

OLD

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. **LC 029387A**
NMLC-029387-D(BH); NMLC-029387-B

6. If Indian, Allottee or Tribe Name

1a. Type of work: DRILL REENTER

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

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

8. Lease Name and Well No.
Shaula 30 Fed Com 3H

2. Name of Operator Devon Energy Production Company, L.P.

9. API Well No.
30-015-41553

3a. Address 333 W. Sheridan
Oklahoma City, OK 73102

3b. Phone No. (include area code)
405-235-3611

10. Field and Pool, or Exploratory
Hackberry; Bone Spring, North **<56405>**

4. Location of Well (Report location clearly and in accordance with any State requirements.)
At surface SHL: ²²¹⁰2070' FSL & ⁰²⁷⁵145' FWL L
At proposed prod. zone BHL:1650' FSL & 340' FWL 3, Sec 30 PP: 1750 FSL & 525 FEL

11. Sec., T. R. M. or Blk. and Survey or Area
SHL: Sec 29 T18S R31E
BHL/PP: Sec 30 T18S R31E

14. Distance in miles and direction from nearest town or post office*
11 miles SW of Maljamar, NM

12. County or Parish
Eddy 13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
See attached map

16. No. of acres in lease
151 ac (NMLC-029387-D)
660.58ac(NMLC-029387-B)
320 LC-029387A

17. Spacing Unit dedicated to this well
155.46 ac

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
See attached map

19. Proposed Depth
8790' TVD/13576' TMD

20. BLM/BIA Bond No. on file
CO-1104; NMB-000801

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
-3590.5 GL **3594.5 per plat**

22. Approximate date work will start*

23. Estimated duration
45 Days

24. Attachments

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

- 1. Well plat certified by a registered surveyor.
- 2. A Drilling Plan.
- 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- 5. Operator certification
- 6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature

Name (Printed/Typed)
Ryan DeLong

Date
04/23/2013

Title
Regulatory Compliance Professional

Approved by (Signature) **/s/ James Stovall**

Name (Printed/Typed)

Date
JUL 11 2013

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.

APPROVAL FOR TWO YEARS

Conditions of approval, if any, are attached.

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

CAPITAN CONTROLLED WATER BASIN

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

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

¹ API Number 30-015-41553		² Pool Code 56405		³ Pool Name SHAUGART Hackberry: Bone Spring, North	
⁴ Property Code 40032		⁵ Property Name SHAULA "30" FED COM			⁶ Well Number 3H
⁷ OGRID No. 6137		⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.			⁹ Elevation 3594.5

¹⁰ Surface Location

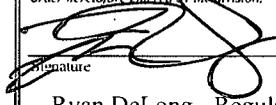
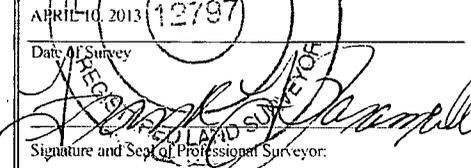
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	29	18 S	31 E		2310	SOUTH	275	WEST	EDDY

¹¹ 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
3	30	18 S	31 E		1650	SOUTH	340	WEST	EDDY

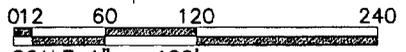
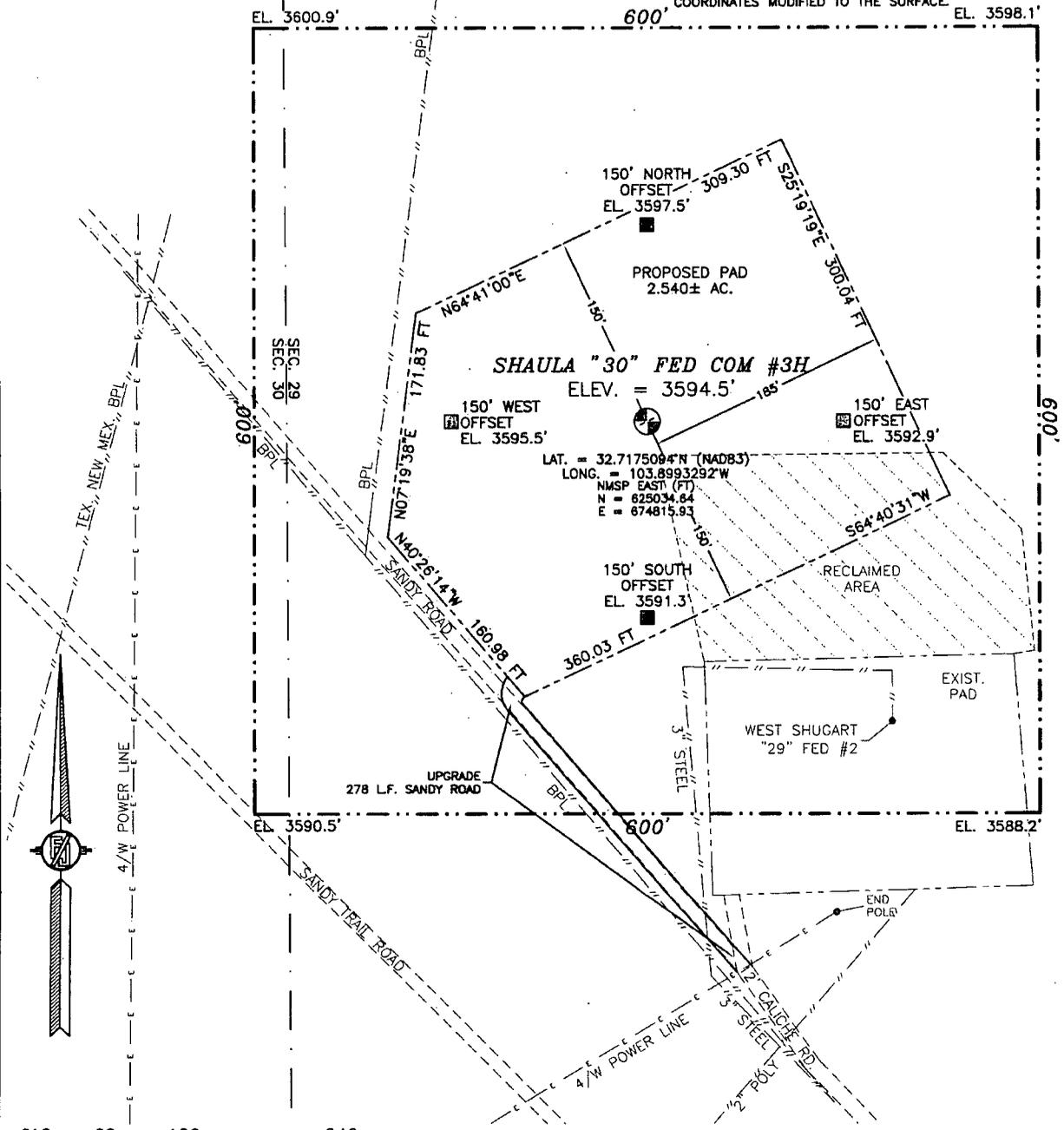
¹² Dedicated Acres 155.46 ac	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<p>NW CORNER SEC. 30 LAT. = 32.7256498"N LONG. = 103.9168974"W</p> <p>N O CORNER SEC. 30 LAT. = 32.7256620"N LONG. = 103.9088238"W</p> <p>SECTION CORNER LAT. = 32.7256739"N LONG. = 103.9002362"W</p> <p>N O CORNER SEC. 29 LAT. = 32.7256884"N LONG. = 103.8916567"W</p> <p>NE CORNER SEC. 29 LAT. = 32.7257034"N LONG. = 103.8830704"W</p> <p>NMSP EAST (FT) N = 627974.54 E = 669401.12</p> <p>NMSP EAST (FT) N = 627928.82 E = 671803.94</p> <p>NMSP EAST (FT) N = 628003.83 E = 674524.82</p> <p>NMSP EAST (FT) N = 628020.00 E = 677163.22</p> <p>NMSP EAST (FT) N = 628036.58 E = 679803.71</p>					<p>17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p>Signature:  Date: 4/23/2013 Ryan DeLong - Regulatory Analyst Printed Name: _____ E-mail Address: ryan.delong@dvn.com</p>				
<p>LOT 1 NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE.</p> <p>SHAULA "30" FED COM #3H ELEV. = 3594.5' LAT. = 32.7175094"N (NAD83) LONG. = 103.8993292"W</p> <p>QUARTER CORNER LAT. = 32.7184177"N LONG. = 103.9002251"W</p> <p>NMSP EAST (FT) N = 625363.96 E = 674539.03</p> <p>W O CORNER SEC. 30 LAT. = 32.7183929"N LONG. = 103.9168996"W</p> <p>NMSP EAST (FT) N = 625334.36 E = 669410.87</p> <p>SEC. 30</p> <p>LOT 3 - 35.46 AC.</p> <p>340' BOTTOM OF HOLE LAT. = 32.7156726"N LONG. = 103.9157959"W</p> <p>BOTTOM OF HOLE N = 624346.02 E = 669754.16</p> <p>275' SURFACE LOCATION</p> <p>SEC. 29</p> <p>E O CORNER SEC. 29 LAT. = 32.7184472"N LONG. = 103.8830570"W</p> <p>NMSP EAST (FT) N = 625396.67 E = 679819.03</p>					<p>18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>APR 10 2013 12797</p> <p>Date of Survey: _____ Signature and Seal of Professional Surveyor:  Certificate Number: FILIXION F. JARAMILLO, PLS 12797 SURVEY NO. 1539B</p>				
<p>SW CORNER SEC. 30 LAT. = 32.7111368"N LONG. = 103.9168936"W</p> <p>S O CORNER SEC. 30 LAT. = 32.7111482"N LONG. = 103.9087901"W</p> <p>SECTION CORNER LAT. = 32.7111600"N LONG. = 103.9002091"W</p> <p>S O CORNER SEC. 29 LAT. = 32.7111746"N LONG. = 103.8916253"W</p> <p>SE CORNER SEC. 29 LAT. = 32.7111896"N LONG. = 103.8830420"W</p> <p>NMSP EAST (FT) N = 622694.50 E = 669419.94</p> <p>NMSP EAST (FT) N = 622708.56 E = 671915.46</p> <p>NMSP EAST (FT) N = 622723.53 E = 674554.74</p> <p>NMSP EAST (FT) N = 622739.71 E = 677194.73</p> <p>NMSP EAST (FT) N = 622756.28 E = 679834.87</p>									

SECTION 29, TOWNSHIP 18 SOUTH, RANGE 31 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

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



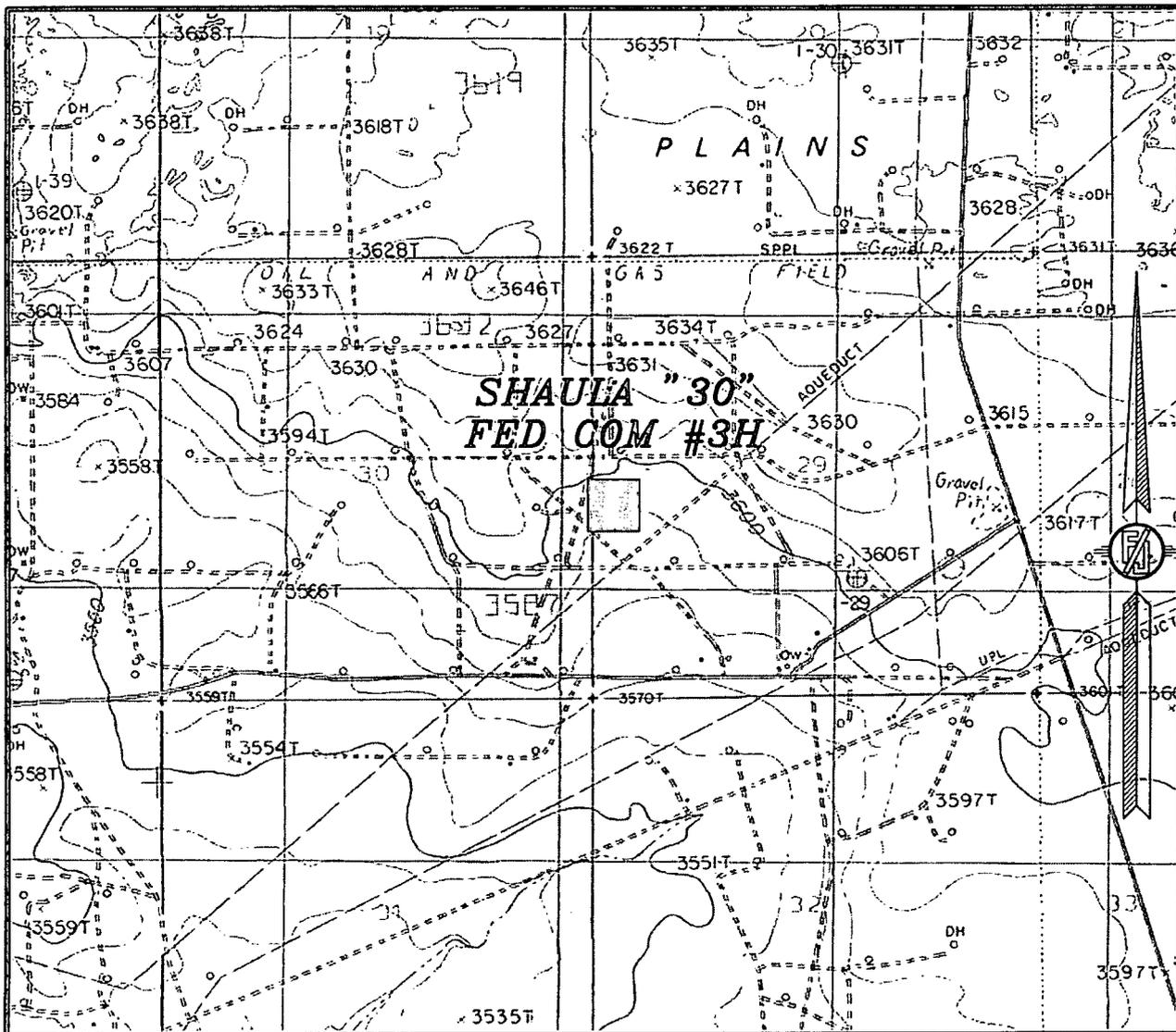
SCALE 1" = 120'
 DIRECTIONS TO LOCATION
 FROM CR 222 (SHUGART) AND CR 250 (GRUBBS) GO SOUTHWEST THEN WEST ON CR 250 A TOTAL OF 0.8 MILES, TURN RIGHT (NORTH) ON CALICHE ROAD AND GO NORTHWEST 0.41 MILES AND LOCATION IS NORTHWEST 293'.

