

ATS-11-398

OCD Artesia

Form 3160-3
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. LC061616A
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator BOPCO, L. P. <i><260737></i>		7. If Unit or CA Agreement, Name and No.
3a. Address P. O. Box 2760 Midland, TX 79702		8. Lease Name and Well No. Poker Lake Unit #348H <i><306402></i>
3b. Phone No. (include area code) 432-683-2277		9. API Well No. <i>30-015-38669/96209</i>
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface SESE, UL <i>P</i> , 814' FSL, 1280' FEL, Lat N32.154567, Long W103.863875 At proposed prod. zone 295' FNL, 105' FEL, Sec 4, T25S, R30E, Lat N32.166072, Lg W103.877300		10. Field and Pool, or Exploratory CORRAL CANYON, DEL NE
14. Distance in miles and direction from nearest town or post office* 17 miles east of Malaga, NM		11. Sec., T. R. M. or Blk. and Survey or Area Sec 3, T25S, R30E, Mer NMP
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 40	16. No. of acres in lease 2482	12. County or Parish Eddy County
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 5577'	19. Proposed Depth 13,369' MD, <i>7677</i> TVD	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3326' GL	22. Approximate date work will start* 04/15/2011	17. Spacing Unit dedicated to this well 320
23. Estimated duration 30 days		20. BLM/BIA Bond No. on file COB000050

24. Attachments

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

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

25. Signature <i>Katy Holster</i>	Name (Printed/Typed) Katy Holster	Date 2/9/11
Title Administrative Assistant		
Approved by (Signature) /s/ Don Peterson	Name (Printed/Typed) /s/ Don Peterson	Date MAR 11 2011
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.

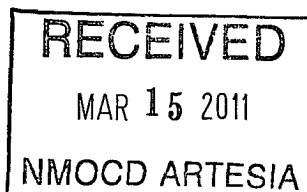
Conditions of approval, if any, are attached.

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.

*(Instructions on page 2)

Carlsbad Controlled Water Basin



Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Surface casing is to be set into the Rustler below all fresh water sands at an approximate depth of 1273' and cement circulated to surface..

7" casing will be set at approximately 8155' MD, 7677' TVD (thru curve) and cemented in two stages with DV Tool set at approximately 5000'. Cement will be circulated to surface.

Production liner will be 4-1/2" with Baker hydraulic packers for zone isolation. Top of 4-1/2" liner will be 150' above 7" casing shoe at an approximate depth of 8005'.

Drilling procedure, BOP diagram, and anticipated tops are attached.

This well is located outside the R111 Potash area and outside Secretary's Potash area.

The surface and bottom hole locations are both unorthodox.

BOPCO, L.P., at P. O. Box 2760, Midland, TX, 79702 is a subsidiary of BOPCO, L.P., 201 Mail Street, Ft. Worth, TX, 76102. Bond No. COB000050 (Nationwide).

EIGHT POINT DRILLING PROGRAM BOPCO, L.P.

NAME OF WELL: Poker Lake Unit #348H

LEGAL DESCRIPTION - SURFACE: 814' FSL, 1280' FEL, Section 3, T25S, R30E, Eddy County, NM.
BHL: 295' FNL, 105' FEL, Section 4, T25S, R30E, Eddy County, New Mexico.

POINT 1: ESTIMATED FORMATION TOPS

(See No. 2 Below)

POINT 2: WATER, OIL, GAS AND/OR MINERAL BEARING FORMATIONS

Anticipated Formation Tops: KB 3345' (estimated)
GL 3326'

FORMATION	ESTIMATED TOP FROM KB		ESTIMATED SUB-SEA TOP	BEARING
	TVD	MD		
T/Fresh Water	375' (est)	375' (est)	+ 2,970	Fresh Water
T/Rustler	933'	933'	+ 2,412'	Barren
T/Salt	1,283'	1,283'	+ 2,662	Barren
B/Salt	3,743'	3,743'	- 398'	Barren
T/Lamar	3,958'	3,958'	- 613'	Barren
T/Ramsey	4,003'	4,003'	- 658'	Oil/Gas
T/Lower Cherry Canyon	6,013'	6,013'	- 2,668'	Oil/Gas
KOP	7,200'	7,200'	- 3,855'	Oil/Gas
T/Lwr Brushy Canyon	7,490'	7,512'	- 4,145'	Oil/Gas
LBC "Y" Sand	7,657'	7,811'	- 4,312'	Oil/Gas
EOC	7,677'	7,956'	- 4,332'	Oil/Gas
TD Horizontal Hole	7,612'	13,369'	- 4,267'	Oil/Gas

POINT 3: CASING PROGRAM

TYPE	INTERVALS (MD)	Hole Size	PURPOSE	CONDITION
20"	0' - 60'	24"	Conductor	Contractor Discretion
13-3/8", 48#, H-40, or 54.5#, J-55 8rd, ST&C*	0' - 1273'	17-1/2"	Surface	New
9-5/8", 40#, J-55, 8rd, LT&C	0' - 3978'	12-1/4"	Intermediate	New
7", 26#, N-80, Buttress or LTC*	0' - 8155'	8-3/4"	Production	New
4-1/2", 11.6#, HCP-110, 8rd, LT&C	8005' - 13,369'	6-1/8"	Production	New

CASING DESIGN SAFETY FACTORS:

TYPE	TENSION	COLLAPSE	BURST
13-3/8", 48#, H-40, 8rd, ST&C	6.31	1.27	1.42
13-3/8", 54.5#, J-55, 8rd, STC	8.86	3.16	3.64
9-5/8", 40#, J-55, 8rd, LT&C	15.29	1.32	1.07
7", 26#, N-80, Buttress	3.82	1.46	1.08
7", 26#, N-80, 8rd, LTC	2.97	1.46	1.09
4-1/2", 11.6#, HCP-110, 8rd, LT&C	3.62	1.91	2.19

* Depending on availability.

