Form 3160-3
(August 2007)

EA-12-1336

OCD Artesia

ATS-12-1044

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NM0107697

JCS 2/14/2013

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.
Antares 23 Federal 4H <39724>

2. Name of Operator
Devon Energy Production, Company L. P. <6137>

9. API Well No.
30-015-41108

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

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

10. Field and Pool, or Exploratory
~~Williams Sink~~; Bone Spring <96434>

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

At surface L 2080 FSL & 185 FWL

At proposed prod. zone P 340 FSL & 340 FEL

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 23 T19S R31E

14. Distance in miles and direction from nearest town or post office*
14 Miles south 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)
330'

16. No. of acres in lease
NM0107967 2321 ac

17. Spacing Unit dedicated to this well
160

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

19. Proposed Depth
9315' TVD 14,415' MD

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

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3544' GL

22. Approximate date work will start*

23. Estimated duration
45 days

24. Attachments

Pad drilled w/ Antares 23 Federal 3H

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 Judy A. Barnett

Name *(Printed/Typed)*
Judy A. Barnett

Date
08/03/2012

Title
Regulatory Specialist

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

Name *(Printed/Typed)* /s/ Don Peterson

Date

Title for FIELD MANAGER

Office CARLSBAD FIELD OFFICE

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

APPROVAL FOR TWO YEARS

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

(Continued on page 2)

*(Instructions on page 2)

Capitan Controlled Water Basin

Approval Subject to General Requirements & Special Stipulations Attached

RECEIVED
FEB 12 2013
NMOCD ARTESIA

SEE ATTACHED FOR CONDITIONS OF APPROVAL

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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 15,2009
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-015-41108	41480	Lusk; B,S, West ~~WILLIAMS SINK; BONE SPRING~~

[4] Property Code	[5] Property Name	[6] Well Number
39724	ANTARES 23 FED	4H

[7] OGRID No.	[8] Operator Name	[9] Elevation
6137	DEVON ENERGY PRODUCTION COMPANY, L.P.	3544.5

[10] Surface Location

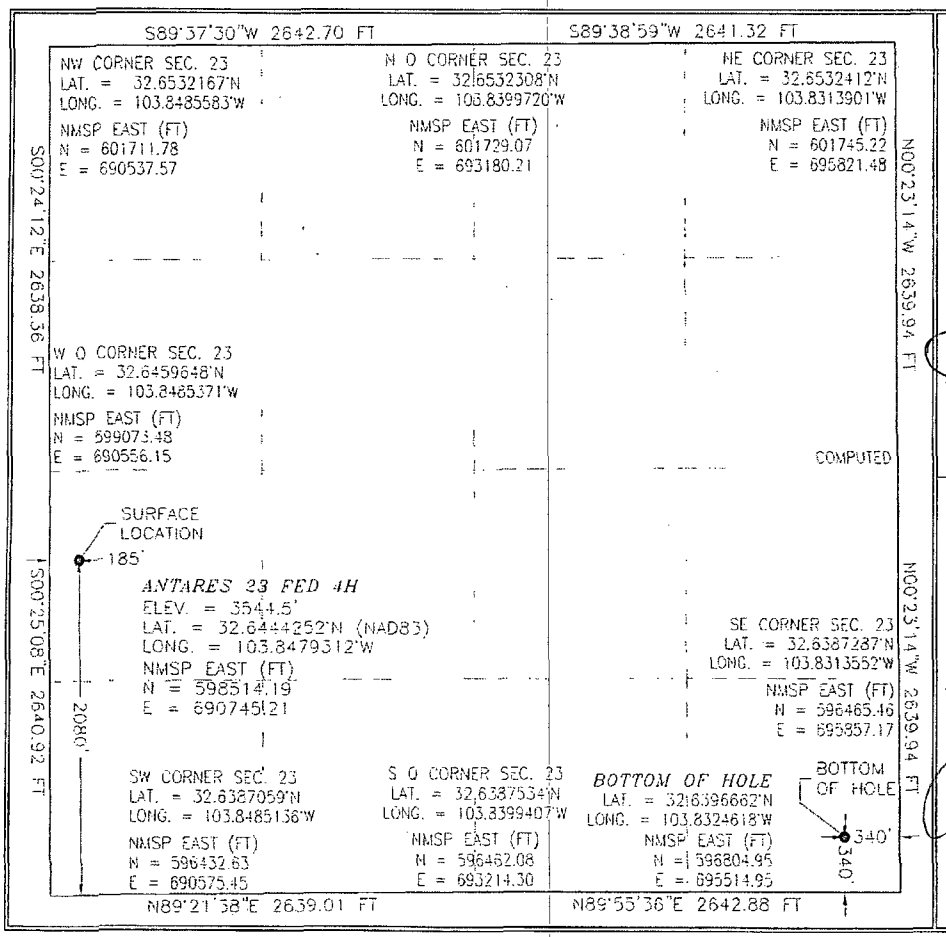
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	23	19 S	31 E		2080	SOUTH	185	WEST	EDDY

[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
P	23	19 S	31 E		340	SOUTH	340	EAST	EDDY

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
160			

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.



[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.

Signature Date

Printed Name
Judy A. Barnett Regulatory Specialist 8/3/12

[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.

MAY 24, 2012
Date of Survey

Signature and Seal of Professional Surveyor

Certificate Number FILIMON F. JARAMILLO, PLS 12797
SURVEY NO. 1045

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 _3rd__ day of __August, 2012.
Printed Name: Judy A. Barnett
Signed Name:
Position Title: Regulatory Specialist
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):

DRILLING PROGRAM

Devon Energy Production Company, LP

Antares 23 Federal 4H

Surface Location: 2080' FSL & 185' FWL, Unit L, Sec 23 T19S R31E, Eddy, NM

Bottom Hole Location: 340' FSL & 340' FEL, Unit P, Sec 23 T19S R31E, Eddy, NM

1. Geologic Name of Surface Formation

a. Quaternary Alluvium

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

a.	Fresh Water	170'	
b.	Rustler	615'	Barren
c.	Salado	860'	Barren
d.	Tansil Dolomite	2298'	Barren
e.	Yates	2410'	Barren
f.	Seven Rivers	2615'	Barren
g.	Capitan	2730'	Barren
h.	B/Capitan	4155'	Barren
i.	Delaware	4665'	Oil
j.	Bone Spring	7035'	Oil
k.	1st Bone Spring Ss	8290'	Oil
l.	2nd Bone Spring Lime	8565'	Oil
m.	2nd Bone Spring Ss	8985'	Oil
	Total Depth	14,415'	

