

APR 22 2014

Form 3160-3
(March 2012)

SECRETARY'S POTASH OCD Hobbs

RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 20145. Lease Serial No.
SH: NMNM086710; BHL: NMNM058938

6. If Indian, Allottee or Tribe Name

1a. Type of work: ☒ DRILL ☐ REENTER1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

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

3a. Address 333 W. Sheridan Ave.
Oklahoma City, OK 731023b. Phone No. (include area code)
405-552-7848

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

At surface 2600 FSL & 1350 FEL Unit J

PP: 2600 FSL & 1350 FEL

At proposed prod. zone 330 FNL & 1980 FEL; Unit B; 28-21S-32E

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

8. Lease Name and Well No.
BILBREY 33 FED COM 3H

9. API Well No.

10. Field and Pool, or Exploratory

11. Sec., T. R. M. or Blk. and Survey or Area
33-21S-32E14. Distance in miles and direction from nearest town or post office*
Approximately 32 miles West of Eunice, NM12. County or Parish
Lea County13. State
NM15. 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
NMNM086710; 1074.27
NMNM058938; 32017. Spacing Unit dedicated to this well
240 acres

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

See attached map

19. Proposed Depth
TVD: 10,591' MD: 18,371'20. BLM/BIA Bond No. on file
CO-1104 & NMB-00080121. Elevations (Show whether DF, KDB, RT, GL, etc.)
3729.6' GL22. Approximate date work will start*
04/27/201423. Estimated duration
45 days

24. Attachments To Be Pad Drilled w/ Bilbrey 33 Fed Com 4H

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

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

25. Signature

Name (Printed/Typed)
David H. CookDate
01/17/2014

Title

Regulatory Specialist

Approved by (Signature)

/s/George MacDonell

Name (Printed/Typed)

Date
APR 17 2014

Title

FIELD MANAGER

Office

CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

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

(Continued on page 2)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

Kc
04/23/14Approval Subject to General Requirements
& Special Stipulations AttachedSEE ATTACHED FOR
CONDITIONS OF APPROVAL

APR 28 2014

Kc

HOBBS OCD

APR 22 2014

Certification

RECEIVED

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 16th day of January, 2014.

Printed Name: David H. Cook

Signed Name: [Signature]

Position Title: Regulatory Specialist

Address: 333 W. Sheridan, OKC OK 73102

Telephone: (405)-552-7848

DRILLING PROGRAM

Devon Energy Production Company, L.P.
Bilbrey 33 Fed Com 3H

1. Geologic Name of Surface Formation: Quaternary

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

a. Fresh Water	300'	
b. Rustler	740'	Barren
c. Top of Salt	1080'	Barren
d. Base of Salt	4540'	Barren
e. Lamar Limestone	4550'	Barren
f. Cherry Canyon	4750'	Oil & Gas
g. Brushy Canyon	6920'	Oil & Gas
h. Lower Brushy Canyon	8400'	Oil & Gas
i. Bone Spring Lime	8670'	Oil & Gas
j. 1 st Bone Spring Sand	9715'	Oil & Gas
k. 2 nd Bone Spring Sand	10353'	Oil & Gas
Total Depth	10591' TVD	18371' MD

3. Pressure Control Equipment:

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

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

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 5,000 psi WP.

See
CA

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.

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.

4. Casing Program:

See
COA

Hole Size	Hole Interval	Casing OD	Casing Interval	Weight (lb/ft)	Collar	Grade	Collapse Design Factor	Burst Design Factor	Tension Design Factor
17-1/2"	0 - 800' 900	13-3/8"	0 - 800'	48	STC	H-40	1.85	4.16	8.39
12-1/4"	800-4,700'	9-5/8"	0 - 4,700'	40	LTC	HCK-55	2.29	1.44	3.35
8-3/4"	4,700-18,371'	5-1/2"	0 - 18,371'	17	BTC	P-110	1.73	2.15	1.82

Casing Notes:

- All casing is new and API approved

Maximum Lateral TVD: 10,594'

5. Proposed mud Circulations System:

Depth	Mud Weight	Viscosity	Fluid Loss	Type System
0 - 800' 900	8.4-9.0	30-34	N/C	FW
800-4,700'	10.0-10.2	28-32	N/C	Brine
4,700-18,371'	8.6-9.0	28-32	N/C	FW

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

6. Cementing Table:

String	Number of sx	Weight lbs/gal	Water Volume g/sx	Yield cf/sx	Stage; Lead/Tail	Slurry Description
13-3/8" Surface Casing	330	13.5	9.08	1.72	Lead	Class C Cement + 0.125 lbs/sack Poly-E-Flake + 4% bwoc Bentonite + 70.1% Fresh Water
	450	14.8	6.34	1.33	Tail	Class C Cement + 63.5% Fresh Water
9-5/8" Intermediate Casing	1030	12.9	9.81	1.85	Lead	(65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 70.9 % Fresh Water
	430	14.8	6.32	1.33	Tail	Class C Cement + 0.125 lbs/sack Poly-E-Flake + 63.5% Fresh Water
5-1/2" Production Casing	560	11.9	12.89	2.26	Lead #1	(50:50) Class H Cement: Poz (Fly Ash) + 10% BWOC Bentonite + 1 lb/sk of Kol-Seal + 0.3% BWOC HR-601 + 0.5lb/sk D-Air 5000 + 76.4% Fresh Water
	330	12.5	10.79	1.96	Lead #2	(65:35) Class H Cement: Poz (Fly Ash) + 6% BWOC Bentonite + 0.25% BWOC HR-601 + 0.125 lbs/sack Poly-E-Flake + 74.1 % Fresh Water
	2150	14.5	5.37	1.22	Tail	(50:50) Class H Cement: Poz (Fly Ash) + 1 lb/sk Sodium Chloride + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water
5-1/2" Production Casing 2 Stage Option	590	12.5	10.79	1.96	Lead	(65:35) Class H Cement: Poz (Fly Ash) + 6% BWOC Bentonite + 0.25% BWOC HR-601 + 0.125 lbs/sack Poly-E-Flake + 74.1 % Fresh Water
	2150	14.5	5.37	1.22	Tail	(50:50) Class H Cement: Poz (Fly Ash) + 1 lb/sk Sodium Chloride + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water
	DVT @ 6500ft					
	310	12.5	10.79	1.96	Lead	(65:35) Class H Cement: Poz (Fly Ash) + 6% BWOC Bentonite + 0.25% BWOC HR-601 + 0.125 lbs/sack Poly-E-Flake + 74.1 % Fresh Water
	120	14.8	6.34	1.33	Tail	Class C Cement + 0.2% HR-800 + 64.4% Fresh Water

TOC for all Strings:

Surface @ 0'
 Intermediate @ 0'
 Production @ 4,200'

Notes:

- Cement volumes Surface 100%, Intermediate 50%, Production based on at least 25% excess

- Actual cement volumes will be adjusted based on fluid caliper and caliper log data

7. Logging, Coring, and Testing Program:

See COA

- Drill stem tests will be based on geological sample shows.
- 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.
- Resistivity and porosity logs are planned below the intermediate casing point. Stated logs run will be named in the Completion Report and submitted to the BLM.
- No coring program is planned
- Additional Testing will be initiated subsequent to setting the 5-1/2" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows, and drill stem tests.

8. Potential Hazards:

- No abnormal pressures or temperatures are expected. There is no known presence of H₂S in this area, and none is anticipated to be encountered. 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 being used to drill this well. Estimated BHP: 5000 psi, and estimated BHT: 165 degrees.
- Hydrogen Sulfide detection equipment will be in operation after drilling out the 13-3/8" casing shoe until the 5-1/2" casing is cemented. Breathing equipment will be on location upon drilling the 13-3/8" shoe until total depth is reached.

9. Anticipated Starting Date and Duration of Operations:

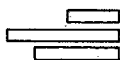
- Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 32 days. If production casing is run then an additional 30 days will be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



Weatherford[®]

Drilling Services

Proposal



devon

BILBERY 33 FED COM 3H

LEA COUNTY, NM

WELL FILE: **PLAN 1**

NOVEMBER 6, 2013

Weatherford International, Ltd.

P.O. Box 61028

Midland, TX 79711 USA

+1.432.561.8892 Main

+1.432.561.8895 Fax

www.weatherford.com



Bilbrey 33 Fed Com 3H
Lea County, New Mexico

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	9952.05	0.00	0.00	9952.05	0.00	0.00	0.00	0.00	0.00	
3	10471.45	62.33	270.50	10374.90	2.23	-255.72	12.00	270.50	2.23	
4	11217.88	90.03	0.00	10594.72	479.80	-675.41	12.00	89.74	479.80	
5	18371.85	90.03	0.00	10591.00	7633.77	-675.40	0.00	0.00	7633.77	PBHL 3H

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Bilbrey 33 Fed Com 3H	0.00	0.00	522643.51	744274.73	32°26'06.332N	103°40'32.008W	N/A