DESIGN CRITERIA AND CASING LOADING ASSUMPTIONS:

SURFACE CASING - (13-3/8")

Tension	A 1.6 design factor utilizing the effects of buoyancy (9.2 ppg).
Collapse	A 1.0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0.48 psi/ft). The effects of axial load on collapse will be considered.
Burst	A 1.3 design factor with a surface pressure equal to the fracture gradient at setting depth less a gas gradient to the surface. Internal burst force at the shoe will be fracture pressure at that depth. Backup pressure will be formation pore pressure. In all cases a conservative fracture pressure will be used such that it represents the upper limit of potential fracture resistance up to a 1.0 psi/ft gradient. The effects of tension on burst will not be utilized.

PROTECTIVE CASING - (9-5/8")

Tension	A 1.6 design factor utilizing the effects of buoyancy (10 ppg).
Collapse	A 1.0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered. In the case of development drilling, collapse design should be analyzed using internal evacuation equal to 1/3 the proposed total depth of the well. This criterion will be used when there is absolutely no potential of the protective string being used as a production casing string.
Burst	A 1.0 surface design factor and a 1.3 downhole design factor with a surface pressure equivalent to the fracture gradient at setting depth less a gas gradient to the surface. Internal burst force at the shoe will be fracture pressure at that depth. Backup pressure will be formation pore pressure. In all cases a conservative fracture pressure will be used such that it represents the upper limit of potential fracture resistance up to a 1.0 psi/ft gradient.

2ND INTERMEDIATE CASING - (7")

Tension	A 1.6 design factor utilizing the effects of buoyancy (9.0 ppg).
Collapse	A 1.0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0.48 psi/ft). The effects of axial load on collapse will be considered.
Burst	A 1.25 design factor with anticipated maximum tubing pressure (5000 psig) on top of the maximum anticipated packer fluid gradient. (0.433 psi/ft) Backup on production strings will be formation pore pressure. (0.433 psi/ft) The effects of tension on burst will not be utilized.

PRODUCTION CASING - (4-1/2")

Tension	A 1.6 design factor utilizing the effects of buoyancy (9.0 ppg).
Collapse	A 1.0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0.48 psi/ft). The effects of axial load on collapse will be considered.
Burst	A 1.25 design factor with anticipated maximum tubing pressure (5000 psig) on top of the maximum anticipated packer fluid gradient. (0.433 psi/ft) Backup on production strings will be formation pore pressure. (0.433 psi/ft) The effects of tension on burst will not be utilized.

POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAM)

The blowout preventer for 12-1/4" intermediate hole will consist of 13-5/8" X 5000 psi dual ram BOP's with mud cross, choke manifold, chokes, and hydril per Diagram 1 (5000 psi WP). The BOP stack, choke, kill lines, kelly cocks, inside BOP, etc. when installed on the surface casing head will be hydro-tested to 250-300 psig and 2000 psig by independent tester. The BOPE when rigged up on the 9-5/8" intermediate casing spool will consist of annular, pipe & blind rams with choke manifold and chokes as in Diagram 1 and will be tested to 3000 psig by independent tester. In addition to the high pressure test, a low pressure (250-300 psig) test will be required. Hydril will be tested to 2500 psig.

The BOPE when rigged up on the 7" intermediate casing spool will consist of annular, pipe & blind rams with choke manifold and chokes as in Diagram 1 and will be tested to 3000 psig by independent tester. In addition to the high pressure test, a low pressure (250-300 psig) test will be required. Hydril will be tested to 2500 psig. These tests will be performed:

- a) Upon installation
- b) After any component changes
- c) 30 days after a previous test
- d) As required by well conditions

A function test to insure that the preventers are operating correctly will be performed on each trip.

POINT 5: MUD PROGRAM

DEPTH	MUD TYPE	WEIGHT	FV	PV	YP	FL	Ph
0' - 1273'	FW Spud Mud	8.5 - 9.2	38-70	NC	NC	NC	10.0
1273' - 3978'	Brine Water	9.8 - 10.2	28-30	NC	NC	NC	9.5 - 10.5
3978' - 8155'	FW/Gel	8.7 - 9.0	28-36	NC	NC	NC	9.5 - 10.0
8155' - 13,369'	FW/Gel/Starch	8.7 - 9.0	28-36	NC	NC	<100	9.5 - 10.0

NOTE: May increase vis for logging purposes only.

POINT 6: TECHNICAL STAGES OF OPERATION *See CoA*

A) TESTING

None anticipated.

B) LOGGING

Run #1: GR with MWD during drilling of build and horizontal portions of 8-3/4" and 6-1/8" hole.

Run #2: Shuttle log w/GR, PE, Density, Neutron, Resistivity in lateral leg open hole.

Mud Logger: Rigged up at 100'.

C) CONVENTIONAL CORING

None anticipated.