DEVON ENERGY PRODUCTION COMPANY, L.P.
SHAULA "30" FED COM #3H
 LOCATED 2310 FT. FROM THE SOUTH LINE
 AND 275 FT. FROM THE WEST LINE OF
 SECTION 29, TOWNSHIP 18 SOUTH,
 RANGE 31 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

APRIL 10, 2013

SURVEY NO. 1539B

SECTION 29, TOWNSHIP 18 SOUTH, RANGE 31 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 LOCATION VERIFICATION MAP



USGS QUAD MAP:
 HACKBERRY LAKE

NOT TO SCALE

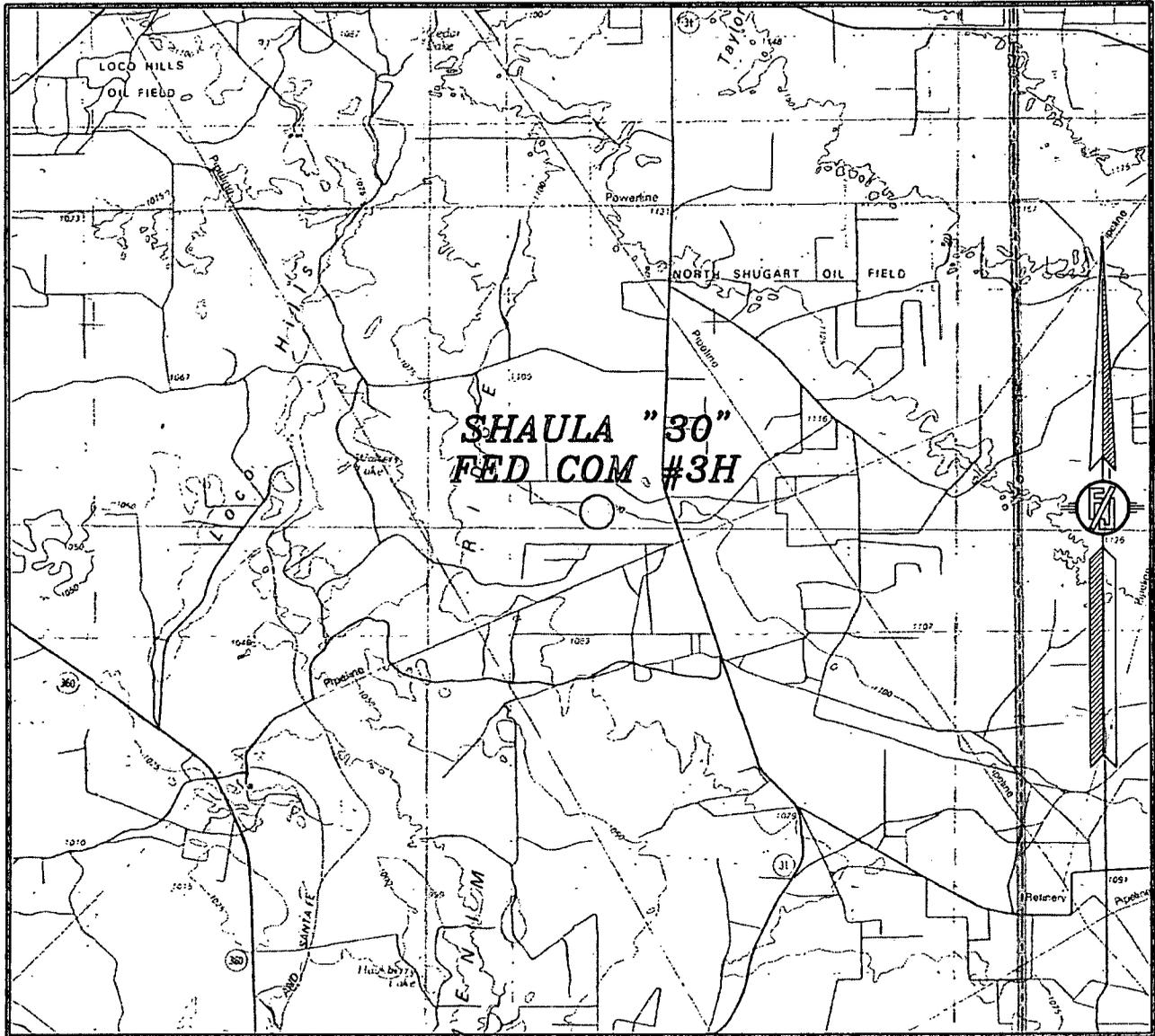
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 RANGE 31 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

APRIL 10, 2013

SURVEY NO. 1539B

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

SECTION 29, TOWNSHIP 18 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
VICINITY MAP



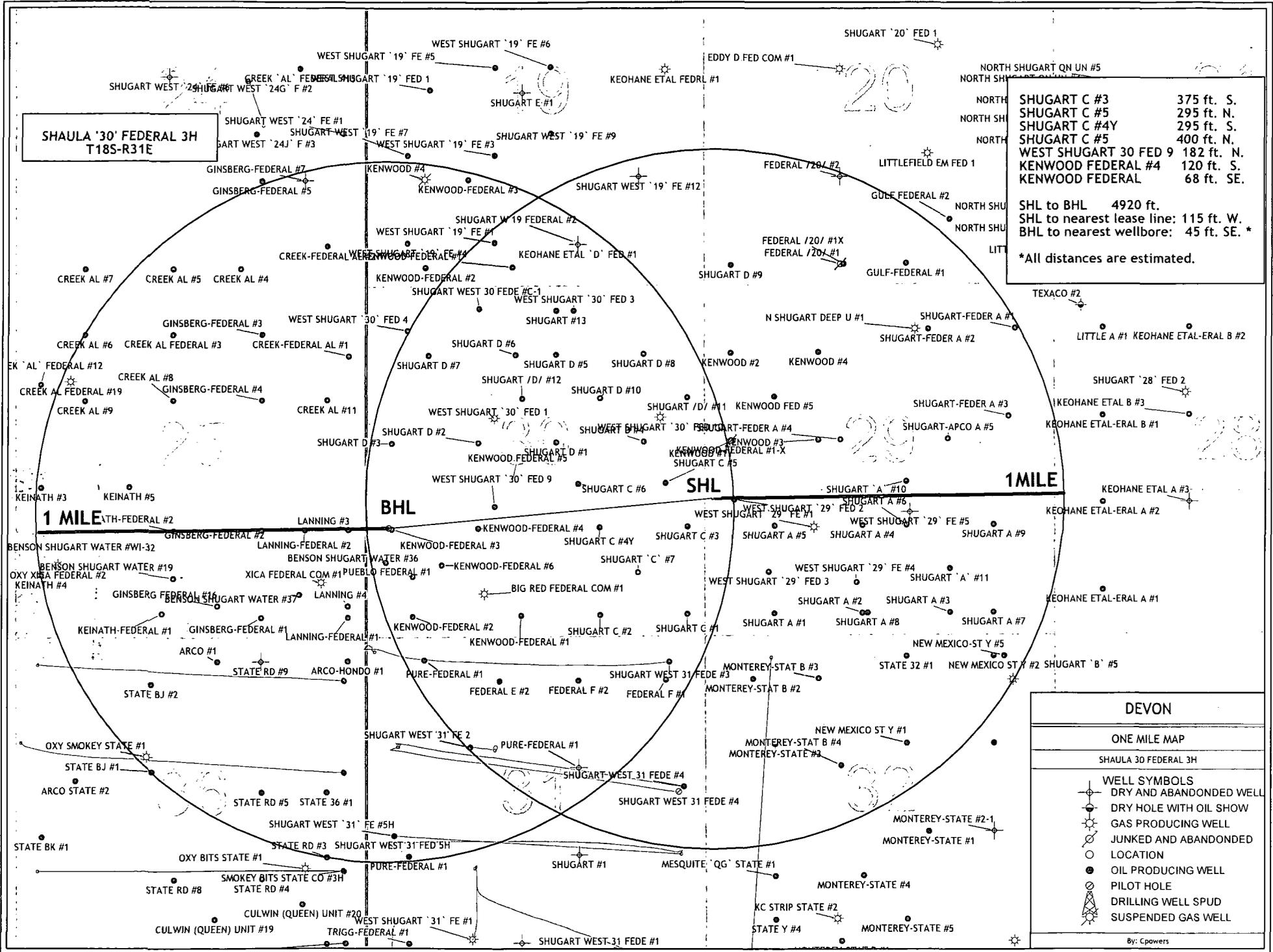
NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.
SHAULA "30" FED COM #3H
LOCATED 2310 FT. FROM THE SOUTH LINE
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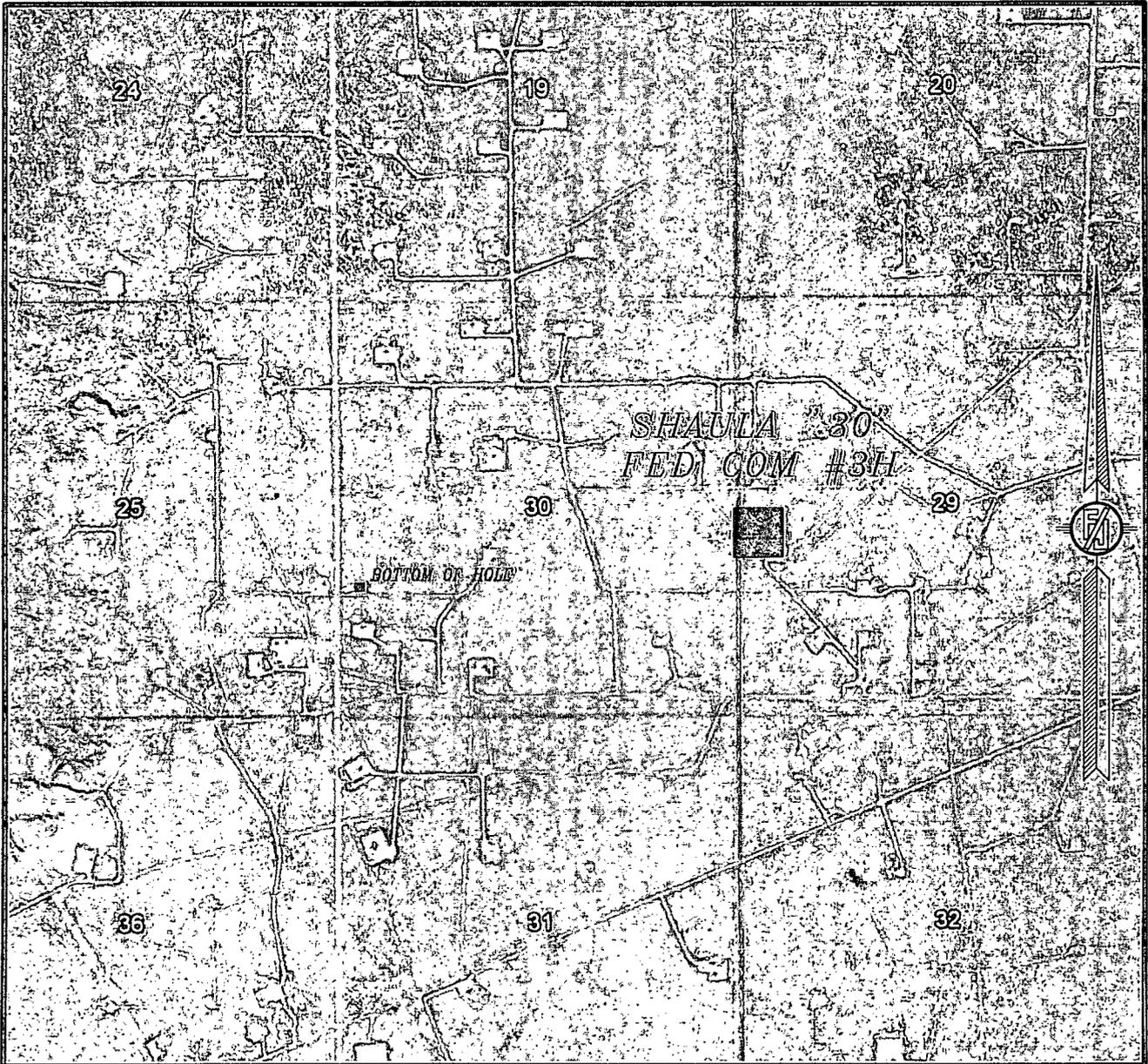


**SHAULA '30' FEDERAL 3H
T18S-R31E**

NORTH SHUGART QN UN #5		
NORTH SHUGART QN UN #5	SHUGART C #3	375 ft. S.
NORTH SHUGART QN UN #5	SHUGART C #5	295 ft. N.
NORTH SHUGART QN UN #5	SHUGART C #4Y	295 ft. S.
NORTH SHUGART QN UN #5	SHUGART C #5	400 ft. N.
NORTH SHUGART QN UN #5	WEST SHUGART 30 FED 9	182 ft. N.
NORTH SHUGART QN UN #5	KENWOOD FEDERAL #4	120 ft. S.
NORTH SHUGART QN UN #5	KENWOOD FEDERAL	68 ft. SE.
NORTH SHUGART QN UN #5	SHL to BHL	4920 ft.
NORTH SHUGART QN UN #5	SHL to nearest lease line:	115 ft. W.
NORTH SHUGART QN UN #5	BHL to nearest wellbore:	45 ft. SE. *
*All distances are estimated.		

