ATS-10-21

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Form 3160-3
(April 2004)

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. **NMNM-98189**

6. If Indian, Allotee 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. **Nana 30 Fed 2H** (37808)

2. Name of Operator **Devon Energy Production Company, LP** (6137)

9. API Well No. 30-025-39579

3a. Address **20 North Broadway, Oklahoma City, Oklahoma 73103-8260**

3b. Phone No. *(include area code)* **(405) 552-8198**

10. Field and Pool, or Exploratory **Lusk; Bone Spring, North**

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

At surface **2310 FSL & 1980 FEL** Unit J

At proposed prod. zone **360 FSL & 1980 FEL** Unit O

11. Sec., T R. M. or Blk. and Survey or Area **Sec 30 T18S R32E**

14. Distance in miles and direction from nearest town or post office* **Approximately 10 miles south of Maljamar, NM**

12. County or Parish **Lea**

13. State **NM**

15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig unit line, if any) **660' and 660'**

16. No. of acres in lease **241.110**

17. Spacing Unit dedicated to this well **80**

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. **1300'**

19. Proposed Depth **TVD 8415' MD 10,120'**

20. BLM/BIA Bond No. on file **CO-1104**

21. Elevations (Show whether DF, KDB, RT, GL, etc.) **3702' GL**

22. Approximate date work will start* **01/01/2010**

23. Estimated duration **45 days**

24. Attachments

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

1. Well plat certified by a registered surveyor
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
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 authorized officer.

25. Signature

Name *(Printed/Typed)* **Norvella Adams**

Date **09/28/2009**

Title **Senior Staff Engineering Technician**

Approved by *(Signature)* /s/ Don Peterson

Name *(Printed/Typed)*

Date NOV 13 2009

Title FIELD MANAGER

Office CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached. MW/OLD 11-24-09

APPROVAL FOR TWO YEARS

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

*(Instructions on page 2)

Capitan Controlled Water Basin

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

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NOV 17 2009

HOBBSOCD

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005

Submit to Appropriate District Office
State Lease – 4 Copies
Fee Lease – 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name	
30-025-39579	~~21650~~ 41450	Lusk E-K; Bone Springs North	
Property Code	Property Name		Well Number
37808	NANA "30" FEDERAL		2H
OGRID No.	Operator Name		Elevation
6137	DEVON ENERGY PRODUCTION COMPANY LP		3702'

Surface Location

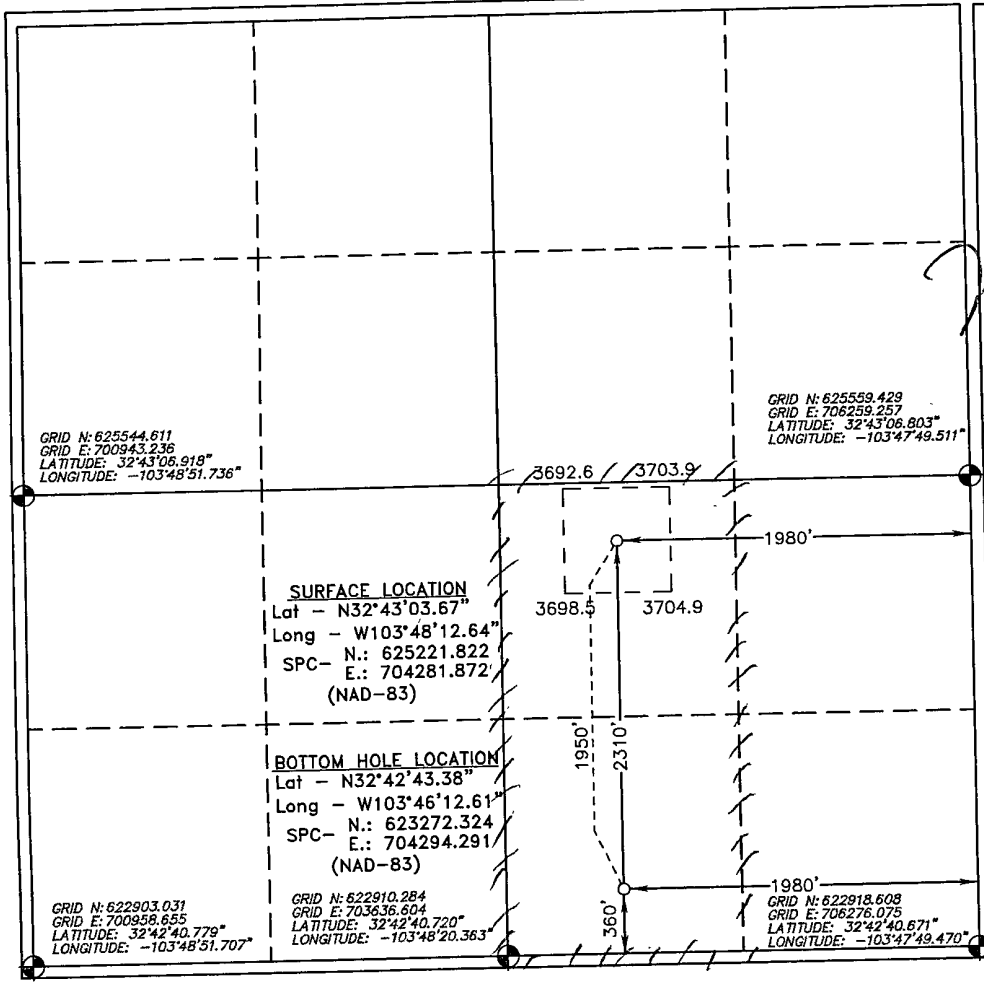
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	30	18 S	32 E		2310	SOUTH	1980	EAST	LEA

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
O	30	18 S	32 E		360	SOUTH	1980	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
80			

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



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 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.

9-28-09
Signature Date

Norvella Adams
Printed Name

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 supervison, and that the same is true and correct to the best of my belief.

OCTOBER 29, 2008
Date Surveyed

Signature & Seal of Professional Surveyor

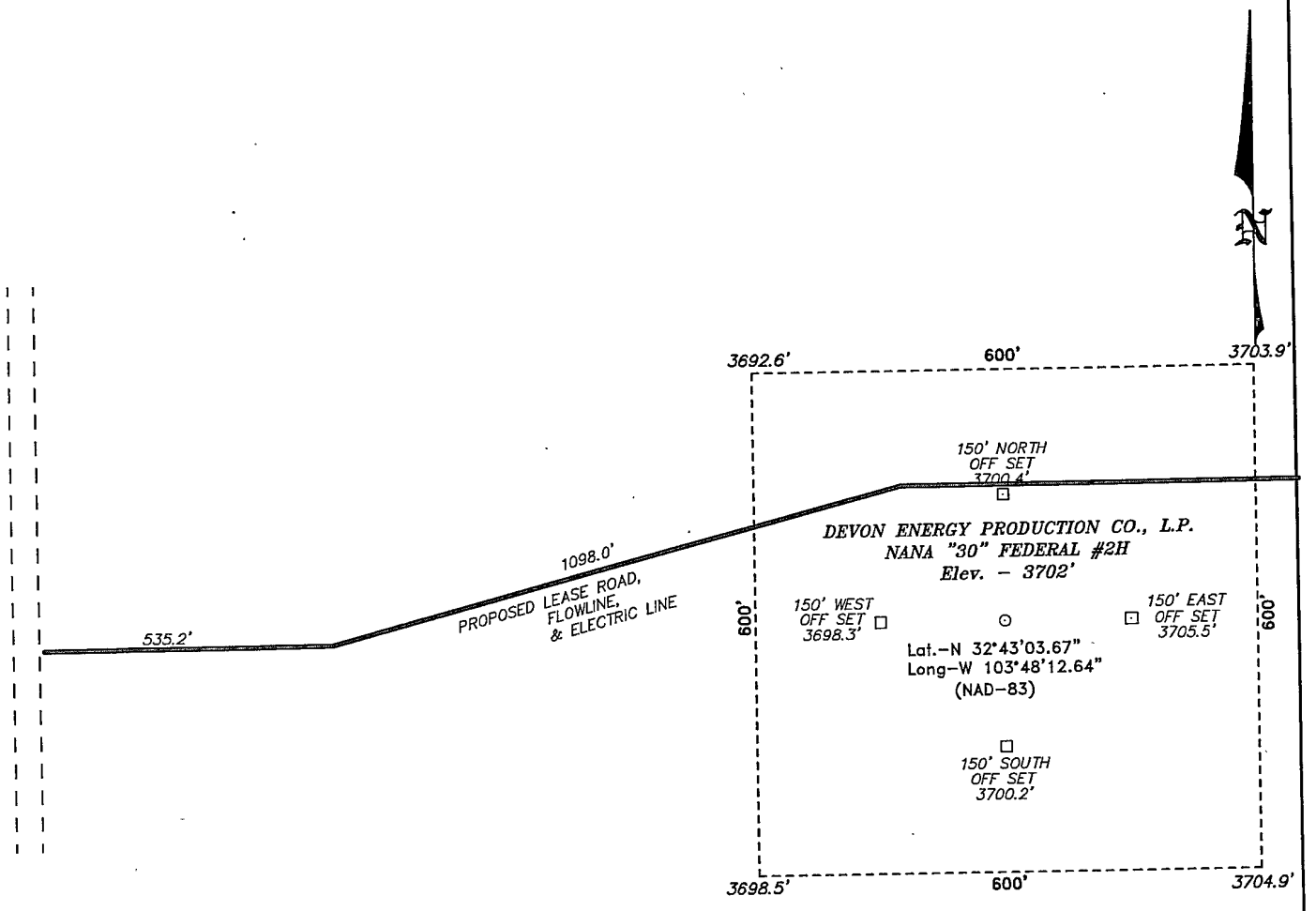
GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR

W.O. Number: 08.11.1273

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

SECTION 30, TOWNSHIP 18 SOUTH, RANGE 32 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.



200 0 200 400 FEET

SCALE: 1" = 200'

Directions to Location:

FROM THE JUNCTION OF HWY 529 AND MALJAMAR, GO SOUTHERLY ON MALJAMAR FOR APPROX 5.3 MILES TO LEASE ROAD, ON LEASE ROAD GO SOUTHWESTERLY 0.6 MILES TO LEASE ROAD, ON LEASE ROAD GO NORTHERLY 0.4 MILES TO PROPOSED LEASE ROAD.

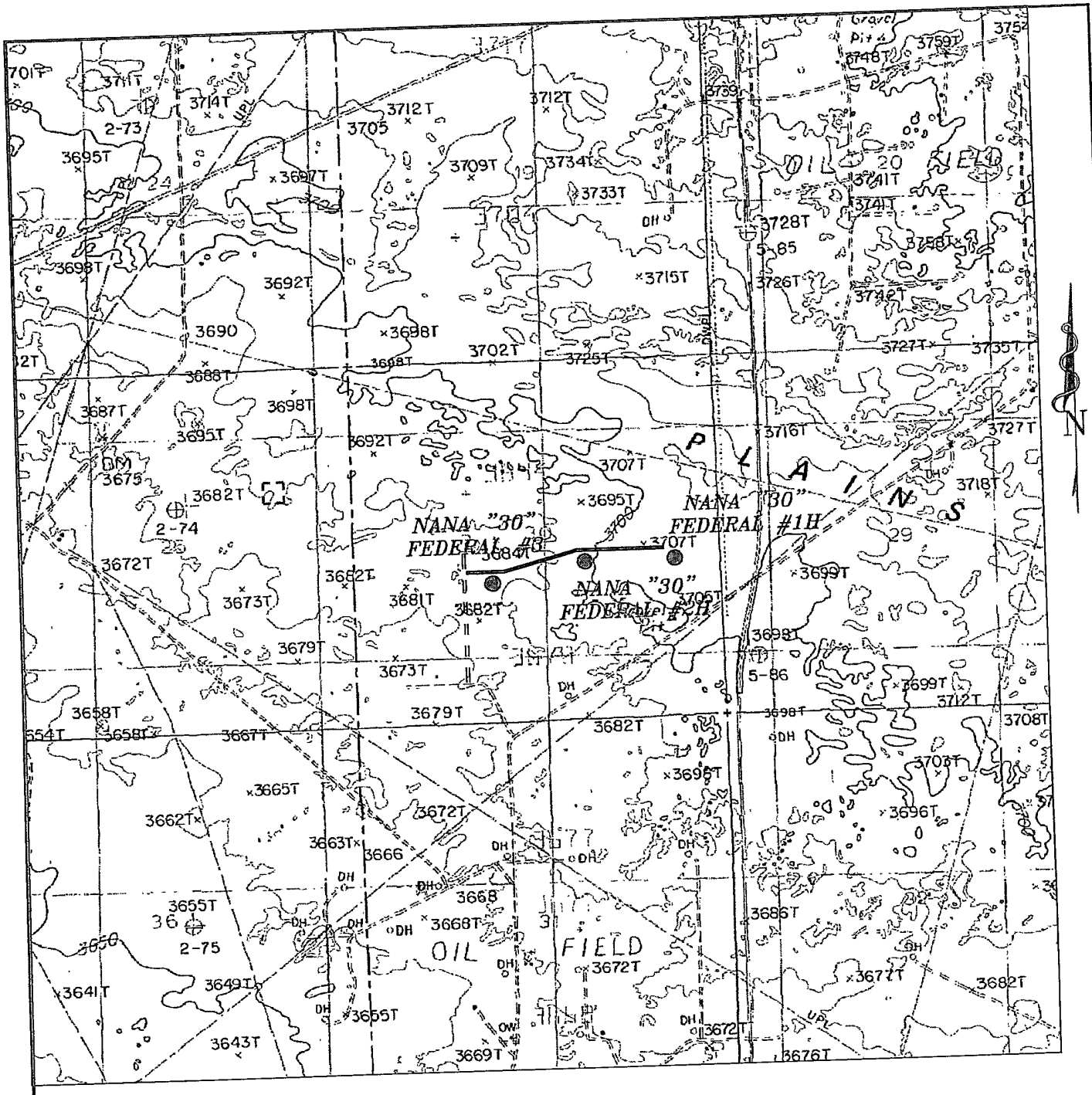
DEVON ENERGY PROD. CO., L.P.

REF: NANA "30" FEDE #2H / WELL PAD TOPO

THE NANA "30" FEDE #2H LOCATED 2310' FROM THE SOUTH LINE AND 1980' FROM THE EAST LINE OF SECTION 30, TOWNSHIP 18 SOUTH, RANGE 32 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 20673	Drawn By: J. M. SMALL
Date: 11-04-2008	Disk: 20673 JMS
Survey Date: 10-29-2008	Sheet 1 of 1 Sheets