D) CEMENT

INTERVAL	AMOUNT SXS	FT OF FILL	TYPE	GALS/SX	PPG	FT ³ /SX
SURFACE:						
Lead: 0 – 973' (100% excess Circ to surface)	710	973	Class "C" 35/65+6% gel +3pps star-seal+.04% FL10+0.25% R-38+5% salt	9.95	12.8	1.91
Tail: 973' – 1273' (100% excess)	350	300	Class "C" + 2% CaCl ₂ +3lb star-seal+0.25% R-38	6.12	14.8	1.36
INTERMEDIATE:						
Lead: 0' – 3478' (100% excess Circ to surface)	1200	3478	Class "C" 35/65+6% gel +3pps star-seal+.04% FL10+0.25% R-38+5% salt	9.95	12.8	1.91
Tail: 3478' – 3978' (100% excess)	300	500	Class "C" + 2% CaCl ₂ + 0.25% R-38	6.34	14.8	1.35
2ND INTERMEDIATE						
Stage 1:						
Lead: 5000' - 7200' (50% excess)	250	2200	RSS Micro+.5% FMS+ 0.3% FL10+0.8% C-12 +3pps Gilsonite+0.25 R-38	10.09	10.5	2.41
Tail: 7200'-8155' (50% excess)	175	955	RSS Micro+0.2% C-37+ 0.2%+C-12+0.2% FL10+ +0.25% R-38	7.03	13.0	1.38
DV Tool @ 5,000'						
Stage 2:						
Lead: 0' – 4900' (50% excess) (TOC 500' into 9-5/8")	500	4900	RSS Micro+35% FMS+ 0.5% C-12+3pps Gilsonite +0.5% R-38	10.16	10.5	2.42
Tail: 4900'-5000' (50% excess)	50	100	Cass "C" + 0.20% R-38	6.31	14.8	1.33

E) DIRECTIONAL DRILLING

BOPCO, L.P. plans to drill out the 9-5/8" intermediate casing with a 8-3/4" bit to a TVD of approximately 7200' at which a directional hole will be kicked off and drilled at an azimuth of 314.96 degrees, building angle at 12 deg/ 100' to 90.69 degrees at a TVD of 7677' (MD 7955'). This angle and azimuth will be maintained for 200' to a measured depth of 8155' (7677' TVD). At this depth 7", 26#, N80, Buttress, or LTC casing will be installed and cemented in two stages (DV Tool @ approximately 5000') with cement being circulated to surface. A 6-1/8" open hole lateral will then be drilled out from 7" casing at an azimuth of 314.96 degrees, inclination of 90.69 degrees to a measured depth of 13,369', TVD 7612'. At this depth 4-1/2", 11.6#, HCP110, 8rd, LTC casing will be installed with Baker hydraulic packers installed for zone isolation in the lateral.

POINT 7: ANTICIPATED RESERVOIR CONDITIONS

5

Normal pressures are anticipated throughout Delaware section. A BHP of 3581 psi (max) or MWE of 8.4 ppg is expected. Lost circulation may exist in the Delaware Section from 4094'-7660' TVD. No H₂S is anticipated.

POINT 8: OTHER PERTINENT INFORMATION

A) Auxiliary Equipment

Upper and lower kelly cocks. Full opening stab in valve on the rig floor.

B) Anticipated Starting Date

Upon approval

30 days drilling operations

14 days completion operations

SMM/keh



Weatherford®

Drilling Services

Proposal

BOPCO, L.P.

POKER LAKE UNIT #348H

EDDY CO NM

WELL FILE: **PLAN 1**

DECEMBER 29, 2010

Weatherford International, Ltd.

P.O. Box 61028

Midland, TX 79711 USA

+1.432.561.8892 Main

+1.432.561.8895 Fax

www.weatherford.com

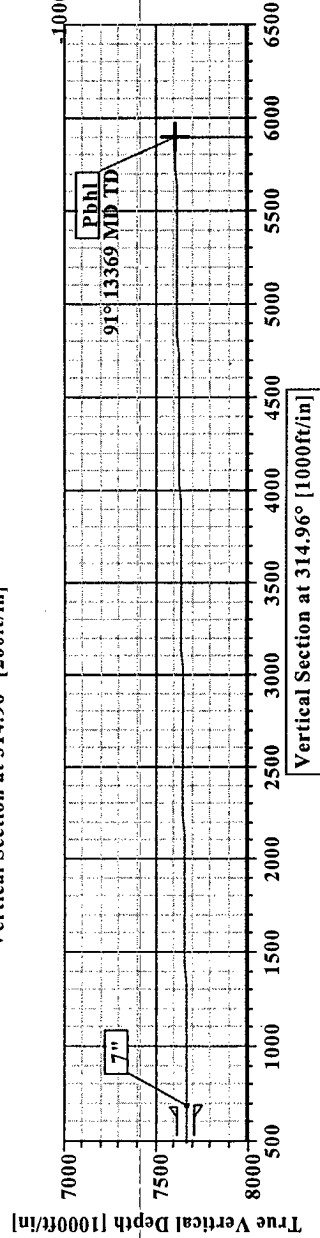
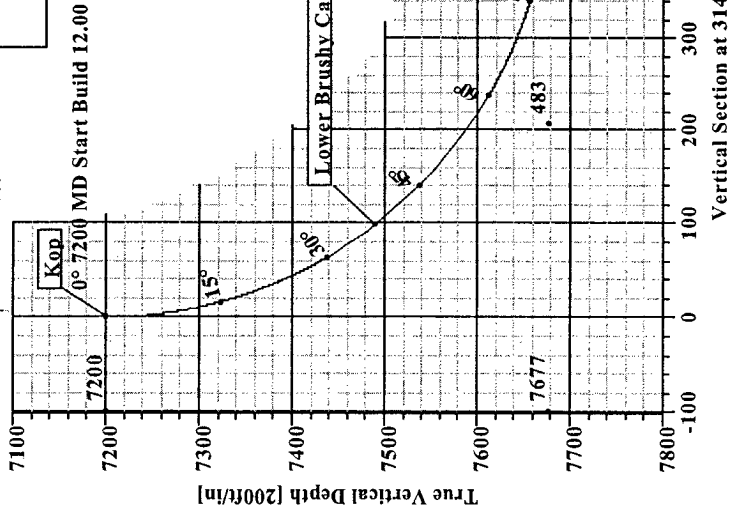
BOPCO, L.P.