DEVON	
ONE MILE MAP	
SHAULA 30 FEDERAL 3H	
WELL SYMBOLS	
	DRY AND ABANDONED WELL
	DRY HOLE WITH OIL SHOW
	GAS PRODUCING WELL
	JUNKED AND ABANDONED
	LOCATION
	OIL PRODUCING WELL
	PILOT HOLE
	DRILLING WELL SPUD
	SUSPENDED GAS WELL
By: Cpowers	

SECTION 29, TOWNSHIP 18 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
MARCH 2012

DEVON ENERGY PRODUCTION COMPANY, L.P.
SHAULA "30" FED COM #3H
LOCATED 2310 FT. FROM THE SOUTH LINE
AND 275 FT. FROM THE WEST LINE OF
SECTION 29, TOWNSHIP 18 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

APRIL 10, 2013

SURVEY NO. 1539B

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

DRILLING PROGRAM

Devon Energy Production Company, LP

Shaula 30 Fed 3H

Surface Location: 2070' FSL & 115' FWL, Unit L, Sec 29 T18S R31E, Eddy, NM
 Bottom Hole Location: 1650' FSL & 340' FWL, Unit L, Sec 30 T18S R31E, Eddy, NM

1. Geologic Name of Surface Formation

a. Quat Alluvium

2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:

a. Fresh Water	95'	
b. Rustler	565'	Barren
c. Salado	745'	Barren
d. Tansil Dolomite	1980'	Barren
e. Yates	2120'	Oil
f. Seven Rivers	2630'	Oil
g. Queen	3200'	Oil
h. Grayburg	3650'	Oil
i. Delaware	4475'	Oil
j. Bone Spring	6085'	Oil
k. 1 st Bone Spring Ss	7730'	Oil
l. 2 nd Bone Spring Lm	8080'	Oil
m. 2 nd Bone Spring Ss	8625'	Oil
Total Depth	13,576'	

Casing Program:

<u>Hole Size</u>	<u>Hole Interval</u>	<u>OD Csg</u>	<u>Casing Interval</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
17 1/2"	0' - 700' ^{50'}	13 3/8"	0' - 700'	48#	ST&C	H-40
12 1/4"	700' - 4400' ^{4100'}	9 5/8"	0' - 4400'	40#	LT&C	J-55
8 3/4"	4400' - 8000'	5 1/2"	0' - 8000'	17#	LT&C	HCP-110
8 3/4"	8000' - 13576'	5 1/2"	8000' - 13576'	17#	BT&C	HCP-110

See COA

All casing is new and API approved.

Design Parameter Factors:

<u>Casing Size</u>	<u>Collapse Design</u>	<u>Burst Design</u>	<u>Tension Design</u>
	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>
13 3/8"	2.22	4.9	16.1
9 5/8"	1.1	1.7	3.6
5 1/2"	2.4	2.9	1.9
5 1/2"	2.2	2.7	5.8

NOTE REGARDING COLLAPSE DESIGN FACTOR FOR INTERMEDIATE CASING: The maximum possible collapse load that the intermediate casing will experience will result from evacuated casing with the pore pressure exerting a collapse load at TD. The pore pressure is estimated to be 10.0 ppg for this calculation. This results in a collapse design factor of 1.1 for the 9-5/8" 40# J-55 LTC casing at a depth of 4,400 ft. While running the intermediate casing, the casing string will never be completely evacuated. There is no potential for the intermediate casing to be used as a production string.

Cement Program: (all cement volumes based on at least 25% excess)

3.

- a. 13 3/8" Surface **Lead:** 750 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 56.3% Fresh Water, 14.8 ppg. **Yield** 1.35 cf/sk. TOC @ surface.
- b. 9 5/8" Intermediate **Lead:** 1,265 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.1% bwoc R-3 + 0.125 lbs/sack Cello Flake + 1% bwoc Sodium Metasilicate + 0.25% bwoc FL-52A + 92.7% Fresh Water, 12.6 ppg. **Yield** 1.73 cf/sk.
- Tail:** 300 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.1% bwoc Sodium Metasilicate + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 65.2% Fresh Water, 13.8 ppg. **Yield** 1.38cf/sk TOC @ Surface
- c. 5 1/2" Production **1st Slurry:** 355 sacks (50:50) Poz (Fly Ash):Class H Cement + 0.5% bwoc FL-52 + 0.3% bwoc ASA-301 + 10% bwoc Bentonite + 0.3% bwoc R-21+ 130.7% Fresh Water, 11.8 ppg. **Yield** 2.3 cf/sk.
- 2nd Slurry :** 485 sacks (35:65) Poz (Fly Ash):Class H Cement + 3% bwoc Sodium Chloride + 0.2% bwoc R-3 + 0.125 lbs/sack Cello Flake + 0.7% bwoc FL-52 + 0.3% bwoc ASA-301 + 6% bwoc Bentonite + 105.5% Fresh Water, 12.5 ppg. **Yield** 2.01 cf/sx.
- 3rd Slurry:** 1,360 sacks (50:50) Poz (Fly Ash):Class H Cement + 5% bwow Sodium Chloride + 0.3% bwoc CD-32 + 0.5% bwoc FL-25 + 0.4% bwoc FL-52 + 0.25% bwoc Sodium Metasilicate + 57.2% Fresh Water, 14.2 ppg. **Yield:** 1.28 cf/sk. TOC@ 3900ft.

ACTUAL CEMENT VOLUMES WILL BE ADJUSTED BASED ON FLUID CALIPER OR CALIPER LOG DATA.

The above cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach approximately 500' above the 9 5/8" casing shoe.

Pressure Control Equipment

A 3M 13-5/8" BOP system (Double Ram and Annular preventer) will be installed and tested prior to drilling out the surface casing shoe. The BOP system used to drill the intermediate hole will be tested per BLM Onshore Oil and Gas Order 2.

A 3M 13-5/8" BOP system (Double Ram and Annular preventer) will be installed and tested prior to drilling out the intermediate casing shoe. The BOP system used to drill the production hole will be tested per BLM Onshore Oil and Gas Order 2.

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.

*See
5/20/08*
Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line); if an H&P rig drills this well. Otherwise no flex line is needed. The line will be kept as straight as possible with minimal turns.

Proposed Mud Circulation System

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
0' - 700' ^{650'}	8.4-9.7	32-34	NC	FW
700' - 4400' ^{4100'}	10.0	28	NC	Brine
4400' - 13576'	8.3-8.7	28-32	NC - 30cc	FW

The necessary mud products for weight addition and fluid loss control will be on location at all times. Visual mud monitoring equipment will be in place to detect volume changes indicating loss or gain of circulating fluid volume. If abnormal pressures are encountered, electronic/mechanical mud monitoring equipment will be installed.

4. **Auxiliary Well Control and Monitoring Equipment:**
 - a. A Kelly cock will be in the drill string at all times.
 - b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
 - c. Hydrogen Sulfide detection equipment will be in operation after drilling out the 13 3/8" casing shoe until the 5 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached.

5. Logging, Coring, and Testing Program:

- a. Drill stem tests will be based on geological sample shows.
- b. If a drill stem test is anticipated; a procedure, equipment to be used and safety measures will be provided via sundry notice to the BLM.
- c. The open hole electrical logging program will be:
 - i. Total Depth to Intermediate Casing Dual Laterolog-Micro Laterolog with SP and Gamma Ray. Compensated Neutron – Z Density log with Gamma Ray and Caliper.
 - ii. Total Depth to Surface Compensated Neutron with Gamma Ray
 - iii. No coring program is planned
 - iv. Additional testing will be initiated subsequent to setting the 5 ½” production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

6. Potential Hazards:

- a. No abnormal pressures or temperatures are expected. There is no known presence of H₂S in this area. If H₂S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6 No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 3800 psi and Estimated BHT 140°. No H₂S is anticipated to be encountered.

*See
CDAs*

7. Anticipated Starting Date and Duration of Operations:

- a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 32 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.



Devon Shaula 30 Federal #3H Rev1 MDT 6Mar13 Anti-Collision Summary Report

Analysis Date-24hr Time: April 15, 2013 - 15:39
Client: Devon
Field: NM Eddy County (NAD 83)
Structure: Devon Shaula 30 Federal #3H
Slot: Devon Shaula 30 Federal #3H
Well: Devon Shaula 30 Federal #3H
Borehole: Original Borehole

Analysis Method: 3D Least Distance
Reference Trajectory: Devon Shaula 30 Federal #3H Rev1 MDT 6Mar13 (Def Plan)
Depth Interval: Every 10.00 Measured Depth (ft)
Rule Set: D&M AntiCollision Standard S002 v5.1/5.2
Min Pts: All local minima indicated.

Offset Trajectories Summary

Offset Selection Criteria
 Wellhead distance scan:
 Selection filters:

Restricted within 54586.58 ft
 Definitive Surveys - Definitive Plans - Definitive surveys exclude definitive plans
 - All Non-Def Surveys when no Def-Survey is set in a borehole - All Non-Def Plans when no Def-Plan is set in a borehole

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level					Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major	Major	Major		
Devon West Shugart 30 Federal #9 Inc Only Off-10350ft (Def Survey)															Fail Major
	3266.56	32.81	3264.06	3233.75	N/A	MAS = 10.00 (m)	0.00	0.00							Surface
	3266.39	32.81	3263.87	3233.58	174452.74	MAS = 10.00 (m)	20.00	20.00							MinPt-O-SF
	3266.34	32.81	3263.79	3233.54	56683.97	MAS = 10.00 (m)	40.00	40.00							MinPts
	2382.83	719.86	1901.65	1662.97	4.98	OSF 1.50	9550.00	8826.38	OSF<5.00						Enter Alert
	708.81	716.58	229.20	-7.77	1.48	OSF 1.50	11240.00	8811.04	OSF<1.50						Enter Minor
	474.87	711.02	-1.09	-238.15	1.00	OSF 1.50	11480.00	8808.88			OSF<1.00				Enter Major
	174.34	638.98	-253.27	-484.84	0.40	OSF 1.50	11820.00	8805.82							MinPt-O-ADP
	155.82	615.98	-256.30	-480.16	0.37	OSF 1.50	11850.00	8805.55							MINPT-O-EOU
	129.49	559.44	-244.30	-429.94	0.34	OSF 1.50	11930.00	8804.83							MinPt-O-SF
	120.34	558.73	-243.97	-429.38	0.34	OSF 1.50	11940.00	8804.74							MinPt-CtCt
	153.68	607.67	-252.26	-453.99	0.37	OSF 1.50	12020.00	8804.02							MINPT-O-EOU
	171.76	630.56	-249.45	-458.80	0.40	OSF 1.50	12050.00	8803.75							MinPt-O-ADP
	461.52	704.92	-9.26	-243.40	0.98	OSF 1.50	12380.00	8800.77			OSF>1.00				Exit Major
	704.99	711.41	229.88	-6.43	1.49	OSF 1.50	12630.00	8798.52	OSF>1.50						Exit Minor
	1644.16	714.98	1166.68	929.18	3.46	OSF 1.50	13576.08	8790.00							TD
Big Red Fed #1 Inc Only Surveys 0-11904ft (Def Survey)															Warning Alert
	3697.69	32.81	3695.19	3664.88	N/A	MAS = 10.00 (m)	0.00	0.00							Surface
	3697.46	32.81	3694.93	3664.65	120376.71	MAS = 10.00 (m)	20.00	20.00							MinPt-O-SF
	3697.32	32.81	3694.65	3664.51	21988.80	MAS = 10.00 (m)	60.00	60.00							MinPts
	1967.77	595.51	1569.18	1372.26	4.98	OSF 1.50	10470.00	8817.98	OSF<5.00						Enter Alert
	1127.57	559.78	753.39	567.80	3.03	OSF 1.50	12080.00	8803.48							MinPt-CtCt
	1127.70	560.24	753.23	567.46	3.03	OSF 1.50	12100.00	8803.30							MINPT-O-EOU
	1127.90	560.50	753.28	567.40	3.03	OSF 1.50	12110.00	8803.21							MinPt-O-ADP
	1130.21	561.90	754.72	568.31	3.02	OSF 1.50	12160.00	8802.76							MinPt-O-SF
	1871.18	615.79	1459.82	1255.39	4.57	OSF 1.50	13576.08	8790.00							TD

