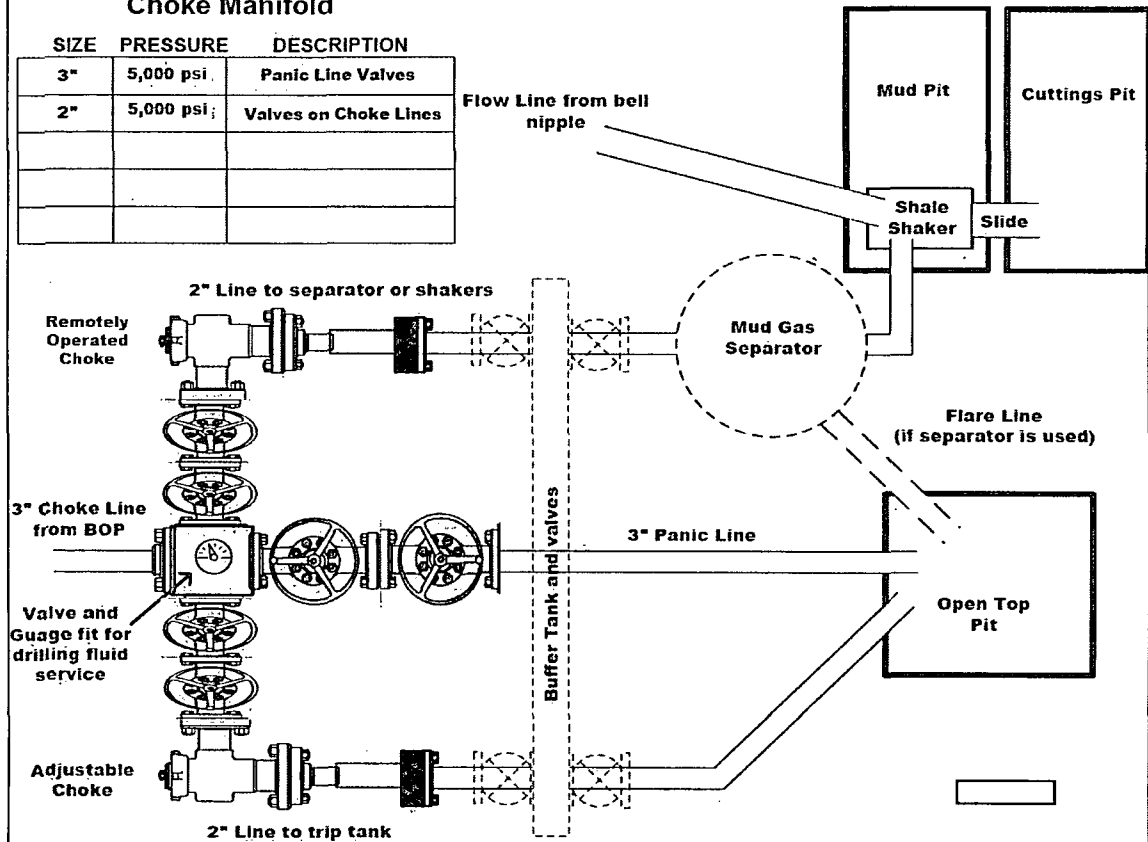
## Minimum Requirements

**OPERATION** : Intermediate and Production Hole Sections

**Minimum System Pressure Rating** : 5,000 psi

### Choke Manifold

SIZE	PRESSURE	DESCRIPTION
3"	5,000 psi	Panic Line Valves
2"	5,000 psi	Valves on Choke Lines



### Installation Checklist

The following items must be verified and checked off prior to pressure testing of BOP equipment.

- ☐ The installed BOP equipment meets at least the minimum requirements (rating, type, size, configuration) as shown on this schematic. Components may be substituted for equivalent equipment rated to higher pressures. Additional components may be put into place as long as they meet or exceed the minimum pressure rating of the system.
- ☐ Adjustable Chokes may be Remotely Operated but will have backup hand pump for hydraulic actuation in case of loss of rig air pressure or power.
- ☐ Flare and Panic lines will terminate a minimum of 150' from the wellhead. These lines will terminate at a location as per approved APD.
- ☐ The choke line, kill line, and choke manifold lines will be straight unless turns use tee blocks or are targeted with running tool, and will be anchored to prevent whip and reduce vibration. This excludes the line between mud gas separator and shale shaker.
- ☐ All valves (except chokes) on choke line, kill line, and choke manifold will be full opening and will allow straight through flow. This excludes any valves between mud gas separator and shale shakers.
- ☐ All manual valves will have hand wheels installed.
- ☐ If used, flare system will have effective method for ignition
- ☐ All connections will be flanged, welded, or clamped (no threaded connections like hammer unions)
- ☐ If buffer tank is used, a valve will be used on all lines at any entry or exit point to or from the buffer tank.

After Installation Checklist is complete, fill out the information below and email to Superintendent and Drilling Engineer

**Wellname:** \_\_\_\_\_

**Representative:** \_\_\_\_\_

**Date:** \_\_\_\_\_

# BOPE Testing

## Minimum Requirements

### Closing Unit and Accumulator Checklist

The following item must be performed, verified, and checked off at least once per well prior to low/high pressure testing of BOP equipment. This must be repeated after 6 months on the same well.

- ☐ Precharge pressure for each accumulator bottle must fall within the range below. Bottles may be further charged with nitrogen gas only. Tested precharge pressures must be recorded for each individual bottle and kept on location through the end of the well. Test will be conducted prior to connecting unit to BOP stack.

Check one that applies	Accumulator working pressure rating	Minimum acceptable operating pressure	Desired precharge pressure	Maximum acceptable precharge pressure	Minimum acceptable precharge pressure
<input type="checkbox"/>	1500 psi	1500 psi	750 psi	800 psi	700 psi
<input type="checkbox"/>	2000 psi	2000 psi	1000 psi	1100 psi	900 psi
<input type="checkbox"/>	3000 psi	3000 psi	1000 psi	1100 psi	900 psi

- ☐ Accumulator will have sufficient capacity to open the hydraulically-controlled choke line valve (if used), close all rams, close the annular preventer, and retain a minimum of 200 psi above the maximum acceptable precharge pressure (see table above) on the closing manifold without the use of the closing pumps. This test will be performed with test pressure recorded and kept on location through the end of the well.
- ☐ Accumulator fluid reservoir will be double the usable fluid volume of the accumulator system capacity. Fluid level will be maintained at manufacturer's recommendations. Usable fluid volume will be recorded. Reservoir capacity will be recorded. Reservoir fluid level will be recorded along with manufacturer's recommendation. All will be kept on location through the end of the well.
- ☐ Closing unit system will have two independent power sources (not counting accumulator bottles) to close the preventers.
- ☐ Power for the closing unit pumps will be available to the unit at all times so that the pumps will automatically start when the closing valve manifold pressure decreases to the pre-set level. It is recommended to check that air line to accumulator pump is "ON" during each tour change.
- ☐ With accumulator bottles isolated, closing unit will be capable of opening the hydraulically-operated choke line valve (if used) plus close the annular preventer on the smallest size drill pipe within 2 minutes and obtain a minimum of 200 psi above maximum acceptable precharge pressure (see table above) on the closing manifold. Test pressure and closing time will be recorded and kept on location through the end of the well.
- ☐ Master controls for the BOPE system will be located at the accumulator and will be capable of opening and closing all preventer and the choke line valve (if used).
- ☐ Remote controls for the BOPE system will be readily accessible (clear path) to the driller and located on the rig floor (not in the dog house). Remote controls will be capable of closing all preventers.
- ☐ Record accumulator tests in drilling reports and IADC sheet

### BOPE Test Checklist

The following item must be checked off prior to beginning test

- ☐ BLM will be given at least 4 hour notice prior to beginning BOPE testing
- ☐ Valve on casing head below test plug will be open
- ☐ Test will be performed using clear water.