Casing Program: All casing is new and API approved

See COA

Hole Size	Hole Interval	OD Csg	Casing Interval	Weight	Collar	Grade
26"	0 –~~750'~~ 670	20"	0'-750'	94#	BT&C	J/K-55
17 ½"	~~750~~- 2620'	13 3/8"	0'-2620'	68#	BT&C	J/K-55
12 ¼"	2620-~~4450'~~ 4300	9 5/8"	0'-4450'	40#	LT&C	J-55
8 ¾"	~~4450'~~-8400'	5 ½"	0'-8400'	17#	LT&C	HCP110
8 ¾"	8400-14,415	5 ½"	8400-14,415'	17#	BT&C	HCP110

MAX TVD in lateral 9240'

Design Parameter Factors:

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
20"	1.48	6.01	19.89
13 3/8"	1.59	2.81	6.40
9 5/8"	1.11	1.71	2.92
5 ½"	2.18	2.71	1.82
5 ½"	1.97	2.44	5.55

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 **1.11** for **9.625" 40# J-55 LT&C** casing at a depth of **4,450'**. While running the intermediate casing, the casing will never be completely evacuated. There is no potential for the intermediate casing to be used as a production string.

3. Cement Program: (volumes based on at least 25% excess)

20" Surface

Lead: 1200 sacks Class C Cement + 1% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 4% bwoc Bentonite + 81% Fresh Water, 13.5 ppg, **Yield:** 1.73 cf/sk **TOC @ surface.**
Tail: 300 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 56% Fresh Water, 14.8 ppg **Yield:** 1.35 cf/sk

13 3/8"

Lead: 1800 sacks (60:40) Poz:Class C + 5% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 4% bwoc Bentonite + 89% Fresh Water, 12.6 ppg, **Yield:** 1.73 cf/sk **TOC @ surface.**
Tail: 450 sacks (60:40) Poz:Class C + 5% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 66% Fresh Water, 13.8 ppg **Yield:** 1.38 cf/sk

9 5/8"

1st Stage: Lead: 600 sacks (60:40) Poz :Class C + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 90% Fresh Water, 12.6 ppg **Yield**: 1.73 cf/sk
Tail: 300 sacks (60:40) Poz:Class C + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.4% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 66% Water, 13.8 ppg **Yield**: 1.38 cf/sk.

DV Tool and ECP set at 2,650'(**~ 50' above the reef top).**

2nd Stage: Lead: 700 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 90% Fresh Water, 12.6 ppg **Yield**: 1.73 cf/sk **TOC @ surface**
Tail: 200 sacks (60:40)Poz Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.4% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 66% Water, 13.8 ppg **Yield**: 1.38 cf/sk.

5 ½"

1st Stage: Lead: 900 sacks (35:65) Poz :Class H + 5% bwow Sodium Chloride + 0.3% bwoc CD-32 + 0.5% bwoc FL-25 + 2% bwoc Bentonite + 0.6% bwoc Sodium Metasilicate + 0.5% bwoc FL-52A + 102.5% Fresh Water, 12.5 ppg **Yield**: 2.00 cf/sk
Tail: 1200 sacks (50:50) Poz:Class H + 1% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125 lbs/sack Cello Flake + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 58.3% Fresh Water, 14.2 ppg **Yield**: 1.28 cf/sk
DV TOOL at ~5,000't

2nd Stage: **Lead**: 400 sacks Class C Cement + 1% bwow Calcium Chloride + 0.125 lbs/sack Cello Flake + 157.8% Fresh Water, 11.4 ppg **Yield**: 2.88 cf/sk **TOC @ 2,500't**
Tail: 200 sacks (60:40) Poz:Class C + 1% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125 lbs/sack Cello Flake + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 63.2% Fresh Water, 13.8 ppg
Yield: 1.38cf/sk

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

Pressure Control Equipment

The BOP system used to drill the **17-1/2"** hole will consist of a **20" 2M Annular preventer**. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a **2M system** prior to drilling out the casing shoe.

The BOP system used to drill the **12-1/4" and 8-3/4"** holes will consist of a **13-5/8" 3M Triple Ram and Annular preventer**. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a **3M system** prior to drilling out the casing shoe.

The pipe rams will be operated and checked as per Onshore Order No 2. 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**.

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

Depth	Mud Wt.	Visc	Fluid Loss	Type System
0 - ~~750'~~ 670	8.4-9.0	30-34	NC	FW
~~750~~- 2620'	9.8-10.0	28-32	NC	Brine
2620-~~4450'~~ 4300	8.4-9.0	28-32	NC	FW
~~4450~~-14,415'	8.6-9.0	28-32	NC-12	FW

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

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 20" 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:** See COA

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.

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 Energy Corporation

HALLIBURTON | Sperry Drilling

devon

Project: Eddy County, NM (NAD 83)
Site: Antares 23 Fed
Well: Antares 23 Federal 4H
Wellbore: Wellbore #1
Plan: Plan #1
Rig: McVay 10

SURFACE LOCATION

US State Plane 1983
New Mexico Eastern Zone
Elevation: GL 3545' + 20' KB @ 3565.00ft (McVay 10)

Northing	Easting	Latitude	Longitude
598514.19	690745.21	32° 38' 39.931 N	103° 50' 52.552 W

CASING DETAILS

TVD	MD	Name
750.00	750.00	Surface Csg
2620.00	2620.00	Intermediate-1 Csg
4450.00	4450.00	Intermediate-2 Csg
9315.00	14415.12	Production Csg