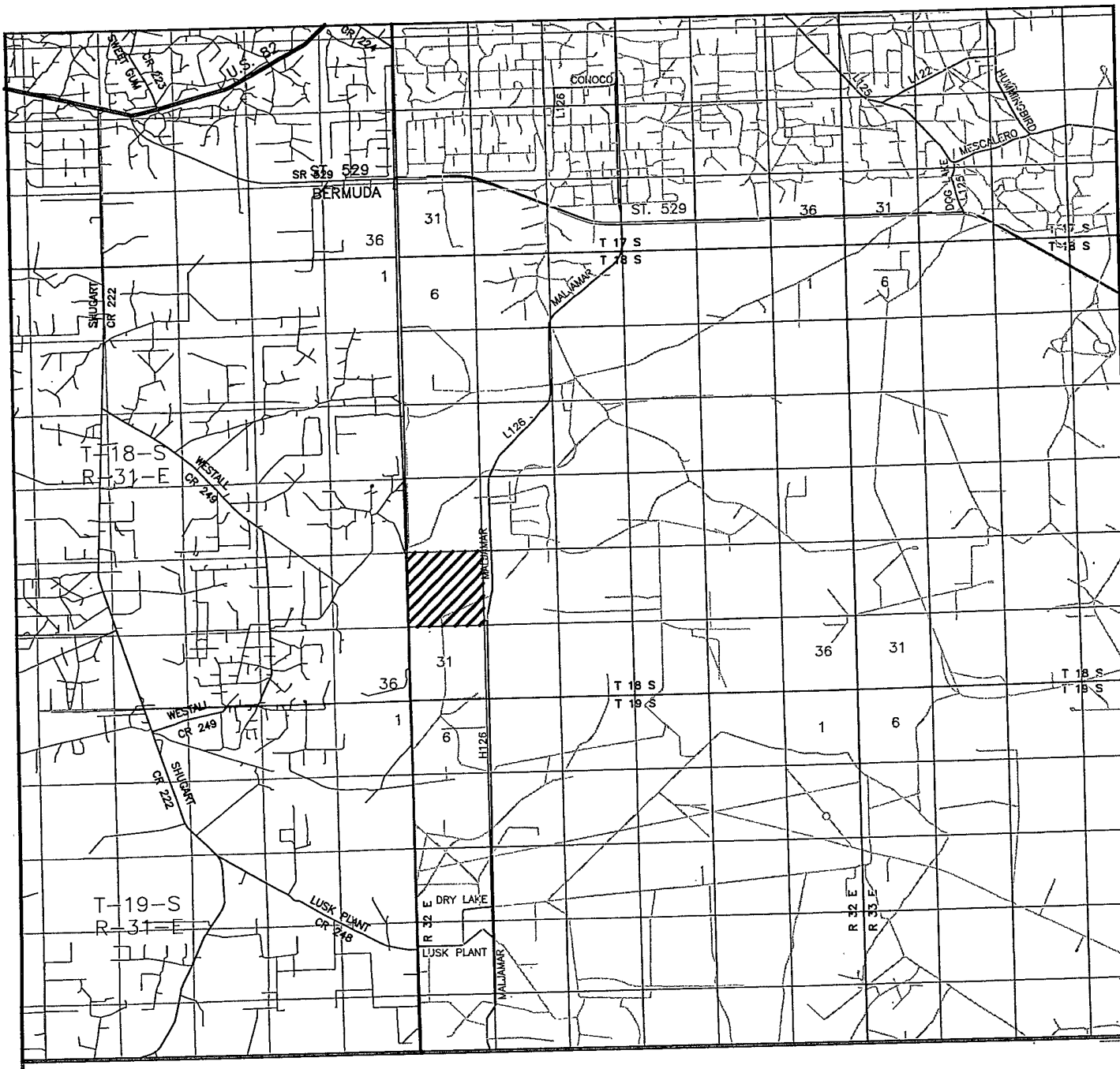
NANA "30" FED ___ #1H
Located at 2310' FSL AND 1980' FEL
Section 30, Township 18 South, Range 32 East,
N.M.P.M., Lea County, New Mexico.

basin surveys
focused on excellence in the oilfield

P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 – Office
(575) 392-2206 – Fax
basinsurveys.com

W.O. Number:	JMS 20673
Survey Date:	10-29-2008
Scale:	1" = 2000'
Date:	11-04-2008

DEVON ENERGY PROD. CO., L.P.



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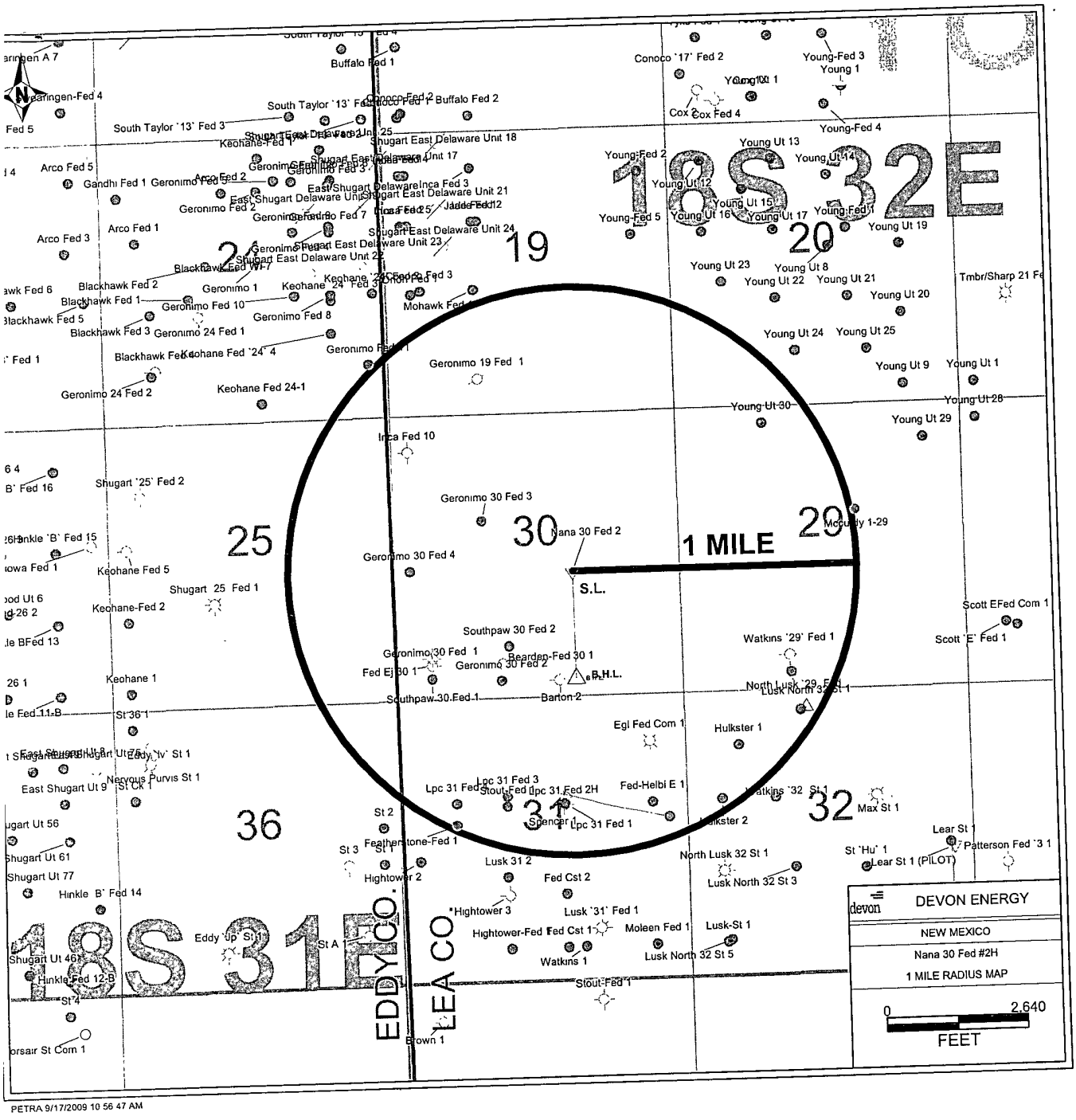


PETRA 9/17/2009 10 56 47 AM

DRILLING PROGRAM

Devon Energy Production Company, LP
Nana 30 Fed 2H
Surface Location: 2310' FSL & 1980' FEL, Unit J, Sec 30 T18S R32E, Lea, NM
Bottom Hole Location: 360' FSL & 1980' FEL, Unit O, Sec 30 T18S R32E, Lea, NM

There is a Plan of Development in place for this well.

1. **Geologic Name of Surface Formation**

   a. Quaternary

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

a.	Quaternary	20'	Fresh Water
b.	Rustler Dol.	1000'	Fresh Water
c.	Salado Salt	1276'	
d.	Tansil Dol.	2463'	
e.	Yates Ss	2581'	
f.	Seven Rivers	3069'	
g.	Queen Ss	3654'	
h.	Grayburg	3701'	
i.	Cherry Canyon Ss	4436'	
j.	Brushy Canyon Ss	5139'	
k.	1st Bone Spring Lm	6687'	Oil
l.	1st Bone Spring Ss	8111'	Oil
m.	2nd Bone Spring Lm	8625'	Oil

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13 3/8" casing at 1050' and circulating cement back to surface. The Bone Spring intervals will be isolated by setting 5 ½" casing to total depth and circulating cement back to surface. DV tool will be set at 6500'.