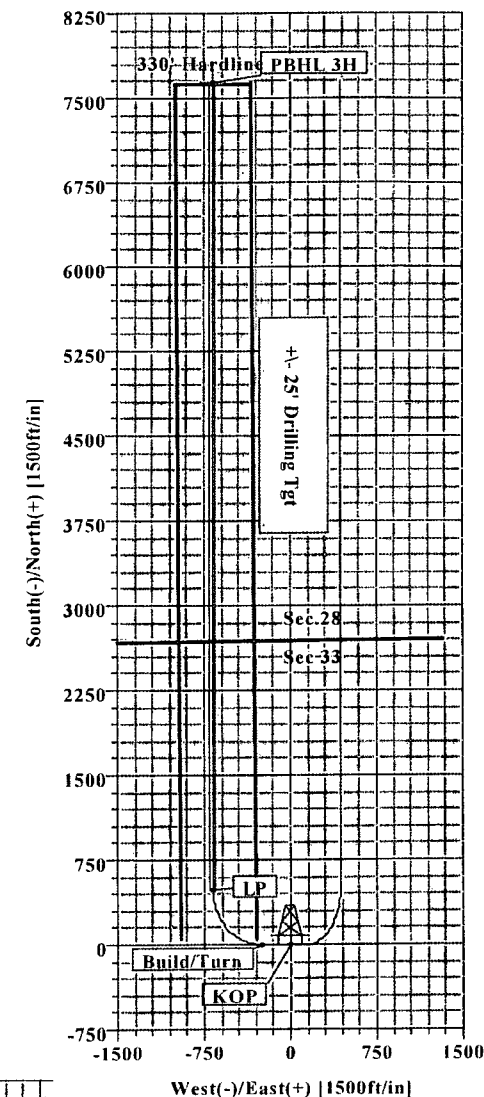
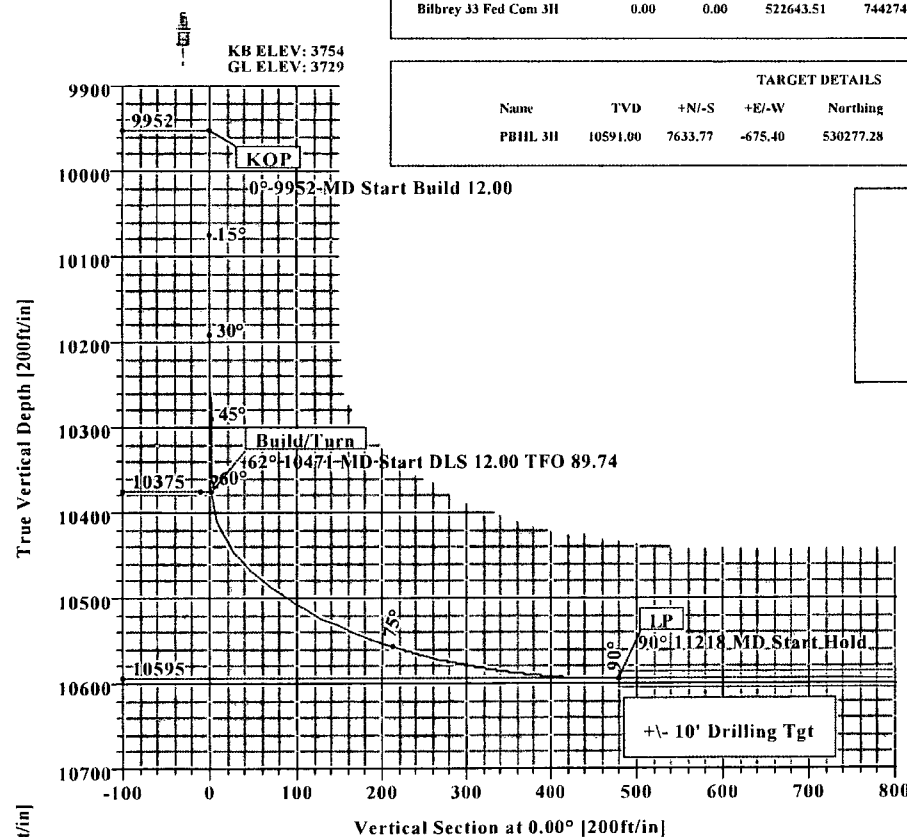
TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL 3H	10591.00	7633.77	-675.40	530277.28	743599.33	Rectangle (7154x50)

SITE DETAILS	
Bilbrey 33 Fed Com 3, 4H Pad	
Site Centre Northing: 522643.51	
Easting: 744274.73	
Ground Level: 3729.00	
Positional Uncertainty: 0.00	
Convergence: 0.35	

LEGEND	
	Bilbrey 33 Fed Com 4H (1)
	Plan #1



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Wft Plan Report X Y's.

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Company: Devon Energy Date: 11/5/2013 Time: 14:05:13 Page: 1
Field: Lea County, New Mexico (NAD 83) Co-ordinate(NE) Reference: Well: Bilbrey 33 Fed Com 3H, Grid North
Site: Bilbrey 33 Fed Com 3, 4H Pad Vertical (TVD) Reference: SITE 3754.0
Well: Bilbrey 33 Fed Com 3H Section (VS) Reference: Well (0.00N,0.00E,0.00Azi)
Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Plan: Plan #1 Date Composed: 11/5/2013
Principal: Yes Version: 1
Tied-to: From Surface

Site: Bilbrey 33 Fed Com 3, 4H Pad

Site Position: Northing: 522643.51 ft Latitude: 32 26 6.332 N
From: Map Easting: 744274.73 ft Longitude: 103 40 32.008 W
Position Uncertainty: 0.00 ft North Reference: Grid
Ground Level: 3729.00 ft Grid Convergence: 0.35 deg

Well: Bilbrey 33 Fed Com 3H Slot Name:
Well Position: +N/-S 0.00 ft Northing: 522643.51 ft Latitude: 32 26 6.332 N
+E/-W 0.00 ft Easting: 744274.73 ft Longitude: 103 40 32.008 W
Position Uncertainty: 0.00 ft

Wellpath: 1
Current Datum: SITE Height 3754.00 ft
Magnetic Data: 1/1/2014
Field Strength: 48503 nT
Vertical Section: Depth From (TVD) +N/-S
ft ft
0.00 0.00 0.00 0.00
Drilled From: Surface
Tie-on Depth: 0.00 ft
Above System Datum: Mean Sea Level
Declination: 7.34 deg
Mag Dip Angle: 60.30 deg
+E/-W Direction
ft deg
0.00 0.00 0.00 0.00

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9952.05	0.00	0.00	9952.05	0.00	0.00	0.00	0.00	0.00	0.00	
10471.45	62.33	270.50	10374.90	2.23	-255.72	12.00	12.00	0.00	270.50	
11217.88	90.03	0.00	10594.72	479.80	-675.41	12.00	3.71	11.99	89.74	
18371.85	90.03	0.00	10591.00	7633.77	-675.40	0.00	0.00	0.00	0.00	PBHL 3H

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
9900.00	0.00	0.00	9900.00	0.00	0.00	0.00	0.00	522643.51	744274.73	KOP
9952.05	0.00	0.00	9952.05	0.00	0.00	0.00	0.00	522643.51	744274.73	
10000.00	5.75	270.50	9999.92	0.02	-2.41	0.02	12.00	522643.53	744272.32	
10100.00	17.75	270.50	10097.64	0.20	-22.74	0.20	12.00	522643.71	744251.99	
10200.00	29.75	270.50	10189.00	0.55	-62.95	0.55	12.00	522644.06	744211.78	
10300.00	41.76	270.50	10270.01	1.06	-121.27	1.06	12.00	522644.57	744153.46	Build/Turn
10400.00	53.76	270.50	10337.11	1.70	-195.16	1.70	12.00	522645.21	744079.57	
10471.45	62.33	270.50	10374.90	2.23	-255.72	2.23	12.00	522645.74	744019.01	
10500.00	62.40	274.37	10388.14	3.31	-280.99	3.31	12.00	522646.82	743993.74	
10600.00	63.48	287.79	10433.81	20.41	-368.08	20.41	12.00	522663.92	743906.65	
10700.00	65.77	300.84	10476.81	57.59	-450.13	57.59	12.00	522701.10	743824.60	
10800.00	69.13	313.32	10515.28	113.22	-523.54	113.22	12.00	522756.73	743751.19	
10900.00	73.36	325.18	10547.52	184.86	-585.11	184.86	12.00	522828.37	743689.62	
11000.00	78.22	336.51	10572.14	269.39	-632.15	269.39	12.00	522912.90	743642.58	
11100.00	83.51	347.42	10588.06	363.11	-662.59	363.11	12.00	523006.62	743612.14	
11200.00	89.03	358.10	10594.58	461.93	-675.12	461.93	12.00	523105.44	743599.61	LP
11217.88	90.03	0.00	10594.72	479.80	-675.41	479.80	12.00	523123.31	743599.32	
11300.00	90.03	0.00	10594.68	561.92	-675.41	561.92	0.00	523205.43	743599.32	
11400.00	90.03	0.00	10594.63	661.92	-675.41	661.92	0.00	523305.43	743599.32	
11500.00	90.03	0.00	10594.57	761.92	-675.41	761.92	0.00	523405.43	743599.32	
11600.00	90.03	0.00	10594.52	861.92	-675.41	861.92	0.00	523505.43	743599.32	
11700.00	90.03	0.00	10594.47	961.92	-675.41	961.92	0.00	523605.43	743599.32	



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Wft Plan Report X Y's.

**Weatherford**

Company: Devon Energy
Field: Lea County, New Mexico (NAD 83)
Site: Bilbrey 33 Fed Com 3, 4H Pad
Well: Bilbrey 33 Fed Com 3H
Wellpath: 1