The following item must be performed during the BOPE testing and then checked off

- ☐ BOPE will be pressure tested when initially installed, whenever any seal subject to test pressure is broken, following related repairs, and at a minimum of 30 days intervals. Test pressure and times will be recorded by a 3<sup>rd</sup> party on a test chart and kept on location through the end of the well.
- ☐ Test plug will be used
- ☐ Ram type preventer and all related well control equipment will be tested to 250 psi (low) and 5,000 psi (high).
- ☐ Annular type preventer will be tested to 250 psi (low) and 3,500 psi (high).
- ☐ Valves will be tested from the working pressure side with all down stream valves open. The check valve will be held open to test the kill line valve(s)
- ☐ Each pressure test will be held for 10 minutes with no allowable leak off.
- ☐ Master controls and remote controls to the closing unit (accumulator) must be function tested as part of the BOP testing
- ☐ Record BOP tests and pressures in drilling reports and IADC sheet

After Installation Checklist is complete, fill out the information below and email to Superintendent and Drilling Engineer along with any/all BOP and accumulator test charts and reports from 3<sup>rd</sup> parties.

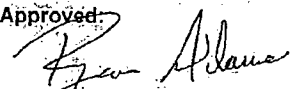
Wellname: \_\_\_\_\_

Representative: \_\_\_\_\_

Date: \_\_\_\_\_



Midwest Hose  
& Specialty, Inc.

INTERNAL HYDROSTATIC TEST CERTIFICATE		
Customer: ODESSA		Customer P.O. Number: 193072
HOSE SPECIFICATIONS		
Type: Rotary/CHOKE KILL GRADE E / API 7K		Hose Length: 25' FEET
I.D. 3" INCHES	O.D. 4.77 INCHES	
WORKING PRESSURE 10,000 PSI	TEST PRESSURE 15,000 PSI	BURST PRESSURE N/A PSI
COUPLINGS		
Part Number E3.0X64WB E3.0X64WB	Stem Lot Number	Ferrule Lot Number L08301765 L08301765
Type of Coupling: SWAGE-IT	Die Size: 5.25	
PROCEDURE		
<u>Hose assembly pressure tested with water at ambient temperature.</u>		
TIME HELD AT TEST PRESSURE 3 1/2 MIN.	ACTUAL BURST PRESSURE: N/A PSI	
Hose Assembly Serial Number: 212332	Hose Serial Number: 8104	
Comments:		
Date: 8/7/2013	Tested:	Approved: 



Midwest Hose  
& Specialty, Inc.

## Internal Hydrostatic Test Graph

August 7, 2013

Customer: Odessa

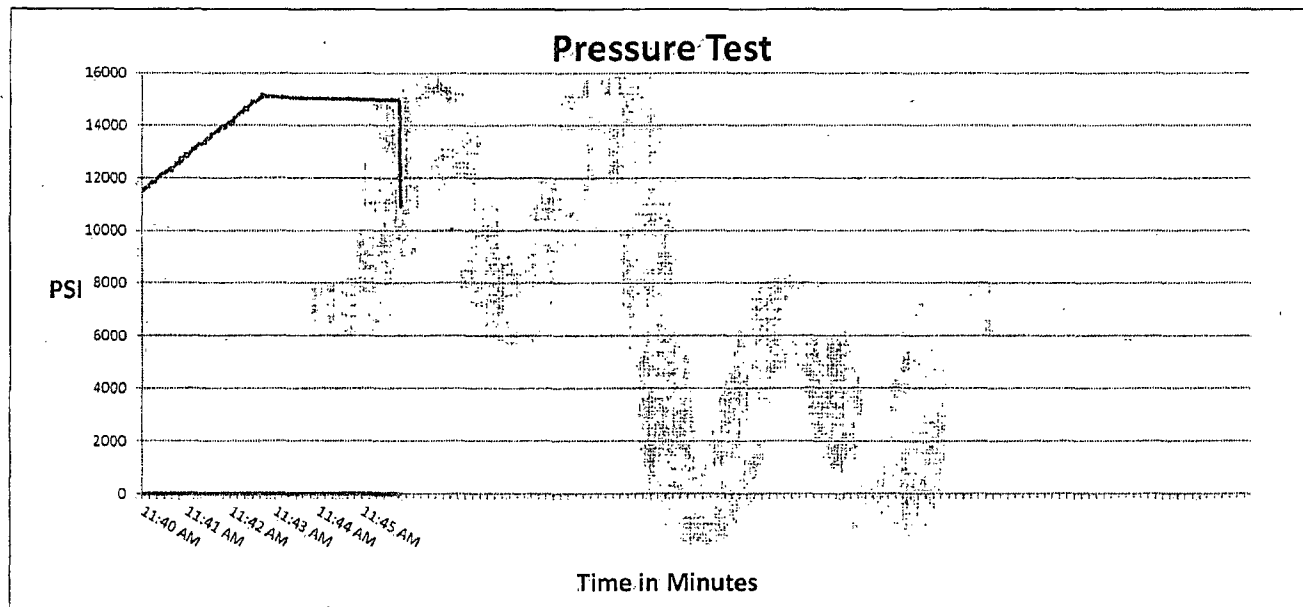
Pick Ticket #: 212332

### Hose Specifications

<u>Hose Type</u>	<u>Length</u>
E	25'
<u>I.D.</u>	<u>O.D.</u>
3"	4.77"
<u>Working Pressure</u>	<u>Burst Pressure</u>
7500 PSI	Standard Safety Multiplier Applies

### Verification

<u>Type of Fitting</u>	<u>Coupling Method</u>
4-1/16" 10K	Swage
<u>Die Size</u>	<u>Final O.D.</u>
5.25"	5.31"
<u>Hose Serial #</u>	<u>Hose Assembly Serial #</u>
8104	212332