Poker Lake Unit 348H Eddy Co, NM

FORMATION TOP DETAILS

No.	TVDPath	MDPath	Formation
1	7490.00	7511.78	Lower Brushy Canyon
2	7657.00	7810.76	LBC "Y" Sand

KB ELEV: 3345
GL ELEV: 3326



SECTION DETAILS

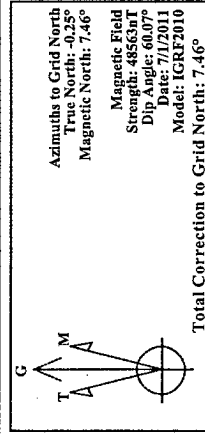
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	314.96	0.00	0.00	0.00	0.00	0.00	0.00	
2	7199.57	0.00	314.96	7199.57	0.00	0.00	0.00	0.00	0.00	
3	7955.30	90.69	314.96	7677.00	341.43	-341.91	12.00	314.96	483.20	Pbhl
4	13369.36	90.69	314.96	7612.00	4166.81	-4172.61	0.00	0.00	5896.86	Pbhl

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Poker Lake Unit 348H	0.00	0.00	420270.12	645285.49	32°09'16.447N	103°51'49.952W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Pbhl	7612.00	4166.81	-4172.61	424436.93	641112.88	Point



Total Correction to Grid North: 7.46°

LEGEND

— Poker Lake Unit 347H (1)
— Plan #1



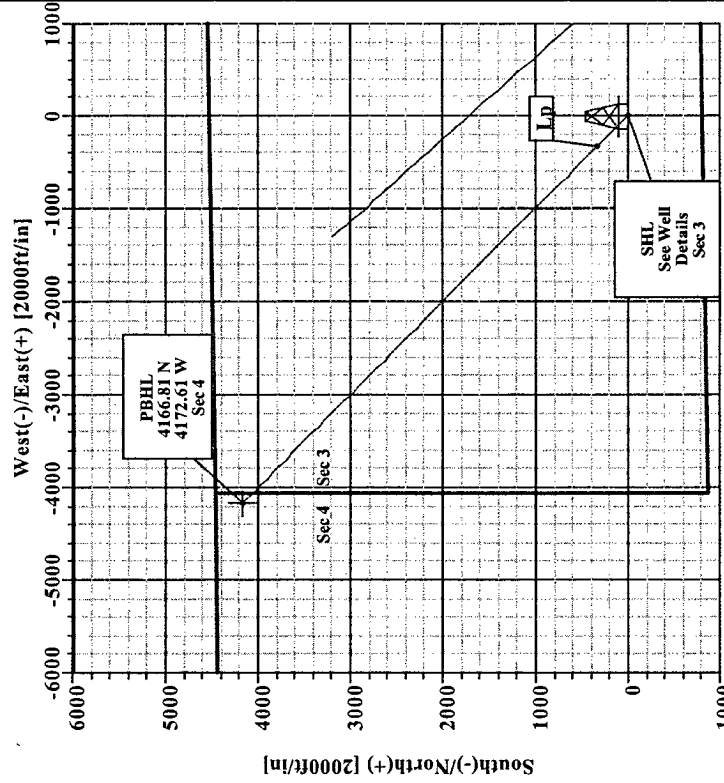
FIELD DETAILS

Eddy County, NM (Nad 27)
Geodetic System: US State Plane Coordinate System 1927
Ellipsoid: NAD27 (Clarke 1866)
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010

System Datum: Mean Sea Level
Local North: Grid North

SITE DETAILS

Poker Lake Unit 348H
Site Centre Northing: 420270.12
Easting: 645285.49
Ground Level: 3326.00
Positional Uncertainty: 0.00
Convergence: 0.25



Plan: Plan #1 (Poker Lake Unit 348H/1)

Created By: Russell W. Joyner

Date: 12/29/2010

Weatherford International Ltd.

