

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMLC061616A
2. Name of Operator BOPCO LP		6. If Indian, Allottee or Tribe Name
3a. Address P O BOX 2760 MIDLAND, TX 79702		7. If Unit or CA/Agreement, Name and/or No. 891000303X
3b. Phone No. (include area code) Ph: 432-683-2277		8. Well Name and No. POKER LAKE UNIT 348H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 3 T25S R30E SWSE 814FSL 1630FEL 32.154556 N Lat, 103.865008 W Lon		9. API Well No. 30-015-38669-00-X1
		10. Field and Pool, or Exploratory POKER LAKE
		11. County or Parish, and State EDDY COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other. Change to Original APD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

BOPCO, L.P. respectfully request to alter the well plan, target formation, bottom hole location and directional plan for the PLU 348H well. A single bore lateral Wolfcamp B is requested utilizing the original 348H well bore and surface location. The new bottom hole location is requested at 814? FSL and 660? FEL in Section 2, 25S-R30E, Eddy County, New Mexico.

The existing well bore is plugged back to 8,900 feet. A whip stock will be set at 8,700? MD and an 8-3/4? window will be cut in the existing 9-5/8? casing at the same depth. A nudge will be built from 8,700?MD (8,696?TVD) to 8,795?MD (8,791?TVD) to an inclination of 5 degrees, 88.9 degree Az and 6 degree DLS. From 8,795?MD (8,791? TVD) to 9,795? MD (9,787?TVD) an inclination of 5 degrees and 88.9 Az will be held. From 9,795?MD (9,787?TVD) to 10,045?MD (10,037?TVD) the well bore will be dropped back to vertical at 2 degrees/100?. The 8-3/4? hole section will then be held vertical from 10,045?MD to 10,924?MD. At 10,924?MD the 8-3/4? hole will be kicked off at a build rate of

Accepted for record
18
9-8-14 NMOC
SEE ATTACHED FOR
CONDITIONS OF APPROVAL
NM OIL CONSERVATION
ARTESIA DISTRICT

14. I hereby certify that the foregoing is true and correct.		Electronic Submission #253918 verified by the BLM Well Information System For BOPCO LP, sent to the Carlsbad Committed to AFMSS for processing by JENNIFER MASON on 08/11/2014 (14JAM0380SE)		SEP 08 2014
Name (Printed/Typed)	WOOD DON	Title	DRILLING ENGINEER	RECEIVED
Signature	(Electronic Submission)	Date	07/21/2014	

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>WESLEY INGRAM</u>	Title <u>PETROLEUM ENGINEER</u>	Date <u>08/29/2014</u>
Conditions of approval, if any, are attached. Approval of this notice 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.		Office, Carlsbad

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.

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

Additional data for EC transaction #253918 that would not fit on the form

32. Additional remarks, continued

10.0 deg/100? and EOC will be landed at 11,808? MD (11,488? TVD) at an inclination of 88.6 degrees with an 88.9 degree Az.

A full string of 7?, 26.0 ppf., HCP-110 BTC will be set a 11,808? MD. A 6-1/8? lateral will be drilled from 11,808? MD to 17,339? MD (11,623? TVD) at an inclination of 88.6 degrees and 88.9 degree Az. A 4-1/2?, 13.5 ppf., HCP-110 Hydril 563 production liner will be run from 11,708? to 17,339? MD (11,623? TVD) and cemented.

Revised plats and directional plan are attached reflecting the new BHL and Wolfcamp B penetration point.

**Poker Lake Unit 348H
30-015-38669
BOPCO, L.P.
August 29, 2014
Conditions of Approval**

Note: Operator originally estimated that they would have a rig on location by August 2013 with plans to have well on production by December 2013.

1. The minimum required fill of cement behind the 7 inch production casing is:

DV tool option: Operator is to submit sundry if DV tool depth varies by more than 100' from approved depth.

a. First stage to DV tool:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation the next stage.

b. Second stage above DV tool:

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

2. The minimum required fill of cement behind the 4-1/2 inch production liner (according to cement plan top of liner is 11758', sundry modified to match) is:

☒ Cement to circulate to top of liner. Operator shall provide method of verification.