Test Pressure  
15000 PSI

Time Held at Test Pressure  
3 2/4 Minutes

Actual Burst Pressure

Peak Pressure  
15263 PSI

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

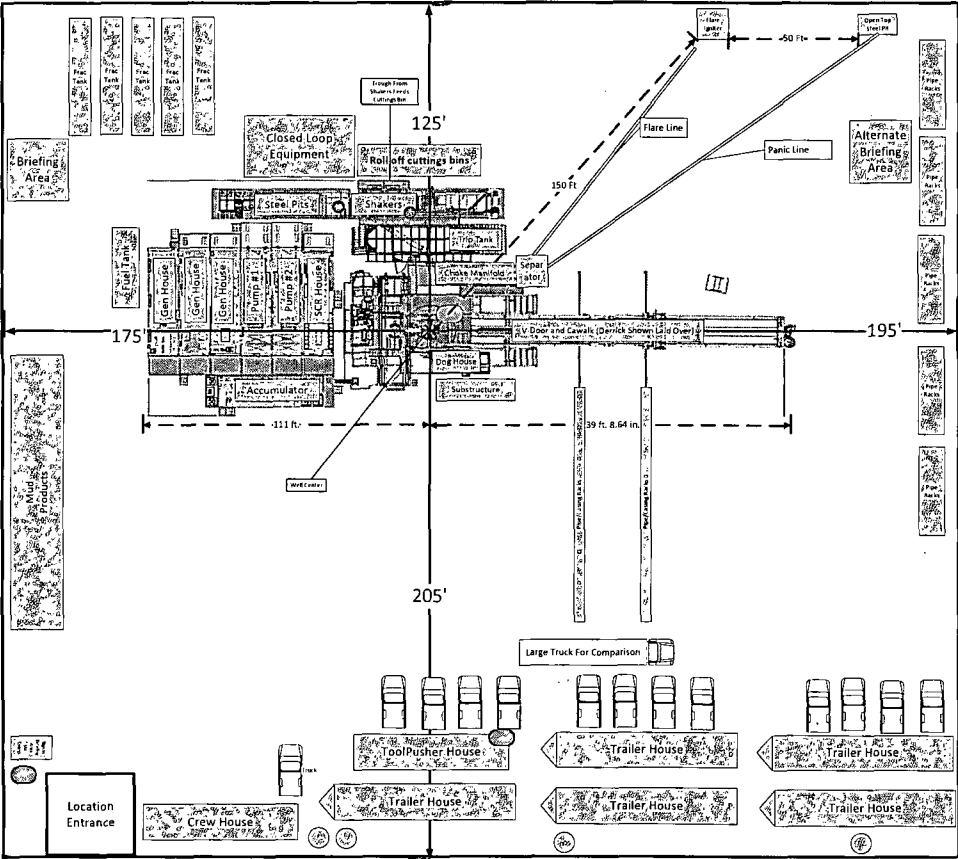
**Tested By:** Ryan Malone

**Approved By:** Ryan Adams

X

X

### Ensign 767 Pad Layout (330' x 370')



# H<sub>2</sub>S Preparedness and Contingency Plan Summary



## Rustler Bluff 19-24-29 Fed Com 3H

### Training

MCBU Drilling and Completions H<sub>2</sub>S training requirements are intended to define the minimum level of training required for employees, contractors and visitors to enter or perform work at MCBU Drilling and Completions locations that have known concentrations of H<sub>2</sub>S.

#### Awareness Level

Employees and visitors to MCBU Drilling and Completions locations that have known concentrations of H<sub>2</sub>S, who are not required to perform work in H<sub>2</sub>S areas, will be provided with an awareness level of H<sub>2</sub>S training prior to entering any H<sub>2</sub>S areas. At a minimum, awareness level training will include:

1. Physical and chemical properties of H<sub>2</sub>S
2. Health hazards of H<sub>2</sub>S
3. Personal protective equipment
4. Information regarding potential sources of H<sub>2</sub>S
5. Alarms and emergency evacuation procedures

Awareness level training will be developed and conducted by personnel who are qualified either by specific training, educational experience and/or work-related background.

#### Advanced Level H<sub>2</sub>S Training

Employees and contractors required to work in areas that may contain H<sub>2</sub>S will be provided with Advanced Level H<sub>2</sub>S training prior to initial assignment. In addition to the Awareness Level requirements, Advanced Level H<sub>2</sub>S training will include:

1. H<sub>2</sub>S safe work practice procedures;
2. Emergency contingency plan procedures;
3. Methods to detect the presence or release of H<sub>2</sub>S (e.g., alarms, monitoring equipment), including hands-on training with direct reading and personal monitoring H<sub>2</sub>S equipment.
4. Basic overview of respiratory protective equipment suitable for use in H<sub>2</sub>S environments. Note: Employees who work at sites that participate in the Chevron Respirator User program will require separate respirator training as required by the MCBU Respiratory Protection Program;
5. Basic overview of emergency rescue techniques, first aid, CPR and medical evaluation procedures. Employees who may be required to perform "standby" duties are required to receive additional first aid and CPR training, which is not covered in the Advanced Level H<sub>2</sub>S training;
6. Proficiency examination covering all course material.

Advanced H<sub>2</sub>S training courses will be instructed by personnel who have successfully completed an appropriate H<sub>2</sub>S train-the-trainer development course (ANSI/ASSE Z390.1-2006) or who possess significant past experience through educational or work-related background.



# H<sub>2</sub>S Preparedness and Contingency Plan Summary

## H<sub>2</sub>S Training Certification

All employees and visitors will be issued an H<sub>2</sub>S training certification card (or certificate) upon successful completion of the appropriate H<sub>2</sub>S training course. Personnel working in an H<sub>2</sub>S environment will carry a current H<sub>2</sub>S training certification card as proof of having received the proper training on their person at all times.

## Briefing Area

A minimum of two briefing areas will be established in locations that at least one area will be upwind from the well at all times. Upon recognition of an emergency situation, all personnel should assemble at the designated upwind briefing areas for instructions.

## H<sub>2</sub>S Equipment

### Respiratory Protection

- a) Six 30 minute SCBAs – 2 at each briefing area and 2 in the Safety Trailer.
- b) Eight 5 minute EBAs – 5 in the dog house at the rig floor, 1 at the accumulator, 1 at the shale shakers and 1 at the mud pits.

### Visual Warning System

- a) One color code sign, displaying all possible conditions, will be placed at the entrance to the location with a flag displaying the current condition.
- b) Two windsocks will be on location, one on the dog house and one on the Drill Site Manager's Trailer.

## H<sub>2</sub>S Detection and Monitoring System

- a) H<sub>2</sub>S monitoring system (sensor head, warning light and siren) placed throughout rig.
  - Drilling Rig Locations: at a minimum, in the area of the Shale shaker, rig floor, and bell nipple.
  - Workover Rig Locations: at a minimum, in the area of the Cellar, rig floor and circulating tanks or shale shaker.



# H<sub>2</sub>S Preparedness and Contingency Plan Summary

## Well Control Equipment

- a) Flare Line 150' from wellhead with igniter.
- b) Choke manifold with a remotely operated choke.
- c) Mud / gas separator

## Mud Program

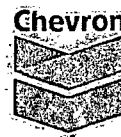
In the event of drilling, completions, workover and well servicing operations involving a hydrogen sulfide concentration of 100 ppm or greater the following shall be considered:

- 1. Use of a degasser
- 2. Use of a zinc based mud treatment
- 3. Increasing mud weight

## Public Safety - Emergency Assistance

<u>Agency</u>	<u>Telephone Number</u>
Eddy County Sheriff's Department	575-887-7551
Fire Department:	
Carlsbad	575-885-3125
Artesia	575-746-5050
Carlsbad Medical Center	575-887-4100
Eddy County Emergency Management	575-628-5450
Poison Control Center	800-222-1222





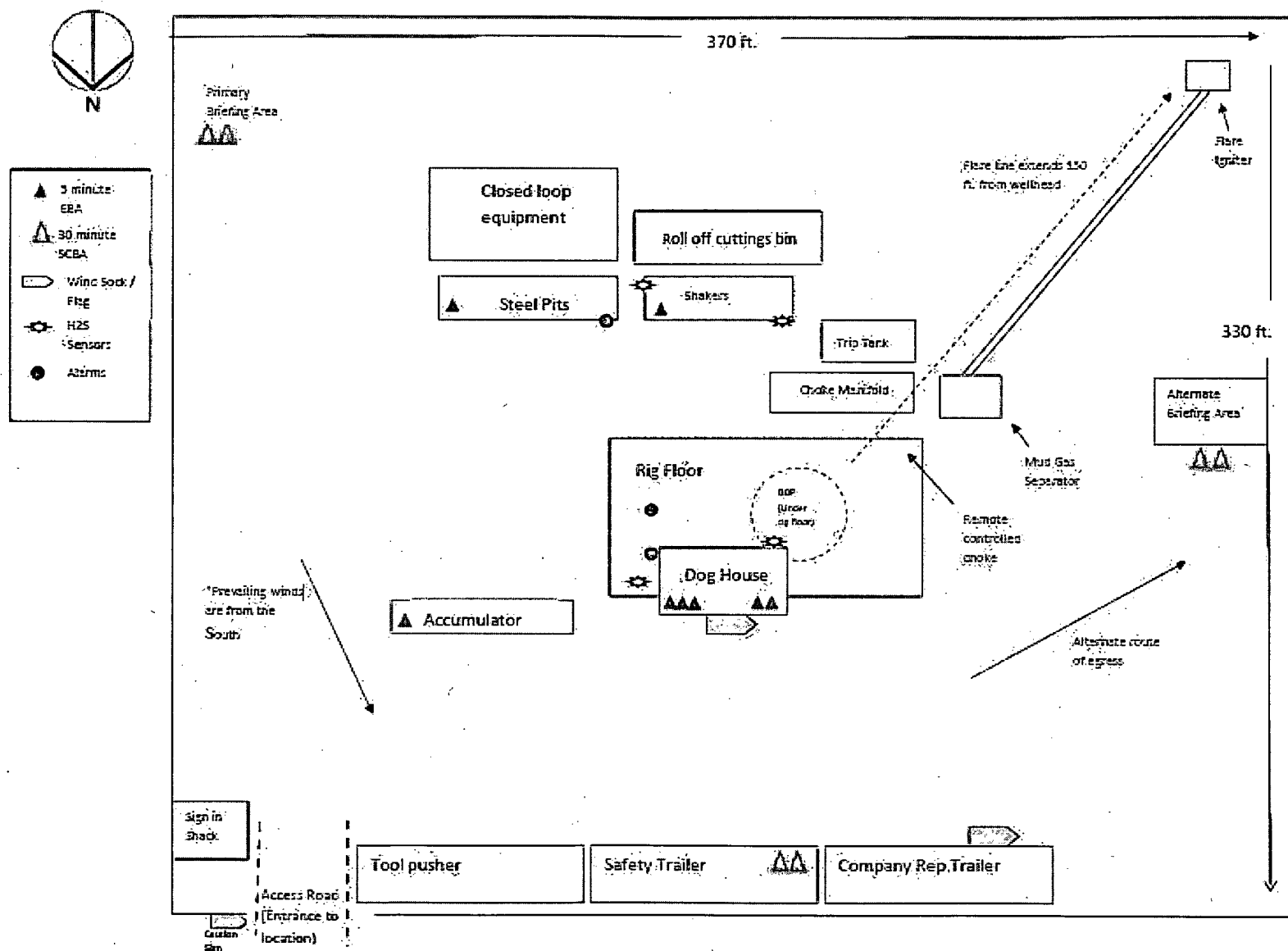
## H<sub>2</sub>S Preparedness and Contingency Plan Summary