WFT Plan Report - X & Y's



Weatherford

Company: BOPCO, L.P. Field: Eddy County, NM (Nad 27) Site: Poker Lake Unit 348H Well: Poker Lake Unit 348H Wellpath: 1		Date: 12/29/2010 Co-ordinate(NE) Reference: Well: Poker Lake Unit 348H, Grid North Vertical (TVD) Reference: SITE 3345.0 Section (VS) Reference: Well (0.00N,0.00E,314.96Azi) Survey Calculation Method: Minimum Curvature		Time: 14:13:09 Page: 1						
Plan: Plan #1 Principal: Yes		Date Composed: 12/29/2010 Version: 1 Tied-to: From Surface								
Field: Eddy County, NM (Nad 27)										
Map System: US State Plane Coordinate System 1927 Geo Datum: NAD27 (Clarke 1866) Sys Datum: Mean Sea Level		Map Zone: New Mexico, Eastern Zone Coordinate System: Well Centre Geomagnetic Model: IGRF2010								
Site: Poker Lake Unit 348H										
Site Position: From: Map Position Uncertainty: 0.00 ft Ground Level: 3326.00 ft		Northing: 420270.12 ft Easting: 645285.49 ft Latitude: 32 9 16.447 N Longitude: 103 51 49.952 W North Reference: Grid Grid Convergence: 0.25 deg								
Well: Poker Lake Unit 348H										
Well Position: +N/-S 0.00 ft +E/-W 0.00 ft Position Uncertainty: 0.00 ft		Slot Name: Northing: 420270.12 ft Easting: 645285.49 ft Latitude: 32 9 16.447 N Longitude: 103 51 49.952 W								
Wellpath: 1										
Current Datum: SITE Magnetic Data: 7/1/2011 Field Strength: 48563 nT Vertical Section: Depth From (TVD) ft		Drilled From: Surface Tie-on Depth: 0.00 ft Above System Datum: Mean Sea Level Declination: 7.71 deg Mag Dip Angle: 60.07 deg +N/-S ft +E/-W ft Direction deg								
0.00		0.00 0.00 314.96								
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	314.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7199.57	0.00	314.96	7199.57	0.00	0.00	0.00	0.00	0.00	0.00	
7955.30	90.69	314.96	7677.00	341.43	-341.91	12.00	12.00	0.00	314.96	
13369.36	90.69	314.96	7612.00	4166.81	-4172.61	0.00	0.00	0.00	0.00	Pbhl
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
7100.00	0.00	314.96	7100.00	0.00	0.00	0.00	0.00	420270.12	645285.49	Kop
7199.57	0.00	314.96	7199.57	0.00	0.00	0.00	0.00	420270.12	645285.49	
7200.00	0.05	314.96	7200.00	0.00	0.00	0.00	12.00	420270.12	645285.49	
7300.00	12.05	314.96	7299.26	7.44	-7.45	10.52	12.00	420277.56	645278.05	
7400.00	24.05	314.96	7394.17	29.29	-29.33	41.45	12.00	420299.41	645256.16	
7500.00	36.05	314.96	7480.56	64.61	-64.70	91.44	12.00	420334.74	645220.79	Lower Brushy Canyon
7511.78	37.46	314.96	7490.00	69.59	-69.69	98.49	12.00	420339.72	645215.80	
7600.00	48.05	314.96	7554.68	111.86	-112.01	158.30	12.00	420381.98	645173.48	
7700.00	60.05	314.96	7613.28	168.96	-169.19	239.11	12.00	420439.08	645116.30	
7800.00	72.05	314.96	7653.80	233.42	-233.74	330.33	12.00	420503.54	645051.75	
7810.76	73.34	314.96	7657.00	240.68	-241.01	340.61	12.00	420510.80	645044.48	LBC "Y" Sand
7900.00	84.05	314.96	7674.46	302.42	-302.84	427.98	12.00	420572.54	644982.65	
7955.30	90.69	314.96	7677.00	341.43	-341.91	483.20	12.00	420611.56	644943.59	
8000.00	90.69	314.96	7676.46	373.02	-373.54	527.89	0.00	420643.14	644911.96	
8100.00	90.69	314.96	7675.26	443.67	-444.29	627.88	0.00	420713.79	644841.21	
8155.30	90.69	314.96	7674.60	482.75	-483.42	683.18	0.00	420752.87	644802.08	7"
8200.00	90.69	314.96	7674.06	514.33	-515.04	727.88	0.00	420784.45	644770.45	

Weatherford International Ltd.