Date: 11/5/2013 Time: 14:05:13 Page: 2
Co-ordinate(NE) Reference: Well: Bilbrey 33 Fed Com 3H, Grid North
Vertical (TVD) Reference: SITE 3754.0
Section (VS) Reference: Well (0.00N,0.00E,0.00Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comments
11800.00	90.03	0.00	10594.42	1061.92	-675.41	1061.92	0.00	523705.43	743599.32	
11900.00	90.03	0.00	10594.37	1161.92	-675.41	1161.92	0.00	523805.43	743599.32	
12000.00	90.03	0.00	10594.31	1261.92	-675.41	1261.92	0.00	523905.43	743599.32	
12100.00	90.03	0.00	10594.26	1361.92	-675.41	1361.92	0.00	524005.43	743599.32	
12200.00	90.03	0.00	10594.21	1461.92	-675.41	1461.92	0.00	524105.43	743599.32	
12300.00	90.03	0.00	10594.16	1561.92	-675.41	1561.92	0.00	524205.43	743599.32	
12400.00	90.03	0.00	10594.11	1661.92	-675.41	1661.92	0.00	524305.43	743599.32	
12500.00	90.03	0.00	10594.05	1761.92	-675.41	1761.92	0.00	524405.43	743599.32	
12600.00	90.03	0.00	10594.00	1861.92	-675.41	1861.92	0.00	524505.43	743599.32	
12700.00	90.03	0.00	10593.95	1961.92	-675.41	1961.92	0.00	524605.43	743599.32	
12800.00	90.03	0.00	10593.90	2061.92	-675.41	2061.92	0.00	524705.43	743599.32	
12900.00	90.03	0.00	10593.85	2161.92	-675.41	2161.92	0.00	524805.43	743599.32	
13000.00	90.03	0.00	10593.79	2261.92	-675.41	2261.92	0.00	524905.43	743599.32	
13100.00	90.03	0.00	10593.74	2361.92	-675.41	2361.92	0.00	525005.43	743599.32	
13200.00	90.03	0.00	10593.69	2461.92	-675.41	2461.92	0.00	525105.43	743599.32	
13300.00	90.03	0.00	10593.64	2561.92	-675.41	2561.92	0.00	525205.43	743599.32	
13400.00	90.03	0.00	10593.59	2661.92	-675.41	2661.92	0.00	525305.43	743599.32	
13500.00	90.03	0.00	10593.53	2761.92	-675.41	2761.92	0.00	525405.43	743599.32	
13600.00	90.03	0.00	10593.48	2861.92	-675.41	2861.92	0.00	525505.43	743599.32	
13700.00	90.03	0.00	10593.43	2961.92	-675.41	2961.92	0.00	525605.43	743599.32	
13800.00	90.03	0.00	10593.38	3061.92	-675.41	3061.92	0.00	525705.43	743599.32	
13900.00	90.03	0.00	10593.33	3161.92	-675.41	3161.92	0.00	525805.43	743599.32	
14000.00	90.03	0.00	10593.27	3261.92	-675.41	3261.92	0.00	525905.43	743599.32	
14100.00	90.03	0.00	10593.22	3361.92	-675.41	3361.92	0.00	526005.43	743599.32	
14200.00	90.03	0.00	10593.17	3461.92	-675.41	3461.92	0.00	526105.43	743599.32	
14300.00	90.03	0.00	10593.12	3561.92	-675.41	3561.92	0.00	526205.43	743599.32	
14400.00	90.03	0.00	10593.07	3661.92	-675.41	3661.92	0.00	526305.43	743599.32	
14500.00	90.03	0.00	10593.01	3761.92	-675.41	3761.92	0.00	526405.43	743599.32	
14600.00	90.03	0.00	10592.96	3861.92	-675.41	3861.92	0.00	526505.43	743599.32	
14700.00	90.03	0.00	10592.91	3961.92	-675.41	3961.92	0.00	526605.43	743599.32	
14800.00	90.03	0.00	10592.86	4061.92	-675.41	4061.92	0.00	526705.43	743599.32	
14900.00	90.03	0.00	10592.81	4161.92	-675.41	4161.92	0.00	526805.43	743599.32	
15000.00	90.03	0.00	10592.75	4261.92	-675.41	4261.92	0.00	526905.43	743599.32	
15100.00	90.03	0.00	10592.70	4361.92	-675.41	4361.92	0.00	527005.43	743599.32	
15200.00	90.03	0.00	10592.65	4461.92	-675.41	4461.92	0.00	527105.43	743599.32	
15300.00	90.03	0.00	10592.60	4561.92	-675.41	4561.92	0.00	527205.43	743599.32	
15400.00	90.03	0.00	10592.55	4661.92	-675.41	4661.92	0.00	527305.43	743599.32	
15500.00	90.03	0.00	10592.49	4761.92	-675.41	4761.92	0.00	527405.43	743599.32	
15600.00	90.03	0.00	10592.44	4861.92	-675.40	4861.92	0.00	527505.43	743599.33	
15700.00	90.03	0.00	10592.39	4961.92	-675.40	4961.92	0.00	527605.43	743599.33	
15800.00	90.03	0.00	10592.34	5061.92	-675.40	5061.92	0.00	527705.43	743599.33	
15900.00	90.03	0.00	10592.29	5161.92	-675.40	5161.92	0.00	527805.43	743599.33	
16000.00	90.03	0.00	10592.23	5261.92	-675.40	5261.92	0.00	527905.43	743599.33	
16100.00	90.03	0.00	10592.18	5361.92	-675.40	5361.92	0.00	528005.43	743599.33	
16200.00	90.03	0.00	10592.13	5461.92	-675.40	5461.92	0.00	528105.43	743599.33	
16300.00	90.03	0.00	10592.08	5561.92	-675.40	5561.92	0.00	528205.43	743599.33	
16400.00	90.03	0.00	10592.03	5661.92	-675.40	5661.92	0.00	528305.43	743599.33	
16500.00	90.03	0.00	10591.97	5761.92	-675.40	5761.92	0.00	528405.43	743599.33	
16600.00	90.03	0.00	10591.92	5861.92	-675.40	5861.92	0.00	528505.43	743599.33	
16700.00	90.03	0.00	10591.87	5961.92	-675.40	5961.92	0.00	528605.43	743599.33	
16800.00	90.03	0.00	10591.82	6061.92	-675.40	6061.92	0.00	528705.43	743599.33	
16900.00	90.03	0.00	10591.77	6161.92	-675.40	6161.92	0.00	528805.43	743599.33	
17000.00	90.03	0.00	10591.71	6261.92	-675.40	6261.92	0.00	528905.43	743599.33	



Weatherford

Wft Plan Report X Y's.

**Weatherford**

Company: Devon Energy Date: 11/5/2013 Time: 14:05:13 Page: 3
Field: Lea County, New Mexico (NAD 83) Co-ordinate(NE) Reference: Well: Bilbrey 33 Fed Com 3H, Grid North
Site: Bilbrey 33 Fed Com 3, 4H Pad Vertical (TVD) Reference: SITE 3754.0
Well: Bilbrey 33 Fed Com 3H Section (VS) Reference: Well (0.00N,0.00E,0.00Azi)
Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comments
17100.00	90.03	0.00	10591.66	6361.92	-675.40	6361.92	0.00	529005.43	743599.33	
17200.00	90.03	0.00	10591.61	6461.92	-675.40	6461.92	0.00	529105.43	743599.33	
17300.00	90.03	0.00	10591.56	6561.92	-675.40	6561.92	0.00	529205.43	743599.33	
17400.00	90.03	0.00	10591.51	6661.92	-675.40	6661.92	0.00	529305.43	743599.33	
17500.00	90.03	0.00	10591.45	6761.92	-675.40	6761.92	0.00	529405.43	743599.33	
17600.00	90.03	0.00	10591.40	6861.92	-675.40	6861.92	0.00	529505.43	743599.33	
17700.00	90.03	0.00	10591.35	6961.92	-675.40	6961.92	0.00	529605.43	743599.33	
17800.00	90.03	0.00	10591.30	7061.92	-675.40	7061.92	0.00	529705.43	743599.33	
17900.00	90.03	0.00	10591.25	7161.92	-675.40	7161.92	0.00	529805.43	743599.33	
18000.00	90.03	0.00	10591.19	7261.92	-675.40	7261.92	0.00	529905.43	743599.33	
18100.00	90.03	0.00	10591.14	7361.92	-675.40	7361.92	0.00	530005.43	743599.33	
18200.00	90.03	0.00	10591.09	7461.92	-675.40	7461.92	0.00	530105.43	743599.33	
18300.00	90.03	0.00	10591.04	7561.92	-675.40	7561.92	0.00	530205.43	743599.33	
18371.85	90.03	0.00	10591.00	7633.77	-675.40	7633.77	0.00	530277.28	743599.33	PBHL 3H

Targets

Name	Description Dip. Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude --->			<--- Longitude --->		
							Deg	Min	Sec	Deg	Min	Sec
PBHL 3H -Rectangle (7154x50)		10591.00	7633.77	-675.40	530277.28	743599.33	32	27	21.910	N	103	40 39.341 W

Casing Points

MD	TVD	Diameter	Hole Size	Name

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

Annotation

MD ft	TVD ft	
9952.05	9952.05	KOP
10471.45	10374.90	Build/Turn
11217.88	10594.72	LP
18371.84	10591.00	PBHL



Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy Date: 11/20/2013 Time: 09:09:23 Page: 1
Field: Lea County, New Mexico (NAD 83)
Reference Site: Bilbrey 33 Fed Com 3, 4H Pad Co-ordinate(NE) Reference: Well: Bilbrey 33 Fed Com 3H, Grid North
Reference Well: Bilbrey 33 Fed Com 3H Vertical (TVD) Reference: SITE 3754.0
Reference Wellpath: Db: Sybase

NO GLOBAL SCAN: Using user defined selection & scan criteria
Interpolation Method: MD + Stations Interval: 100.00 ft
Depth Range: 0.00 to 18371.85 ft
Maximum Radius: 10000.00 ft

Reference: Plan: Plan #1
Error Model: ISCWSA Ellipse
Scan Method: Closest Approach 3D
Error Surface: Ellipse

Plan: Plan #1 Date Composed: 11/5/2013
Version: 1
Principal: Yes Tied-to: From Surface

Summary

Site	Offset Wellpath	Wellpath	Reference MD ft	Offset MD ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
Bilbrey 33 Fed Com 3	Bilbrey 33 Fed Com 41 V0	Plan: Plan #2 V1	9900.00	9900.00	50.01	5.79	1.13	Level 2