3. **Casing Program:**

Hole Size	Hole Interval	OD Csg	Casing Interval	Weight	Collar	Grade
17 ½"	60' – 1050'	13 3/8"	0'- 1050'	48#	ST&C	H-40
12 1/4"	1050'- 2530'	9 5/8"	0'- 2530'	40#	LT&C	K-55
8 1/2"	2530'-10,120'	5 1/2"	0-10,120'	17#	LT&C	N-80

Design Parameter Factors:

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
13 3/8"	2.9	2.5	7.1
9 5/8"	1.78	2.82	4.39
5 ½"	1.58	2.38	2.21

4. **Cement Program:** — See COA

a. 13 3/8" Surface — Lead with 370 sx (35:65) Poz Premium Plus C + 5% NaCl + ¼ lbs/sx Cello Flake, and 4% Bentonite + 0.8% Sodium Metasilicate + 5% MPA-5; 12.8 ppg, 1.96 cf/sx, 10.55 gps. Tail with 220 sx Premium Plus C + 2% $CaCl_2$ + ¼ lbs/sx Cello Flake; 14.8 ppg, 1.35 cf/sx, 6.35 gps. TOC = 0.

b. 9 5/8" Intermediate — Lead with 460 sx (35:65) Poz Premium Plus C + 0.8% Sodium Metasilicate + 5% MPA-5 + 5% NaCl + ¼ lbs/sx Cello Flake + 4% Bentonite; 12.8 ppg, 1.96 cf/sx, 10.55 gps. Tail with 320 sx Premium Plus C + ¼ lbs/sx Cello Flake; 14.8 ppg, 1.33 cf/sx, 6.32 gps. TOC = 0.

c. 5 1/2" Production — Stage 1: 480 sx (15:61:11) Poz Premium Plus C + 1% KCl + 0.75% EC-1 + 0.4% CD-32 + 3 #/sx LCM-1 + 0.6% FL-25 + 0.6% FL-52A; 13.30 ppg, 1.56 cf/sx, 7.55 gps.. TOC = 0.
Stage 2: Lead with 830 sx (35:65) Poz Premium Plus C + ¼ lbs/sx Cello Flake + 6% Bentonite; 12.5 ppg, 1.94 cf/sx, 10.65 gps. Tail with 200 sx (60:40) Poz Premium Plus C + 2% NaCl + 0.1% Sodium Metasilicate + 4% MPA-5. 13.8 ppg, 1.35 cf/sx, 6.29 gps. TOC = 0.

The above cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach the surface. All casing is new and API approved.

5. **Pressure Control Equipment:**
stack, and a rotating head. Both the hydril and ram stack will be hydraulically operated. Both BOP systems will be rated at 5000 psi. Prior to drilling out the the 13 3/8" surface shoe the ram stack will be nippled up with 4.5" pipe rams installed. **The hydril will be tested to 1000 psi (high) and 250 psi (low). Tests on the 5000 psi BOP will be conducted per the BLM Drilling Operations Order #2.** — See COA

The ram system 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 hydril, other BOP accessories include a kelly cock, floor safety valve, choke lines and choke manifold rated at 5000 psi WP.

6. **Proposed Mud Circulation System**

Depth	Mud Wt.	Visc	Fluid Loss	Type System
60' – 1050'	9.6	34	NC	Fresh Water
1050'– 2530'	10.2	30	NC	Brine
2530'– 10,120'	8.7	29	NC	Fresh Water

The necessary mud products for weight addition and fluid loss control will be on location at all times.

7. **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 9 5/8" casing shoe until the 5 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 9 5/8" shoe until total depth is reached.

8. **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: See COA
      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.

9. **Potential Hazards:**
   a. No abnormal pressures or temperatures are expected. A H2S contingency plan will be provided. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 4500 psi and Estimated BHT 175°.

10. **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 45 days. If production casing is run then an additional 45 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

devon

Project: Lea Co., New Mexico (Nad 83)
Site: NANA 30 Fed #2H
Well: NANA 30 Fed #2H
Wellbore: Lateral #1
Design: Design #1

CUDD DRILLING & MEASUREMENT SERVICES

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	7842.04	0.00	0.00	7842.04	0.00	0.00	0.00	0.00	0.00	
3	8742.04	90.00	179.64	8415.00	-572.95	3.65	10.00	179.64	572.96	
4	10118.63	90.00	179.64	8415.00	-1949.50	12.42	0.00	0.00	1949.54	PBHL - TD (N30F#2H)

ANNOTATIONS

TVD	MD	Annotation
7842.04	7842.04	KOP - Build 10°/100'
8415.00	8742.04	EOC - Hold 190 @ A.179.64

WELL DETAILS NANA 30 Fed #2H

Ground Level: 3702.00
WELL @ 3722.00ft (Original Well Elev)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	625221.82	704281.87	32° 43' 3.561 N	103° 48' 12.676 W	

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

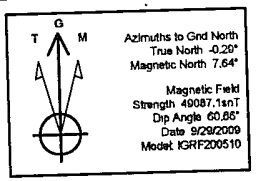
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL - TD (N30F#2H)	8415.00	-1949.50	12.42	623272.32	704294.29	32° 42' 44.270 N	103° 48' 12.644 W	Point

PROJECT DETAILS Lea Co., New Mexico (Nad 83)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

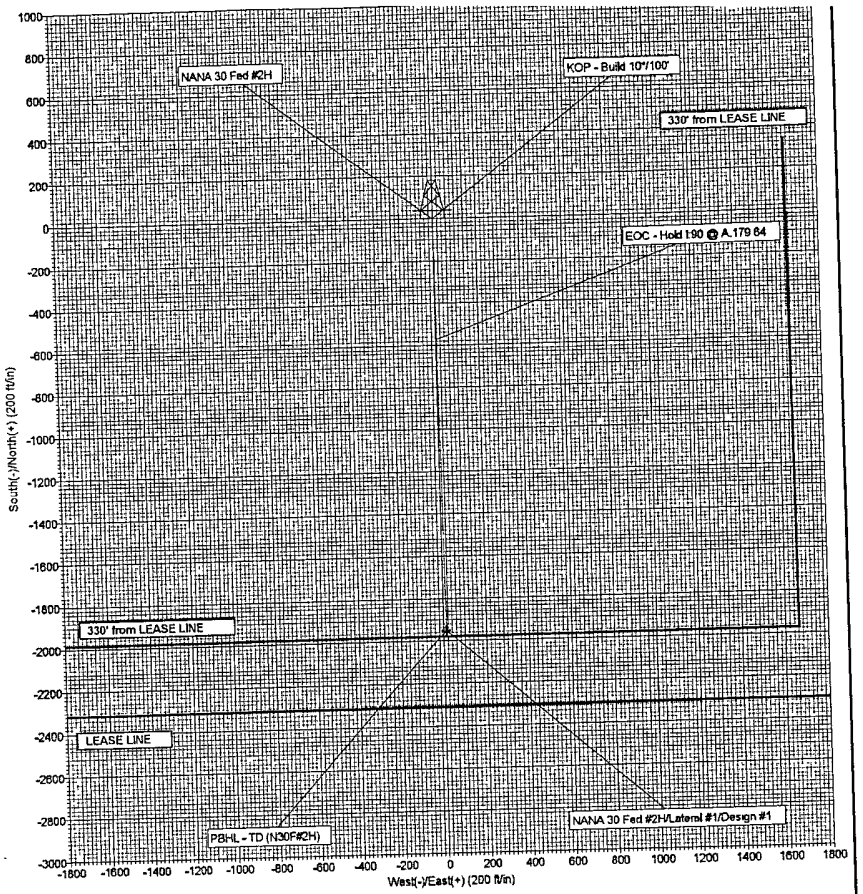
Plan Design #1 (NANA 30 Fed #2H/Lateral #1)