SECTION DETAILS

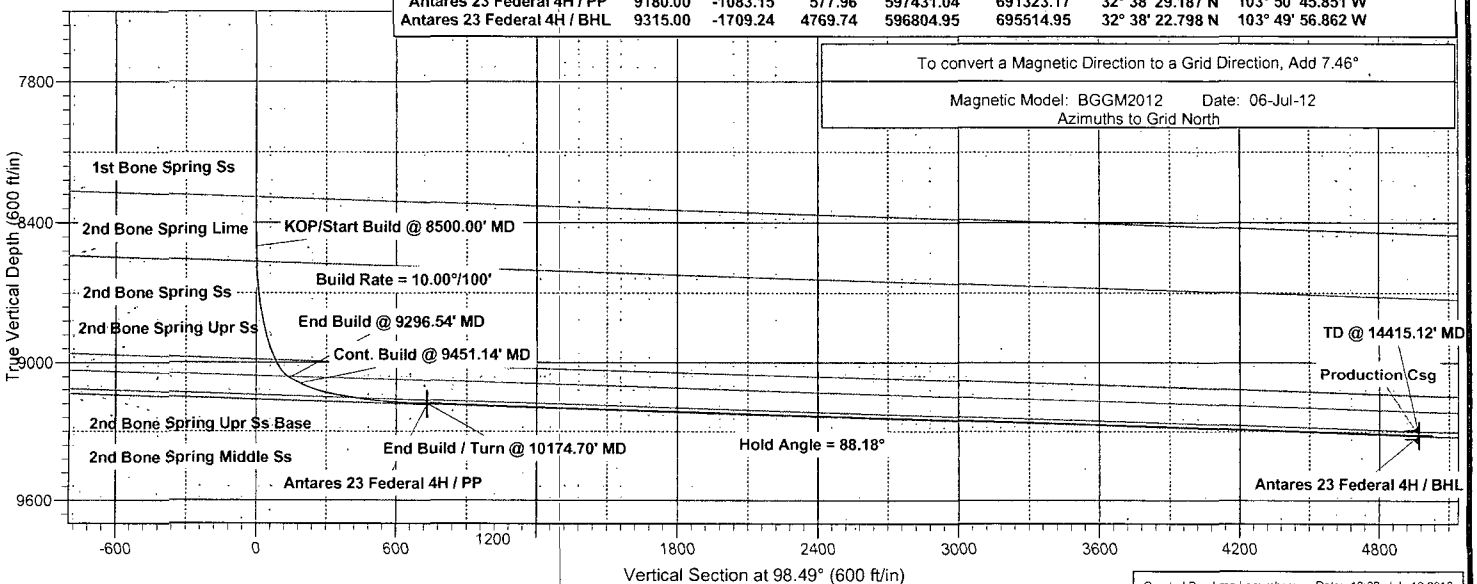
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8500.00	0.00	0.00	8500.00	0.00	0.00	0.00	0.00	0.00	KOP/Start Build
9296.54	79.65	170.89	9063.64	-464.13	74.42	10.00	170.89	142.13	End Build
9451.14	79.65	170.89	9091.41	-614.30	98.50	0.00	0.00	188.12	Cont. Build
10174.70	88.18	98.49	9180.00	-1083.15	577.96	10.00	-88.62	731.54	End Build / Turn
14415.12	88.18	98.49	9315.00	-1709.24	4769.74	0.00	0.00	4969.82	TD

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Antares 23 Federal 4H / PP	9180.00	-1083.15	577.96	597431.04	691323.17	32° 38' 29.187 N	103° 50' 45.851 W
Antares 23 Federal 4H / BHL	9315.00	-1709.24	4769.74	596804.95	695514.95	32° 38' 22.798 N	103° 49' 56.862 W

To convert a Magnetic Direction to a Grid Direction, Add 7.46°

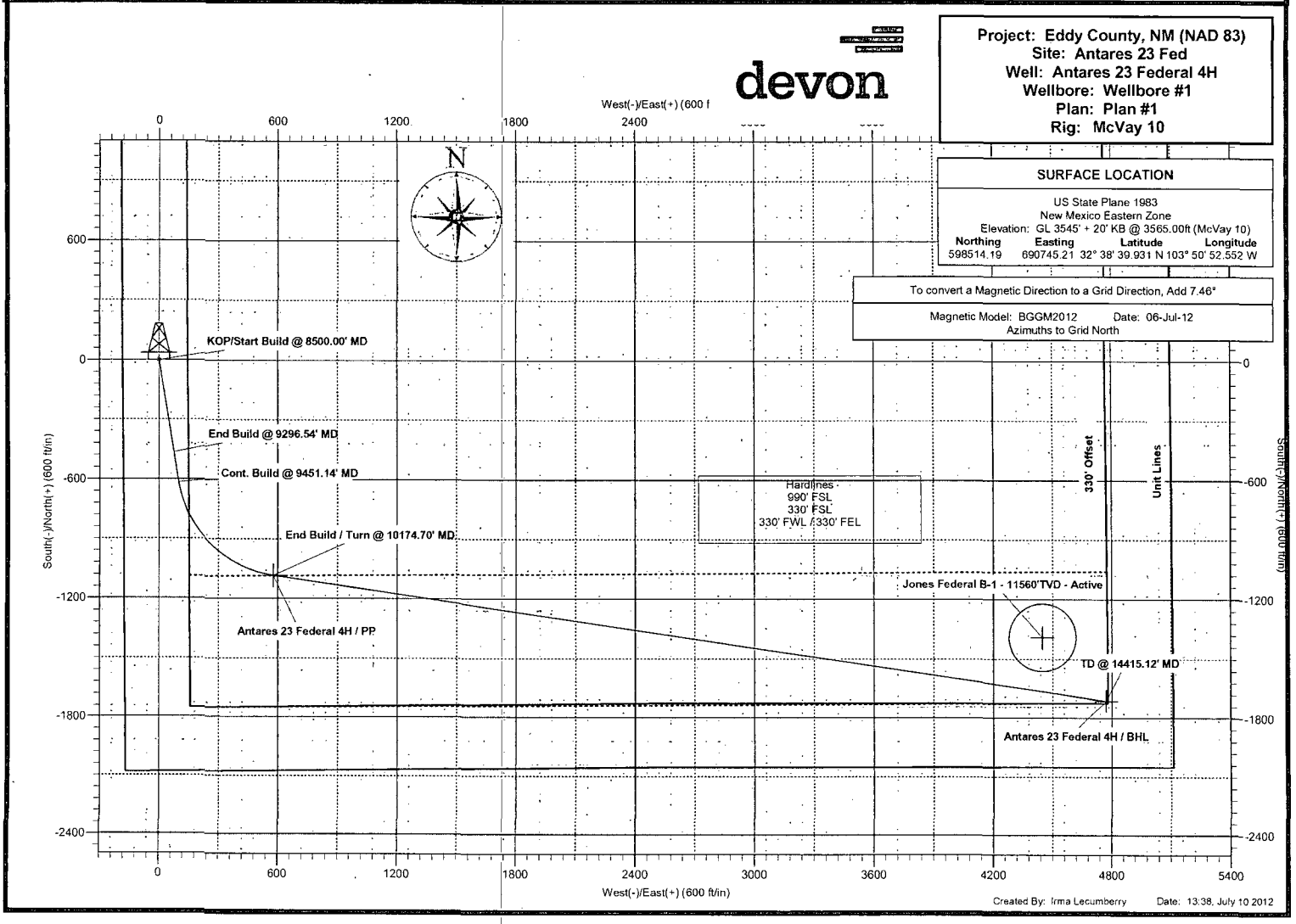
Magnetic Model: BGGM2012 Date: 06-Jul-12
Azimuths to Grid North



Created By: Irma Lecumberry Date: 13:32, July 10 2012

Devon Energy Corporation

HALLIBURTON | Sperry Drilling



Devon Energy Corporation

Eddy County, NM (NAD 83)
Antares 23 Fed
Antares 23 Federal 4H

Wellbore #1

Plan: Plan #1

Sperry Drilling Services

Proposal Report

10 July, 2012

Well Coordinates: 598,514.19 N, 690,745.21 E (32° 38' 39.93" N, 103° 50' 52.55" W)
Ground Level: 3,545.00 ft