Site: Bilbrey 33 Fed Com 3, 4H Pad
Well: Bilbrey 33 Fed Com 4H
Wellpath: 1 V0 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference MD ft	TVD ft	Offset MD ft	TVD ft	Semi-Major Axis Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	89.38	0.54	50.01	50.01			No Data
100.00	100.00	100.00	100.00	0.08	0.08	89.38	0.54	50.01	50.01	49.84	296.68	
200.00	200.00	200.00	200.00	0.31	0.31	89.38	0.54	50.01	50.01	49.39	80.91	
300.00	300.00	300.00	300.00	0.53	0.53	89.38	0.54	50.01	50.01	48.95	46.84	
400.00	400.00	400.00	400.00	0.76	0.76	89.38	0.54	50.01	50.01	48.50	32.96	
500.00	500.00	500.00	500.00	0.98	0.98	89.38	0.54	50.01	50.01	48.05	25.43	
600.00	600.00	600.00	600.00	1.21	1.21	89.38	0.54	50.01	50.01	47.60	20.70	
700.00	700.00	700.00	700.00	1.43	1.43	89.38	0.54	50.01	50.01	47.15	17.45	
800.00	800.00	800.00	800.00	1.66	1.66	89.38	0.54	50.01	50.01	46.70	15.09	
900.00	900.00	900.00	900.00	1.88	1.88	89.38	0.54	50.01	50.01	46.25	13.28	
1000.00	1000.00	1000.00	1000.00	2.11	2.11	89.38	0.54	50.01	50.01	45.80	11.87	
1100.00	1100.00	1100.00	1100.00	2.33	2.33	89.38	0.54	50.01	50.01	45.35	10.72	
1200.00	1200.00	1200.00	1200.00	2.56	2.56	89.38	0.54	50.01	50.01	44.90	9.78	
1300.00	1300.00	1300.00	1300.00	2.78	2.78	89.38	0.54	50.01	50.01	44.45	8.99	
1400.00	1400.00	1400.00	1400.00	3.01	3.01	89.38	0.54	50.01	50.01	44.00	8.32	
1500.00	1500.00	1500.00	1500.00	3.23	3.23	89.38	0.54	50.01	50.01	43.55	7.74	
1600.00	1600.00	1600.00	1600.00	3.46	3.46	89.38	0.54	50.01	50.01	43.10	7.24	
1700.00	1700.00	1700.00	1700.00	3.68	3.68	89.38	0.54	50.01	50.01	42.65	6.79	
1800.00	1800.00	1800.00	1800.00	3.91	3.91	89.38	0.54	50.01	50.01	42.20	6.40	
1900.00	1900.00	1900.00	1900.00	4.13	4.13	89.38	0.54	50.01	50.01	41.75	6.05	
2000.00	2000.00	2000.00	2000.00	4.35	4.35	89.38	0.54	50.01	50.01	41.30	5.74	
2100.00	2100.00	2100.00	2100.00	4.58	4.58	89.38	0.54	50.01	50.01	40.85	5.46	
2200.00	2200.00	2200.00	2200.00	4.80	4.80	89.38	0.54	50.01	50.01	40.40	5.20	
2300.00	2300.00	2300.00	2300.00	5.03	5.03	89.38	0.54	50.01	50.01	39.95	4.97	
2400.00	2400.00	2400.00	2400.00	5.25	5.25	89.38	0.54	50.01	50.01	39.51	4.76	
2500.00	2500.00	2500.00	2500.00	5.48	5.48	89.38	0.54	50.01	50.01	39.06	4.56	
2600.00	2600.00	2600.00	2600.00	5.70	5.70	89.38	0.54	50.01	50.01	38.61	4.38	
2700.00	2700.00	2700.00	2700.00	5.93	5.93	89.38	0.54	50.01	50.01	38.16	4.22	
2800.00	2800.00	2800.00	2800.00	6.15	6.15	89.38	0.54	50.01	50.01	37.71	4.06	
2900.00	2900.00	2900.00	2900.00	6.38	6.38	89.38	0.54	50.01	50.01	37.26	3.92	
3000.00	3000.00	3000.00	3000.00	6.60	6.60	89.38	0.54	50.01	50.01	36.81	3.79	
3100.00	3100.00	3100.00	3100.00	6.83	6.83	89.38	0.54	50.01	50.01	36.36	3.66	
3200.00	3200.00	3200.00	3200.00	7.05	7.05	89.38	0.54	50.01	50.01	35.91	3.55	
3300.00	3300.00	3300.00	3300.00	7.28	7.28	89.38	0.54	50.01	50.01	35.46	3.44	
3400.00	3400.00	3400.00	3400.00	7.50	7.50	89.38	0.54	50.01	50.01	35.01	3.33	
3500.00	3500.00	3500.00	3500.00	7.73	7.73	89.38	0.54	50.01	50.01	34.56	3.24	



Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy Date: 11/20/2013 Time: 09:09:23 Page: 2
Field: Lea County, New Mexico (NAD 83)
Reference Site: Bilbrey 33 Fed Com 3, 4H Pad Co-ordinate(NE) Reference: Well: Bilbrey 33 Fed Com 3H, Grid North
Reference Well: Bilbrey 33 Fed Com 3H Vertical (TVD) Reference: SITE 3754.0
Reference Wellpath: Db: Sybase

Site: Bilbrey 33 Fed Com 3, 4H Pad
Well: Bilbrey 33 Fed Com 4H
Wellpath: 1 V0 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation		Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor		
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft			
3600.00	3600.00	3600.00	3600.00	7.95	7.95	89.38	0.54	50.01	50.01	34.11	3.15		
3700.00	3700.00	3700.00	3700.00	8.18	8.18	89.38	0.54	50.01	50.01	33.66	3.06		
3800.00	3800.00	3800.00	3800.00	8.40	8.40	89.38	0.54	50.01	50.01	33.21	2.98		
3900.00	3900.00	3900.00	3900.00	8.63	8.63	89.38	0.54	50.01	50.01	32.76	2.90		
4000.00	4000.00	4000.00	4000.00	8.85	8.85	89.38	0.54	50.01	50.01	32.31	2.83		
4100.00	4100.00	4100.00	4100.00	9.07	9.07	89.38	0.54	50.01	50.01	31.86	2.76		
4200.00	4200.00	4200.00	4200.00	9.30	9.30	89.38	0.54	50.01	50.01	31.41	2.69		
4300.00	4300.00	4300.00	4300.00	9.52	9.52	89.38	0.54	50.01	50.01	30.96	2.63		
4400.00	4400.00	4400.00	4400.00	9.75	9.75	89.38	0.54	50.01	50.01	30.51	2.56		
4500.00	4500.00	4500.00	4500.00	9.97	9.97	89.38	0.54	50.01	50.01	30.06	2.51		
4600.00	4600.00	4600.00	4600.00	10.20	10.20	89.38	0.54	50.01	50.01	29.62	2.45		
4700.00	4700.00	4700.00	4700.00	10.42	10.42	89.38	0.54	50.01	50.01	29.17	2.40		
4800.00	4800.00	4800.00	4800.00	10.65	10.65	89.38	0.54	50.01	50.01	28.72	2.35		
4900.00	4900.00	4900.00	4900.00	10.87	10.87	89.38	0.54	50.01	50.01	28.27	2.30		
5000.00	5000.00	5000.00	5000.00	11.10	11.10	89.38	0.54	50.01	50.01	27.82	2.25		
5100.00	5100.00	5100.00	5100.00	11.32	11.32	89.38	0.54	50.01	50.01	27.37	2.21		
5200.00	5200.00	5200.00	5200.00	11.55	11.55	89.38	0.54	50.01	50.01	26.92	2.17		
5300.00	5300.00	5300.00	5300.00	11.77	11.77	89.38	0.54	50.01	50.01	26.47	2.12		
5400.00	5400.00	5400.00	5400.00	12.00	12.00	89.38	0.54	50.01	50.01	26.02	2.08		
5500.00	5500.00	5500.00	5500.00	12.22	12.22	89.38	0.54	50.01	50.01	25.57	2.05		
5600.00	5600.00	5600.00	5600.00	12.45	12.45	89.38	0.54	50.01	50.01	25.12	2.01		
5700.00	5700.00	5700.00	5700.00	12.67	12.67	89.38	0.54	50.01	50.01	24.67	1.97		
5800.00	5800.00	5800.00	5800.00	12.90	12.90	89.38	0.54	50.01	50.01	24.22	1.94		
5900.00	5900.00	5900.00	5900.00	13.12	13.12	89.38	0.54	50.01	50.01	23.77	1.91		
6000.00	6000.00	6000.00	6000.00	13.35	13.35	89.38	0.54	50.01	50.01	23.32	1.87		
6100.00	6100.00	6100.00	6100.00	13.57	13.57	89.38	0.54	50.01	50.01	22.87	1.84		
6200.00	6200.00	6200.00	6200.00	13.80	13.80	89.38	0.54	50.01	50.01	22.42	1.81		
6300.00	6300.00	6300.00	6300.00	14.02	14.02	89.38	0.54	50.01	50.01	21.97	1.78		
6400.00	6400.00	6400.00	6400.00	14.24	14.24	89.38	0.54	50.01	50.01	21.52	1.76		
6500.00	6500.00	6500.00	6500.00	14.47	14.47	89.38	0.54	50.01	50.01	21.07	1.73		
6600.00	6600.00	6600.00	6600.00	14.69	14.69	89.38	0.54	50.01	50.01	20.62	1.70		
6700.00	6700.00	6700.00	6700.00	14.92	14.92	89.38	0.54	50.01	50.01	20.18	1.68		
6800.00	6800.00	6800.00	6800.00	15.14	15.14	89.38	0.54	50.01	50.01	19.73	1.65		
6900.00	6900.00	6900.00	6900.00	15.37	15.37	89.38	0.54	50.01	50.01	19.28	1.63		
7000.00	7000.00	7000.00	7000.00	15.59	15.59	89.38	0.54	50.01	50.01	18.83	1.60		
7100.00	7100.00	7100.00	7100.00	15.82	15.82	89.38	0.54	50.01	50.01	18.38	1.58		
7200.00	7200.00	7200.00	7200.00	16.04	16.04	89.38	0.54	50.01	50.01	17.93	1.56		
7300.00	7300.00	7300.00	7300.00	16.27	16.27	89.38	0.54	50.01	50.01	17.48	1.54		
7400.00	7400.00	7400.00	7400.00	16.49	16.49	89.38	0.54	50.01	50.01	17.03	1.52		
7500.00	7500.00	7500.00	7500.00	16.72	16.72	89.38	0.54	50.01	50.01	16.58	1.50	Level 3	
7600.00	7600.00	7600.00	7600.00	16.94	16.94	89.38	0.54	50.01	50.01	16.13	1.48	Level 3	
7700.00	7700.00	7700.00	7700.00	17.17	17.17	89.38	0.54	50.01	50.01	15.68	1.46	Level 3	
7800.00	7800.00	7800.00	7800.00	17.39	17.39	89.38	0.54	50.01	50.01	15.23	1.44	Level 3	
7900.00	7900.00	7900.00	7900.00	17.62	17.62	89.38	0.54	50.01	50.01	14.78	1.42	Level 3	
8000.00	8000.00	8000.00	8000.00	17.84	17.84	89.38	0.54	50.01	50.01	14.33	1.40	Level 3	
8100.00	8100.00	8100.00	8100.00	18.07	18.07	89.38	0.54	50.01	50.01	13.88	1.38	Level 3	
8200.00	8200.00	8200.00	8200.00	18.29	18.29	89.38	0.54	50.01	50.01	13.43	1.37	Level 3	
8300.00	8300.00	8300.00	8300.00	18.52	18.52	89.38	0.54	50.01	50.01	12.98	1.35	Level 3	
8400.00	8400.00	8400.00	8400.00	18.74	18.74	89.38	0.54	50.01	50.01	12.53	1.33	Level 3	
8500.00	8500.00	8500.00	8500.00	18.96	18.96	89.38	0.54	50.01	50.01	12.08	1.32	Level 3	
8600.00	8600.00	8600.00	8600.00	19.19	19.19	89.38	0.54	50.01	50.01	11.63	1.30	Level 3	



Weatherford Anticollision Report

**Weatherford®**

Company: Devon Energy
Field: Lea County, New Mexico (NAD 83)
Reference Site: Bilbrey 33 Fed Com 3, 4H Pad
Reference Well: Bilbrey 33 Fed Com 3H
Reference Wellpath:

Date: 11/20/2013 Time: 09:09:23 Page: 3
Co-ordinate(NE) Reference: Well: Bilbrey 33 Fed Com 3H, Grid North
Vertical (TVD) Reference: SITE 3754.0

Db: Sybase

Site: Bilbrey 33 Fed Com 3, 4H Pad
Well: Bilbrey 33 Fed Com 4H
Wellpath: 1 V0 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference MD	TVD	Offset MD	TVD	Semi-Major Axis Ref	Offset	TFO-HS	Offset North	Location East	Ctr-Ctr Distance	Edge Distance	Separation Factor	Warning
8700.00	8700.00	8700.00	8700.00	19.41	19.41	89.38	0.54	50.01	50.01	11.18	1.29	Level 3
8800.00	8800.00	8800.00	8800.00	19.64	19.64	89.38	0.54	50.01	50.01	10.74	1.27	Level 3
8900.00	8900.00	8900.00	8900.00	19.86	19.86	89.38	0.54	50.01	50.01	10.29	1.26	Level 3
9000.00	9000.00	9000.00	9000.00	20.09	20.09	89.38	0.54	50.01	50.01	9.84	1.24	Level 2
9100.00	9100.00	9100.00	9100.00	20.31	20.31	89.38	0.54	50.01	50.01	9.39	1.23	Level 2
9200.00	9200.00	9200.00	9200.00	20.54	20.54	89.38	0.54	50.01	50.01	8.94	1.22	Level 2
9300.00	9300.00	9300.00	9300.00	20.76	20.76	89.38	0.54	50.01	50.01	8.49	1.20	Level 2
9400.00	9400.00	9400.00	9400.00	20.99	20.99	89.38	0.54	50.01	50.01	8.04	1.19	Level 2
9500.00	9500.00	9500.00	9500.00	21.21	21.21	89.38	0.54	50.01	50.01	7.59	1.18	Level 2
9600.00	9600.00	9600.00	9600.00	21.44	21.44	89.38	0.54	50.01	50.01	7.14	1.17	Level 2
9700.00	9700.00	9700.00	9700.00	21.66	21.66	89.38	0.54	50.01	50.01	6.69	1.15	Level 2
9800.00	9800.00	9800.00	9800.00	21.89	21.89	89.38	0.54	50.01	50.01	6.24	1.14	Level 2
9900.00	9900.00	9900.00	9900.00	22.11	22.11	89.38	0.54	50.01	50.01	5.79	1.13	Level 2
9952.05	9952.05	9950.04	9950.03	22.23	22.22	89.38	0.55	50.39	50.44	6.00	1.13	Level 2
9975.00	9974.99	9970.68	9970.63	22.28	22.26	178.87	0.58	51.66	52.40	7.93	1.18	Level 2
10000.00	9999.92	9992.75	9992.57	22.33	22.31	178.86	0.63	54.01	56.89	12.44	1.28	Level 3
10025.00	10024.72	10014.09	10013.67	22.38	22.35	178.86	0.70	57.23	63.76	19.40	1.44	Level 3
10050.00	10049.31	10034.44	10033.63	22.43	22.39	178.86	0.78	61.19	72.91	28.69	1.65	
10075.00	10073.65	10053.60	10052.25	22.48	22.43	178.86	0.88	65.68	84.19	40.17	1.91	
10100.00	10097.64	10071.40	10069.38	22.53	22.47	178.85	0.99	70.52	97.45	53.67	2.23	
10125.00	10121.24	10087.75	10084.94	22.59	22.50	178.84	1.10	75.53	112.53	69.03	2.59	
10150.00	10144.38	10102.58	10098.91	22.64	22.54	178.82	1.21	80.53	129.24	86.06	2.99	
10175.00	10166.99	10115.89	10111.30	22.70	22.56	178.78	1.31	85.38	147.42	104.59	3.44	
10200.00	10189.00	10127.69	10122.16	22.76	22.59	178.74	1.41	89.97	166.89	124.42	3.93	
10225.00	10210.37	10138.02	10131.59	22.82	22.61	178.67	1.50	94.21	187.49	145.40	4.46	
10250.00	10231.03	10146.95	10139.65	22.89	22.64	178.59	1.59	98.04	209.06	167.37	5.01	
10275.00	10250.93	10154.55	10146.46	22.97	22.65	178.47	1.66	101.42	231.45	190.17	5.61	
10300.00	10270.01	10160.90	10152.11	23.05	22.67	178.32	1.73	104.32	254.54	213.68	6.23	
10325.00	10288.21	10166.08	10156.69	23.13	22.68	178.10	1.78	106.75	278.20	237.75	6.88	
10350.00	10305.50	10170.18	10160.29	23.23	22.69	177.76	1.82	108.70	302.31	262.28	7.55	
10375.00	10321.81	10173.28	10163.00	23.34	22.70	177.21	1.85	110.20	326.78	287.14	8.25	
10400.00	10337.11	10175.45	10164.90	23.46	22.70	176.15	1.88	111.25	351.49	312.25	8.96	
10425.00	10351.36	10176.77	10166.05	23.59	22.71	173.35	1.89	111.90	376.38	337.47	9.67	
10450.00	10364.51	10177.30	10166.51	23.73	22.71	149.03	1.90	112.17	401.36	361.07	9.96	
10471.45	10374.90	10177.18	10166.41	23.87	22.71	11.73	1.89	112.11	422.81	384.31	10.98	
10475.00	10376.55	10177.12	10166.35	23.89	22.71	23.20	1.89	112.08	426.36	386.97	10.83	
10500.00	10388.14	10176.71	10165.99	24.05	22.71	61.72	1.89	111.87	451.32	407.60	10.32	
10525.00	10399.70	10176.32	10165.66	24.22	22.71	70.96	1.89	111.68	476.21	431.60	10.67	
10550.00	10411.18	10175.00	10164.51	24.39	22.70	73.32	1.87	111.04	500.97	456.02	11.15	
10575.00	10422.56	10175.00	10164.51	24.56	22.70	74.64	1.87	111.04	525.55	480.35	11.63	
10600.00	10433.81	10175.00	10164.51	24.73	22.70	74.92	1.87	111.04	549.93	504.53	12.11	
10625.00	10444.88	10175.00	10164.51	24.90	22.70	74.67	1.87	111.04	574.05	528.49	12.60	
10650.00	10455.76	10175.00	10164.51	25.06	22.70	74.11	1.87	111.04	597.89	552.19	13.08	
10675.00	10466.41	10175.00	10164.51	25.21	22.70	73.38	1.87	111.04	621.43	575.59	13.56	
10700.00	10476.81	10175.00	10164.51	25.36	22.70	72.55	1.87	111.04	644.63	598.68	14.03	
10725.00	10486.92	10175.00	10164.51	25.49	22.70	71.67	1.87	111.04	667.46	621.42	14.50	
10750.00	10496.72	10175.00	10164.51	25.62	22.70	70.77	1.87	111.04	689.91	643.78	14.96	
10775.00	10506.18	10175.00	10164.51	25.73	22.70	69.87	1.87	111.04	711.96	665.76	15.41	
10800.00	10515.28	10175.00	10164.51	25.83	22.70	68.99	1.87	111.04	733.57	687.33	15.86	
10825.00	10523.98	10175.00	10164.51	25.92	22.70	68.13	1.87	111.04	754.74	708.46	16.31	
10850.00	10532.27	10175.00	10164.51	25.99	22.70	67.30	1.87	111.04	775.44	729.14	16.75	



Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy Date: 11/20/2013 Time: 09:09:23 Page: 4
Field: Lea County, New Mexico (NAD 83)
Reference Site: Bilbrey 33 Fed Com 3, 4H Pad Co-ordinate(NE) Reference: Well: Bilbrey 33 Fed Com 3H, Grid North
Reference Well: Bilbrey 33 Fed Com 3H Vertical (TVD) Reference: SITE 3754.0
Reference Wellpath: Db: Sybase