### Chevron MCBU D&C Emergency Notifications

Below are lists of contacts to be used in emergency situations.

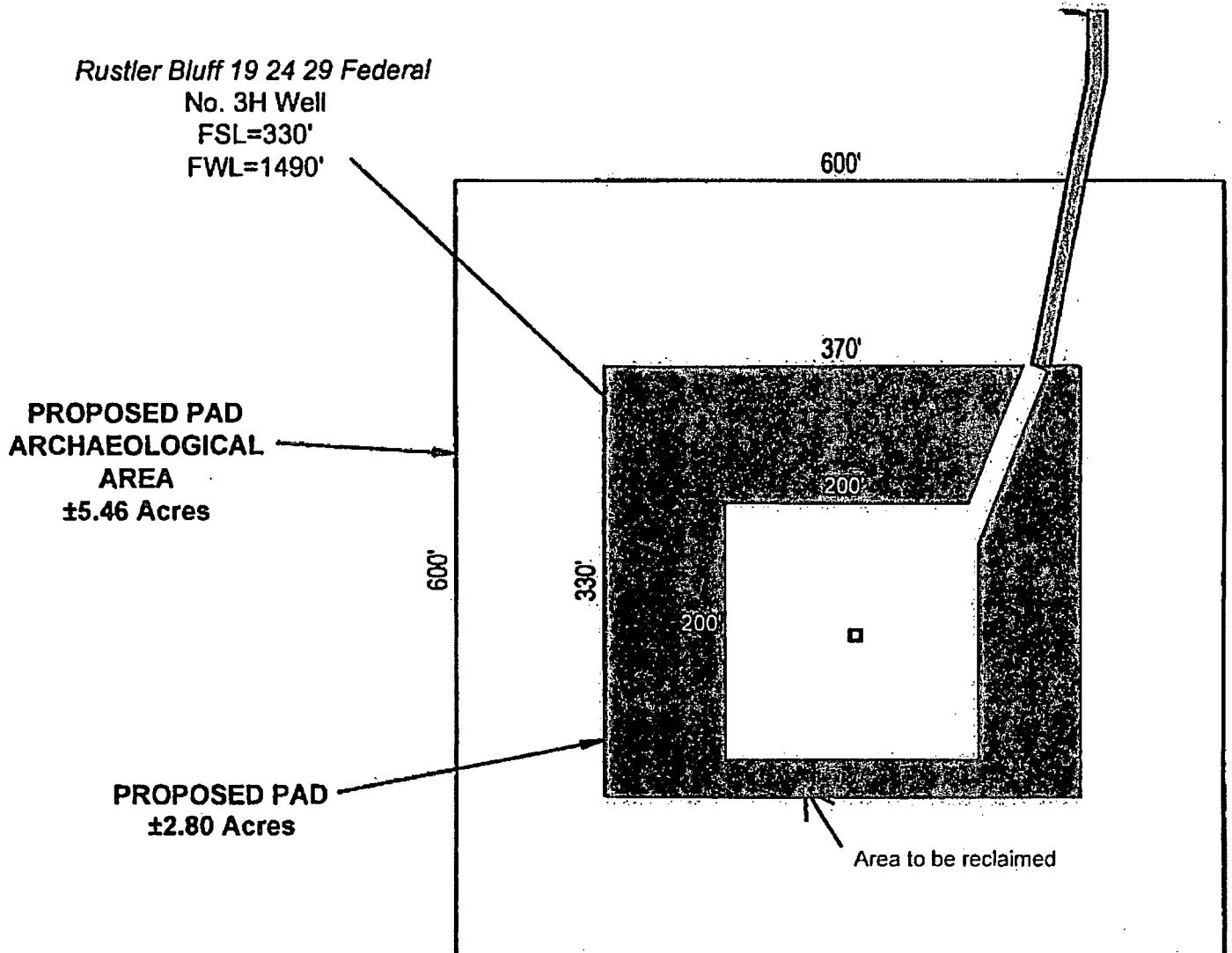
	Name	Title	Office Number	Cell Phone
1.	Matt Kubachka	Drilling Engineer	(713) 372-5721	(432) 438-2482
2.	Phil Clark	Superintendent	(713) 372-7588	(832) 741-4175
5.	Kim McHugh	Drilling Manager	(713) 372-7591	(713) 204- 8550
6.	Darrell Hammons	Operations Manager	(713) 372-5747	(281) 352 2302
7.	Andrea Calhoun	D&C HES	(713) 372-7586	(832) 588-0100
8.	Andrew Espinosa	Completion Engineer	(713) 372-7587	(713) 294-9534