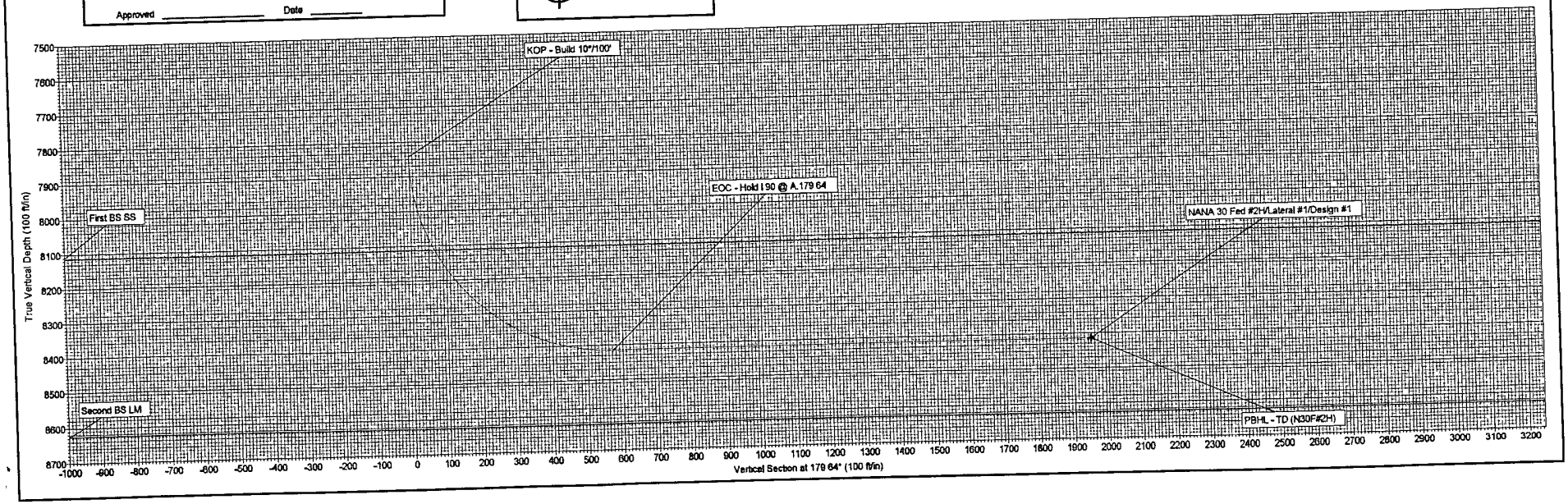
Created By: Mike Starkey — Date: 11:15, September 29 2009
Checked: _____ Date: _____
Reviewed: _____ Date: _____
Approved: _____ Date: _____



Azimuths to Grid North
True North: -0.29°
Magnetic North: 7.64°

Magnetic Field
Strength: 49087.1snT
Dip Angle: 60.66°
Date: 9/29/2009
Model: IGRF200510





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Devon Energy

Lea Co., New Mexico (Nad 83)
NANA 30 Fed #2H
NANA 30 Fed #2H

Lateral #1

Plan: Design #1

Standard Planning Report

29 September, 2009

CUDD
DRILLING & MEASUREMENT
SERVICES

CUDD Drilling & Measurement Services

Planning Report

devon

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Site NANA 30 Fed #2H
Company:	Devon Energy	TVD Reference:	WELL @ 3722.00ft (Original Well Elev)
Project:	Lea Co., New Mexico (Nad 83)	MD Reference:	WELL @ 3722.00ft (Original Well Elev)
Site:	NANA 30 Fed #2H	North Reference:	Grid
Well:	NANA 30 Fed #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Design #1		

Project Lea Co., New Mexico (Nad 83)

Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site NANA 30 Fed #2H, Sec 30, T-18S, R-32E

Site Position:		Northing:	625,221 82 ft	Latitude:	32° 43' 3.561 N
From:	Map	Easting:	704,281.87 ft	Longitude:	103° 48' 12.676 W
Position Uncertainty:	0 00 ft	Slot Radius:	"	Grid Convergence:	0.29 °

Well NANA 30 Fed #2H

Well Position	+N/-S	0.00 ft	Northing:	625,221.82 ft	Latitude:	32° 43' 3.561 N
	+E/-W	0.00 ft	Easting:	704,281 87 ft	Longitude:	103° 48' 12.676 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	3,722.00 ft	Ground Level:	3,702.00 ft

Wellbore Lateral #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	9/29/2009	7.92	60.66	49,087

Design Design #1

Audit Notes:		Phase:	PLAN	Tie On Depth:	0 00
Version:					
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	179.64	

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0 00	0.00	0 00	0.00	
7,842.04	0.00	0.00	7,842.04	0.00	0.00	0.00	0.00	0.00	0.00	
8,742.04	90.00	179 64	8,415.00	-572.95	3.65	10.00	10.00	0.00	179.64	
10,118.63	90.00	179.64	8,415.00	-1,949.50	12.42	0.00	0.00	0.00	0.00	PBHL - TD (N30F#2H

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Site NANA 30 Fed #2H
Company:	Devon Energy	TVD Reference:	WELL @ 3722.00ft (Original Well Elev)
Project:	Lea Co., New Mexico (Nad 83)	MD Reference:	WELL @ 3722.00ft (Original Well Elev)
Site:	NANA 30 Fed #2H	North Reference:	Grid
Well:	NANA 30 Fed #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Design #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler Dol.									
1,276.00	0.00	0.00	1,276.00	0.00	0.00	0.00	0.00	0.00	0 00
Salado Salt									
2,463.00	0.00	0.00	2,463.00	0.00	0.00	0.00	0.00	0.00	0.00
Tansil Dol.									
2,581.00	0.00	0.00	2,581.00	0.00	0.00	0.00	0.00	0.00	0.00
Yates SS									
3,069 00	0.00	0 00	3,069.00	0.00	0.00	0 00	0.00	0.00	0.00
Seven Rivers									
3,654.00	0 00	0.00	3,654 00	0 00	0.00	0.00	0.00	0.00	0.00
Queen SS									
3,701.00	0.00	0.00	3,701.00	0.00	0.00	0 00	0 00	0.00	0.00
Grayburg									
4,436.00	0.00	0.00	4,436.00	0.00	0.00	0.00	0.00	0.00	0 00
Cherry Canyon									
5,139.00	0.00	0.00	5,139.00	0.00	0.00	0.00	0.00	0.00	0.00
Brushy Canyon									
6,687 00	0 00	0.00	6,687.00	0.00	0.00	0 00	0.00	0.00	0.00
First BS LM									
7,842.04	0.00	0 00	7,842.04	0.00	0.00	0.00	0.00	0.00	0 00
KOP - Build 10°/100'									
8,122 01	28.00	179.64	8,111.00	-67.05	0.43	67.05	10.00	10.00	0.00
First BS SS									
8,742.04	90.00	179.64	8,415.00	-572 94	3 65	572 96	10.00	10.00	0 00
EOC - Hold I:90 @ A:179.64									
10,118.63	90.00	179.64	8,415.00	-1,949.50	12.42	1,949 54	0.00	0.00	0.00
PBHL - TD (N30F#2H)									