WELL: Devon Shaula 30 Federal #3H	FIELD: NM Eddy County (NAD 83)	STRUCTURE: H&P 300
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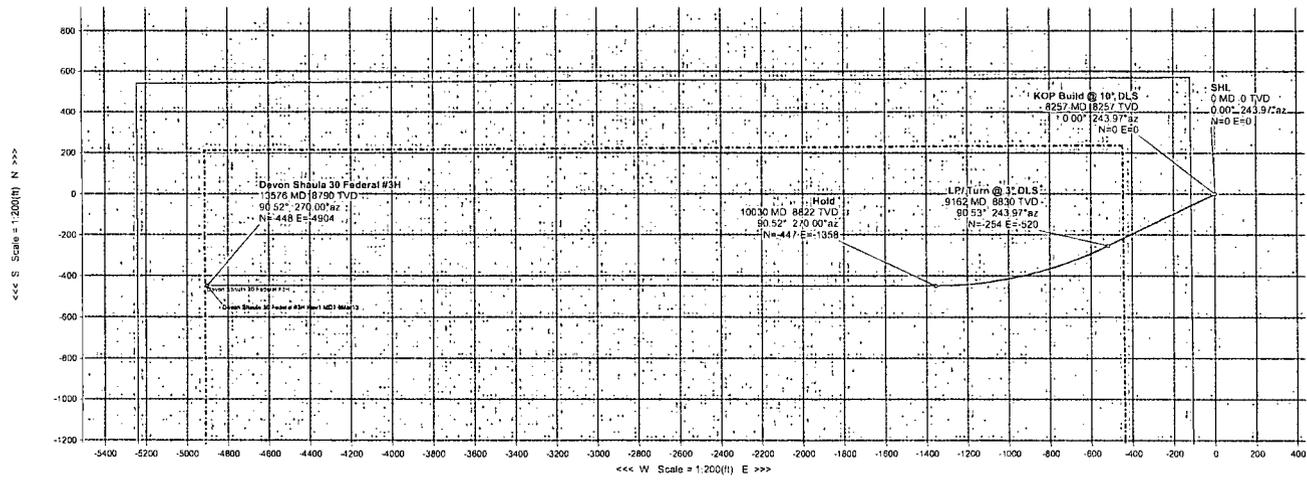
Magnetic Parameters Model: IIGGM 302 Dip: 60.562° Mag Dec: 7.676°	Date: February 19, 2013 IS: 4885.3m	Surface Location Lat: N 32.41 0.657 Lon: W 101.51 5.452	NA1983 New Mexico State Plane, Fathom Zone, US Level Northing: 624793.73 mUS Easting: 674657.40 mUS Scale Fact: 0.99992145	Map/Location Site: Shaula 30 Federal #3H Plan: Rev 1 MDT 6M2a1	TVD Ref: RK16 M66.50 (above 1) Srv Date: February 19, 2013
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Legend

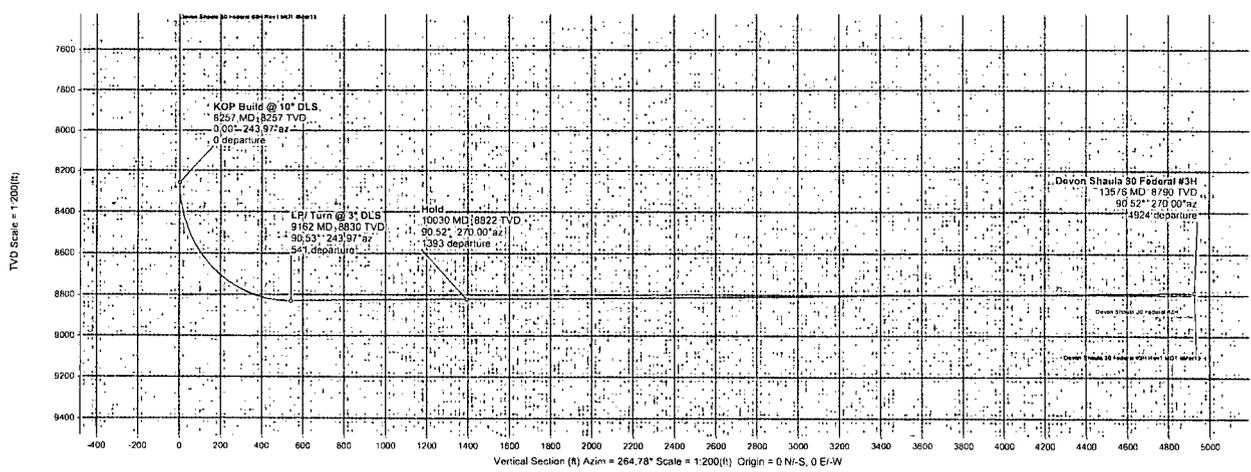
Devon Shaula 30 Federal #3H
Devon Shaula 30 Federal #3H
Devon Shaula 30 Federal #3H
Devon Shaula 30 Federal #3H



Grid North
Tot Corr (M->G)
7.4417°
Mag Dec (7.676°)
Grid Conv (0.234°)



Comments	Survey MD(ft)	Inclination(deg)	Azimuth(deg)	TVD(ft)	Sub-Sea TVD	VS(ft)	NS(ft)	EW(ft)	Northing(mUS)	Easting(mUS)	Closure(ft)	Closure Azimuth(deg)	DLS(ft/100ft)	Tool Face(deg)
SHL	0.00	0.00	243.97	0.00	-3616.50	0.00	0.00	0.00	624793.73	674657.40	0.00	0.00		243.97
KOP Build @ 10° DLS	8257.07	0.00	243.97	8257.07	4640.57	0.00	0.00	0.00	624793.73	674657.40	0.00	0.00	0.00	243.97
LP/Turn @ 3° DLS	9162.36	90.53	243.97	8830.00	5213.50	540.52	-253.76	-519.60	624539.99	674137.84	578.25	243.97	10.00	89.91
Hold	10029.85	90.52	270.00	8821.94	5205.44	1392.57	-447.47	-1357.51	624346.29	673299.99	1429.36	251.76	3.00	0.00
Devon Shaula 30 Federal #3H	13576.08	90.52	270.00	8790.00	5173.50	4923.99	-447.74	-4903.60	624346.02	669754.16	4923.99	264.78	0.00	



Drawn By: Curtin Usher
Date Created: March 06, 2013 10:16:16 AM
Checked By:
Checked Date:
Approved By:
Approved Date:



Devon Shaula 30 Federal #3H Rev1 MDT 6Mar13 Proposal Geodetic Report



(Def Plan)

Report Date: March 06, 2013 - 10:28 AM
Client: Devon
Field: NM Eddy County (NAD 83)
Structure / Slot: Devon Shaula 30 Federal #3H / Devon Shaula 30 Federal #3H
Well: Devon Shaula 30 Federal #3H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Devon Shaula 30 Federal #3H Rev1 MDT 6Mar13
Survey Date: February 19, 2013
Tort / AHD / DDI / ERD Ratio: 116.555 ° / 4991.790 ft / 5.952 / 0.565
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 43' 0.65663", W 103° 53' 59.45208"
Location Grid N/E Y/X: N 624793.730 ftUS, E 674657.400 ftUS
CRS Grid Convergence Angle: 0.2343 °
Grid Scale Factor: 0.99992945

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 264.783 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3616.500 ft above
Seabed / Ground Elevation: 3590.500 ft above
Magnetic Declination: 7.676 °
Total Gravity Field Strength: 999.1873 mgn (9.8 based)
Total Magnetic Field Strength: 48685.276 nT
Magnetic Dip Angle: 60.507 °
Declination Date: February 19, 2013
Magnetic Declination Model: BGGM 2012
North Reference: Grid North
Grid Convergence Used: 0.2343 °
Total Corr Mag North->Grid North: 7.4417 °
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL	0.00	0.00	243.97	0.00	0.00	0.00	0.00	N/A	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
KOP Build @ 10° DLS	8257.07	0.00	243.97	8257.07	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
LP/ Turn @ 3° DLS	9162.36	90.53	243.97	8830.00	540.52	-253.76	-519.60	10.00	624539.99	674137.84	N 32 42 58.17	W 103 54 5.55
Hold	10029.85	90.52	270.00	8821.94	1392.57	-447.47	-1357.51	3.00	624346.29	673299.99	N 32 42 56.28	W 103 54 15.36
Devon Shaula 30 Federal #3H	13576.08	90.52	270.00	8790.00	4923.99	-447.74	-4903.60	0.00	624346.02	669754.16	N 32 42 56.42	W 103 54 56.87

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	26.000	1/100.000	30.000	30.000	SLB_MWD-STD-Depth Only	Original Borehole / Devon Shaula 30 Federal #3H Rev1 MDT
	26.000	13576.081	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Devon Shaula 30 Federal #3H Rev1 MDT



Devon Shaula 30 Federal #3H Rev1 MDT 6Mar13 Proposal Geodetic Report



(Def Plan)

Report Date: March 06, 2013 - 10:28 AM
 Client: Devon
 Field: NM Eddy County (NAD 83)
 Structure / Slot: Devon Shaula 30 Federal #3H / Devon Shaula 30 Federal #3H
 Well: Devon Shaula 30 Federal #3H
 Borehole: Original Borehole
 UWI / API#: Unknown / Unknown
 Survey Name: Devon Shaula 30 Federal #3H Rev1 MDT 6Mar13
 Survey Date: February 19, 2013
 Tort / AHD / DDI / ERD Ratio: 116.555' / 4991.790 ft / 5.952 / 0.565
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 43' 0.65863", W 103° 53' 59.45208"
 Location Grid N/E Y/X: N 624793.730 fTUS, E 674657.400 fTUS
 CRS Grid Convergence Angle: 0.2343 °
 Grid Scale Factor: 0.99992945