Local Coordinate Origin:	Centered on Well Antares 23 Federal 4H
Viewing Datum:	GL 3545' + 20' KB @ 3565.00ft (McVay 10)
TVDs to System:	N
North Reference:	Grid
Unit System:	API - US Survey Feet

Version: 2003.16 Build: 431

HALLIBURTON

Plan Report for Antares 23 Federal 4H - Plan #1

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)	Toolface Azimuth (°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
615.00	0.00	0.00	615.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler										
750.00	0.00	0.00	750.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Surface Csg										
860.00	0.00	0.00	860.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado										
2,298.00	0.00	0.00	2,298.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tansil Dolomite										
2,410.00	0.00	0.00	2,410.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Yates										
2,615.00	0.00	0.00	2,615.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Seven Rivers										
2,620.00	0.00	0.00	2,620.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Intermediate-1 Csg										
2,730.00	0.00	0.00	2,730.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Capitan										
4,155.00	0.00	0.00	4,155.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B/Capitan										
4,450.00	0.00	0.00	4,450.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Intermediate-2 Csg										
4,665.00	0.00	0.00	4,665.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delaware										
7,035.00	0.00	0.00	7,035.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bone Spring										
8,290.00	0.00	0.00	8,290.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1st Bone Spring Ss										
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP/Start Build @ 8500.00' MD										
8,500.01	0.00	170.89	8,500.01	0.00	0.00	0.00	0.00	0.00	0.00	170.89
Build Rate = 10.00°/100'										
8,565.18	6.52	170.89	8,565.04	-3.66	0.59	1.12	10.00	10.00	0.00	170.89
2nd Bone Spring Lime										
8,600.00	10.00	170.89	8,599.49	-8.59	1.38	2.63	10.00	10.00	0.00	0.00
8,700.00	20.00	170.89	8,695.96	-34.12	5.47	10.45	10.00	10.00	0.00	0.00
8,800.00	30.00	170.89	8,786.48	-75.79	12.15	23.21	10.00	10.00	0.00	0.00
8,900.00	40.00	170.89	8,868.29	-132.36	21.22	40.53	10.00	10.00	0.00	0.00
9,000.00	50.00	170.89	8,938.91	-202.09	32.40	61.89	10.00	10.00	0.00	0.00
9,083.26	58.33	170.89	8,987.61	-268.67	43.08	82.28	10.00	10.00	0.00	0.00
2nd Bone Spring Ss										
9,100.00	60.00	170.89	8,996.20	-282.87	45.36	86.62	10.00	10.00	0.00	0.00
9,200.00	70.00	170.89	9,038.40	-372.24	59.69	113.99	10.00	10.00	0.00	0.00
9,274.70	77.47	170.89	9,059.31	-442.99	71.03	135.66	10.00	10.00	0.00	0.00
2nd Bone Spring Upr Ss										
9,296.54	79.65	170.89	9,063.64	-464.13	74.42	142.13	10.00	10.00	0.00	0.00
End Build @ 9296.54' MD										
9,300.00	79.65	170.89	9,064.26	-467.49	74.96	143.16	0.00	0.00	0.00	0.00
9,400.00	79.65	170.89	9,082.22	-564.62	90.54	172.91	0.00	0.00	0.00	0.00
9,451.14	79.65	170.89	9,091.41	-614.30	98.50	188.12	0.00	0.00	0.00	0.00
Cont. Build @ 9451.14' MD										
9,500.00	79.81	165.93	9,100.12	-661.38	108.16	204.62	10.00	0.32	-10.16	-88.62
9,600.00	80.36	155.79	9,117.39	-754.31	140.42	250.25	10.00	0.55	-10.14	-87.73
9,700.00	81.20	145.69	9,133.45	-840.30	188.61	310.60	10.00	0.84	-10.10	-85.98
9,800.00	82.31	135.65	9,147.82	-916.75	251.25	383.85	10.00	1.11	-10.04	-84.36
9,842.35	82.86	131.42	9,153.29	-945.67	281.69	418.22	10.00	1.28	-10.00	-82.92
2nd Bone Spring Upr Ss Base										