WFT Plan Report - X & Y's



Weatherford

Company: BOPCO, L.P. Field: Eddy County, NM (Nad 27) Site: Poker Lake Unit 348H Well: Poker Lake Unit 348H Wellpath: 1	Date: 12/29/2010 Time: 14:13:09 Page: 2 Co-ordinate(NE) Reference: Well: Poker Lake Unit 348H, Grid North Vertical (TVD) Reference: SITE 3345.0 Section (VS) Reference: Well (0.00N,0.00E,314.96Azi) 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	Comment
8300.00	90.69	314.96	7672.86	584.99	-585.80	827.87	0.00	420855.11	644699.70	
8400.00	90.69	314.96	7671.66	655.64	-656.55	927.86	0.00	420925.76	644628.94	
8500.00	90.69	314.96	7670.46	726.30	-727.31	1027.86	0.00	420996.42	644558.19	
8600.00	90.69	314.96	7669.26	796.95	-798.06	1127.85	0.00	421067.08	644487.43	
8700.00	90.69	314.96	7668.06	867.61	-868.82	1227.84	0.00	421137.73	644416.68	
8800.00	90.69	314.96	7666.86	938.27	-939.57	1327.83	0.00	421208.39	644345.92	
8900.00	90.69	314.96	7665.66	1008.92	-1010.33	1427.83	0.00	421279.05	644275.17	
9000.00	90.69	314.96	7664.46	1079.58	-1081.08	1527.82	0.00	421349.70	644204.41	
9100.00	90.69	314.96	7663.26	1150.24	-1151.84	1627.81	0.00	421420.36	644133.66	
9200.00	90.69	314.96	7662.06	1220.89	-1222.59	1727.81	0.00	421491.02	644062.90	
9300.00	90.69	314.96	7660.86	1291.55	-1293.35	1827.80	0.00	421561.67	643992.15	
9400.00	90.69	314.96	7659.66	1362.21	-1364.10	1927.79	0.00	421632.33	643921.39	
9500.00	90.69	314.96	7658.45	1432.86	-1434.86	2027.78	0.00	421702.98	643850.64	
9600.00	90.69	314.96	7657.25	1503.52	-1505.61	2127.78	0.00	421773.64	643779.88	
9700.00	90.69	314.96	7656.05	1574.18	-1576.37	2227.77	0.00	421844.30	643709.13	
9800.00	90.69	314.96	7654.85	1644.83	-1647.12	2327.76	0.00	421914.95	643638.37	
9900.00	90.69	314.96	7653.65	1715.49	-1717.87	2427.75	0.00	421985.61	643567.62	
10000.00	90.69	314.96	7652.45	1786.14	-1788.63	2527.75	0.00	422056.27	643496.87	
10100.00	90.69	314.96	7651.25	1856.80	-1859.38	2627.74	0.00	422126.92	643426.11	
10200.00	90.69	314.96	7650.05	1927.46	-1930.14	2727.73	0.00	422197.58	643355.36	
10300.00	90.69	314.96	7648.85	1998.11	-2000.89	2827.73	0.00	422268.24	643284.60	
10400.00	90.69	314.96	7647.65	2068.77	-2071.65	2927.72	0.00	422338.89	643213.85	
10500.00	90.69	314.96	7646.45	2139.43	-2142.40	3027.71	0.00	422409.55	643143.09	
10600.00	90.69	314.96	7645.25	2210.08	-2213.16	3127.70	0.00	422480.21	643072.34	
10700.00	90.69	314.96	7644.05	2280.74	-2283.91	3227.70	0.00	422550.86	643001.58	
10800.00	90.69	314.96	7642.85	2351.40	-2354.67	3327.69	0.00	422621.52	642930.83	
10900.00	90.69	314.96	7641.65	2422.05	-2425.42	3427.68	0.00	422692.17	642860.07	
11000.00	90.69	314.96	7640.45	2492.71	-2496.18	3527.68	0.00	422762.83	642789.32	
11100.00	90.69	314.96	7639.25	2563.37	-2566.93	3627.67	0.00	422833.49	642718.56	
11200.00	90.69	314.96	7638.04	2634.02	-2637.69	3727.66	0.00	422904.14	642647.81	
11300.00	90.69	314.96	7636.84	2704.68	-2708.44	3827.65	0.00	422974.80	642577.05	
11400.00	90.69	314.96	7635.64	2775.33	-2779.20	3927.65	0.00	423045.46	642506.30	
11500.00	90.69	314.96	7634.44	2845.99	-2849.95	4027.64	0.00	423116.11	642435.54	
11600.00	90.69	314.96	7633.24	2916.65	-2920.70	4127.63	0.00	423186.77	642364.79	
11700.00	90.69	314.96	7632.04	2987.30	-2991.46	4227.63	0.00	423257.43	642294.04	
11800.00	90.69	314.96	7630.84	3057.96	-3062.21	4327.62	0.00	423328.08	642223.28	
11900.00	90.69	314.96	7629.64	3128.62	-3132.97	4427.61	0.00	423398.74	642152.53	
12000.00	90.69	314.96	7628.44	3199.27	-3203.72	4527.60	0.00	423469.39	642081.77	
12100.00	90.69	314.96	7627.24	3269.93	-3274.48	4627.60	0.00	423540.05	642011.02	
12200.00	90.69	314.96	7626.04	3340.59	-3345.23	4727.59	0.00	423610.71	641940.26	
12300.00	90.69	314.96	7624.84	3411.24	-3415.99	4827.58	0.00	423681.36	641869.51	
12400.00	90.69	314.96	7623.64	3481.90	-3486.74	4927.57	0.00	423752.02	641798.75	
12500.00	90.69	314.96	7622.44	3552.55	-3557.50	5027.57	0.00	423822.68	641728.00	
12600.00	90.69	314.96	7621.24	3623.21	-3628.25	5127.56	0.00	423893.33	641657.24	
12700.00	90.69	314.96	7620.04	3693.87	-3699.01	5227.55	0.00	423963.99	641586.49	
12800.00	90.69	314.96	7618.84	3764.52	-3769.76	5327.55	0.00	424034.65	641515.73	
12900.00	90.69	314.96	7617.64	3835.18	-3840.52	5427.54	0.00	424105.30	641444.98	
13000.00	90.69	314.96	7616.43	3905.84	-3911.27	5527.53	0.00	424175.96	641374.22	
13100.00	90.69	314.96	7615.23	3976.49	-3982.03	5627.52	0.00	424246.62	641303.47	
13200.00	90.69	314.96	7614.03	4047.15	-4052.78	5727.52	0.00	424317.27	641232.71	
13300.00	90.69	314.96	7612.83	4117.81	-4123.54	5827.51	0.00	424387.93	641161.96	
13369.36	90.69	314.96	7612.00	4166.81	-4172.61	5896.86	0.00	424436.94	641112.88	Pbhl

Weatherford International Ltd.

WFT Plan Report - X & Y's



Weatherford

Company: BOPCO, L.P. Field: Eddy County, NM (Nad 27) Site: Poker Lake Unit 348H Well: Poker Lake Unit 348H Wellpath: 1	Date: 12/29/2010 Time: 14:13:09 Page: 3 Co-ordinate(NE) Reference: Well: Poker Lake Unit 348H, Grid North Vertical (TVD) Reference: SITE 3345.0 Section (VS) Reference: Well (0.00N,0.00E,314.96Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
---	--

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	← Latitude → Deg Min Sec		← Longitude → Deg Min Sec	
Pbhl			7612.00	4166.81	-4172.61	424436.93	641112.88	32	9 57.860 N	103	52 38.283 W

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
4200.00	4200.00	9.625	12.250	9 5/8"
8155.30	7674.60	7.000	8.750	7"

Annotation

MD ft	TVD ft	
7199.57	7199.57	Kop
7955.30	7677.00	Lp
13369.35	7612.00	Pbhl

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
7511.78	7490.00	Lower Brushy Canyon		0.00	0.00
7810.76	7657.00	LBC "Y" Sand		0.00	0.00

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

GeoDec v5.03

Report Date: December 29, 2010
Job Number: _____
Customer: BOPCO
Well Name: Poker Lake Unit #348H
API Number: _____
Rig Name: _____
Location: Eddy Co, NM
Block: _____
Engineer: RWJ

US State Plane 1927	Geodetic Latitude / Longitude
System: New Mexico East 3001 (NON-EXACT)	System: Latitude / Longitude
Projection: SPC27 Transverse Mercator	Projection: Geodetic Latitude and Longitude
Datum: NAD 1927 (NADCON CONUS)	Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866	Ellipsoid: Clarke 1866
North/South 420270.120 USFT	Latitude 32.1545686 DEG
East/West 645285.490 USFT	Longitude -103.8638755 DEG
Grid Convergence: .25°	
Total Correction: +7.46°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.15457° N	32° 9 min 16.447 sec
Longitude =	103.86388° W	103° 51 min 49.952 sec