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 264.783 ° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB
 TVD Reference Elevation: 3616.500 ft above
 Seabed / Ground Elevation: 3590.500 ft above
 Magnetic Declination: 7.676 °
 Total Gravity Field Strength: 999.1873 mgn (9.8 based)
 Total Magnetic Field Strength: 48685.276 nT
 Magnetic Dip Angle: 60.507 °
 Declination Date: February 19, 2013
 Magnetic Declination Model: BGGM 2012
 North Reference: Grid North
 Grid Convergence Used: 0.2343 °
 Total Corr Mag North->Grid North: 7.4417 °
 Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (fTUS)	Easting (fTUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL	0.00	0.00	243.97	0.00	0.00	0.00	0.00	N/A	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	100.00	0.00	243.97	100.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	200.00	0.00	243.97	200.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	300.00	0.00	243.97	300.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	400.00	0.00	243.97	400.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	500.00	0.00	243.97	500.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	600.00	0.00	243.97	600.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	700.00	0.00	243.97	700.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	800.00	0.00	243.97	800.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	900.00	0.00	243.97	900.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	1000.00	0.00	243.97	1000.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	1100.00	0.00	243.97	1100.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	1200.00	0.00	243.97	1200.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	1300.00	0.00	243.97	1300.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	1400.00	0.00	243.97	1400.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	1500.00	0.00	243.97	1500.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	1600.00	0.00	243.97	1600.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	1700.00	0.00	243.97	1700.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	1800.00	0.00	243.97	1800.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	1900.00	0.00	243.97	1900.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	2000.00	0.00	243.97	2000.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	2100.00	0.00	243.97	2100.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	2200.00	0.00	243.97	2200.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	2300.00	0.00	243.97	2300.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	2400.00	0.00	243.97	2400.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	2500.00	0.00	243.97	2500.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	2600.00	0.00	243.97	2600.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	2700.00	0.00	243.97	2700.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	2800.00	0.00	243.97	2800.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	2900.00	0.00	243.97	2900.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	3000.00	0.00	243.97	3000.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	3100.00	0.00	243.97	3100.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	3200.00	0.00	243.97	3200.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	3300.00	0.00	243.97	3300.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	3400.00	0.00	243.97	3400.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	3500.00	0.00	243.97	3500.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	3600.00	0.00	243.97	3600.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	3700.00	0.00	243.97	3700.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	3800.00	0.00	243.97	3800.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	3900.00	0.00	243.97	3900.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	4000.00	0.00	243.97	4000.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	4100.00	0.00	243.97	4100.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	4200.00	0.00	243.97	4200.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	4300.00	0.00	243.97	4300.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	4400.00	0.00	243.97	4400.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	4500.00	0.00	243.97	4500.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	4600.00	0.00	243.97	4600.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	4700.00	0.00	243.97	4700.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	4800.00	0.00	243.97	4800.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	4900.00	0.00	243.97	4900.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	5000.00	0.00	243.97	5000.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	5100.00	0.00	243.97	5100.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	5200.00	0.00	243.97	5200.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	5300.00	0.00	243.97	5300.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	5400.00	0.00	243.97	5400.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	5500.00	0.00	243.97	5500.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	5600.00	0.00	243.97	5600.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	5700.00	0.00	243.97	5700.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	5800.00	0.00	243.97	5800.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	5900.00	0.00	243.97	5900.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	6000.00	0.00	243.97	6000.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	6100.00	0.00	243.97	6100.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	6200.00	0.00	243.97	6200.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	6300.00	0.00	243.97	6300.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	6400.00	0.00	243.97	6400.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	6500.00	0.00	243.97	6500.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	6600.00	0.00	243.97	6600.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	6700.00	0.00	243.97	6700.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	6800.00	0.00	243.97	6800.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	6900.00	0.00	243.97	6900.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	7000.00	0.00	243.97	7000.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	7100.00	0.00	243.97	7100.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	7200.00	0.00	243.97	7200.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	7300.00	0.00	243.97	7300.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	7400.00	0.00	243.97	7400.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	7500.00	0.00	243.97	7500.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	7600.00	0.00	243.97	7600.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	7700.00	0.00	243.97	7700.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	7800.00	0.00	243.97	7800.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	7900.00	0.00	243.97	7900.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	8000.00	0.00	243.97	8000.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	8100.00	0.00	243.97	8100.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	8200.00	0.00	243.97	8200.00	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
KOP Build @ 10° DLS	8257.07	0.00	243.97	8257.07	0.00	0.00	0.00	0.00	624793.73	674657.40	N 32 43 0.66	W 103 53 59.45
	8300.00	4.29	243.97	8299.96	1.50	-0.71	-1.44	10.00	624793.02	674655.96	N 32 43 0.65	W 103 53 59.47
	8400.00	14.29	243.97	8398.52	16.58	-7.78	-15.94	10.00	624785.95	674641.46	N 32 43 0.58	W 103 53 59.64
	8500.00	24.29	243.97	8492.79	47.42	-22.26	-45.59	10.00	624771.47	674611.82	N 32 43 0.44	W 103 53 59.99
	8600.00	34.29	243.97	8579.89	93.10	-43.71	-89.50	10.00	624750.02	674567.91	N 32 43 0.23	W 103 54 0.50
	8700.00	44.29	243.97	8657.18	152.22	-71.46	-146.33	10.00	624722.27	674511.08	N 32 42 59.96	W 103 54 1.17
	8800.00	54.29	243.97	8722.32	222.99	-104.69	-214.36	10.00	624689.05	674443.06	N 32 42 59.63	W 103 54 1.97
	8900.00	64.29	243.97	8773.32	303.26	-142.37	-291.52	10.00	624651.37	674365.90	N 32 42 59.26	W 103 54 2.87
	9000.00	74.29	243.97	8808.63	390.58	-183.37	-375.46	10.00	624610.37	674281.96	N 32 42 58.86	W 103 54 3.86
	9100.00	84.29	243.97	8827.19	482.31	-226.44	-463.64	10.00	624567.31	674193.79	N 32 42 58.43	W 103 54 4.89
LPI Turn @ 3° DLS	9162.36	90.53	243.97	8830.00	540.52	-253.76	-519.60	10.00	624539.99	674137.84	N 32 42 58.17	W 103 54 5.55
	9200.00	90.53	245.10	8829.65	575.83	-269.94	-553.58	3.00	624523.81	674103.86	N 32 42 58.01	W 103 54 5.94
	9300.00	90.54	248.10	8828.72	670.82	-309.65	-645.34	3.00	624484.10	674012.11	N 32 42 57.62	W 103 54 7.02
	9400.00	90.54	251.10	8827.78	767.31	-344.51	-739.05	3.00	624449.25	673918.40	N 32 42 57.28	W 103 54 8.12
	9500.00	90.54	254.10	8826.85	865.05	-374.41	-834.46	3.00	624419.35	673823.00	N 32 42 56.99	W 103 54 9.24
	9600.00	90.54	257.10	8825.91	963.75	-399.27	-931.30	3.00	624394.49	673726.17	N 32 42 56.74	W 103 54 10.37
	9700.00	90.53	260.10	8824.97	1063.15	-419.04	-1029.31	3.00	624374.73	673628.16	N 32 42 56.55	W 103 54 11.52
	9800.00	90.53	263.10	8824.04	1162.98	-433.64	-1128.22	3.00	624360.12	673529.26	N 32 42 56.41	W 103 54 12.68
	9900.00	90.53	266.10	8823.12	1262.96	-443.05	-1227.76	3.00	624350.71	673429.72	N 32 42 56.32	W 103 54 13.84
	10000.00	90.52	269.10	8822.21	1362.83	-447.24	-1327.66	3.00	624346.52	673329.84	N 32 42 56.28	W 103 54 15.01
Hold	10029.85	90.52	270.00	8821.94	1392.57	-447.47	-1357.51	3.00	624346.29	673299.99	N 32 42 56.28	W 103 54 15.36
	10100.00	90.52	270.00	8821.31	1462.43	-447.48	-1427.66	0.00	624346.28	673229.85	N 32 42 56.29	W 103 54 16.18
	10200.00	90.52	270.00	8820.41	1562.01	-447.49	-1527.65	0.00	624346.28	673129.86	N 32 42 56.29	W 103 54 17.35
	10300.00	90.52	270.00	8819.51	1661.60	-447.49	-1627.65	0.00	624346.27	673029.87	N 32 42 56.29	W 103 54 18.52
	10400.00	90.52	270.00	8818.61	1761.18	-447.50	-1727.64	0.00	624346.26	672929.88	N 32 42 56.30	W 103 54 19.69
	10500.00	90.52	270.00	8817.71	1860.76	-447.51	-1827.64	0.00	624346.25	672829.89	N 32 42 56.30	W 103 54 20.86
	10600.00	90.52	270.00	8816.81	1960.34	-447.52	-1927.64	0.00	624346.25	672729.90	N 32 42 56.31	W 103 54 22.03
	10700.00	90.52	270.00	8815.91	2059.92	-447.52	-2027.63	0.00	624346.24	672629.92	N 32 42 56.31	W 103 54 23.20
	10800.00	90.52	270.00	8815.00	2159.51	-447.53	-2127.63	0.00	624346.23	672529.93	N 32 42 56.31	W 103 54 24.38
	10900.00	90.52	270.00	8814.10	2259.09	-447.54	-2227.62	0.00	624346.22	672429.94	N 32 42 56.32	W 103 54 25.55
	11000.00	90.52	270.00	8813.20	2358.67	-447.55	-2327.62	0.00	624346.22	672329.95	N 32 42 56.32	W 103 54 26.72
	11100.00	90.52	270.00	8812.30	2458.25	-447.55	-2427.61	0.00	624346.21	672229.96	N 32 42 56.33	W 103 54 27.89
	11200.00	90.52	270.00	8811.40	2557.84	-447.56	-2527.61	0.00	624346.20	672129.97	N 32 42 56.33	W 103 54 29.06
	11300.00	90.52	270.00	8810.50	2657.42	-447.57	-2627.61	0.00	624346.19	672029.98	N 32 42 56.33	W 103 54 30.23
	11400.00	90.52	270.00	8809.60	2757.00	-447.58	-2727.60	0.00	624346.19	671930.00	N 32 42 56.34	W 103 54 31.40
	11500.00	90.52	270.00	8808.70	2856.58	-447.58	-2827.60	0.00	624346.18	671830.01	N 32 42 56.34	W 103 54 32.57
	11600.00	90.52	270.00	8807.80	2956.17	-447.59	-2927.59	0.00	624346.17	671730.02	N 32 42 56.35	W 103 54 33.74
	11700.00	90.52	270.00	8806.90	3055.75	-447.60	-3027.59	0.00	624346.16	671630.03	N 32 42 56.35	W 103 54 34.91
	11800.00	90.52	270.00	8806.00	3155.33	-447.61	-3127.59	0.00	624346.15	671530.04	N 32 42 56.35	W 103 54 36.08
	11900.00	90.52	270.00	8805.10	3254.91	-447.62	-3227.58	0.00	624346.15	671430.05	N 32 42 56.36	W 103 54 37.25
	12000.00	90.52	270.00	8804.20	3354.50	-447.62	-3327.58	0.00	624346.14	671330.06	N 32 42 56.36	W 103 54 38.42
	12100.00	90.52	270.00	8803.30	3454.08	-447.63	-3427.57	0.00	624346.13	671230.07	N 32 42 56.36	W 103 54 39.59
	12200.00	90.52	270.00	8802.39	3553.66	-447.64	-3527.57	0.00	624346.12	671130.09	N 32 42 56.37	W 103 54 40.76
	12300.00	90.52	270.00	8801.49	3653.24	-447.65	-3627.57	0.00	624346.12	671030.10	N 32 42 56.37	W 103 54 41.93
	12400.00	90.52	270.00	8800.59	3752.83	-447.65	-3727.56	0.00	624346.11	670930.11	N 32 42 56.38	W 103 54 43.10
	12500.00	90.52	270.00	8799.69	3852.41	-447.66	-3827.56	0.00	624346.10	670830.12	N 32 42 56.38	W 103 54 44.27
	12600.00	90.52	270.00	8798.79	3951.99	-447.67	-3927.55	0.00	624346.09	670730.13	N 32 42 56.38	W 103 54 45.44
	12700.00	90.52	270.00	8797.89	4051.57	-447.68	-4027.55	0.00	624346.09	670630.14	N 32 42 56.39	W 103 54 46.61
	12800.00	90.52	270.00	8796.99	4151.15	-447.68	-4127.55	0.00	624346.08	670530.15	N 32 42 56.39	W 103 54 47.78
	12900.00	90.52	270.00	8796.09	4250.74	-447.69	-4227.54	0.00	624346.07	670430.16	N 32 42 56.40	W 103 54 48.95
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	13200.00	90.52	270.00	8793.39	4549.48	-447.71	-4527.53	0.00	624346.05	670130.20	N 32 42 56.41	W 103 54 52.46
	13300.00	90.52	270.00	8792.49	4649.07	-447.72	-4627.53	0.00	624346.04	670030.21	N 32 42 56.41	W 103 54 53.63
	13400.00	90.52	270.00	8791.59	4748.65	-447.73	-4727.52	0.00	624346.03	669930.22	N 32 42 56.41	W 103 54 54.80
	13500.00	90.52	270.00	8790.69	4848.23	-447.74	-4827.52	0.00	624346.03	669830.23	N 32 42 56.42	W 103 54 55.97
Devon Shaula 30 Federal #3H	13576.08	90.52	270.00	8790.00	4923.99	-447.74	-4903.60	0.00	624346.02	669754.16	N 32 42 56.42	W 103 54 56.87

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
 Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)
-------------	--------------	------------	---------------	----------------	----------------------

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	26.000		13576.081		1/100.000	30.000	30.000	SLB_MWD-STD				
Original Borehole / Devon Shaula 30 Federal #3H Rev1 MDT												

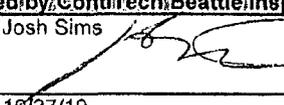
NOTES REGARDING BLOWOUT PREVENTERS
Devon Energy Production Company, LP
Shaula 30 Fed 3H

Surface Location: 2070' FSL & 115' FWL, Unit L, Sec 29 T18S R31E, Eddy, NM
Bottom Hole Location: 1650' FSL & 340' FWL, Unit L, Sec 30 T18S R31E, Eddy, NM

1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.
2. Wear ring will be properly installed in head.
3. Blowout preventer and all associated fittings will be in operable condition to withstand a minimum 3000 psi working pressure.
4. All fittings will be flanged.
5. A full bore safety valve tested to a minimum 3000 psi WP with proper thread connections will be available on the rotary rig floor at all times.
6. All choke lines will be anchored to prevent movement.
7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.
8. Will maintain a kelly cock attached to the kelly.
9. Hand wheels and wrenches will be properly installed and tested for safe operation.
10. Hydraulic floor control for blowout preventer will be located as near in proximity to driller's controls as possible.
11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.