# H<sub>2</sub>S Preparedness and Contingency Plan Summary

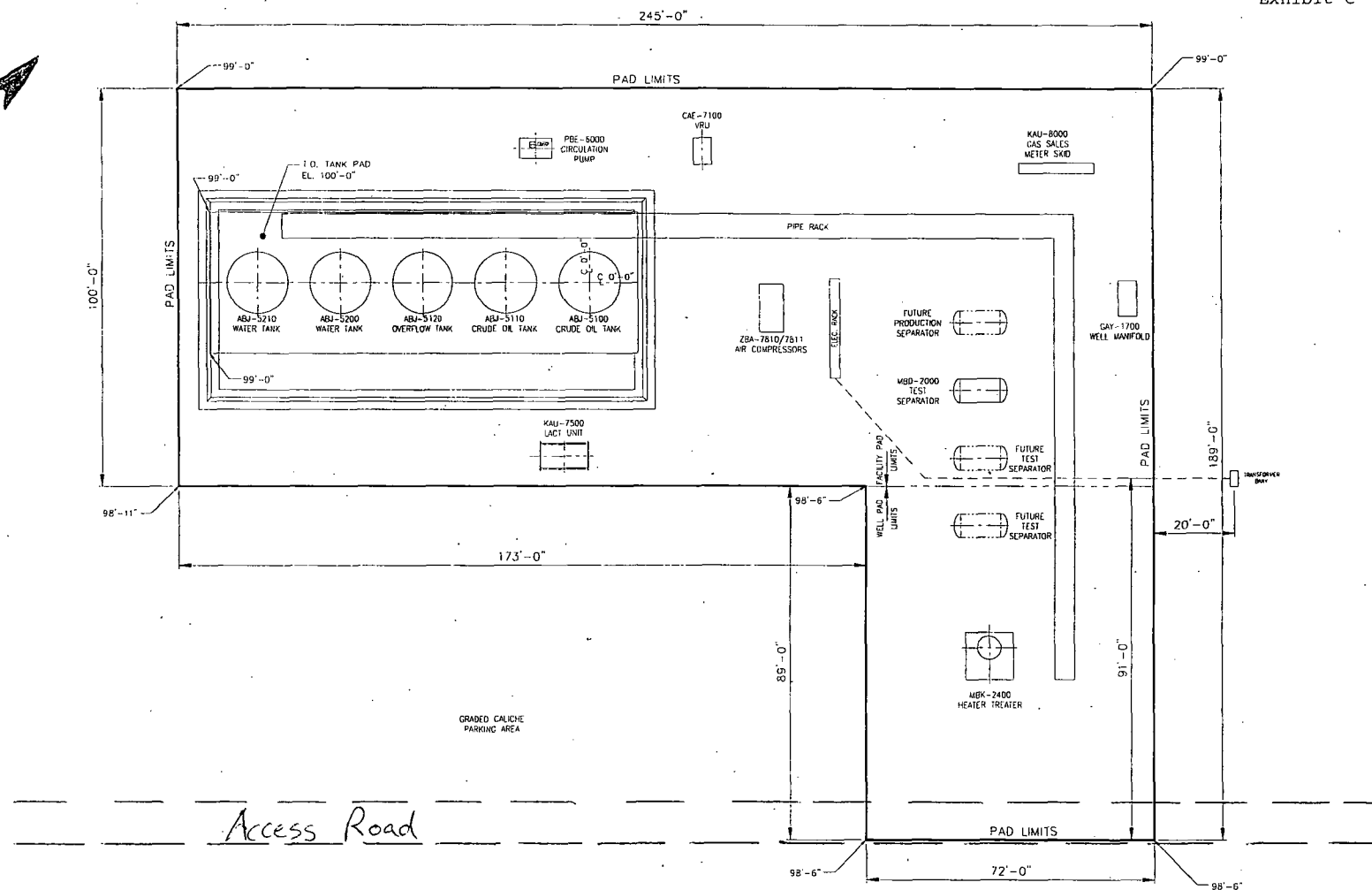


# Exhibit E

## AREA TO BE RECLAIMED



# Exhibit C - Production Facility



ISSUED FOR APPROVAL				REVISIONS				ISSUED FOR APPROVAL		Chevron U.S.A. Inc.		HOBBS FMT-DELAWARE BASIN PRODIGAL SUN.MTB-LEA COUNTY, NEW MEXICO	
△								△		API	LEASE	ALRDG-PRODSUNMTB-CIV-PLT-MCB-2000-01	△
△								△					
△								△					
△								△					

**Chevron U.S.A. Inc. has entered into a contract for CEHMM to prepare the Environmental Assessment at the direction of the BLM Carlsbad Field Office.**

ONSHORE OIL & GAS ORDER NO. 1  
Approval of Operations on Onshore  
Federal and Indian Oil and Gas Leases

**Rustler Bluff 19 24 29 Federal 3H**

330' FNL and 1490' FWL  
Section 19, Township 24, Range 29  
Eddy County, New Mexico

**A. EXISTING ROADS/LEASE ROADS**

Driving directions are from Malaga, New Mexico. Proceed east on Duarte Road approximately 1.3 miles and turn south and follow McDonald Road (CR 746) approximately 3 miles to a new turn-off road and go approximately ½ mile to the location.

This lease road is approximately 20' in travel way width and approximately ½ mile in length with a maximum disturbance area of 30' has been used, and in accordance with guidelines set forth in the BLM Onshore Orders. No turnouts are expected.

The existing two-track road identified in the survey plat will be upgraded to an oil and gas road (14' wide, etc.).

Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

Location, access, and vicinity plats attached hereto. **See Exhibits A-1 to A-3.**

**B. NEW OR RECONSTRUCTED ACCESS ROADS**

The existing two-track road identified in the survey plat will be upgraded to an oil and gas road (14' wide, etc.). The upgraded road is depicted in **Exhibit A2**.

Total Length of New Roads: **2627.91'**  
= 1952.91' from McDonald Road to the facility  
+674.42' from the facility to the well

Surface disturbance and vehicular travel will be limited to the approved access route. Any additional area will be approved in advance.

Road Width: 14 – 20 feet traveling surface.

Maximum Grade: Road gradient less than 8%

Crown Design: 2%

Turnouts will be installed along the access route as needed.

Ditch design: Drainage, interception and outlet.

Erosion Control: 6" rock under road.

Re-vegetation of Disturbed Area: All disturbed areas will be seeded by Broadcast or Drill and Crimp. Ground conditions will determine the method used.

Cattle guard(s) will be installed as needed.

Major Cuts and Fills: 2:1 Slope.

Surfacing material (road base derived from caliche or river rock) will be placed on the access road during construction. All surface disturbing activities will be discussed with and agreed to with the surface owner.

**C. LOCATION OF EXISTING WELLS**

All wells located within a 1-mile radius of the Surface & Bottom Hole Location. See **Exhibit B**.

**D. LOCATION OF PRODUCTION FACILITIES**

It is anticipated that production facilities will be located 600 ft. northeast of the Rustler Bluff 19 24 29 Fed No. 3H well pad and oil to be sold at that tank battery. Oil and gas measurement will be installed on this well location. See **Exhibit C**.

The production pipeline will be installed at the Rustler Bluff 19 wellhead located 330' FSL, 1490' FWL and will run 1200' northeast from the wellpad to the northeast corner of the facility pad. The pipeline will run along existing disturbances such as the access road, wellpad, and facility pad its entire length. The pipeline will be buried 3 1/2" Zaplok steel pipe with a working pressure greater than 100 psi ran along existing disturbances, and will be buried within 15' from the access road. The pipeline will need 15' on either side of to be cleared and will run along the western side of the road. Please see **Exhibits C and F** to view the proposed pipeline.

The permanent water disposal system will be determined prior to construction of any water transfer pipeline. Until permanent water takeaway is available, produced water will be hauled off location in trucks.

Utility power is anticipated in mid/late 2015. For a temporary power solution, Chevron will install generators to provide power for operations.

**E. LOCATION AND TYPES OF WATER SUPPLY**

Chevron will utilize the frac pond in section 19-24-29 for fresh water. Please see **Exhibit A2** for the location of the frac pond.

During frac operations, Chevron will lay a temporary 12" flowline from the frac pond to the well. The flowline will follow within 5 feet along the access road from the frac pond to the well using the same route as the proposed production pipeline depicted on **Exhibit F**.

Water will be obtained from a private water source. The source provider and exact location have not been finalized at this time. Most likely, Chevron expects to transfer water from the source well or distribution center using a temporary 4" poly pipe transfer line. Chevron will submit a sundry notice at a later date, including a plat that depicts the proposed location of the temporary 4" poly pipe transfer line to fill the frac pond.

**F. CONSTRUCTION MATERIALS**

All construction materials will be used from the nearest Private, BLM, or State pit. All material (i.e. shale) will be acquired from private or commercial sources.

No construction material will be needed for well pad construction; subsurface spoil material will be utilized.

Surfacing material (caliche) will be purchased from a supplier having a permitted source of materials.

The entire location will be fenced with barb/woven wire and bermed with spoil dirt or gravel.

**G. METHODS FOR HANDLING WASTE DISPOSAL**

A closed system will be utilized consisting of above ground steel tanks.

All wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited in a state approved facility.