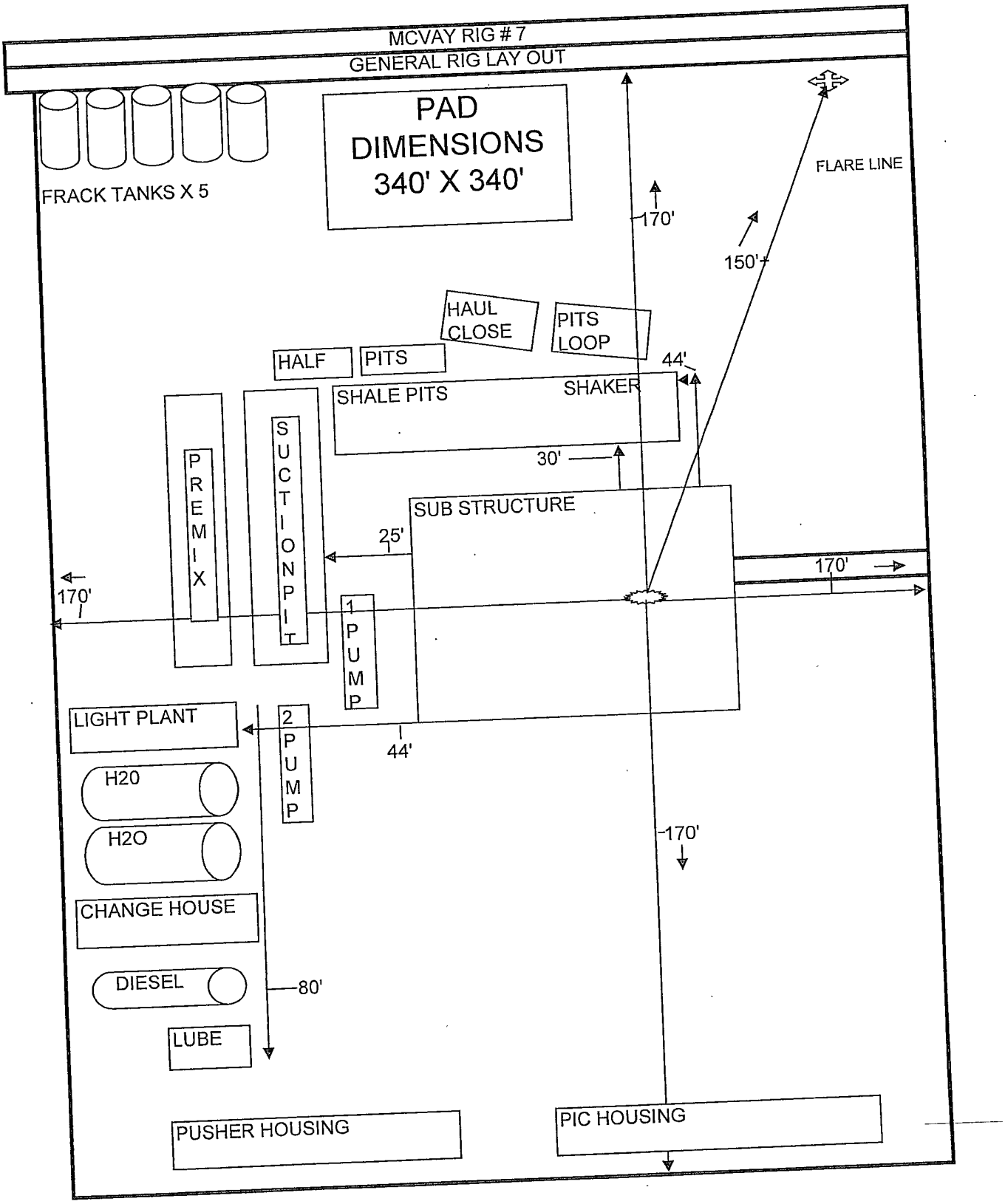
Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,000.00	1,000.00	Rustler Dol.		0.00	
1,276 00	1,276.00	Salado Salt		0.00	
2,463.00	2,463.00	Tansil Dol.		0.00	
2,581.00	2,581.00	Yates SS		0.00	
3,069.00	3,069 00	Seven Rivers		0.00	
3,654.00	3,654.00	Queen SS		0.00	
3,701.00	3,701.00	Grayburg		0.00	
4,436.00	4,436.00	Cherry Canyon		0.00	
5,139.00	5,139.00	Brushy Canyon		0.00	
6,687.00	6,687.00	First BS LM		0.00	
8,122.01	8,111.00	First BS SS		0.00	
	8,625.00	Second BS LM		0.00	

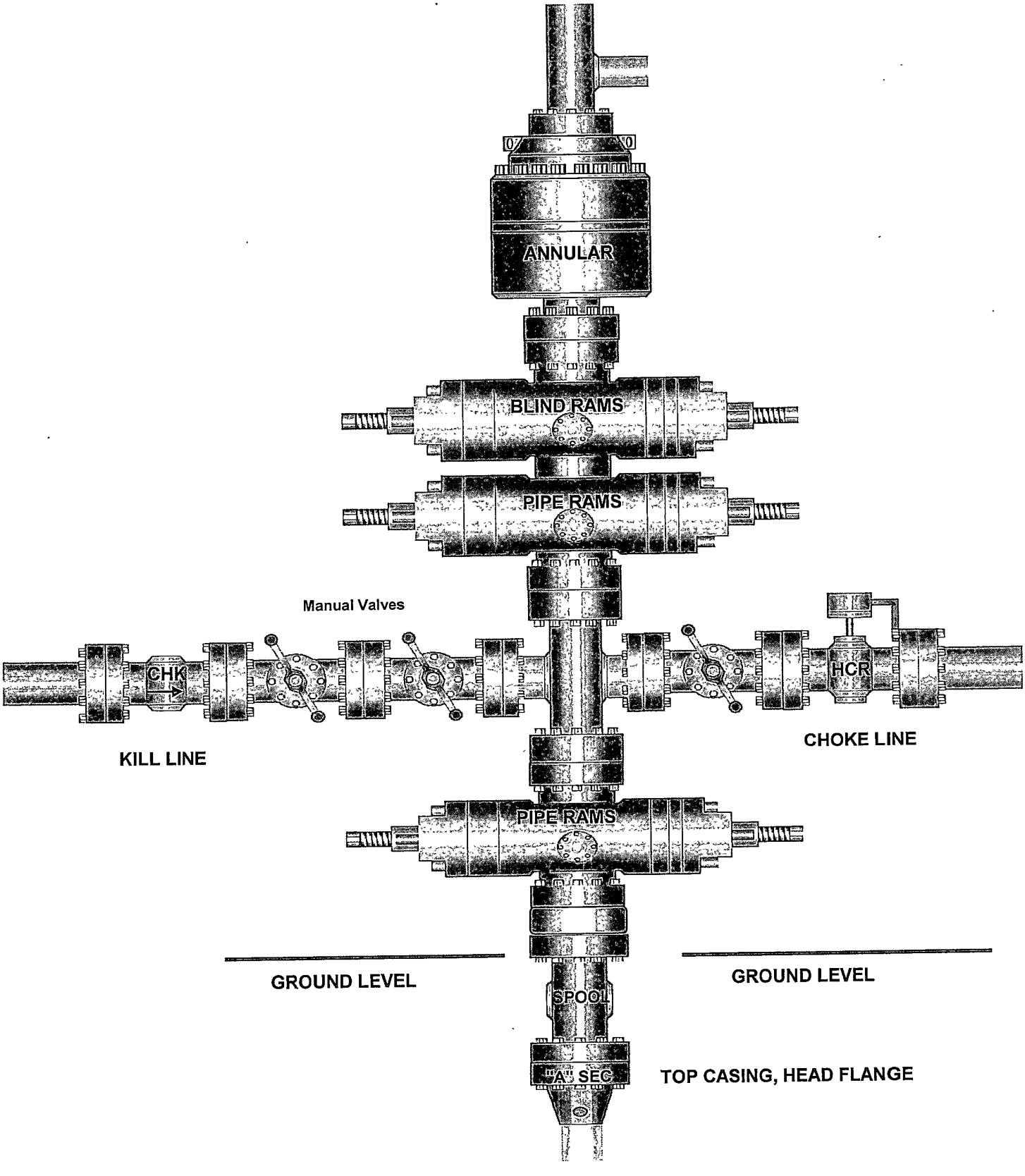
Database:	EDM 2003.21 Single User Db	**Local Co-ordinate Reference:**	Site NANA 30 Fed #2H
Company:	Devon Energy	**TVD Reference:**	WELL @ 3722.00ft (Original Well Elev)
Project:	Lea Co., New Mexico (Nad 83)	**MD Reference:**	WELL @ 3722.00ft (Original Well Elev)
Site:	NANA 30 Fed #2H	**North Reference:**	Grid
Well:	NANA 30 Fed #2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Design #1		