Hydrostatic Test Certificate

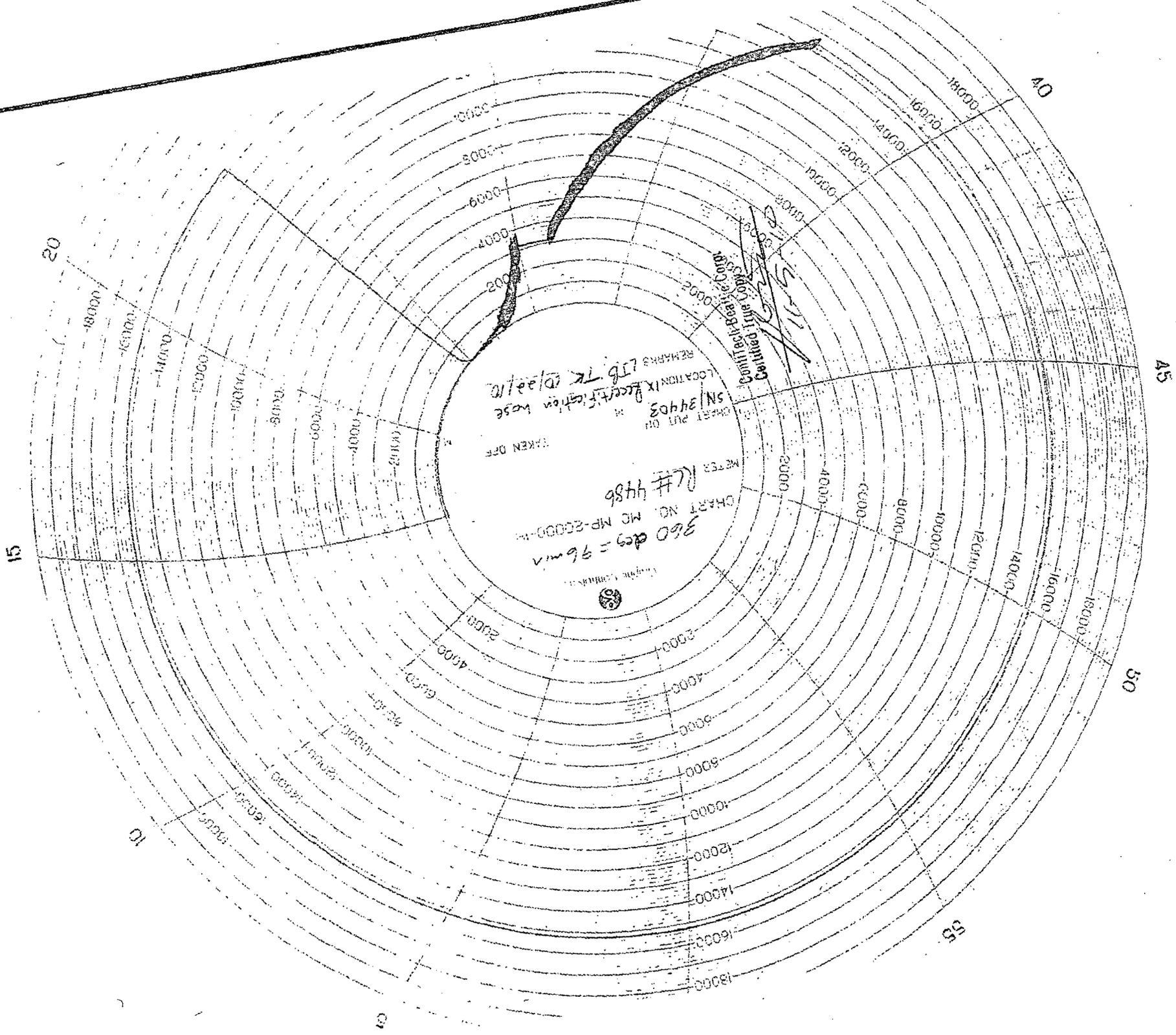


Certificate Number: 4520	PBC No: 10321	Customer Name & Address	
Customer Purchase Order No: RIG 300	Project:	HELMERICH & PAYNE INT'L DRILLING CO 1437 SOUTH BOULDER TULSA, OK 74119	
Test Centre Address		Accepted by ContiTech Beattie Inspection	Accepted by Client Inspection
ContiTech Beattie Corp. 11535 Brillmoore Park Drive Houston, TX 77041 USA		Signed: Josh Sims 	
		Date: 10/27/10	

We certify that the goods detailed hereon have been inspected by our Quality Management System, and to the best of our knowledge are found to conform to relevant industrial standards within the requirements of the purchase order as issued to ContiTech Beattie Corporation.

These goods were made in the United States of America.

Item	Part No.	Description	Qty	Serial Number	As-Built Length (m)	Work Press.	Test Press.	Test Time (minutes)
1		3" ID 10K Choke & Kill Hose x 35ft OAL End A: 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange End B: 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange Working Pressure: 10,000psi Test Pressure: 15,000psi Serial#: 49106	1	49106		10 kpsi	15 kpsi	60



REMARKS LTB TK 10/22/10
LOCATION IX Section base

TAKEN OFF

CHART NO. MC MP-2000-M
CHART # 4486
METERS



Handwritten notes:
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
14000
15000
16000
17000
18000
19000
20000

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50

55

40

20

15

10

05



Fluid Technology

ContiTech Beattie Corp.
Website: www.contitechbeattie.com

Monday, June 14, 2010

RE: Drilling & Production Hoses
Lifting & Safety Equipment

To Helmerich & Payne,

A Continental ContiTech hose assembly can perform as intended and suitable for the application regardless of whether the hose is secured or unsecured in its configuration. As a manufacturer of High Pressure Hose Assemblies for use in Drilling & Production, we do offer the corresponding lifting and safety equipment, this has the added benefit of easing the lifting and handling of each hose assembly whilst affording hose longevity by ensuring correct handling methods and procedures as well as securing the hose in the unlikely event of a failure; but in no way does the lifting and safety equipment affect the performance of the hoses providing the hoses have been handled and installed correctly. It is good practice to use lifting & safety equipment but not mandatory.

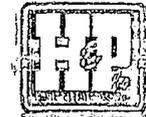
Should you have any questions or require any additional information/clarifications then please do not hesitate to contact us.

ContiTech Beattie is part of the Continental AG Corporation and can offer the full support resources associated with a global organization.

Best regards,

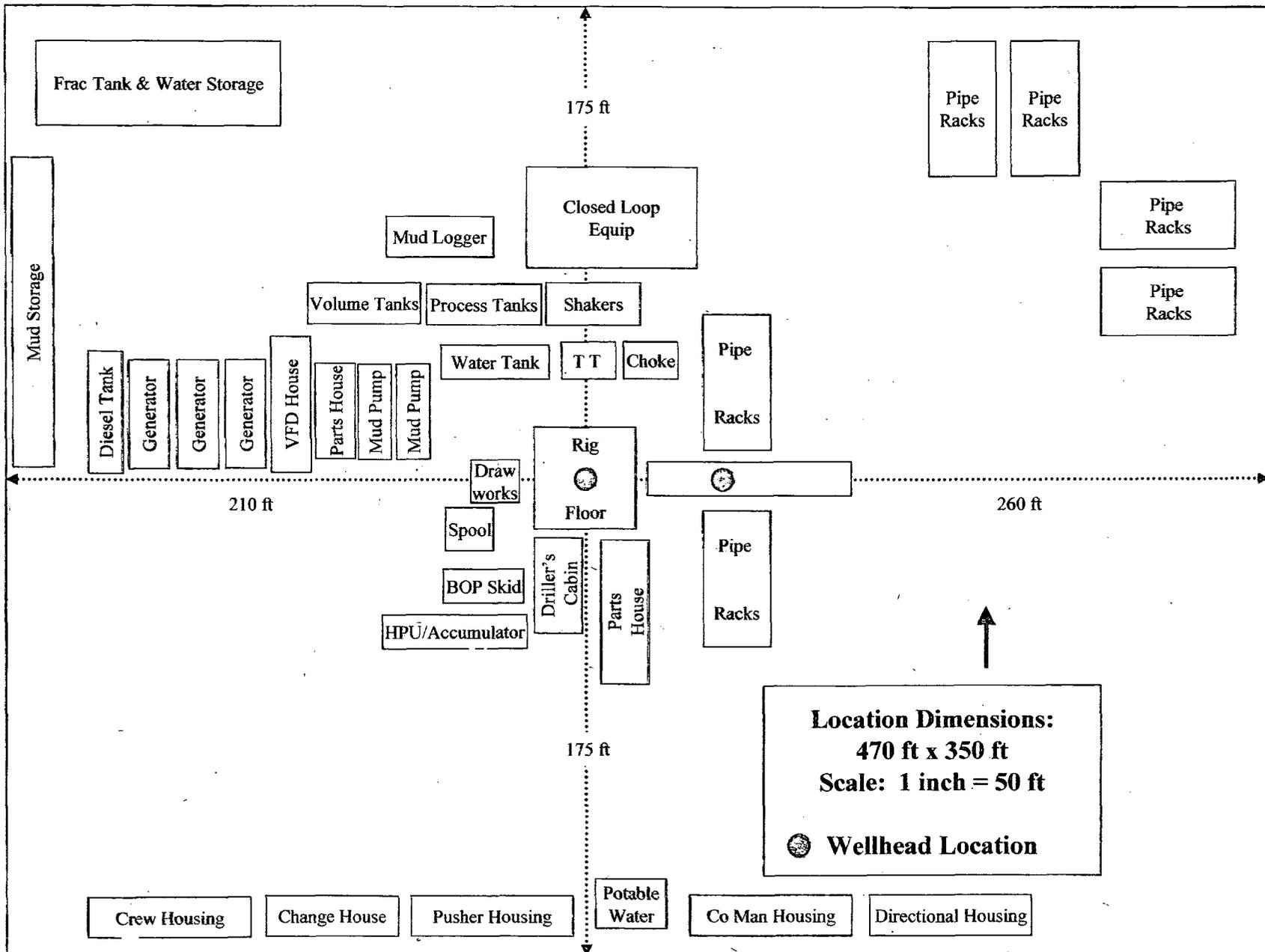
Robin Hodgson
Sales Manager
ContiTech Beattie Corp

ContiTech Beattie Corp,
11535 Brittmoore Park Drive,
Houston, TX 77041
Phone: +1 (832) 327-0141
Fax: +1 (832) 327-0148
www.contitechbeattie.com



H&P Flex Rig Location Layout

2 Well Pad





**Devon Energy Center
333 West Sheridan Avenue
Oklahoma City, Oklahoma 73102-5015**

Hydrogen Sulfide (H₂S) Contingency Plan

For

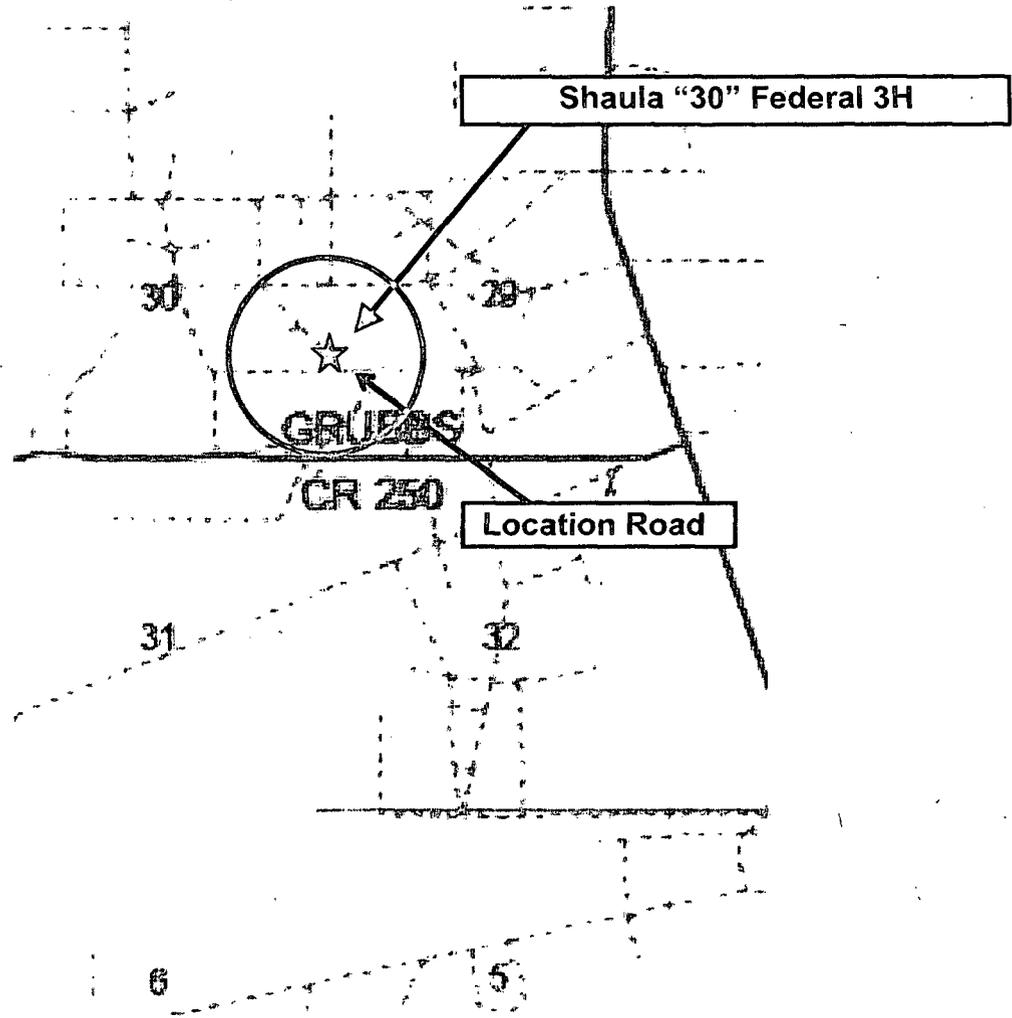
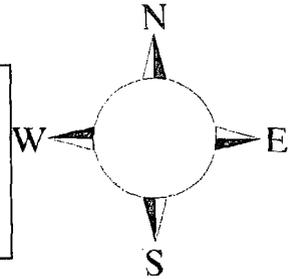
Shaula "30" Federal 3H

**Sec-29, T-18S R-31E
2070' FSL & 115' FWL,
LAT. = 32.7168491'N (NAD83)
LONG = 103.8998478'W**

Eddy County NM

Shaula "30" Federal 3H

This is an open drilling site. H₂S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H₂S, including warning signs, wind indicators and H₂S monitor.