WWI 082914

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (505) 393-8101 Fax: (505) 393-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (505) 746-1885 Fax: (505) 746-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-6178 Fax: (505) 334-8170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 478-3488 Fax: (505) 478-3488

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 96209	Pool Name CORRAL CANYON (WOLFCAMP)
Property Code 306402	Property Name POKER LAKE UNIT	Well Number 348H
OGRID No. 260737	Operator Name BOPCO, L.P.	Elevation 3321'

Surface Location

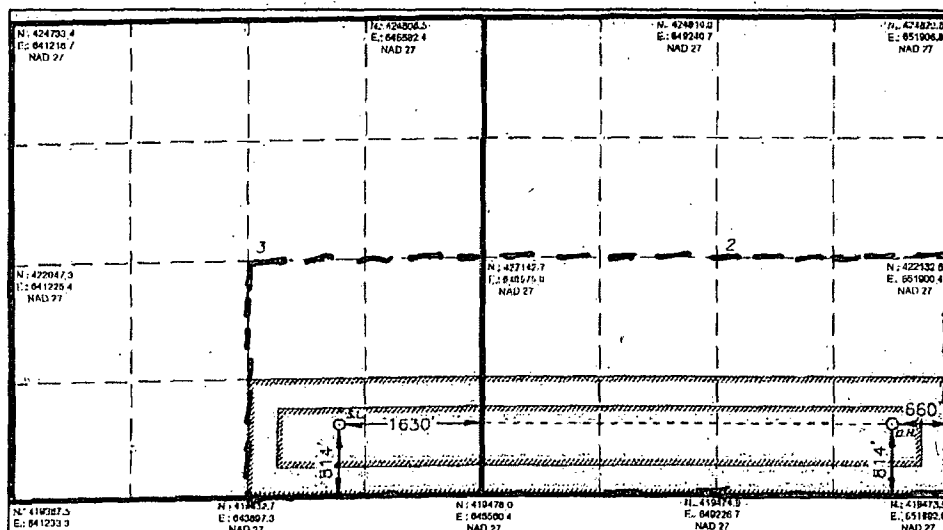
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	3	25 S	30 E		814	SOUTH	1630	EAST	EDDY

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	2	25 S	30 E		814	SOUTH	660	EAST	EDDY

Dedicated Acres 480	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



SURFACE LOCATION

DELAWARE PI
Lat - N 32°09'16.40"
Long - W 103°51'54.03"
NMSPCE- N 420264.309
E 644935.227
(NAD-27)

PROPOSED BOTTOM
HOLE LOCATION

Lat - N 32°09'16.81"
Long - W 103°50'42.48"
NMSPCE- N 420346.2
E 692419.8
(NAD-27)

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 undivided 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.

Whitney McKee 7/18/14
Signature Date

Whitney McKee
Printed Name
wbmckee@basspet.com
Email Address

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.

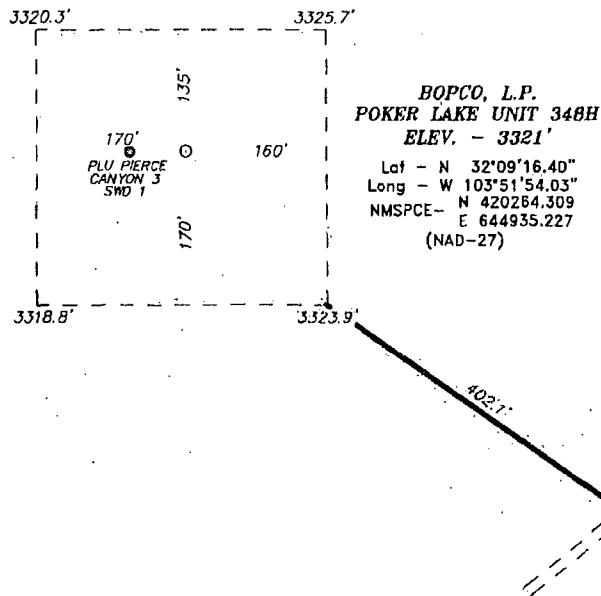
Alfred L. Jones
Date Surveyed
Signature & Seal of Professional Surveyor

Certificate No. 7977
BASIN SURVEYS

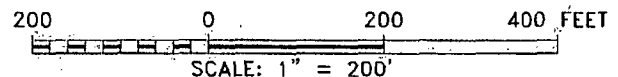
0' 500' 1000' 1500' 2000'
SCALE: 1" = 1000'
WD Num.: 25011

*changes requested
by A. Morrison
8/29/14
J.A.A.*

SECTION 3, TOWNSHIP 25 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



MALAGA, NM IS ± 13 MILES TO THE NORTHWEST OF LOCATION.



BOPCO, L.P.