Site: Bilbrey 33 Fed Com 3, 4H Pad
Well: Bilbrey 33 Fed Com 4H
Wellpath: 1 V0 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
10875.00	10540.13	10175.00	10164.51	26.05	22.70	66.52	1.87	111.04	795.65	749.36	17.19	
10900.00	10547.52	10175.00	10164.51	26.10	22.70	65.78	1.87	111.04	815.36	769.09	17.62	
10925.00	10554.44	10175.00	10164.51	26.13	22.70	65.09	1.87	111.04	834.55	788.31	18.05	
10950.00	10560.86	10175.00	10164.51	26.14	22.70	64.46	1.87	111.04	853.20	807.02	18.47	
10975.00	10566.77	10175.00	10164.51	26.14	22.70	63.88	1.87	111.04	871.31	825.19	18.89	
11000.00	10572.14	10175.00	10164.51	26.12	22.70	63.35	1.87	111.04	888.85	842.81	19.31	
11025.00	10576.97	10175.00	10164.51	26.09	22.70	62.89	1.87	111.04	905.81	859.87	19.72	
11050.00	10581.24	10175.00	10164.51	26.05	22.70	62.48	1.87	111.04	922.18	876.35	20.12	
11075.00	10584.94	10175.00	10164.51	25.99	22.70	62.13	1.87	111.04	937.95	892.23	20.52	
11100.00	10588.06	10175.00	10164.51	25.92	22.70	61.85	1.87	111.04	953.10	907.50	20.90	
11125.00	10590.59	10175.00	10164.51	25.84	22.70	61.62	1.87	111.04	967.61	922.15	21.28	
11150.00	10592.52	10175.00	10164.51	25.76	22.70	61.45	1.87	111.04	981.49	936.16	21.65	
11175.00	10593.85	10175.00	10164.51	25.66	22.70	61.35	1.87	111.04	994.73	949.52	22.01	
11200.00	10594.58	10175.00	10164.51	25.56	22.70	61.30	1.87	111.04	1007.30	962.22	22.35	
11217.88	10594.72	10175.00	10164.51	25.48	22.70	61.31	1.87	111.04	1015.87	970.89	22.58	
11300.00	10594.68	10175.00	10164.51	26.03	22.70	61.31	1.87	111.04	1056.98	1011.42	23.20	
11400.00	10594.63	11166.89	10594.81	26.77	26.21	90.01	661.94	432.65	1108.06	1055.09	20.92	
11500.00	10594.57	11266.89	10594.76	27.61	27.01	90.01	761.94	432.65	1108.06	1053.45	20.29	
11600.00	10594.52	11366.89	10594.71	28.54	27.91	90.01	861.94	432.65	1108.06	1051.62	19.63	
11700.00	10594.47	11466.89	10594.65	29.56	28.89	90.01	961.94	432.65	1108.06	1049.62	18.96	
11800.00	10594.42	11566.89	10594.60	30.65	29.95	90.01	1061.94	432.64	1108.06	1047.47	18.29	
11900.00	10594.37	11666.89	10594.54	31.81	31.09	90.01	1161.94	432.64	1108.05	1045.17	17.62	
12000.00	10594.31	11766.89	10594.49	33.03	32.28	90.01	1261.94	432.64	1108.05	1042.75	16.97	
12100.00	10594.26	11866.89	10594.43	34.31	33.54	90.01	1361.94	432.64	1108.05	1040.22	16.34	
12200.00	10594.21	11966.89	10594.38	35.63	34.84	90.01	1461.94	432.64	1108.05	1037.59	15.73	
12300.00	10594.16	12066.89	10594.32	36.99	36.19	90.01	1561.94	432.63	1108.04	1034.88	15.14	
12400.00	10594.11	12166.89	10594.27	38.40	37.58	90.01	1661.94	432.63	1108.04	1032.08	14.59	
12500.00	10594.05	12266.89	10594.21	39.84	39.01	90.01	1761.94	432.63	1108.04	1029.21	14.06	
12600.00	10594.00	12366.89	10594.16	41.30	40.47	90.01	1861.94	432.63	1108.04	1026.29	13.55	
12700.00	10593.95	12466.89	10594.11	42.80	41.96	90.01	1961.94	432.63	1108.04	1023.30	13.08	
12800.00	10593.90	12566.89	10594.05	44.32	43.47	90.01	2061.94	432.62	1108.03	1020.26	12.62	
12900.00	10593.85	12666.89	10594.00	45.86	45.01	90.01	2161.94	432.62	1108.03	1017.18	12.20	
13000.00	10593.79	12766.89	10593.94	47.43	46.57	90.01	2261.94	432.62	1108.03	1014.05	11.79	
13100.00	10593.74	12866.89	10593.89	49.01	48.14	90.01	2361.94	432.62	1108.03	1010.89	11.41	
13200.00	10593.69	12966.89	10593.83	50.61	49.74	90.01	2461.94	432.62	1108.03	1007.70	11.04	
13300.00	10593.64	13066.89	10593.78	52.22	51.35	90.01	2561.94	432.62	1108.02	1004.47	10.70	
13400.00	10593.59	13166.89	10593.72	53.85	52.97	90.01	2661.94	432.61	1108.02	1001.22	10.37	
13500.00	10593.53	13266.89	10593.67	55.49	54.61	90.01	2761.94	432.61	1108.02	997.94	10.07	
13600.00	10593.48	13366.89	10593.61	57.14	56.25	90.01	2861.94	432.61	1108.02	994.64	9.77	
13700.00	10593.43	13466.89	10593.56	58.80	57.91	90.01	2961.94	432.61	1108.02	991.32	9.49	
13800.00	10593.38	13566.89	10593.50	60.47	59.58	90.01	3061.94	432.61	1108.01	987.97	9.23	
13900.00	10593.33	13666.89	10593.45	62.15	61.26	90.01	3161.94	432.60	1108.01	984.61	8.98	
14000.00	10593.27	13766.89	10593.40	63.84	62.95	90.01	3261.94	432.60	1108.01	981.24	8.74	
14100.00	10593.22	13866.89	10593.34	65.53	64.64	90.01	3361.94	432.60	1108.01	977.85	8.51	
14200.00	10593.17	13966.89	10593.29	67.24	66.34	90.01	3461.94	432.60	1108.01	974.44	8.30	
14300.00	10593.12	14066.89	10593.23	68.95	68.05	90.01	3561.94	432.60	1108.00	971.02	8.09	
14400.00	10593.07	14166.89	10593.18	70.66	69.76	90.01	3661.94	432.59	1108.00	967.59	7.89	
14500.00	10593.01	14266.89	10593.12	72.38	71.48	90.01	3761.94	432.59	1108.00	964.15	7.70	
14600.00	10592.96	14366.89	10593.07	74.11	73.21	90.01	3861.94	432.59	1108.00	960.70	7.52	
14700.00	10592.91	14466.89	10593.01	75.84	74.94	90.01	3961.94	432.59	1108.00	957.23	7.35	
14800.00	10592.86	14566.89	10592.96	77.57	76.67	90.01	4061.94	432.59	1107.99	953.76	7.18	



Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Lea County, New Mexico (NAD 83)
Reference Site: Bilbrey 33 Fed Com 3, 4H Pad
Reference Well: Bilbrey 33 Fed Com 3H
Reference Wellpath:

Date: 11/20/2013 Time: 09:09:23 Page: 5
Co-ordinate(NE) Reference: Well: Bilbrey 33 Fed Com 3H, Grid North
Vertical (TVD) Reference: SITE 3754.0

Db: Sybase

Site: Bilbrey 33 Fed Com 3, 4H Pad
Well: Bilbrey 33 Fed Com 4H
Wellpath: 1 V0 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
14900.00	10592.81	14666.89	10592.90	79.31	78.41	90.01	4161.94	432.59	1107.99	950.28	7.03	
15000.00	10592.75	14766.89	10592.85	81.05	80.15	90.00	4261.94	432.58	1107.99	946.80	6.87	
15100.00	10592.70	14866.89	10592.80	82.80	81.90	90.00	4361.94	432.58	1107.99	943.30	6.73	
15200.00	10592.65	14966.89	10592.74	84.55	83.65	90.00	4461.94	432.58	1107.99	939.80	6.59	
15300.00	10592.60	15066.89	10592.69	86.30	85.40	90.00	4561.94	432.58	1107.98	936.29	6.45	
15400.00	10592.55	15166.89	10592.63	88.06	87.16	90.00	4661.94	432.58	1107.98	932.78	6.32	
15500.00	10592.49	15266.89	10592.58	89.81	88.92	90.00	4761.94	432.57	1107.98	929.26	6.20	
15600.00	10592.44	15366.89	10592.52	91.58	90.68	90.00	4861.94	432.57	1107.98	925.73	6.08	
15700.00	10592.39	15466.89	10592.47	93.34	92.44	90.00	4961.94	432.57	1107.98	922.20	5.96	
15800.00	10592.34	15566.89	10592.41	95.11	94.21	90.00	5061.94	432.57	1107.97	918.67	5.85	
15900.00	10592.29	15666.89	10592.36	96.88	95.98	90.00	5161.94	432.57	1107.97	915.13	5.75	
16000.00	10592.23	15766.89	10592.30	98.65	97.75	90.00	5261.94	432.56	1107.97	911.58	5.64	
16100.00	10592.18	15866.89	10592.25	100.42	99.52	90.00	5361.94	432.56	1107.97	908.04	5.54	
16200.00	10592.13	15966.89	10592.19	102.19	101.29	90.00	5461.94	432.56	1107.96	904.48	5.45	
16300.00	10592.08	16066.89	10592.14	103.97	103.07	90.00	5561.94	432.56	1107.96	900.93	5.35	
16400.00	10592.03	16166.89	10592.09	105.75	104.85	90.00	5661.94	432.56	1107.96	897.37	5.26	
16500.00	10591.97	16266.89	10592.03	107.53	106.63	90.00	5761.94	432.56	1107.96	893.81	5.17	
16600.00	10591.92	16366.89	10591.98	109.31	108.41	90.00	5861.94	432.55	1107.96	890.24	5.09	
16700.00	10591.87	16466.89	10591.92	111.09	110.19	90.00	5961.94	432.55	1107.95	886.67	5.01	
16800.00	10591.82	16566.89	10591.87	112.88	111.98	90.00	6061.94	432.55	1107.95	883.10	4.93	
16900.00	10591.77	16666.89	10591.81	114.66	113.77	90.00	6161.94	432.55	1107.95	879.53	4.85	
17000.00	10591.71	16766.89	10591.76	116.45	115.55	90.00	6261.94	432.55	1107.95	875.95	4.78	
17100.00	10591.66	16866.89	10591.70	118.24	117.34	90.00	6361.94	432.54	1107.95	872.37	4.70	
17200.00	10591.61	16966.89	10591.65	120.03	119.13	90.00	6461.94	432.54	1107.94	868.79	4.63	
17300.00	10591.56	17066.89	10591.59	121.82	120.92	90.00	6561.94	432.54	1107.94	865.21	4.56	
17400.00	10591.51	17166.89	10591.54	123.61	122.71	90.00	6661.94	432.54	1107.94	861.62	4.50	
17500.00	10591.45	17266.89	10591.49	125.40	124.51	90.00	6761.94	432.54	1107.94	858.03	4.43	
17600.00	10591.40	17366.89	10591.43	127.20	126.30	90.00	6861.94	432.53	1107.94	854.44	4.37	
17700.00	10591.35	17466.89	10591.38	128.99	128.10	90.00	6961.94	432.53	1107.93	850.85	4.31	
17800.00	10591.30	17566.89	10591.32	130.79	129.89	90.00	7061.94	432.53	1107.93	847.26	4.25	
17900.00	10591.25	17666.89	10591.27	132.59	131.69	90.00	7161.94	432.53	1107.93	843.66	4.19	
18000.00	10591.19	17766.89	10591.21	134.38	133.49	90.00	7261.94	432.53	1107.93	840.07	4.14	
18100.00	10591.14	17866.89	10591.16	136.18	135.28	90.00	7361.94	432.53	1107.93	836.47	4.08	
18200.00	10591.09	17966.89	10591.10	137.98	137.08	90.00	7461.94	432.52	1107.92	832.87	4.03	
18300.00	10591.04	18066.89	10591.05	139.78	138.88	90.00	7561.94	432.52	1107.92	829.27	3.98	
18371.85	10591.00	18138.74	10591.01	141.07	140.18	90.00	7633.79	432.52	1107.92	826.68	3.94	

**Weatherford®****Weatherford Drilling Services**

GeoDec v5.03

Report Date: November 05, 2013
Job Number: _____
Customer: Devon Energy
Well Name: Bilbrey 33 Fed Com 3H
API Number: _____
Rig Name: _____
Location: Lea County, NM
Block: _____
Engineer: RWJ