Assumed 100 ppm 3000' ()
100 ppm H₂S concentration shall trigger activation of this plan.

Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated from the location entrance road, West then Northwest on lease road. Crews should then block entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. There are no homes or buildings in or near the ROE.

Assumed 100 ppm ROE = 3000'

100 ppm H₂S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H₂S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H₂S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
 - Detection of H₂S, and
 - Measures for protection against the gas,
 - Equipment used for protection and emergency response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

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

Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE (H₂S) TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H₂S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H₂S metal components. If high tensile tubular are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H₂S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan.

II. HYDROGEN SULFIDE TRAINING

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonable expected to contain H₂S.

1. Well Control Equipment

- A. Flare line
- B. Choke manifold (Remotely Operated)
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- D. Auxiliary equipment may include if applicable: annular preventer and rotating head.

2. Protective equipment for essential personnel:

- A. 30-minute SCBA units located in the doghouse and at briefing areas, as indicated on well site diagram. As it may be difficult to communicate audibly while wearing these units, hand signals shall be utilized.

3. H₂S detection and monitoring equipment:

- A. Portable H₂S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H₂S levels of 20 PPM are reached. These units are usually capable of detecting SO₂, which is a byproduct of burning H₂S.

4. Visual warning systems:

- A. Wind direction indicators as shown on well site diagram

- B. Caution/ Danger signs shall be posted on roads providing direct access to locations. Signs will be painted a high visibility yellow with black lettering of sufficient size to be reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

5. Mud program:

- A. The mud program has been designed to minimize the volume of H₂S circulated to surface. Proper mud weight, safe drilling practices and the use of H₂S scavengers will minimize hazards when penetrating H₂S bearing zones.

6. Metallurgy:

- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold lines, and valves shall be H₂S trim.
- B. All elastomers used for packing and seals shall be H₂S trim.

7. Communication:

- A. Radio communications in company vehicles including cellular telephones and 2-way radio
- B. Land line (telephone) communications at Office

8. Well testing:

- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safety and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H₂S environment will use the closed chamber method of testing.
- B. There will be no drill stem testing.

Devon Energy Corp. Company Call List

Artesia (575)	Cellular	Office	Home
Foreman – Robert Bell.....	748-7448.....	748-0178.....	746-2991
Asst. Foreman –Tommy Polly.....	748-5290.....	748-0165.....	748-2846
Don Mayberry.....	748-5235.....	748-0164.....	746-4945
Montral Walker.....	390-5182.....	748-0193.....	(936) 414-6246
Engineer – Marcos Ortiz.....	(405) 317-0666.....	(405) 552-8152.....	(405) 381-4350

Agency Call List

<u>Lea County (575)</u>	Hobbs	
	State Police.....	392-5588
	City Police.....	397-9265
	Sheriff's Office.....	393-2515
	Ambulance.....	911
	Fire Department.....	397-9308
	LEPC (Local Emergency Planning Committee).....	393-2870
	NMOCD.....	393-6161
	US Bureau of Land Management.....	393-3612

<u>Eddy County (575)</u>	Carlsbad	
	State Police.....	885-3137
	City Police.....	885-2111
	Sheriff's Office.....	887-7551
	Ambulance.....	911
	Fire Department.....	885-2111
	LEPC (Local Emergency Planning Committee).....	887-3798
	US Bureau of Land Management.....	887-6544
	NM Emergency Response Commission (Santa Fe).....	(505) 476-9600
	24 HR.....	(505) 827-9126
	National Emergency Response Center (Washington, DC).....	(800) 424-8802

Emergency Services

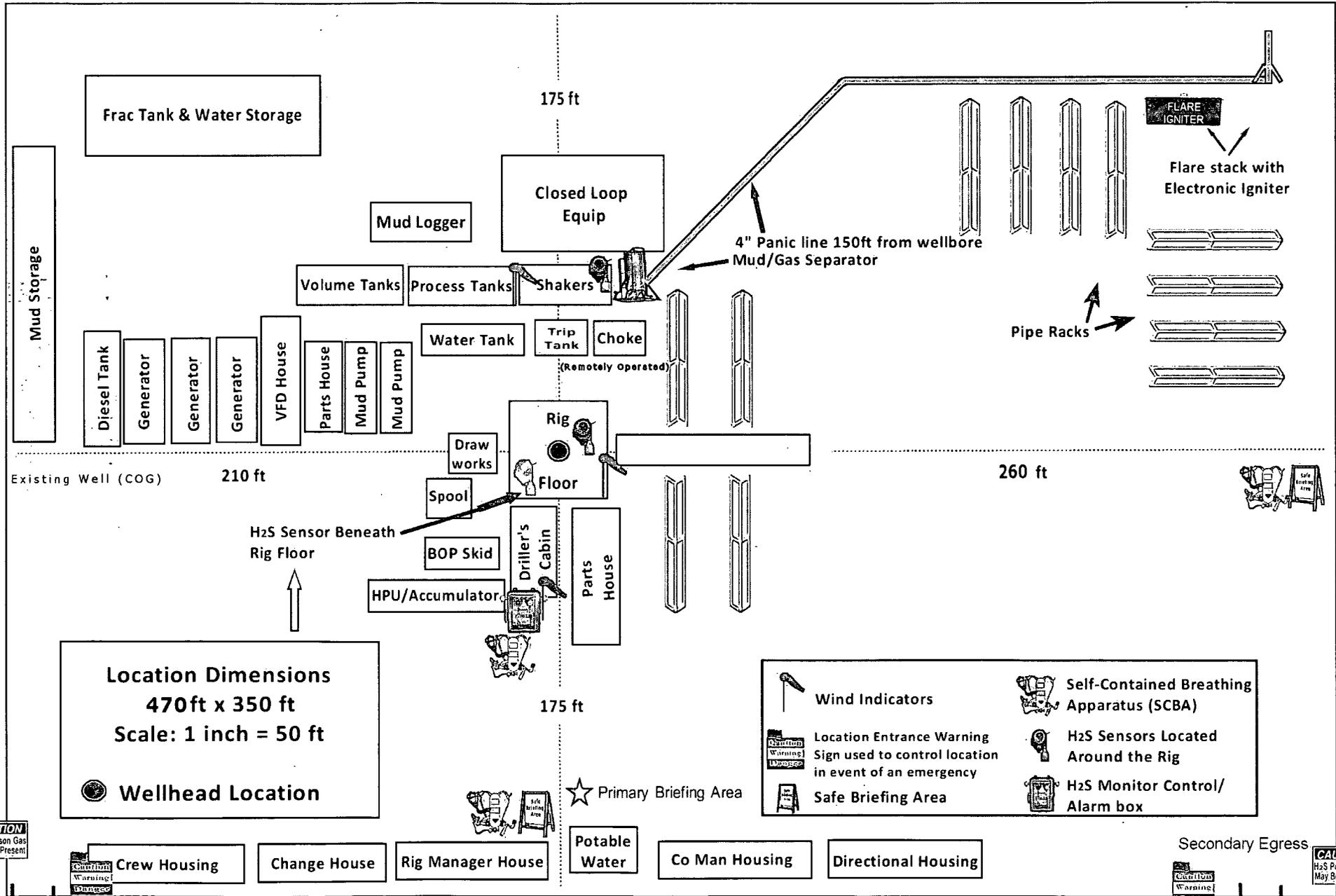
	Boots & Coots IWC.....	(800)-256-9688 or (281) 931-8884
	Cudd Pressure Control.....	(915) 699-0139 or (915) 563-3356
	Halliburton.....	(575) 746-2757
	B. J. Services.....	(575) 746-3569
<i>Give</i>	Flight For Life - Lubbock, TX.....	(806) 743-9911
<i>GPS</i>	Aerocare - Lubbock, TX.....	(806) 747-8923
<i>position:</i>	Med Flight Air Amb - Albuquerque, NM.....	(575) 842-4433
	Lifeguard Air Med Svc. Albuquerque, NM.....	(575) 272-3115

Prepared in conjunction with
Dave Small





Devon Energy - Well Pad Rig Location Layout Safety Equipment Location



CAUTION
H2S Poison Gas
May Be Present



Crew Housing

Change House

Rig Manager House

Potable Water

Co Man Housing

Directional Housing

Secondary Egress



CAUTION
H2S Poison Gas
May Be Present



Proposed Interim Site Reclamation

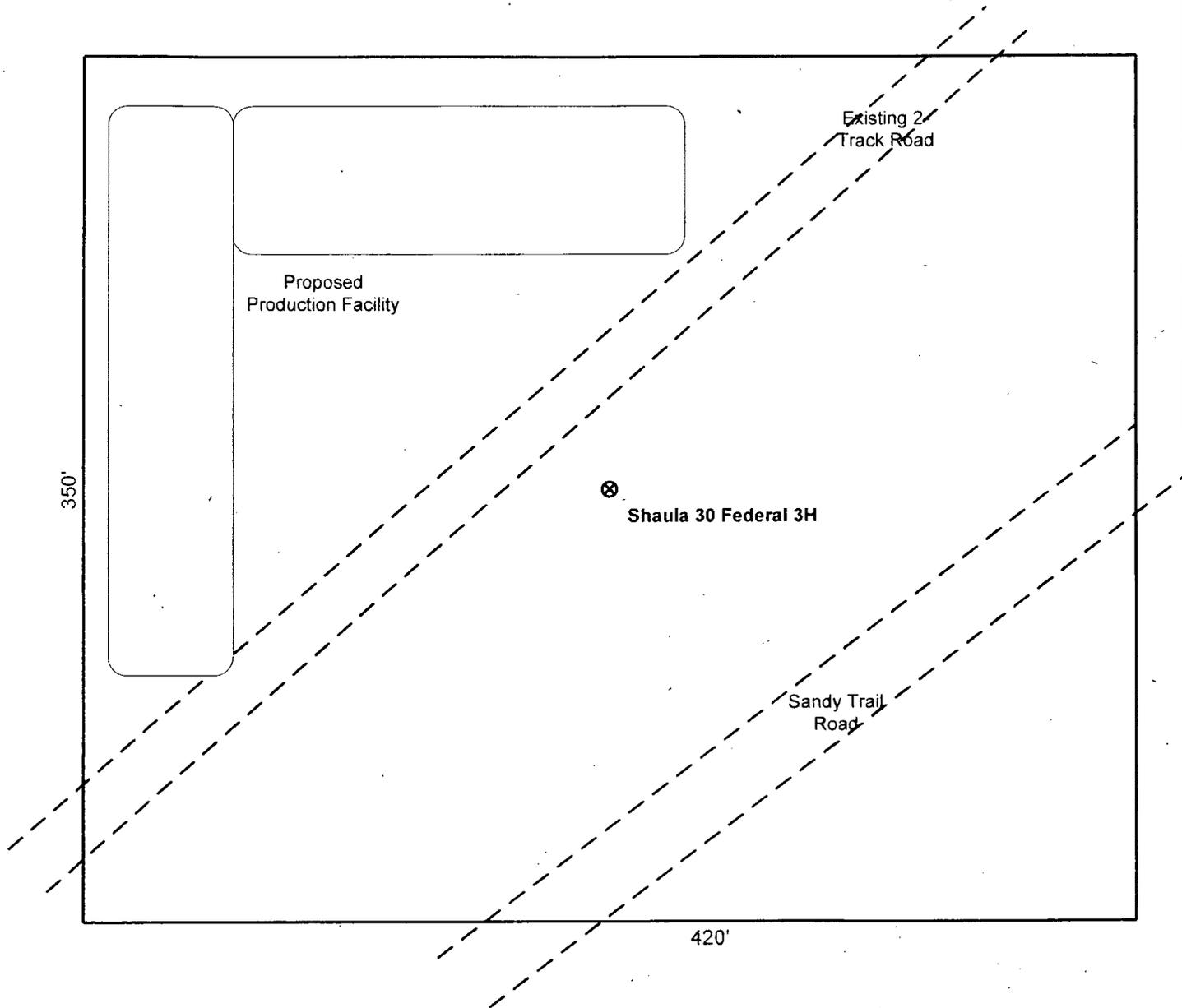
Devon Energy Production Co.
Shaula 30 Federal 3H
2070' FSL & 115' FWL
Sec. 29-T18S-R31E
Eddy County, NM



Proposed Reclamation Area



Scale: 1in = 60ft.



SURFACE USE PLAN
Devon Energy Production Company, LP
Shaula 30 Fed 3H

Surface Location: 2070' FSL & 115' FWL, Unit L, Sec 29 T18S R31E, Eddy, NM
Bottom Hole Location: 1650' FSL & 340' FWL, Unit L, Sec 30 T18S R31E, Eddy, NM

1. Existing Roads:

- a. The well site and elevation plat for the proposed well are reflected on the well site layout; Form C-102. The well was staked by Madron Surveyors.
- b. All roads into the location are depicted on Exhibit 3. Existing roads will be maintained and kept the same or better condition than before operations began.
- c. Directions to Location: From paved CR. #222 (Shugart) and paved CR #250 (Grubbs) go southwest then west on CR. 250 a total of 0.8 miles, turn right on Caliche Road and go northwest 0.41 miles and location is northwest 293'.