Plan Report for Antares 23 Federal 4H - Plan #1

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)	Toolface Azimuth (°)
9,900.00	83.66	125.67	9,160.07	-981.32	326.45	467.75	10.00	1.39	-9.97	-82.37
10,000.00	85.19	115.74	9,169.81	-1,032.06	411.92	559.78	10.00	1.53	-9.93	-81.70
10,100.00	86.86	105.86	9,176.76	-1,067.43	505.06	657.12	10.00	1.67	-9.88	-80.73
10,174.70	88.18	98.49	9,180.00	-1,083.15	577.96	731.54	10.00	1.76	-9.85	-80.04
End Build / Turn @ 10174.70' MD - Hold Angle = 88.18° - Antares 23 Federal 4H / PP										
10,200.00	88.18	98.49	9,180.81	-1,086.89	602.97	756.83	0.00	0.00	0.00	-79.72
10,300.00	88.18	98.49	9,183.99	-1,101.65	701.83	856.78	0.00	0.00	0.00	0.00
10,400.00	88.18	98.49	9,187.17	-1,116.42	800.68	956.73	0.00	0.00	0.00	0.00
10,500.00	88.18	98.49	9,190.36	-1,131.18	899.53	1,056.68	0.00	0.00	0.00	0.00
10,600.00	88.18	98.49	9,193.54	-1,145.95	998.38	1,156.63	0.00	0.00	0.00	0.00
10,700.00	88.18	98.49	9,196.72	-1,160.71	1,097.24	1,256.58	0.00	0.00	0.00	0.00
10,800.00	88.18	98.49	9,199.91	-1,175.48	1,196.09	1,356.53	0.00	0.00	0.00	0.00
10,900.00	88.18	98.49	9,203.09	-1,190.24	1,294.94	1,456.48	0.00	0.00	0.00	0.00
11,000.00	88.18	98.49	9,206.27	-1,205.01	1,393.80	1,556.43	0.00	0.00	0.00	0.00
11,100.00	88.18	98.49	9,209.46	-1,219.77	1,492.65	1,656.37	0.00	0.00	0.00	0.00
11,200.00	88.18	98.49	9,212.64	-1,234.54	1,591.50	1,756.32	0.00	0.00	0.00	0.00
11,300.00	88.18	98.49	9,215.83	-1,249.30	1,690.35	1,856.27	0.00	0.00	0.00	0.00
11,400.00	88.18	98.49	9,219.01	-1,264.07	1,789.21	1,956.22	0.00	0.00	0.00	0.00
11,500.00	88.18	98.49	9,222.19	-1,278.83	1,888.06	2,056.17	0.00	0.00	0.00	0.00
11,600.00	88.18	98.49	9,225.38	-1,293.60	1,986.91	2,156.12	0.00	0.00	0.00	0.00
11,700.00	88.18	98.49	9,228.56	-1,308.36	2,085.77	2,256.07	0.00	0.00	0.00	0.00
11,800.00	88.18	98.49	9,231.74	-1,323.12	2,184.62	2,356.02	0.00	0.00	0.00	0.00
11,900.00	88.18	98.49	9,234.93	-1,337.89	2,283.47	2,455.97	0.00	0.00	0.00	0.00
12,000.00	88.18	98.49	9,238.11	-1,352.65	2,382.32	2,555.92	0.00	0.00	0.00	0.00
12,100.00	88.18	98.49	9,241.29	-1,367.42	2,481.18	2,655.87	0.00	0.00	0.00	0.00
12,200.00	88.18	98.49	9,244.48	-1,382.18	2,580.03	2,755.82	0.00	0.00	0.00	0.00
12,300.00	88.18	98.49	9,247.66	-1,396.95	2,678.88	2,855.77	0.00	0.00	0.00	0.00
12,400.00	88.18	98.49	9,250.85	-1,411.71	2,777.73	2,955.72	0.00	0.00	0.00	0.00
12,500.00	88.18	98.49	9,254.03	-1,426.48	2,876.59	3,055.67	0.00	0.00	0.00	0.00
12,600.00	88.18	98.49	9,257.21	-1,441.24	2,975.44	3,155.61	0.00	0.00	0.00	0.00
12,700.00	88.18	98.49	9,260.40	-1,456.01	3,074.29	3,255.56	0.00	0.00	0.00	0.00
12,800.00	88.18	98.49	9,263.58	-1,470.77	3,173.15	3,355.51	0.00	0.00	0.00	0.00
12,900.00	88.18	98.49	9,266.76	-1,485.54	3,272.00	3,455.46	0.00	0.00	0.00	0.00
13,000.00	88.18	98.49	9,269.95	-1,500.30	3,370.85	3,555.41	0.00	0.00	0.00	0.00
13,100.00	88.18	98.49	9,273.13	-1,515.07	3,469.70	3,655.36	0.00	0.00	0.00	0.00
13,200.00	88.18	98.49	9,276.31	-1,529.83	3,568.56	3,755.31	0.00	0.00	0.00	0.00
13,300.00	88.18	98.49	9,279.50	-1,544.60	3,667.41	3,855.26	0.00	0.00	0.00	0.00
13,400.00	88.18	98.49	9,282.68	-1,559.36	3,766.26	3,955.21	0.00	0.00	0.00	0.00
13,500.00	88.18	98.49	9,285.87	-1,574.12	3,865.11	4,055.16	0.00	0.00	0.00	0.00
13,600.00	88.18	98.49	9,289.05	-1,588.89	3,963.97	4,155.11	0.00	0.00	0.00	0.00
13,700.00	88.18	98.49	9,292.23	-1,603.65	4,062.82	4,255.06	0.00	0.00	0.00	0.00
13,800.00	88.18	98.49	9,295.42	-1,618.42	4,161.67	4,355.01	0.00	0.00	0.00	0.00
13,900.00	88.18	98.49	9,298.60	-1,633.18	4,260.53	4,454.96	0.00	0.00	0.00	0.00
14,000.00	88.18	98.49	9,301.78	-1,647.95	4,359.38	4,554.90	0.00	0.00	0.00	0.00
14,100.00	88.18	98.49	9,304.97	-1,662.71	4,458.23	4,654.85	0.00	0.00	0.00	0.00
14,200.00	88.18	98.49	9,308.15	-1,677.48	4,557.08	4,754.80	0.00	0.00	0.00	0.00
14,300.00	88.18	98.49	9,311.33	-1,692.24	4,655.94	4,854.75	0.00	0.00	0.00	0.00
14,400.00	88.18	98.49	9,314.52	-1,707.01	4,754.79	4,954.70	0.00	0.00	0.00	0.00
14,415.12	88.18	98.49	9,315.00	-1,709.24	4,769.74	4,969.81	0.00	0.00	0.00	0.00
TD @ 14415.12' MD - Production Csg - Antares 23 Federal 4H / BHL										

Plan Report for Antares 23 Federal 4H - Plan #1

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
8,500.00	8,500.00	0.00	0.00	KOP/Start Build @ 8500.00' MD
8,500.01	8,500.01	0.00	0.00	Build Rate = 10.00°/100'
9,296.54	9,063.64	-464.13	74.42	End Build @ 9296.54' MD
9,451.14	9,091.41	-614.30	98.50	Cont. Build @ 9451.14' MD
10,174.70	9,180.00	-1,083.15	577.96	End Build / Turn @ 10174.70' MD
10,174.70	9,180.00	-1,083.15	577.96	Hold Angle = 88.18°
14,415.12	9,315.00	-1,709.24	4,769.74	TD @ 14415.12' MD

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/_S (ft)	Origin +E/-W (ft)	Start TVD (ft)
User	No Target (Freehand)	98.49	Slot	0.00	0.00	0.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
0.00	14,415.12	Plan #1	MWD

Casing Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
750.00	750.00	Surface Csg	20	26
2,620.00	2,620.00	Intermediate-1 Csg	13-3/8	17-1/2
4,450.00	4,450.00	Intermediate-2 Csg	9-5/8	12-1/4
14,415.12	9,315.00	Production Csg	5-1/2	8-3/4

Formation Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	9,160.00	2nd Bone Spring Middle Ss		1.82	98.49
615.00	615.00	Rustler		1.82	98.49
860.00	860.00	Salado		1.82	98.49
2,298.00	2,298.00	Tansil Dolomite		1.82	98.49
2,410.00	2,410.00	Yates		1.82	98.49
2,615.00	2,615.00	Seven Rivers		1.82	98.49
2,730.00	2,730.00	Capitan		1.82	98.49
4,155.00	4,155.00	B/Capitan		1.82	98.49
4,665.00	4,665.00	Delaware		1.82	98.49
7,035.00	7,035.00	Bone Spring		1.82	98.49
8,290.00	8,290.00	1st Bone Spring Ss		1.82	98.49
8,565.18	8,565.00	2nd Bone Spring Lime		1.82	98.49
9,083.26	8,985.00	2nd Bone Spring Ss		1.82	98.49
9,274.70	9,055.00	2nd Bone Spring Upr Ss		1.82	98.49
9,842.35	9,140.00	2nd Bone Spring Upr Ss Base		1.82	98.49