US State Plane 1983	Geodetic Latitude / Longitude
System: New Mexico Eastern Zone	System: Latitude / Longitude
Projection: Transverse Mercator/Gauss Kruger	Projection: Geodetic Latitude and Longitude
Datum: North American Datum 1983	Datum: North American Datum 1983
Ellipsoid: GRS 1980	Ellipsoid: GRS 1980
North/South 522643.510 USFT	Latitude 32.4350952 DEG
East/West 744274.730 USFT	Longitude -103.6755529 DEG
Grid Convergence: .35°	
Total Correction: +7.10°	

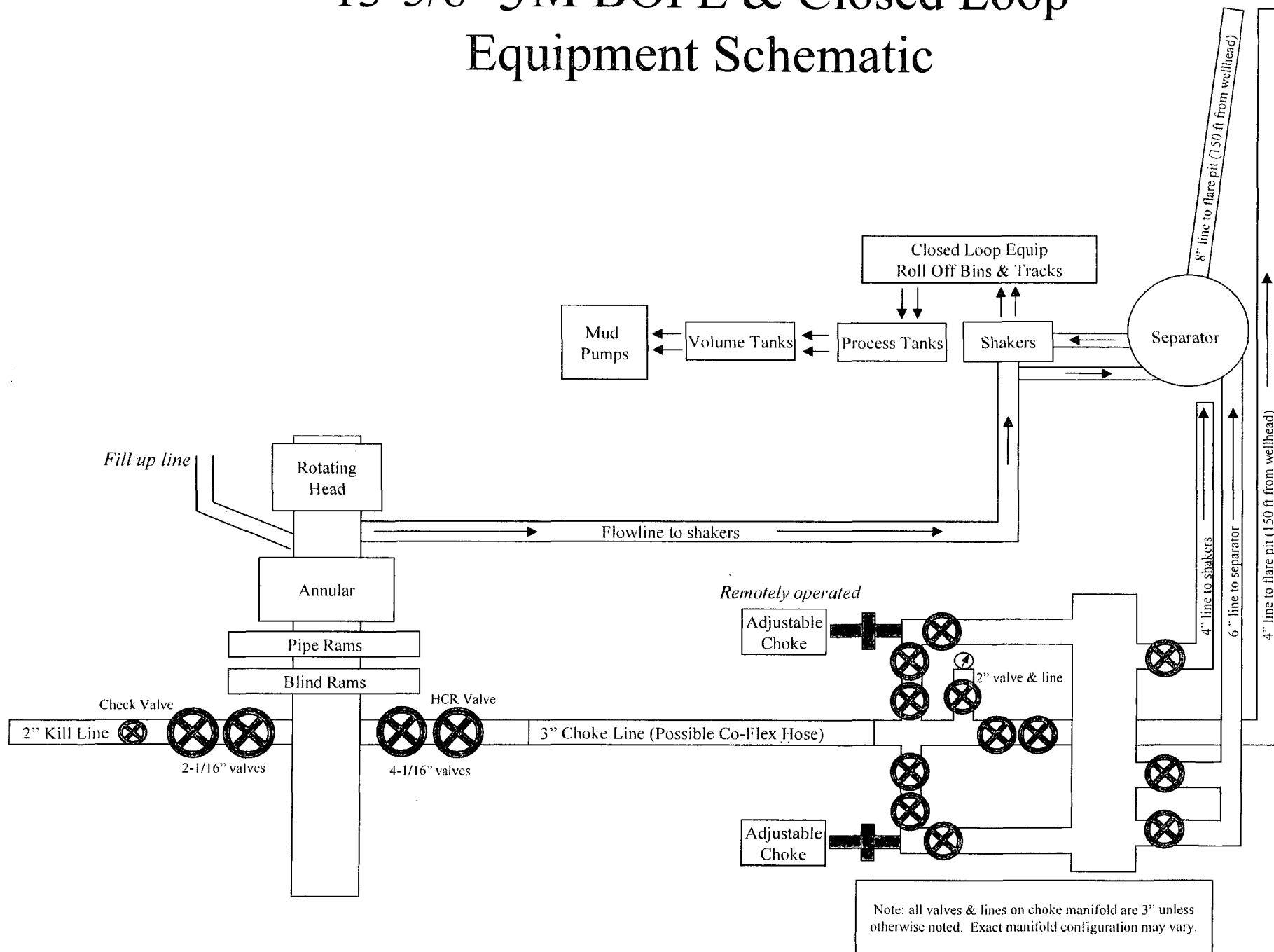
Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.43510° N	32° 26 min 6.343 sec
Longitude =	103.67555° W	103° 40 min 31.990 sec

Magnetic Declination =	7.45°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6610
Local Field Strength =	48486 nT	Magnetic Vector X = 23828 nT
Magnetic Dip =	60.29°	Magnetic Vector Y = 3116 nT
Magnetic Model =	bggm2013	Magnetic Vector Z = 42112 nT
Spud Date =	Jan 01, 2014	Magnetic Vector H = 24031 nT

Signed: _____

Date: _____

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



NOTES REGARDING BLOWOUT PREVENTERS

Devon Energy Production Company, L.P.
Bilbrey 33 Fed Com 3H

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 filings will be in operable condition to withstand a minimum of 5000psi working pressure.
4. All fittings will be flanged.
5. A fill bore safety valve tested to a minimum of 5000psi 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.

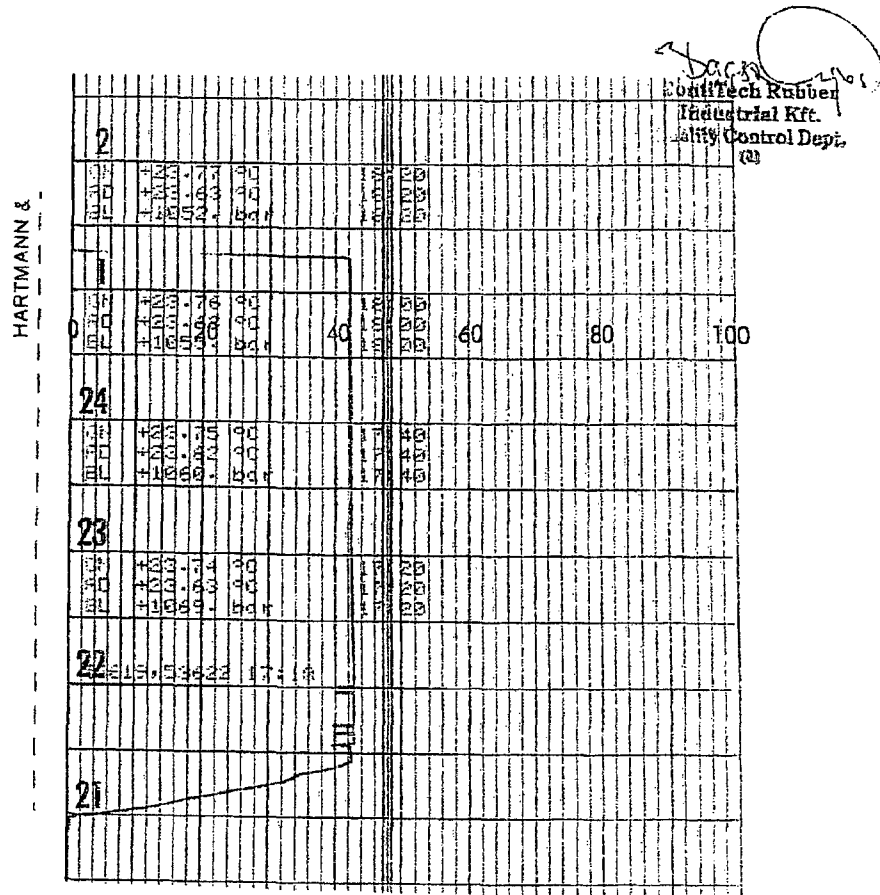
H&P 416

Continental CONTITECH

Fluid Technology

Quality Document

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE						CERT. N°:	1713
PURCHASER: ContiTech Beattie Co.						P.O. N°:	002808
CONTITECH ORDER N°: 426127			HOSE TYPE: 3" ID Choke and Kill Hose				
HOSE SERIAL N°: 53622			NOMINAL / ACTUAL LENGTH: 10,67 m				
W.P. 68,96 MPa		10000 psi	T.P. 103,4 MPa	15000 psi	Duration:		60 min.
Pressure test with water at ambient temperature							
See attachment. (1 page)							
↑ 10 mm = 10 Min. → 10 mm = 25 MPa							
COUPLINGS Type		Serial N°		Quality		Heat N°	
3" coupling with 4 1/16" Flange end		5503 2029		AISI 4130 AISI 4130		N1590P 27566	
INFOCHIP INSTALLED						API Spec 16 C Temperature rate:"B"	
All metal parts are flawless				Hose conform to NACE MR 01-75			
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.							
STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.							
COUNTRY OF ORIGIN HUNGARY/EU							
Date: 25. August. 2008	Inspector		Quality Control ContiTech Rubber Industrial Kft. Quality Control Dept. <i>[Signature]</i>				