Magnetic Declination =	7.71°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6641
Local Field Strength =	48559 nT	Magnetic Vector X = 24009 nT
Magnetic Dip =	60.07°	Magnetic Vector Y = 3251 nT
Magnetic Model =	IGRF-2010g11	Magnetic Vector Z = 42083 nT
Spud Date =	Jul 01, 2011	Magnetic Vector H = 24228 nT

Signed: _____

Date: _____

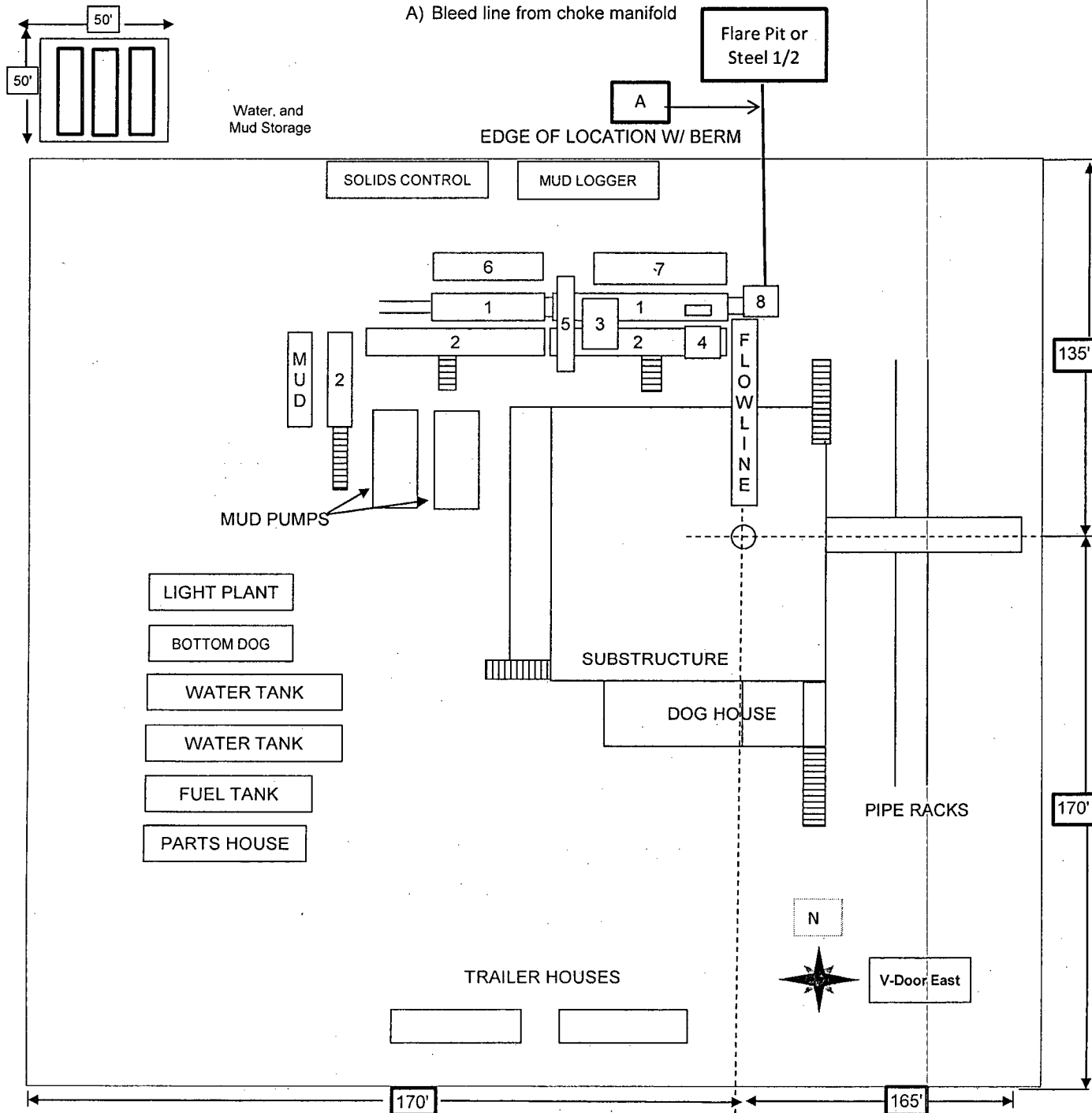


Exhibit "D"

BOPCO, L.P.
Poker Lake Unit #348H
Sec 3, T25S-R30E
Eddy County, NM

RIG LAYOUT SCHEMATIC
INCLUSIVE OF CLOSED-LOOP DESIGN PLAN
Solids Control Equipment Legend