Plan Report for Antares 23 Federal 4H - Plan #1

Targets associated with this wellbore

Target Name	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Shape
Jones Federal B-1 - 11560'TVD - Active	11,560.00	-1,389.58	4,447.49	Circle
Antares 23 Federal 4H / BHL	9,315.00	-1,709.24	4,769.74	Point
Antares 23 Federal 4H / PP	9,180.00	-1,083.15	577.96	Point

North Reference Sheet for Antares 23 Fed - Antares 23 Federal 4H - Wellbore #1

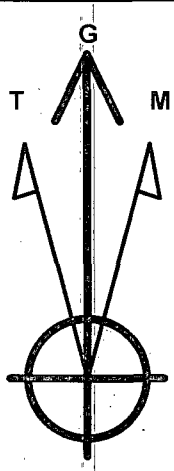
All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.
Vertical Depths are relative to GL 3545' + 20' KB @ 3565.00ft (McVay 10). Northing and Easting are relative to Antares 23 Federal 4H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Transverse Mercator.(Gauss-Kruger)
Central Meridian is -104.33°, Longitude Origin:0° 0' 0.000 E°, Latitude Origin:0° 0' 0.000 N°
False Easting: 541,337.50ft, False Northing: 0.00ft, Scale Reduction: 0.99993465

Grid Coordinates of Well: 598,514.19 ft N, 690,745.21 ft E
Geographical Coordinates of Well: 32° 38' 39.93" N, 103° 50' 52.55" W
Grid Convergence at Surface is: 0.26°

Based upon Minimum Curvature type calculations, at a Measured Depth of 14,415.12ft
the Bottom Hole Displacement is 5,066.74ft in the Direction of 109.72° (Grid).

Magnetic Convergence at surface is: -7.46° (6 July 2012, , BGGM2012)



Magnetic Model:	BGGM2012
Date:	06-Jul-12
Declination:	7.72°
Inclination/Dip:	60.47°
Field Strength:	48727

Grid North is 0.26° East of True North (Grid Convergence)
Magnetic North is 7.72° East of True North (Magnetic Declination)
Magnetic North is 7.46° East of Grid North (Magnetic Convergence)

To convert a True Direction to a Grid Direction, Subtract 0.26°
To convert a Magnetic Direction to a True Direction, Add 7.72° East
To convert a Magnetic Direction to a Grid Direction, Add 7.46°

NOTES REGARDING BLOWOUT PREVENTERS
Devon Energy Production Company, LP
Antares 23 Federal 4H
Surface Location: 2080' FSL & 185' FWL, Unit L, Sec 23 T19S R31E, Eddy, NM
Bottom Hole Location: 340' FSL & 340' FEL, Unit P, Sec 23 T19S 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.

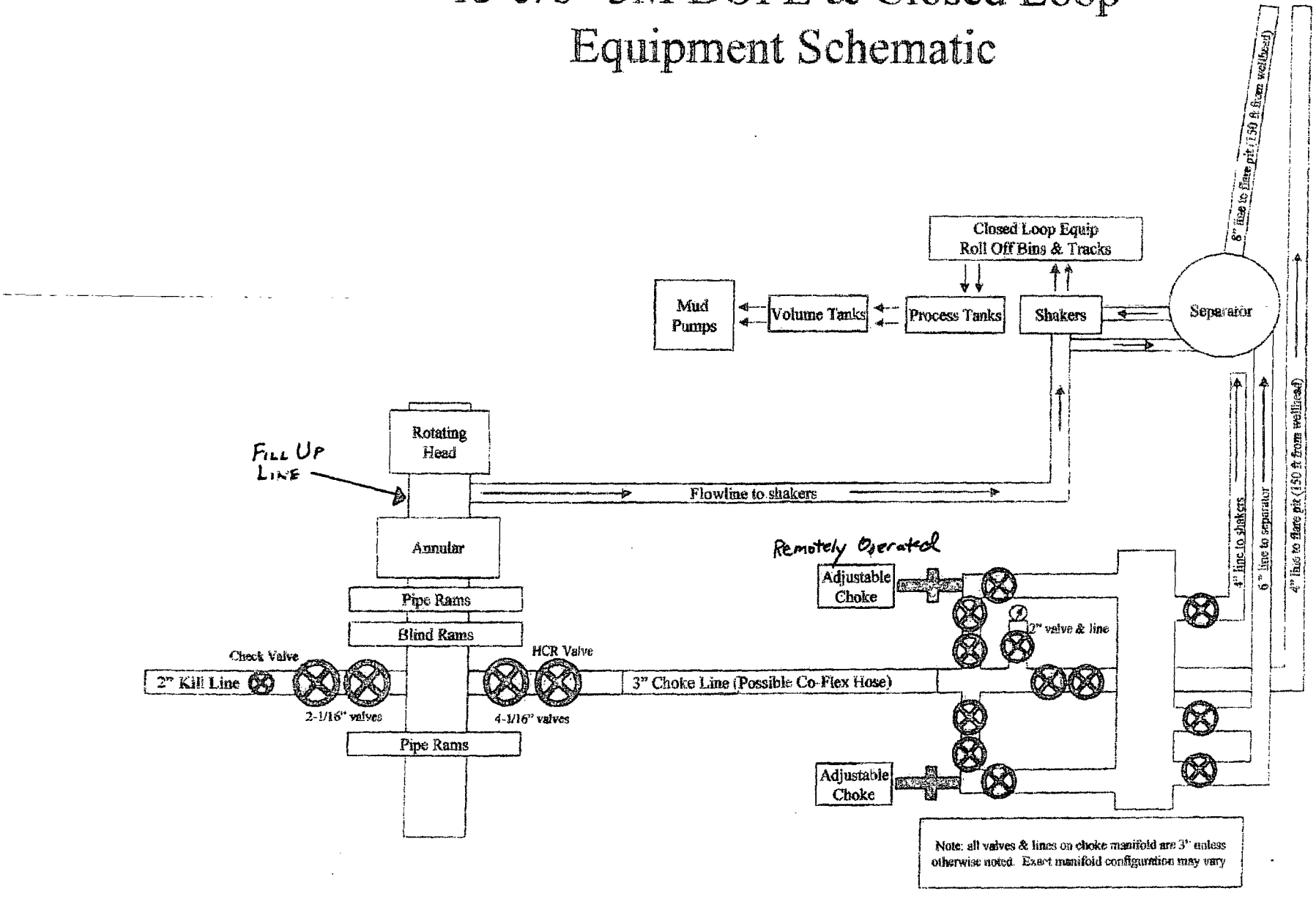
8. Will maintain a kelly cock attached to the kelly.

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.