Disposal of cuttings: **Tervita, LLC**

Sewage and gray water before and after treatment are not allowed to be discharged to the ground. They are collected from storage tank(s) and portable potty at drilling and completions locations and transported by an approved transporter to be disposed of at a Chevron's select-for-use disposal facility.

**H. ANCILLARY FACILITIES**

None.



**I. WELLSITE LAYOUT**

The proposed site layout plat is attached showing the Ensign Rig #767 orientation and equipment location. **See Exhibit D.**

In order to level the location, cut and fill will be required. Please see attached Well Location and Acreage Dedication Plat – Exhibits A-1 to A-3.

A locking gate will be installed at the site entrance.

Any fences cut will be repaired. Cattle guards will be installed, if needed.

**J. PLANS FOR RECLAMATION OF THE SURFACE**

**In the Event of Production**

Within 6 months, Chevron will contact BLM Surface Management Specialists to devise the best strategies to reduce the size of the location. Current plans for interim reclamation will consist of reclaiming the pad to +/-50 feet outside the anchors, or approximately 200 x 200 feet. **See Exhibit E.**

In addition, the following procedures shall be followed:

- i. Caliche will be removed from areas to be reclaimed, to increase the success of revegetating the site. Removed caliche that is free of contaminants may be used for future projects.
- ii. The portions of the cleared well site not needed for operational and safety purposes will be recontoured to a final or intermediate contour that blends with the surrounding topography as much as possible. Sufficient level area remains for setup of a workover rig and to park equipment.
- iii. All surface soil materials (topsoil) are to be removed from the entire cut and fill area and temporarily stockpiled for reuse during interim reclamation. Topsoil will be respreads over areas not needed for all-weather operations to ensure successful revegetation. Any topsoil pile set aside should be revegetated to prevent it from eroding and to help maintain its biological viability.
- iv. After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture advised by the BLM. The seed mix will be evenly and uniformly distributed over the disturbed area. Seeding will be accomplished by using a drilling or, when drilling is not available, by broadcasting the seed. When broadcasting the seed, the amount of seed shall be doubled.
- v. Weed control will be used on disturbed land, including the roads, pads, associated pipeline corridor, and adjacent land affected by the operations. There shall be no primary or secondary noxious weeds in the seed mixture used for reseeding.

### **In the Event of a Dry Hole/Final Reclamation**

Upon final abandonment of the well, a new reclamation plan will be submitted with the Notice of Intent to Abandon (NIA) or Subsequent Report Plug and Abandon (SRA) using the Sundry Notices and Reports on Wells Form 3160-5. The location will be restored to as near as original condition as possible. Reclamation of the surface shall be done in strict compliance with the existing New Mexico Oil Conservation Division regulations and BLM regulations.

In addition, the following procedures shall be followed:

- i. Caliche material from the well pad and access road will be removed and utilized to re-contour to a final contour that blends with the surrounding topography as much as possible. Any caliche material not used will be utilized to repair roads within the lease.
- ii. On sloped ground, the topsoil and interim vegetation will be restripped from portions of the site that are not at the original contour, the well pad recontoured, and the topsoil will be respread over the entire disturbed.
- iii. Topsoil will be distributed over the reclamation area and cross ripped to control erosion
- iv. After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture advised by the BLM. The seed mix will be evenly and uniformly distributed over the disturbed area. Seeding will be accomplished by using a drilling or, when drilling is not available, by broadcasting the seed. When broadcasting the seed, the amount of seed shall be doubled.
- v. Weed control will be used on disturbed land, including the roads, pads, associated pipeline corridor, and adjacent land affected by the operations. There shall be no primary or secondary noxious weeds in the seed mixture used for reseeding.

### **K. SURFACE TENANT**

Scott Branson  
1501 Mountain Shadow  
Carlsbad, New Mexico 88221

### **ROAD OWNERSHIP**

All access roads are located on Federal lands.

### **L. ADDITIONAL INFORMATION**

Class III cultural resource inventory report was prepared by Boone Archaeological Services, Carlsbad, New Mexico for the proposed location. A copy of the report has been sent to the BLM office under separate cover.

**M. CHEVRON REPRESENTATIVES**

<b>Project Manager</b> Kelly Wojtasek 1400 Smith Street, 40095 Houston, TX 77002 Office: 713-372-9691 <a href="mailto:Kellyanne@chevron.com">Kellyanne@chevron.com</a>	<b>Drilling Engineer</b> Matt Kubachka 1400 Smith Street, 43128 Houston, TX 77002 Office: +1 (713) 372-5721 <a href="mailto:Matt.Kubachka@chevron.com">Matt.Kubachka@chevron.com</a>
<b>Surface Land Representative</b> Stephen Tarr 15 Smith Road, 5103 Claydesta Plaza Midland, TX 79705 Office: +1 432-687-7956 Cell: +1 432-238-6316 <a href="mailto:STarr@chevron.com">STarr@chevron.com</a>	<b>Facility Engineer</b> Jimmy Batton 15 Smith Road, 6216C Claydesta Plaza Midland, TX 79705 Office: +1 432-687-7648 <a href="mailto:KOJR@chevron.com">KOJR@chevron.com</a>
<b>Geologist</b> Terry Belsher 1400 Smith Street, 42196 Houston, TX 77002 Office: +1 (713) 372-3460 <a href="mailto:TBEL@chevron.com">TBEL@chevron.com</a>	<b>Asset Manager</b> David McKay 1400 Smith Street. 40188 Houston, TX 77002 <a href="mailto:DVMC@chevron.com">DVMC@chevron.com</a>
<b>Regulatory Specialist</b> Denise Pinkerton 15 Smith Road, 4229 Claydesta Plaza Midland, TX 79705 Office: +1 (432) 687-7375 <a href="mailto:leakejd@chevron.com">leakejd@chevron.com</a>	<b>Land Team Lead</b> Pam Bikun 1400 Smith Street. 45004 Houston, TX 77002 Office: 713-372-1373 <a href="mailto:PamBikun@Chevron.com">PamBikun@Chevron.com</a>

**Summary of Exhibits**

Exhibit A1	Rustler Bluff 19 24 29 FED COM 3H C102 cert
Exhibit A2	Rustler Bluff 19 24 29 FED COM 3H SUP cert Includes facility, frac pond, and access road
Exhibit A3	Rustler Bluff 19 24 29 FED COM 3H vicinity map
Exhibit B	1 mile radius of surface and bottom hole locations.
Exhibit C	Facility Pad Diagram 250' x 190'
Exhibit D	Wellsite layout Wellsite layout H2S diagram
Exhibit E	Area to be reclaimed
Exhibit F	Individual survey plat of flowline

DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.
---------	----------	----------	-----------	------	---------

ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]  
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication  
☒ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement  
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify \_\_\_\_\_

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO  
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

MICHAEL H. FELDEWERT

Print or Type Name

Signature

ATTORNEY

Title

04/29/14

Date

mfeldewert@hollandhart.com

c-mail Address



April 29, 2014

**VIA HAND DELIVERY**

Jami Bailey  
Oil Conservation Division  
New Mexico Department of Energy,  
Minerals and Natural Resources  
1220 South Saint Francis Drive  
Santa Fe, New Mexico 87505

**Re: Application of Chevron U.S.A., Inc. for administrative approval of an unorthodox well location for its Rustler Bluff 19 24 19 Federal 3H Well to be located in Section 19, Township 24 South, Range 29 East, N.M.P.M., Eddy County, New Mexico.**

Dear Ms. Bailey:

Chevron U.S.A., Inc. (OGRID No. 4323) seeks administrative approval of an unorthodox well location for its **Rustler Bluff 19 24 19 Federal 3H Well** to be completed within the Pierce Crossing; Bone Spring Pool (Pool Code 50371) underlying Section 19, Township 24 South, Range 29 East, N.M.P.M., Eddy County, New Mexico. This well will be drilled from a surface location 330 feet from the South line and 1490 feet from the West line (Unit N) with a bottom hole location 330 feet from the North line and 1490 feet from the West line (Unit C). Since this acreage is governed by the Division's statewide rules which provides for wells to be located no closer than 330 feet to the outer boundary of the spacing unit, the completed interval for this well will be unorthodox because it is closer than 330 feet to the Western boundary and, therefore, outside of the producing area. Approval of the unorthodox location will prevent waste of a productive reservoir and improve well performance.