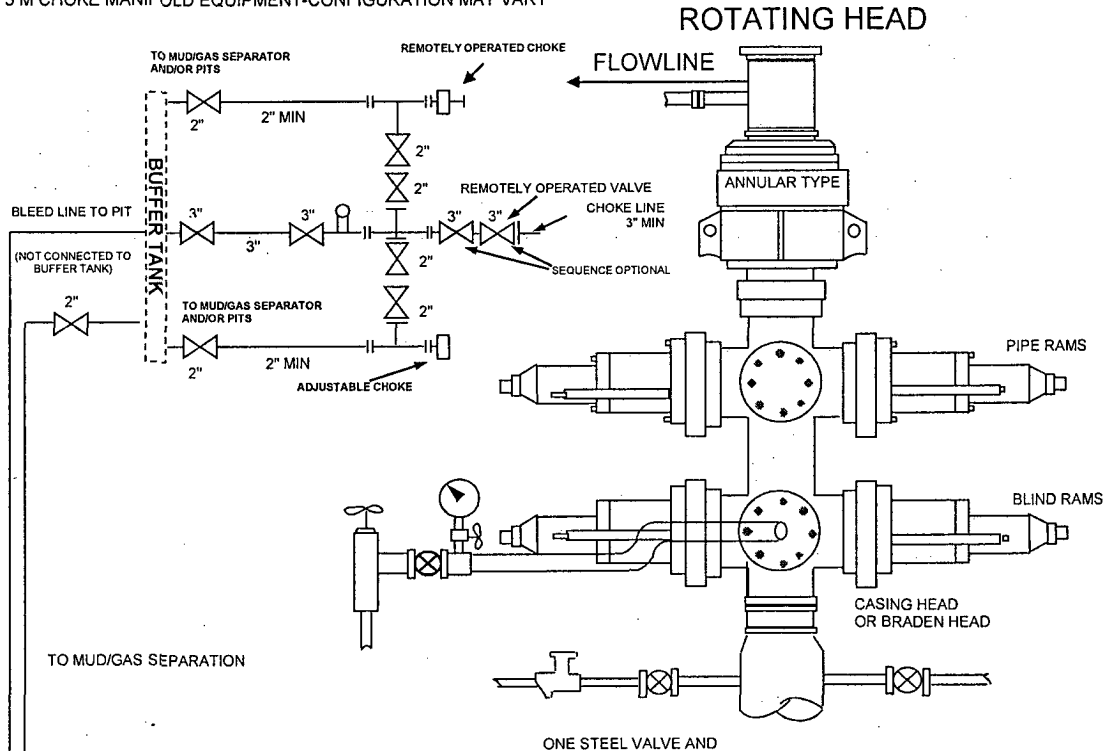
- | | |
|-----------------------------------|--------------------|
| 1) Roll Off Bin | 5) Centrifuge |
| 2) Steel Tank | 6) Dewatering Unit |
| 3) Mud Cleaner | 7) Catch Tank |
| 4) Shaker | 8) Choke Manifold |
| A) Bleed line from choke manifold | |



BOPCO, L. P.

5-M WP BOPE WITH 5-M WP ANNULAR

5 M CHOKES MANIFOLD EQUIPMENT-CONFIGURATION MAY VARY



THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

- A. One double gate Blowout preventer with lower pipe rams and upper blind rams, all hydraulically controlled.
- B. Opening on preventers between rams to be flanged, studded or clamped and at least two inches in diameter.
- C. All connections from operating manifold to preventers to be all steel hose or tube a minimum of one inch in diameter.
- D. The available closing pressure shall be at least 15% in excess of that required with sufficient volume to operate (close, open, and re-close) the preventers.
- E. All connections to and from preventers to have a pressure rating equivalent to that of the BOPs.
- F. Manual controls to be installed before drilling cement plug.
- G. Valve to control flow through drill pipe to be located on rig floor.
- H. Chokes must be adjustable. Choke spool may be used between rams.

DIAGRAM 1

TO STEEL MUD TANKS

BLEED LINE TO FLARE PIT OR STEEL 1/2 PIT LOCATED OFF LOCATION (SEE EXHIBIT "D") NOT CONNECTED TO BUFFER TANK

DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

Operator BOPCO LP OGRID # 260737
 306402 Well Name & # POKER LAKE UNIT # 348H Surface Type (F) (S) (P)
 Location: UL P, Sect 3, Township 25s, RNG 30e, Sub-surface Type (F) (S) (P)
A 4 25 - 30

A. Date C101 rec'd / / C101 reviewed / /

B. 1. Check mark, Information is OK on Forms:

OGRID X, BONDING FED, PROP CODE X, WELL # X, SIGNATURE

2. Inactive Well list as of: 4/11 # wells 103 # Inactive wells 6

a. District Grant APD but see number of inactive wells:

No letter required ; Sent Letter to Operator , to Santa Fe

3. Additional Bonding as of: / /

a. District Denial because operator needs addition bonding:

No Letter required ; Sent Letter to Operator , To Santa Fe

b. District Denial because of Inactive well list and Financial Assurance:

No Letter required ; Sent Letter to Operator , To Santa Fe

C. C102 YES , NO , Signature

1. Pool CORRAL CANYON, DEL NE, Code 96209

a. Dedicated acreage 320, What Units 3: P 4: D, E, F, J, K, O, P

b. SUR. Location Standard X, Non-Standard Location

c. Well shares acres: Yes , No X, # of wells plus this well #

2. 2nd. Operator in same acreage, Yes , No X

Agreement Letter , Disagreement letter

3. Intent to Directional Drill Yes X, No

a. Dedicated acreage 320, What Units

b. Bottomhole Location Standard , Non-Standard Bottomhole X

4. Downhole Commingle: Yes , No X

a. Pool #2 , Code , Acres

Pool #3 , Code , Acres

Pool #4 , Code , Acres

5. POTASH Area Yes , No FED

D. Blowout Preventer Yes X, No

E. H2S Yes , No

F. C144 Pit Registration Yes , No X, need

G. Does APD require Santa Fe Approval:

1. Non-Standard Location: Yes X, No , NSL #

2. Non-Standard Proration: Yes , No X, NSP #

3. Simultaneous Dedication: Yes , No X, SD #

Number of wells Plus #

4. Injection order Yes , No X; PMX # or WFX #

5. SWD order Yes , NO X; SWD #

6. DHC from SF ; DHC-HOB ; Holding

7. OCD Approval Date / /

API #30-015-- 38669

8. Reviewers