13-5/8" 3M BOPE & Closed Loop Equipment Schematic



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

Hydrogen Sulfide (H_2S) Contingency Plan

For

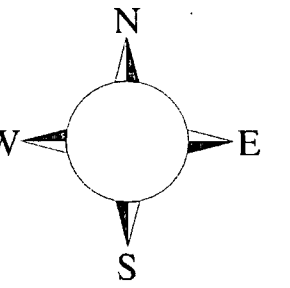
Antares "23" Federal 4H

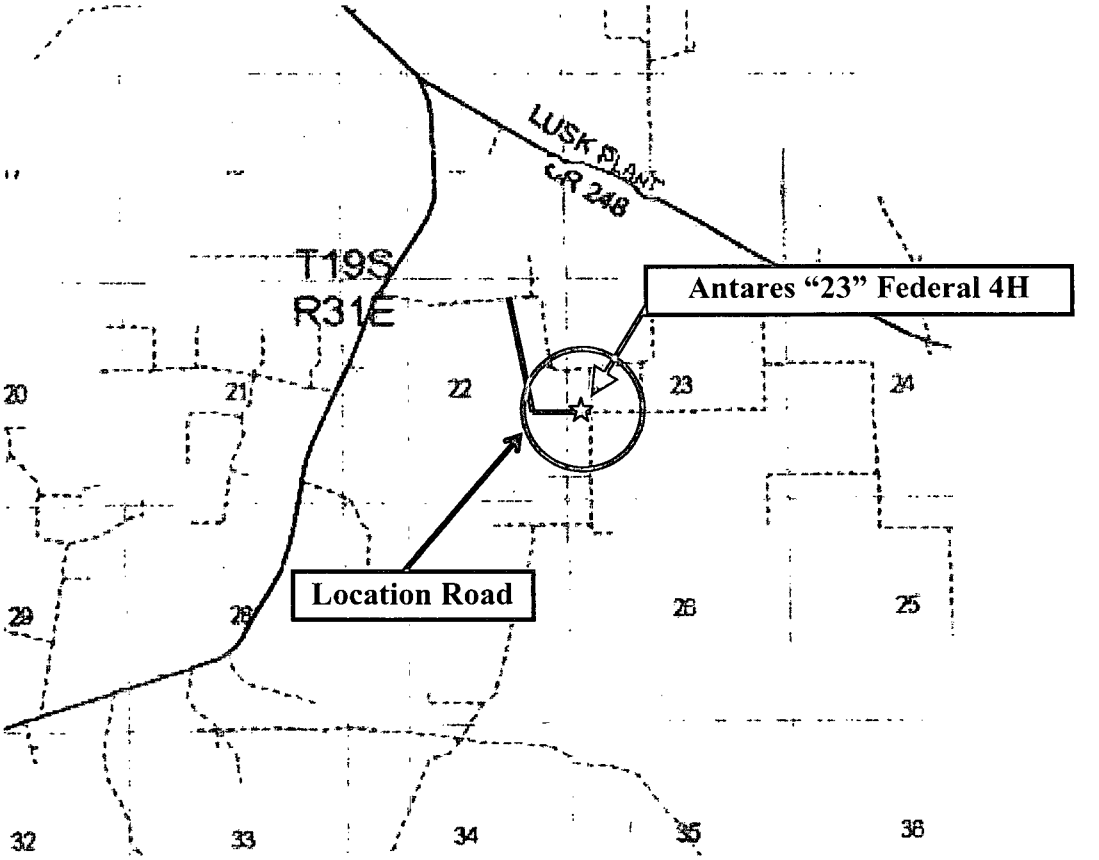
Sec-23, T-19S R-31E
2080' FSL & 185' FWL,
LAT. = 32.6444252'N (NAD83)
LONG = 103.8479312'W

Eddy County NM

Antares "23" Federal 4H

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 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, East or 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 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)

Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE (H_2S) 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 (H_2S)

2. The proper use and maintenance of personal protective equipment and life support systems.

3. The proper use of H_2S 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 H_2S 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 H_2S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H_2S zone (within 3 days or 500 feet) and weekly H_2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H_2S Drilling Operations Plan and the Public Protection Plan.

II. HYDROGEN SULFIDE TRAINING

Note: All H_2S 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 H_2S.

1. **Well Control Equipment**

   A. Flare line

   B. Choke manifold

   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. **H_2S detection and monitoring equipment:**

   A. Portable H_2S monitors positioned on location for best coverage and response. These unites have warning lights and audible sirens when H_2S levels of 20 PPM are reached. These units are usually capable of detecting SO_2, which is a byproduct of burning H_2S.

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 H_2S circulated to surface. Proper mud weight, safe drilling practices and the use of H_2S scavengers will minimize hazards when penetrating H_2S bearing zones.

6. Metallurgy:

A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold lines, and valves shall be H_2S trim.

B. All elastomers used for packing and seals shall be H_2S 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 H_2S 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