2. New or Reconstructed Access Roads:

- a. The well site layout, Form C-102 shows the existing county road. Approximately 100' of new access road will be constructed as follows.
- b. The maximum width of the road will be 14'. It will be crowned and made of 6" rolled and compacted caliche. Water will be deflected, as necessary, to avoid accumulation and prevent surface erosion.
- c. Surface material will be native caliche. This material will be obtained from a BLM approved pit nearest in proximity to the location. The average grade will be approximately 1%.
- d. No cattle guards, grates or fence cuts will be required. No turnouts are planned.

3. Location of Existing Wells:

One Mile Radius Plat shows all existing and proposed wells within a one-mile radius of the proposed location. See attached plat.

4. Location of Existing and/or Proposed Production Facilities

- a. In the event the well is found productive, the Shaula 30 Federal 3H tank battery Sec 29 T18S R31E will be utilized and the necessary production equipment will be installed at the well site. See Diagram.

If necessary, the well will be operated by means of an electric prime mover. Electric power poles will be set along side of the access road. If said power poles are needed, a plat and a sundry notice will be filed with your office.

- b. All flow lines will adhere to API standards.
- c. If the well is productive, rehabilitation plans are as follows:
 - i. The original topsoil from the well site will be returned to the location. The drill site will then be contoured as close as possible to the original state.

5. Location and Types of Water Supply:

This location will be drilled using a combination of water mud systems (outlined in the Drilling Program). The water will be obtained from commercial water stations in the area and hauled to location by transport truck using the existing and proposed roads shown in the C-102. On occasion, water will be obtained from a pre-existing water well, running a pump directly to the drill rig. In these cases where a poly pipeline is used to transport water for drilling purposes, proper authorizations will be secured. If a poly pipeline is used, the size, distance, and map showing route will be provided to the BLM via sundry notice.

6. Construction Materials:

The caliche utilized for the drilling pad and proposed access road will be from minerals that are located onsite or will be used onsite. If minerals are not available onsite, then an established mineral pit will be used to build the location and stem road.

7. Methods of Handling Waste Material:

- a. Drill cuttings will be disposed.
- b. All trash, junk and other waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary landfill.
- c. The supplier, including broken sacks, will pick up salts remaining after completion of well.
- d. A Porto-john will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- e. Remaining drilling fluids will be sent to a closed loop system. Water produced during completion will be put into a closed loop system. Oil and condensate produced will be put into a storage tank and sold.
- f. Disposal of fluids to be transported by the following companies:
 - i. American Production Service Inc, Odessa TX
 - ii. Gandy Corporation, Lovington NM
 - iii. I & W Inc, Loco Hill NM
 - iv. Jims Water Service of Co Inc, Denver CO

8. Ancillary Facilities: No campsite or other facilities will be constructed as a result of this well.

9. Well Site Layout

- a. Exhibit D shows the proposed well site layout with dimensions of the pad layout.
- b. This exhibit indicated proposed location of sump pits and living facilities.
- c. Mud pits in the active circulating system will be steel pits.
- d. A closed loop system will be utilized.
- e. If a pit or closed loop system is utilized, Devon will comply with the NMOCD requirements 19.15.17 and submit form C-144 to the appropriate NMOCD District Office. A copy to be provided to the BLM.

10. Plans for Surface Reclamation

- a. After concluding the drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM. The original top soil will again be returned to the pad and contoured, as close as possible, to the original topography.
- b. The location and road will be rehabilitated as recommended by the BLM.
- c. If the well is deemed commercially productive, caliche from areas of the pad site not required for operations will be reclaimed. The original top soil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography.
- d. All disturbed areas not needed for active support of production operations will undergo interim reclamation. 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. Topsoil will be spread over areas not needed for all-weather operations.

11. Surface Ownership

- a. The surface is owned by the US Government and is administered by the Bureau of Land Management. The surface is multiple use with the primary uses of the region for the grazing of livestock and the production of oil and gas.
- b. The proposed road routes and the surface location will be restored as directed by the BLM.

12. Other Information:

- a. The area surrounding the well site is grassland. The topsoil is very sandy in nature. The vegetation is moderately sparse with native prairie grass, sage bush, yucca and miscellaneous weeds. No wildlife was observed but it is likely that deer, rabbits, coyotes, and rodents traverse the area.
- b. There is no permanent or live water in the general proximity of the location.
- c. There are no dwellings within 2 miles of location.
- d. A Cultural Resources Examination will be completed by the Permian Basin Cultural Resource Fund in lieu of being required to conduct a Class III Survey for cultural resources associated with their project within the BLM office in Carlsbad, New Mexico.

13. Bond Coverage:

Bond Coverage is Nationwide; Bond # is CO-1104;NMB-001801

Operators Representative:

The Devon Energy Production Company, L.P. representatives responsible for ensuring compliance of the surface use plan are listed below.

Justin Lazzari - Operations Engineer Advisor
Devon Energy Production Company, L.P.
333 W. Sheridan
Oklahoma City, OK 73102-8260
(405) 228-8466 (office)
(405) 464-9261 (Cellular)

Jerry Mathews - Superintendent
Devon Energy Production Company, L.P.
Post Office Box 250
Artesia, NM 88211-0250
(575) 748-0161 (office)
(575) 748-5234 (home)

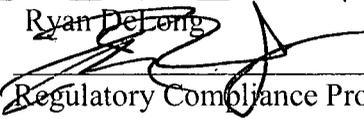
Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or Devon Energy Production Company, L.P. am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

I hereby also certify that I, or Devon Energy Production Company, L.P. have made a good faith effort to provide the surface owner with a copy of the Surface Use Plan of Operations and any Conditions of Approval that are attached to the APD.

Executed this 13th day of March, 2013.

Printed Name: Ryan DeLong

Signed Name: 

Position Title: Regulatory Compliance Professional

Address: 333 W. Sheridan, OKC OK 73102

Telephone: (405)-228-8699

Field Representative (if not above signatory):

Address (if different from above):

Telephone (if different from above):

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Devon Energy Production Company, L.P.
LEASE NO.:	NMLC-029387D
WELL NAME & NO.:	Shaula 30 Federal Com 3H
SURFACE HOLE FOOTAGE:	2310' FSL & 0275' FWL
BOTTOM HOLE FOOTAGE	1650' FSL & 0340' FWL Sec. 30, T. 18 S., R 31 E.
LOCATION:	Section 29, T. 18 S., R 31 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**
 - Lesser Prairie-Chicken Timing Stipulations
 - Ground-level Abandoned Well Marker
 - Communitization Agreement
- Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
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- Drilling**
 - Cement requirements
 - H2S requirements
 - 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)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken:

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

Communitization Agreement

A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales. In addition, the well sign shall include the surface and bottom hole lease numbers. If the Communitization Agreement number is known, it shall also be on the sign. If not, it shall be placed on the sign when the sign is replaced.

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 stockpile the topsoil in a low profile manner in order to prevent wind/water erosion of the topsoil. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be used 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. 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 be constructed on all blind curves. Turnouts shall conform to the following diagram:

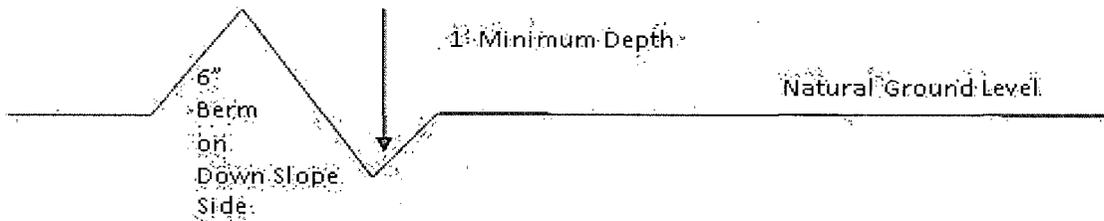


Drainage

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

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

Culvert Installations

Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

Fence Requirement

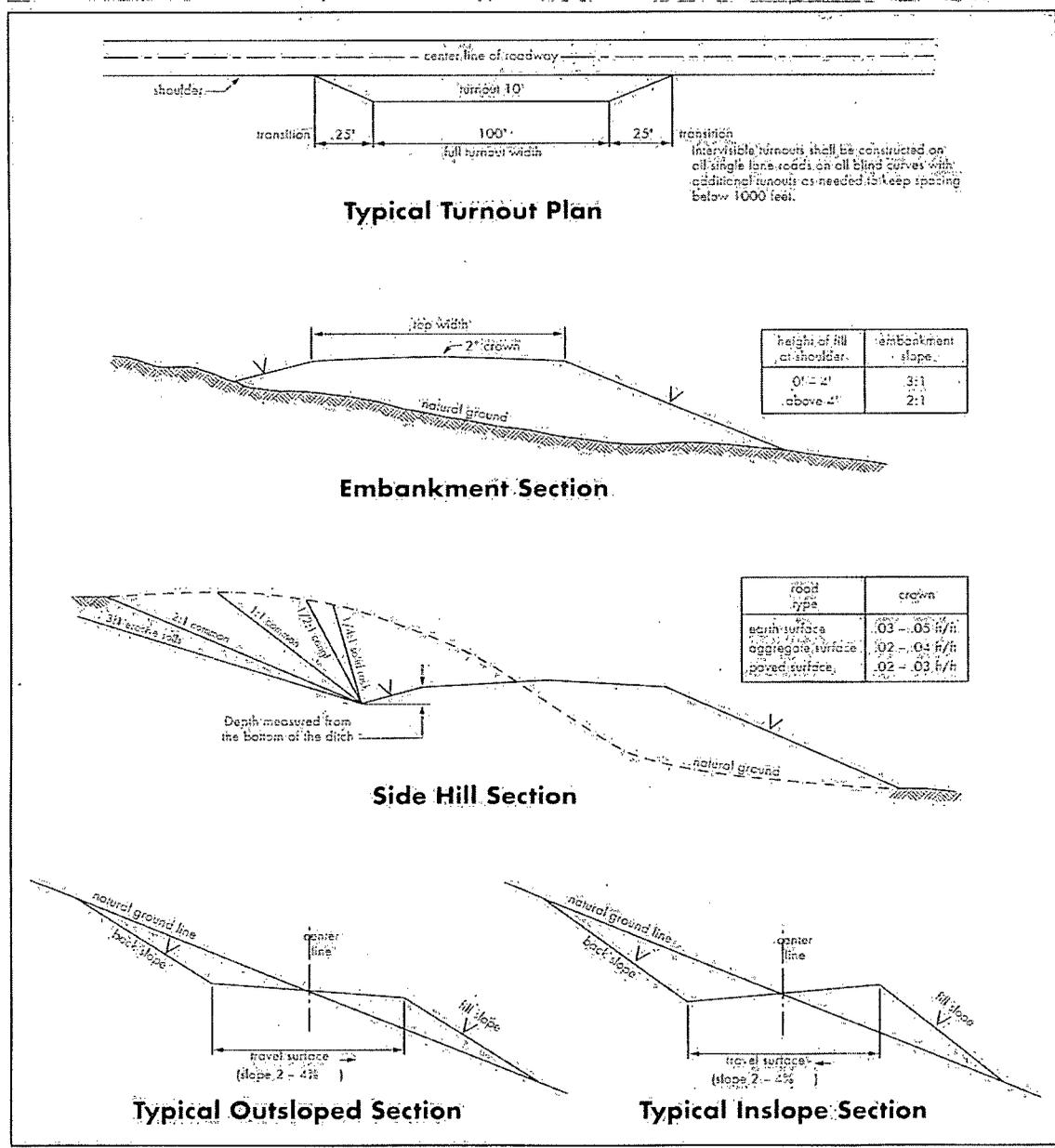
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access

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

Figure 1 – Cross Sections and Plans For Typical Road Sections



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. A Hydrogen Sulfide (H₂S) Drilling Plan shall be activated 500 feet prior to drilling into the **Queen** formation. **As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.**
3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.
4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

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

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

Wait on cement (WOC) 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.

Possibility of water flows in the Artesia Group, Salado, San Andres, Delaware, and Bone Spring.

Possibility of lost circulation in the Artesia Group, Rustler, Delaware, and Bone Spring.

1. The **13-3/8** inch surface casing shall be set at approximately **650** 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 **4100** feet, is:

Cement to surface. If cement does not circulate see B.1.a, c-d above.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

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

Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification.

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

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements: The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).
3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.
 - a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.

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

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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.

Containment Structures

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

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

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 activity of the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

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

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

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

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

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the 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 the holder of any responsibility as provided herein.

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

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

8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky or dune areas, the pipeline will be "snaked" around hummocks and dunes rather than suspended across these features.

9. The pipeline shall be buried with a minimum of 24 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. Excluding the pipe, all above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

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

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

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

measures will be made by the authorized officer after consulting with the holder.

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

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

18. Special Stipulations:

- a. **Lesser Prairie-Chicken:** Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted.

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).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

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