**Exhibit A** is the Well Location and Acreage Dedication Plat (Form C-102), which shows that the completed interval of the proposed **Rustler Bluff 19 24 19 Federal 3H Well** encroaches on the spacing and proration unit to the Southwest, West and Northwest.

**Exhibit B** is a land plat for Section 19 and the surrounding sections that shows the proposed **Rustler Bluff 19 24 19 Federal 3H Well** in relation to adjoining units and existing wells.

**Exhibit C** is a list of the parties affected by the encroachment to the West and Southwest. Each of these parties have been provided notice of this application by certified mail. Chevron is the sole operator and mineral lessee of the federal lease covering the SW/4SW/4 of Section 18. Nonetheless, a copy of this application has been provided to the Bureau of Land Management.



Your attention to this matter is appreciated.

Sincerely,

Michael H. Feldewert  
ATTORNEY FOR CHEVRON U.S.A., INC.

MHF

cc: Bureau of Land Management  
620 E. Green Street  
Carlsbad, NM 88220

2014 MAY 1 10:05 AM  
BUREAU OF LAND MANAGEMENT

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number	<sup>2</sup> Pool Code	<sup>3</sup> Pool Name
<sup>4</sup> Property Code	<sup>5</sup> Property Name RUSTLER BLUFF 19 24 29 FEDERAL	
<sup>7</sup> OGRID No.	<sup>8</sup> Operator Name CHEVRON U.S.A. INC.	<sup>6</sup> Well Number 3H <sup>9</sup> Elevation 2918'

<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
N	19	24 SOUTH	29 EAST, N.M.P.M.		330'	SOUTH	1490'	WEST	EDDY

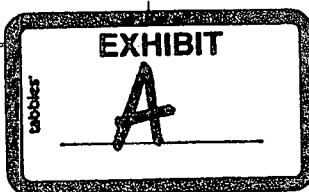
<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	19	24 SOUTH	29 EAST, N.M.P.M.		330'	NORTH	1490'	WEST	EDDY

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
-------------------------------	-------------------------------	----------------------------------	-------------------------

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

	<p><b>PROPOSED BOTTOM HOLE LOCATION</b></p> <p>X= 594,772 NAD 27 Y= 440,014 LAT. 32.209345 LONG. 104.026913</p> <p>X= 635,956 NAD83 Y= 440,073 LAT. 32.209468 LONG. 104.027403</p>	<p><b><sup>11</sup> 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>RUSTLER BLUFF 19 24 29 FEDERAL NO. 3H WELL</b></p> <p>X= 594,822 NAD 27 Y= 435,360 LAT. 32.196550 LONG. 104.026797</p> <p>X= 636,006 NAD83 Y= 435,418 LAT. 32.196672 LONG. 104.027286</p> <p>ELEVATION +2918' NAVD 88</p>	<p><b><sup>12</sup> 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>Date of Survey <u>Mar 7 2014</u></p> <p>Signature and Seal of Professional Surveyor: <u>[Signature]</u></p> <p>Certificate Number <u>#15078</u></p>





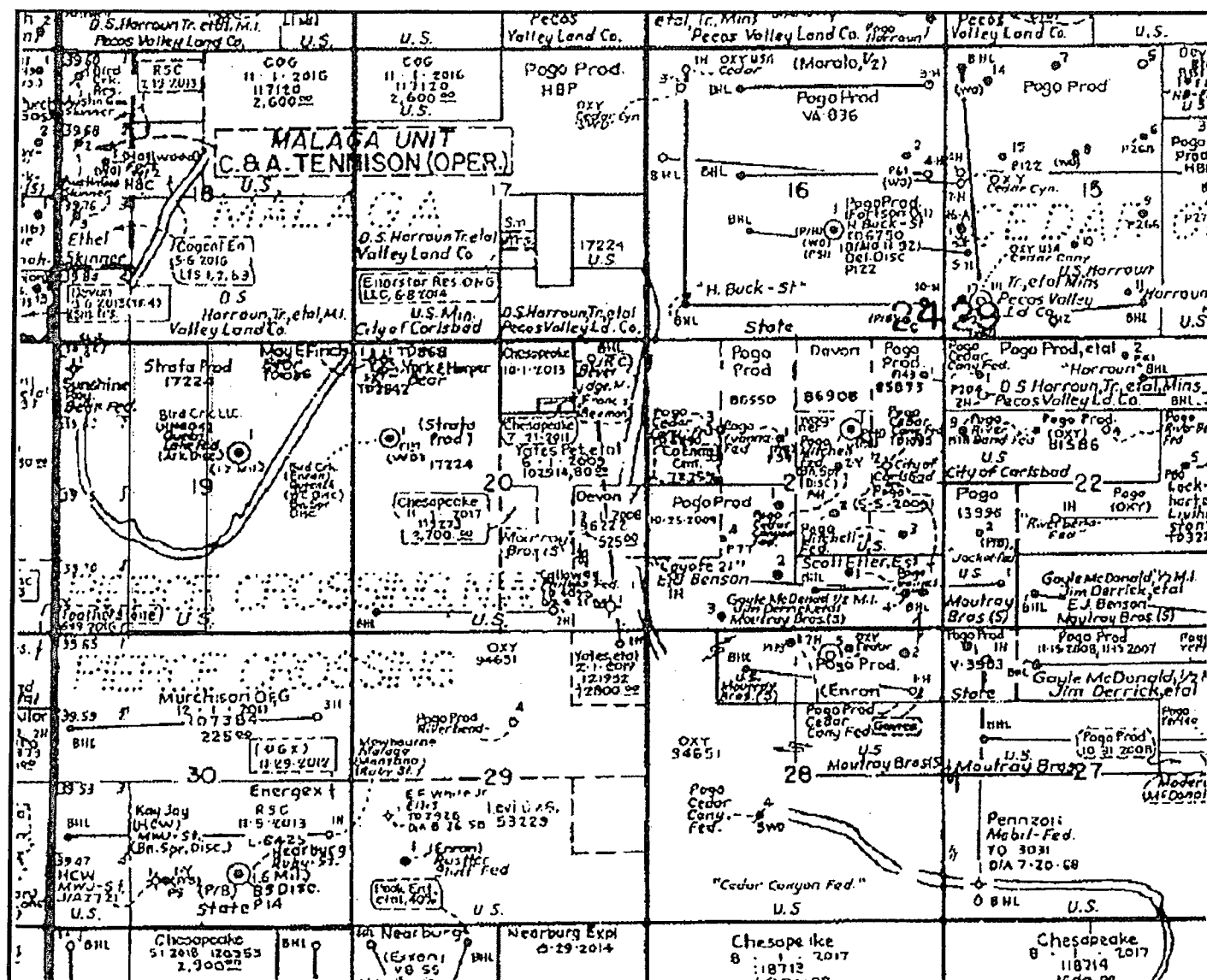


Exhibit C

Oxy USA, Inc.  
5 Greenway Plaza, Suite 110  
Houston, TX 77046

Murchison Oil & Gas  
1100 Mira Vista Blvd.  
Plano, TX 75093

02/11/11  
02/11/11  
02/11/11

7006 2760 0001 6376 3837

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Total Postage & Fees	\$

APR 29 2014  
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Oxy USA, Inc.  
 5 Greenway Plaza, Suite 110  
 Houston, Texas 77046

PS Form 3800, August 2008

For Instructions

7006 2760 0001 6376 3844

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Return Receipt Fee (Endorsement Required)	2.70
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark  
 APR 29 2014

Murchison Oil & Gas  
 1100 Mira Vista Blvd.  
 Plano, Texas 75093

PS Form 3800, August 2008

For Instructions

## PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	CHEVRON USA INC.
LEASE NO.:	NM17224
WELL NAME & NO.:	3H-RUSTLER BLUFF 19 24 29 FEDERAL
SURFACE HOLE FOOTAGE:	330' FSL & 1490' FWL
BOTTOM HOLE FOOTAGE:	330' FSL & 1490' FWL
LOCATION:	Section 19 T. 24 S., R. 29 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**
  - Berm Pad
  - Erosion Control
  - Exhaust Noise Muffling
  - Cave/Karst
- ☐ **Construction**
  - Notification
  - Topsoil
  - Closed Loop System
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
  - Cement Requirements
  - Medium Cave/Karst Potential
  - Logging requirements
  - Waste Material and Fluids
- ☒ **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)**

### **Berm Pad**

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.)