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

Graphic Safety LLC
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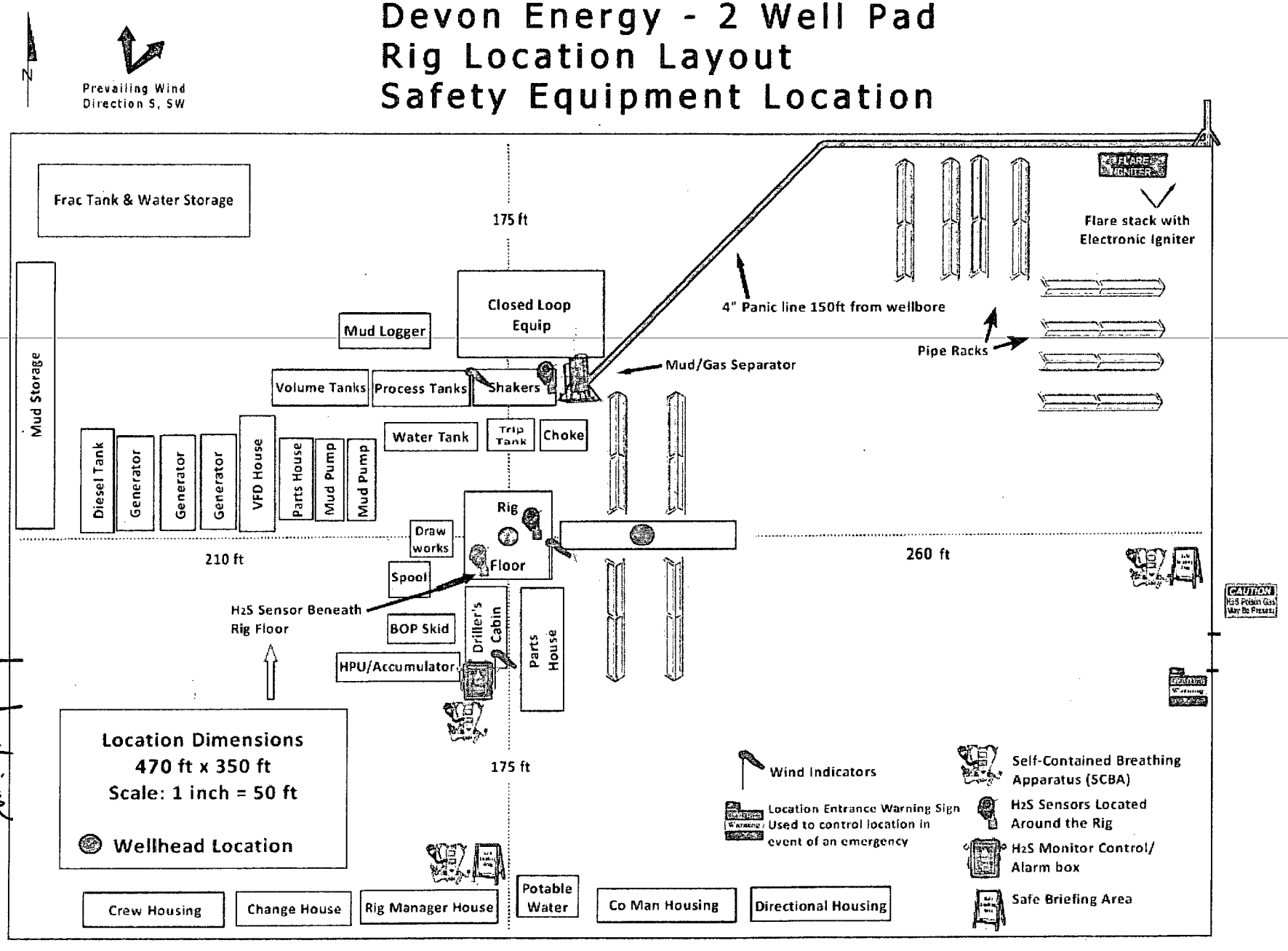
Safety is an Art
PO Box 2734 • Hobbs NM 88240
575.631.9661 • Fax 866.352.2183

Devon Energy - 2 Well Pad
Rig Location Layout
Safety Equipment Location

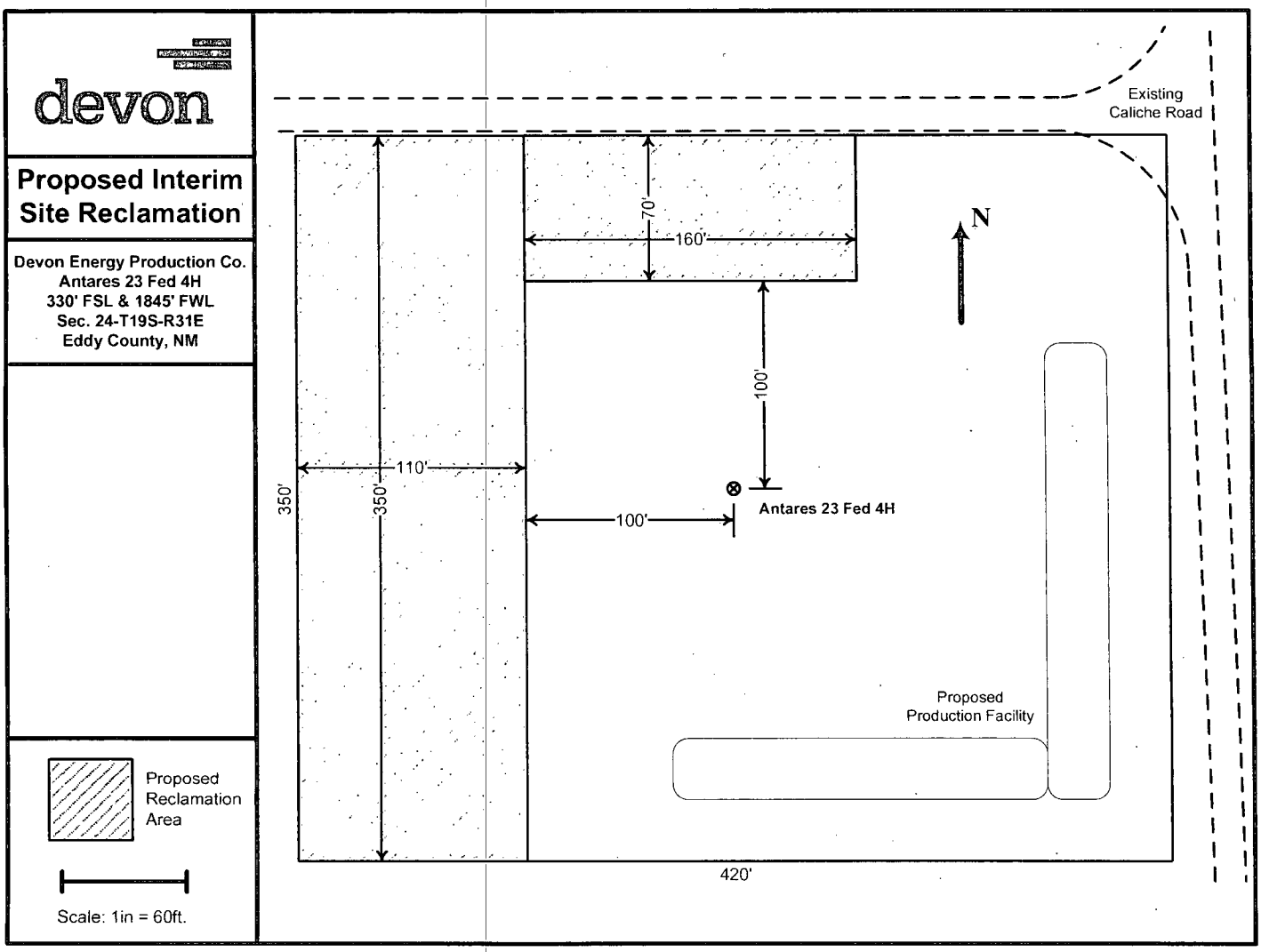


road w/ signs

devon

Proposed Interim Site Reclamation

Devon Energy Production Co.
Antares 23 Fed 4H
330' FSL & 1845' FWL
Sec. 24-T19S-R31E
Eddy County, NM



PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Devon Energy Prod Co
LEASE NO.:	NM0107697
WELL NAME & NO.:	4H Antares 23 Federal
SURFACE HOLE FOOTAGE:	2080' FSL & 185' FWL
BOTTOM HOLE FOOTAGE	340' FSL & 340' FEL
LOCATION:	Section23 , T.19 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.