Plan Annotations

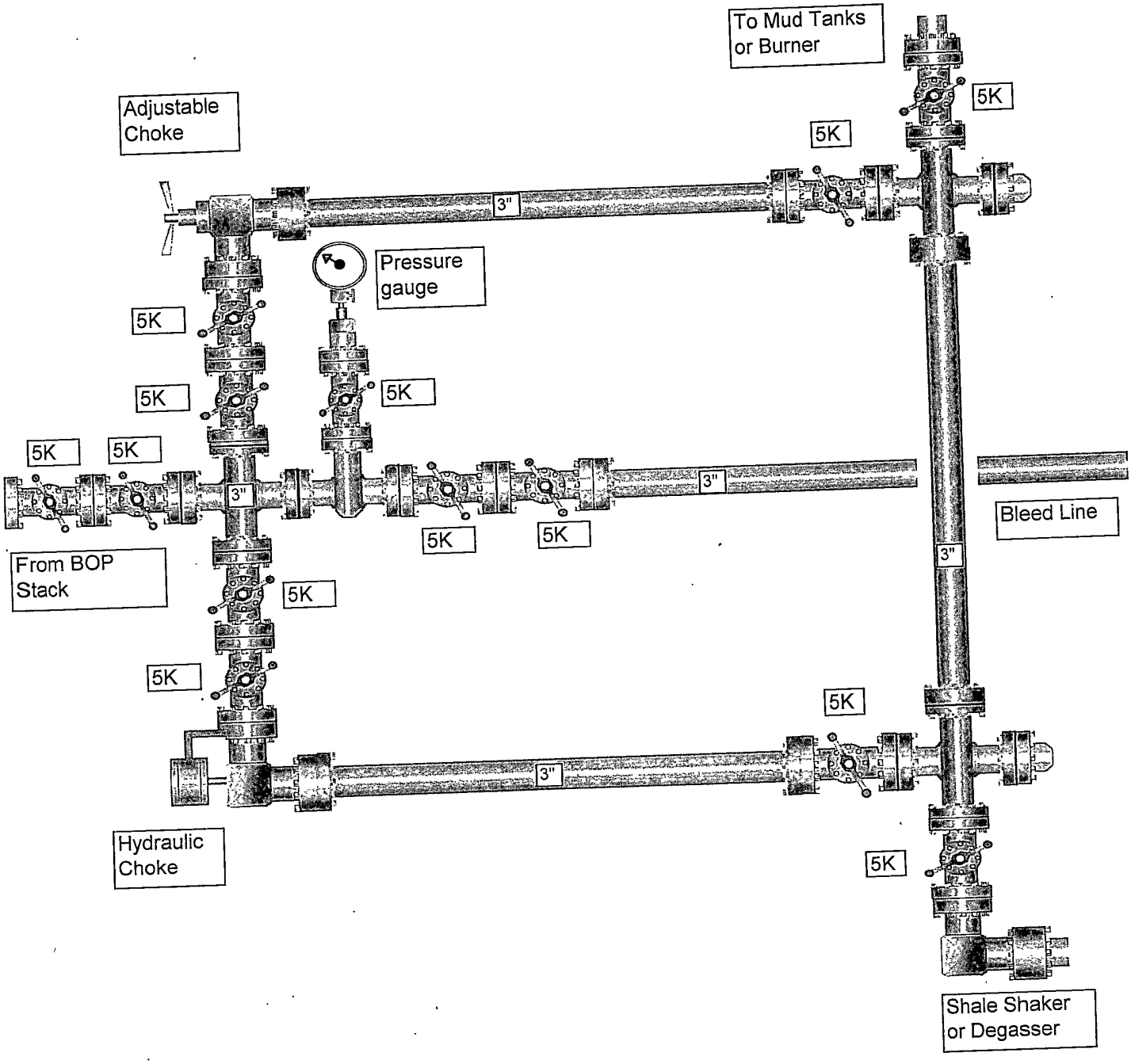
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
7,842.04	7,842.04	0.00	0.00	KOP - Build 10°/100'
8,742.04	8,415.00	-572.94	3.65	EOC - Hold I:90 @ A:179.64


MCVAY RIG # 7
GENERAL RIG LAY OUT
PAD DIMENSIONS 340' X 340'
FRACK TANKS X 5
FLARE LINE
170'
150'
HAUL CLOSE
PITS LOOP
HALF PITS
44'
SHALE PITS
SHAKER
30'
PREMIX
SUCTION PIT
SUB STRUCTURE
25'
170'
170'
1 PUMP
LIGHT PLANT
2 PUMP
44'
H20
H2O
170'
CHANGE HOUSE
DIESEL
80'
LUBE
PUSHER HOUSING
PIC HOUSING

13-5/8" x 5,000 psi BOP Stack



5,000 PSI CHOKE MANIFOLD



devon

Devon Energy Corporation
20 North Broadway
Oklahoma City, Oklahoma 73102-8260

Hydrogen Sulfide (H_2S) Contingency Plan

For

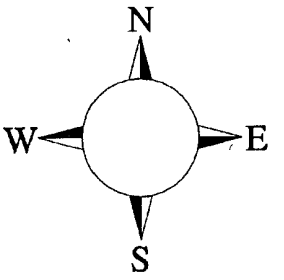
Nana "30" Federal # 2H

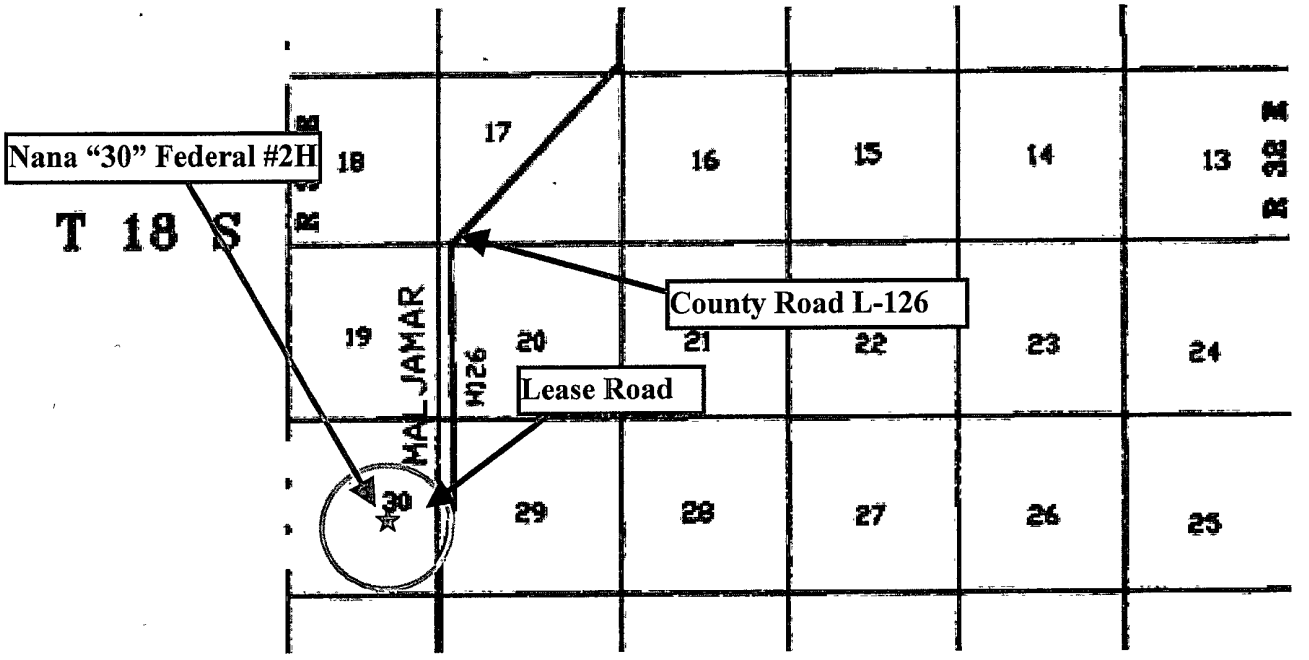
2310'FSL & 1980' FEL,
Sec-30, T-18S R-32E

Lea County NM

Nana "30" Federal # 2H

This is an open drilling site. H_2S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H_2S, including warning signs, wind indicators and H_2S monitor.