### **Erosion Control**

Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion.

### **Exhaust Noise Muffling**

Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

## **Cave and Karst**

\*\* 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 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**

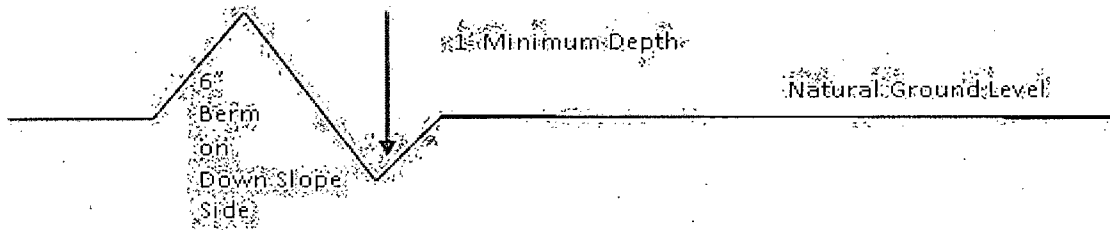
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

**Drainage**

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

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

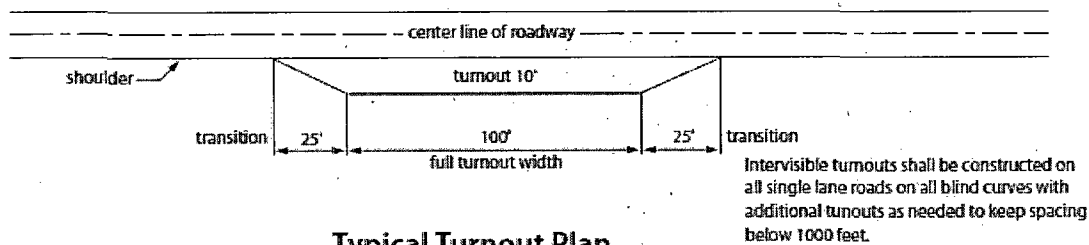
#### **Public Access**

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

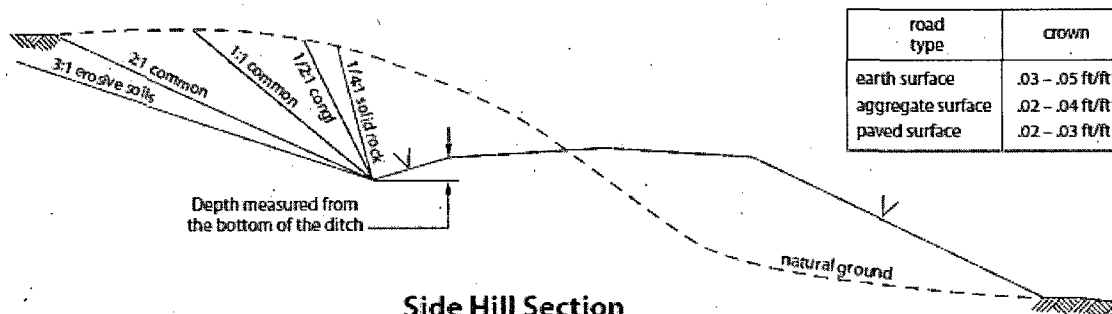
3. Redistribute topsoil
4. Revegetate slopes



**Typical Turnout Plan**



**Level Ground Section**



**Side Hill Section**

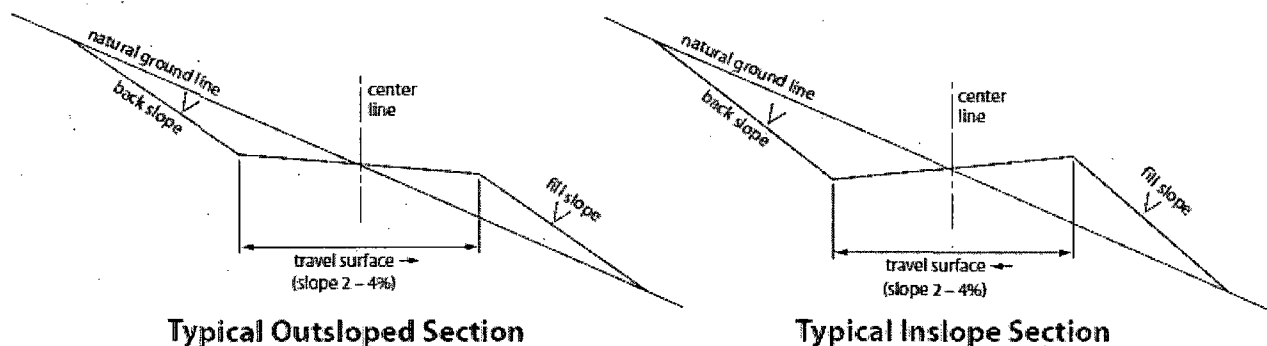


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

## 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. **Although Hydrogen Sulfide has not been reported in the area, it is always a potential hazard. If Hydrogen Sulfide is encountered, report measured amounts 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 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) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. IF OPERATOR DOES NOT HAVE THE WELL SPECIFIC CEMENT DETAILS ONSITE PRIOR TO PUMPING THE CEMENT FOR EACH CASING STRING, THE WOC WILL BE 30 HOURS. 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.**

**Medium Cave/Karst**

**Possible water flows in the Castile and Delaware.**

**Possible lost circulation in the Salado, Delaware, and Bone Spring.**

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.**
  - 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, which shall be set at approximately **2600** feet, 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.**

**If 75% or greater lost circulation occurs while drilling the intermediate casing hole, the cement on the production casing must come to surface.**

**Centralizers are approved as written.**

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

☒ Cement as proposed by operator. Operator shall provide method of verification.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

### **C. PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. **Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 5000 (5M) psi. 5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.**

- a. **Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.**
- b. **If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.**
- c. **Manufacturer representative shall install the test plug for the initial BOP test.**
- d. **Operator shall perform the intermediate casing integrity test to 70% of the casing burst. This will test the multi-bowl seals.**
- e. **If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.**

3. 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**.
- c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- d. The results of the test shall be reported to the appropriate BLM office.
- e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**
- f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

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

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

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

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

**CRW 081114**



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

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

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

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

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

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

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

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

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

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

#### **Containment Structures**

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the

largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

### **Painting Requirement**

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

## **B. PIPELINES**

### **BURIED PIPELINE STIPULATIONS**

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

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

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.
4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to

repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

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

- |  |  |
|--|--|
| <input type="checkbox"/> seed mixture 1            | <input type="checkbox"/> seed mixture 3          |
| <input checked="" 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.

## **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 2, for Sandy Sites

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

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

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

<u>Species</u>	<u>lb/acre</u>
Sand dropseed ( <i>Sporobolus cryptandrus</i> )	1.0
Sand love grass ( <i>Eragrostis trichodes</i> )	1.0
Plains bristlegrass ( <i>Setaria macrostachya</i> )	2.0

\*Pounds of pure live seed:

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