Fluid Technology

ContiTech Beattie Corp.
Website: www.contitechbeattie.com

Monday, June 14, 2010

RE: Drilling & Production Hoses
Lifting & Safety Equipment

To Helmerich & Payne,

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

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

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

Best regards,

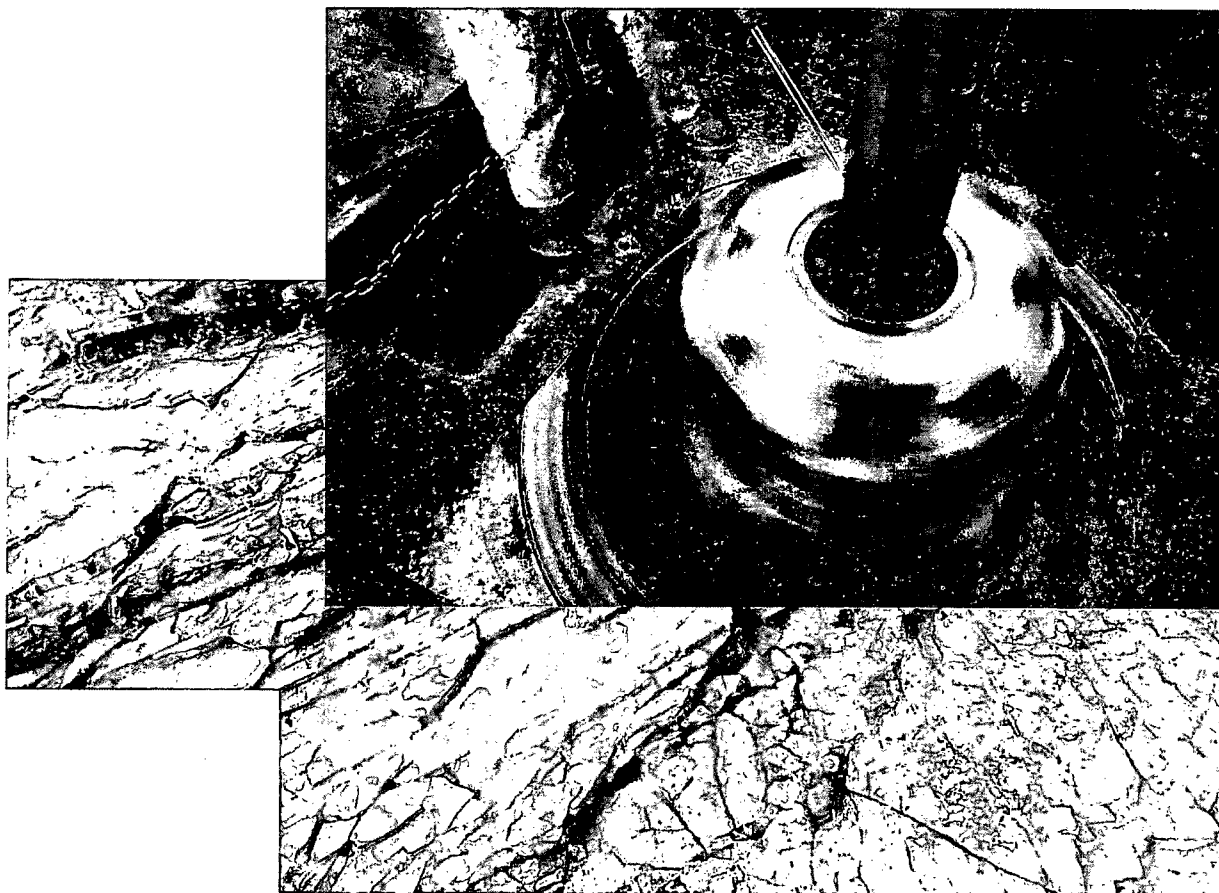
Robin Hodgson
Sales Manager
ContiTech Beattie Corp

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





Commitment Runs Deep



Design Plan
Operation and Maintenance Plan
Closure Plan

SENM - Closed Loop Systems
November 2013

I. Design Plan

Devon uses MI SWACO closed loop system (CLS). The MI SWACO CLS is designed to maintain drill solids at or below 5%. The equipment is arranged to progressively remove solids from the largest to the smallest size. Drilling fluids can thus be reused and savings is realized on mud and disposal costs. Dewatering may be required with the centrifuges to insure removal of ultra fine solids.

The drilling location is constructed to allow storm water to flow to a central sump normally the cellar. This insures no contamination leaves the drilling pad in the event of a spill. Storm water is reused in the mud system or stored in a reserve fluid tank farm until it can be reused. All lubricants, oils, or chemicals are removed immediately from the ground to prevent the contamination of storm water. An oil trap is normally installed on the sump if an oil spill occurs during a storm.

A tank farm is utilized to store drilling fluids including fresh water and brine fluids. The tank farm is constructed on a 20 ml plastic lined, bermed pad to prevent the contamination of the drilling site during a spill. Fluids from other sites may be stored in these tanks for processing by the solids control equipment and reused in the mud system. At the end of the well the fluids are transported from the tank farm to an adjoining well or to the next well for the rig.

Prior to installing a closed-loop system on site, the topsoil, if present, will be stripped and stockpiled for use as the final cover or fill at the time of closure.

Signs will be posted on the fence surrounding the closed-loop system unless the closed-loop system is located on a site where there is an existing well, that is operated by Devon.

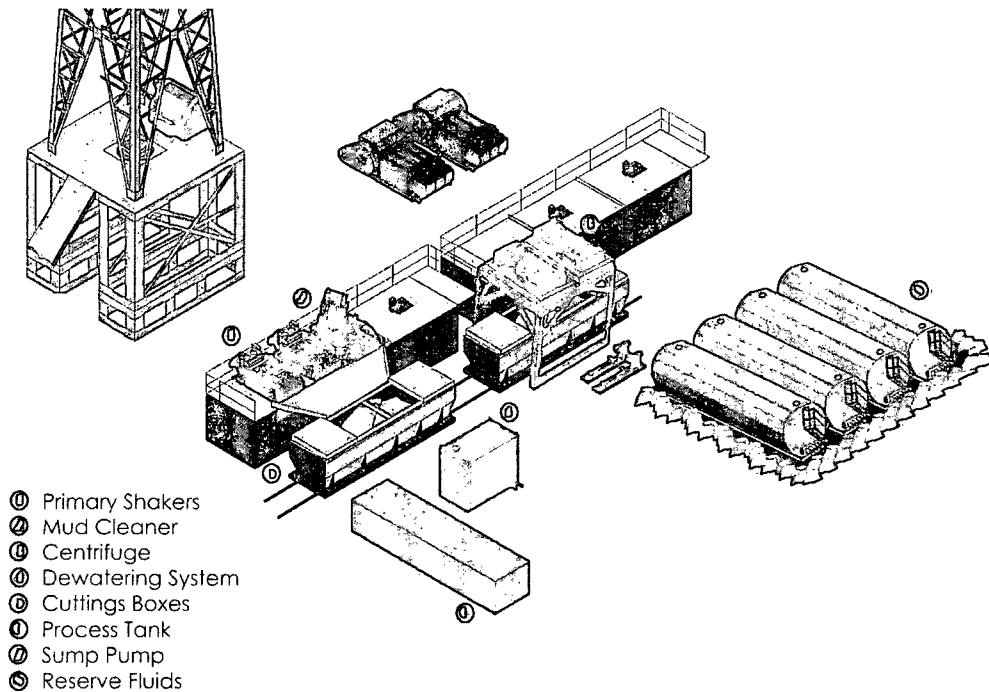
II. Operations and Maintenance Plan

Primary Shakers: The primary shakers make the first removal of drill solids from the drilling mud as it leaves the well bore. The shakers are sized to handle maximum drilling rate at optimal screen size. The shakers normally remove solids down to 74 microns.

Mud Cleaner: The Mud Cleaner cleans the fluid after it leaves the shakers. A set of hydrocyclones are sized to handle 1.25 to 1.5 times the maximum circulating rate. This ensures all the fluid is being processed to an average cut point of 25 microns. The wet discharged is dewatered on a shaker equipped with ultra fine mesh screens and generally cut at 40 microns.



Closed Loop Schematic



Centrifuges: The centrifuges can be one or two in number depending on the well geometry or depth of well. The centrifuges are sized to maintain low gravity solids at 5% or below. They may or may not need a dewatering system to enhance the removal rates. The centrifuges can make a cut point of 8-10 microns depending on bowl speed, feed rate, solids loading and other factors.

The centrifuge system is designed to work on the active system and be flexible to process incoming fluids from other locations. This set-up is also dependant on well factors.

Dewatering System: The dewatering system is a chemical mixing and dosing system designed to enhance the solids removal of the centrifuge. Not commonly used in shallow wells. It may contain pH adjustment, coagulant mixing and dosing, and polymer mixing and dosing. Chemical flocculation binds ultra fine solids into a mass that is within the centrifuge operating design. The

dewatering system improves the centrifuge cut point to infinity or allows for the return of clear water or brine fluid. This ability allows for the ultimate control of low gravity solids.

Cuttings Boxes: Cuttings boxes are utilized to capture drill solids that are discarded from the solids control equipment. These boxes are set upon a rail system that allows for the removal and replacement of a full box of cuttings with an empty one. They are equipped with a cover that insures no product is spilled into the environment during the transportation phase.

Process Tank: (Optional) The process tank allows for the holding and process of fluids that are being transferred into the mud system. Additionally, during times of lost circulation the process tank may hold active fluids that are removed for additional treatment. It can further be used as a mixing tank during well control conditions.

Sump and Sump Pump: The sump is used to collect storm water and the pump is used to transfer this fluid to the active system or to the tank for to hold in reserve. It can also be used to collect fluids that may escape during spills. The location contains drainage ditches that allow the location fluids to drain to the sump.

Reserve Fluids (Tank Farm): A series of frac tanks are used to replace the reserve pit. These are steel tanks that are equipped with a manifold system and a transfer pump. These tanks can contain any number of fluids used during the drilling process. These can include fresh water, cut brine, and saturated salt fluid. The fluid can be from the active well or reclaimed fluid from other locations. A 20 ml liner and berm system is employed to ensure the fluids do not migrate to the environment during a spill.

If a leak develops, the appropriate division district office will be notified within 48 hours of the discovery and the leak will be addressed. Spill prevention is accomplished by maintaining pump packing, hoses, and pipe fittings to insure no leaks are occurring. During an upset condition the source of the spill is isolated and repaired as soon as it is discovered. Free liquid is removed by a diaphragm pump and returned to the mud system. Loose topsoil may be used to stabilize the spill and the contaminated soil is excavated and placed in the cuttings boxes. After the well is finished and the rig has moved, the entire location is scrapped and testing will be performed to determine if a release has occurred.

All trash is kept in a wire mesh enclosure and removed to an approved landfill when full. All spent motor oils are kept in separate containers and they are removed and sent to an approved recycling center. Any spilled lubricants, pipe

dope, or regulated chemicals are removed from soil and sent to landfills approved for these products.

These operations are monitored by Mi Swaco service technicians. Daily logs are maintained to ensure optimal equipment operation and maintenance. Screen and chemical use is logged to maintain inventory control. Fluid properties are monitored and recorded and drilling mud volumes are accounted for in the mud storage farm. This data is kept for end of well review to insure performance goals are met. Lessons learned are logged and used to help with continuous improvement.

A MI SWACO field supervisor manages from 3-5 wells. They are responsible for training personnel, supervising installations, and inspecting sites for compliance of MI SWACO safety and operational policy.

III. Closure Plan

A maximum 340' X 340' caliche pad is built per well. All of the trucks and steel tanks fit on this pad. All fluid cuttings go to the steel tanks to be hauled by various trucking companies to an agency approved disposal.

2 Well Pad