Assumed 100 ppm ROE = 3000' (Radius of Exposure)
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 East on lease road to County Road L126, then North out of the ROE. Crews should then block entrance to the location from the county 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 H_2S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H_2S, the first responder(s) must

- **Isolate the area and prevent entry by other persons into the 100 ppm ROE.**
- **Evacuate any public places encompassed by the 100 ppm ROE.**
- **Be equipped with H_2S monitors and air packs in order to control the release.**
- **Use the "buddy system" to ensure no injuries occur during the response**
- **Take precautions to avoid personal injury during this operation.**
- **Contact operator and/or local officials to aid in operation. See list of phone numbers attached.**
- **Have received training in the**
  - **Detection of H_2S, and**
  - **Measures for protection against the gas,**
  - **Equipment used for protection and emergency response.**

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	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)

Devon Energy Corp. Company Call List

Artesia (575)	Cellular	Office	Home
Foreman–Roger Hernandez.	748-5238	748-0169	396-7169
Asst. Foreman – Ernie Duran	513-1768	748-0191	746-4589
Don Mayberry	748-5235	748-0164	746-4945
Montral Walker	390-5182	748-0193	936-414-6246
Engineer – Ron Hays	(405) 464-4214	(405) 552-8150	(405) 359-7015

Agency Call List

Lea County (575)

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

Eddy County (575)

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
New Mexico 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	1-800-256-9688 or (281) 931-8884
Cudd Pressure Control	(915) 699-0139 or (915) 563-3356
Halliburton	(575) 746-2757
B. J. Services	(575) 746-3569

Give GPS position:

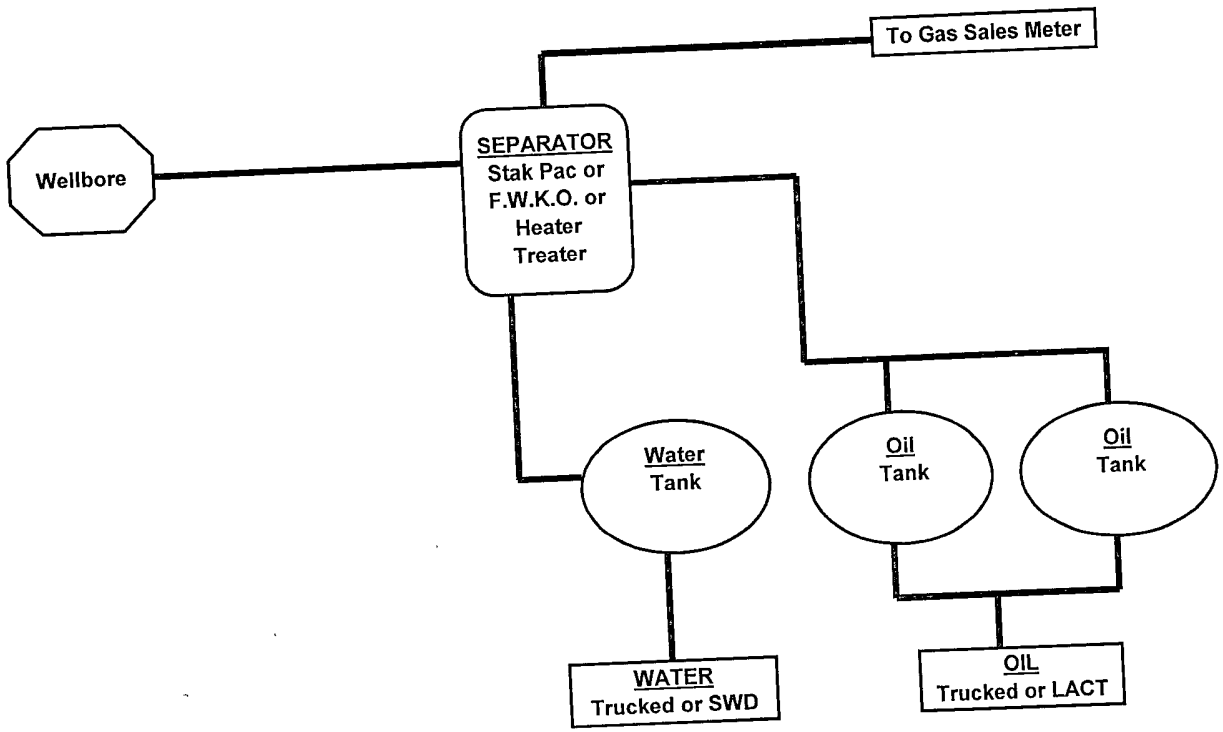
Flight For Life - Lubbock, TX	(806) 743-9911
Aerocare - Lubbock, TX	(806) 747-8923
Med Flight Air Amb - Albuquerque, NM	(575) 842-4433
Lifeguard Air Med Svc. Albuquerque, NM	(575) 272-3115

Prepared in conjunction with
Wade Rohloff of;

Compliance Services
PO Box 2734 Hobbs NM 88240 (505) 631-9561

DEVON ENERGY PRODUCTION COMPANY LP

General Production Facilities Diagram



Operators Representative:

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

Ron Hays
Operations Engineer

Devon Energy Production Company, L.P.
20 North Broadway
Oklahoma City, OK 73102-8260

(405) 552-8150 (office)
(405) 464-4214(cell)

Don Mayberry
Superintendent

Devon Energy Production Company, L.P.
Post Office Box 250
Artesia, NM 88211-0250

(505) 748-3371 (office)
(505) 746-4945 (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 _28th___ day of __September__, 2009.
Printed Name: Norvella Adams
Signed Name:
Position Title: Sr. Staff Engineering Technician
Address: 20 North Broadway, OKC OK 73102
Telephone: (405) 552-8198
Field Representative: Roger Hernandez
Address: 6478 Seven Rivers Hwy, Artesia, NM
Telephone: 575-748-0169
E-mail: norvella.adams@dvn.com

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Devon Energy Prod Co
LEASE NO.:	NM98189
WELL NAME & NO.:	2H Nana 30 Fed
SURFACE HOLE FOOTAGE:	2310' FSL & 1980' FEL
BOTTOM HOLE FOOTAGE	360' FSL & 1980' FEL
LOCATION:	Section 30, T. 18 S., R 32 E., NMPM
COUNTY:	Lea 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
- Ground Level Abandoned Well Marker

☒ **Construction**
- Notification
- Topsoil
- Reserve Pit – Closed-loop mud system
- Federal Mineral Material Pits
- Well Pads
- Roads

☐ **Road Section Diagram**
☒ **Drilling**
- H2S – Onshore Order 6 requirements
- Logging requirements

☒ **Production (Post Drilling)**
- Pipelines

☐ **Reserve Pit Closure/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, geophysical exploration other than 3-D operations, 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. 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 ft. 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.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Hobbs Field Station at (575) 393-3612 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 of the well pad. The topsoil shall not be used to backfill the reserve pit and will be used for interim and final reclamation.

C. RESERVE PITS

The operator has applied for a closed-loop system. The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. 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.

VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

a. Spudding well
b. Setting and/or Cementing of all casing strings
c. BOPE tests

☒ **Lea County**
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

1. A Hydrogen Sulfide (H2S) Drilling Plan should 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.

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 CAL/GR/N well log run from TD to surface will 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 and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

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

Wait on cement (WOC) time 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. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. 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.

Possible water and brine flows in the Salado and Artesia formations.

1. The **13-3/8** inch surface casing shall be set at **approximately 1050 feet in the Rustler Anhydrite** and cemented to the surface. **Additional cement may be required as the excess calculates to less than 50%.**

    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.

    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.

Formation below the 13-3/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe and the mud weight for the bottom of the hole. Report results to BLM office.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

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

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

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

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

a. First stage to DV tool, cement shall:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. **Additional cement may be required as the excess calculates to less than zero.**

b. Second stage above DV tool, cement shall:

☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

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. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M) psi. 5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.**

3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. The tests shall be done by an independent service company.

    b. The results of the test shall be reported to the appropriate BLM office.

    c. 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.**

    d. 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.

    e. **Effective November 1, 2008, no variances will be granted on reduced pressure tests on the surface casing and BOP/BOPE. Onshore Order 2 requirements will be in effect.**

D. DRILL STEM TEST

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

RGH 110609

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, Munsell Soil Color Chart # 5Y 4/2

B. PIPELINES

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

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

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

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

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

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the

Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to 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 25 feet.

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 of duney areas, the pipeline will be "snaked" around hummocks and dunes rather then suspended across these features.

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

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

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

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

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

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

15. Any cultural and/or paleontological resource (historic or prehistoric site or object)

discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

(March 1989)

IX. INTERIM RECLAMATION & RESERVE PIT CLOSURE

A. INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting 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.

Operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions 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 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.

Seed Mixture for LPC Sand/Shinnery 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:

Species	lb/acre
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

**Four-winged Saltbush 5lbs/A

* This can be used around well pads and other areas where caliche cannot be removed.

*Pounds of pure live seed:

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

X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.

On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the private surface land owner agreement.

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.