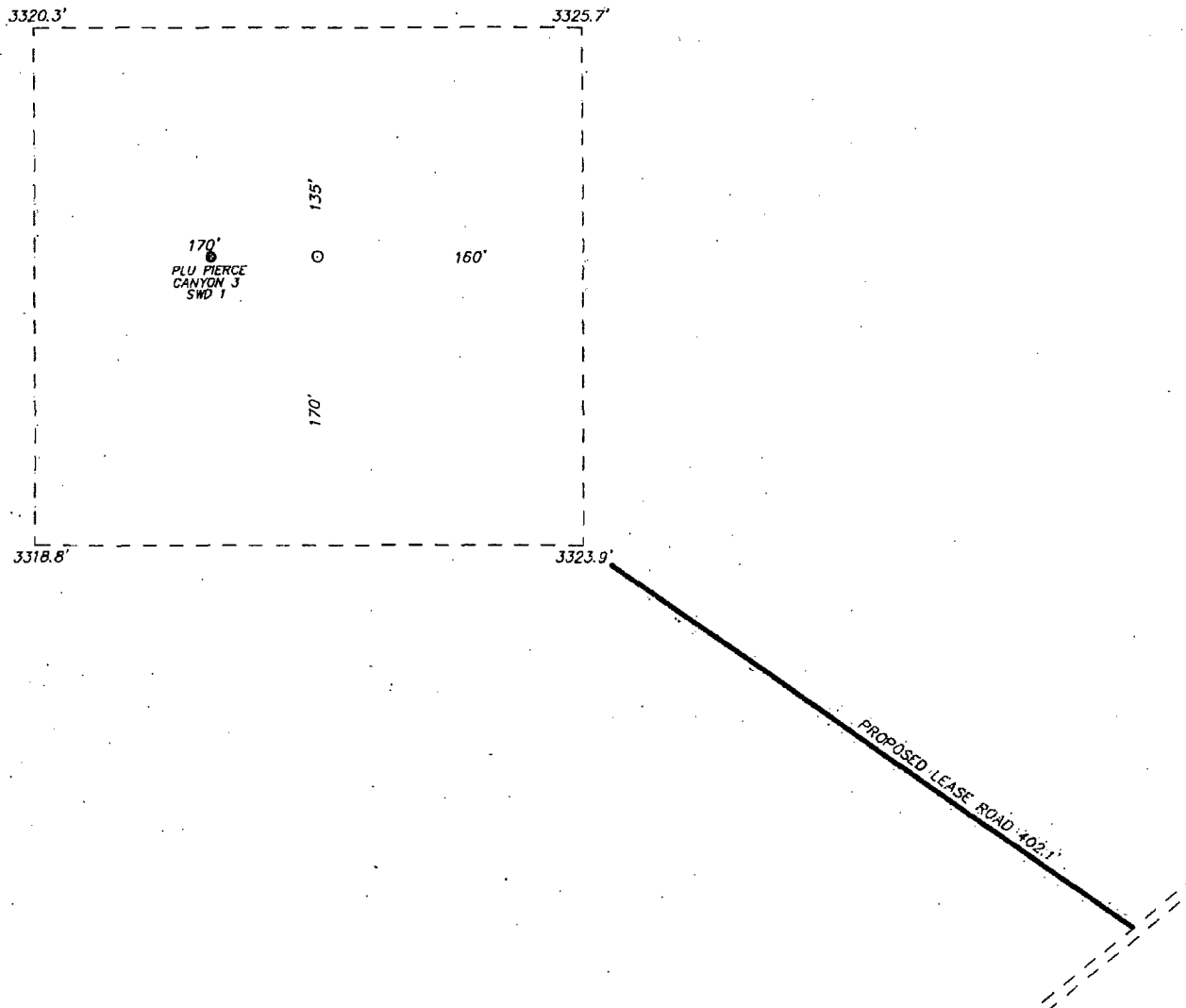
REF: POKER LAKE UNIT 348H / WELL PAD TOPO

THE POKER LAKE UNIT 348H LOCATED 814'
FROM THE SOUTH LINE AND 1630' FROM THE EAST LINE OF
SECTION 3, TOWNSHIP 25 SOUTH, RANGE 30 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

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

SECTION 3, TOWNSHIP 25 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



BOPCO, L.P. 

REF: POKER LAKE UNIT 348H / WELL PAD TOPO

THE POKER LAKE UNIT 348H LOCATED 814'

FROM THE SOUTH LINE AND 1630' FROM THE EAST LINE OF

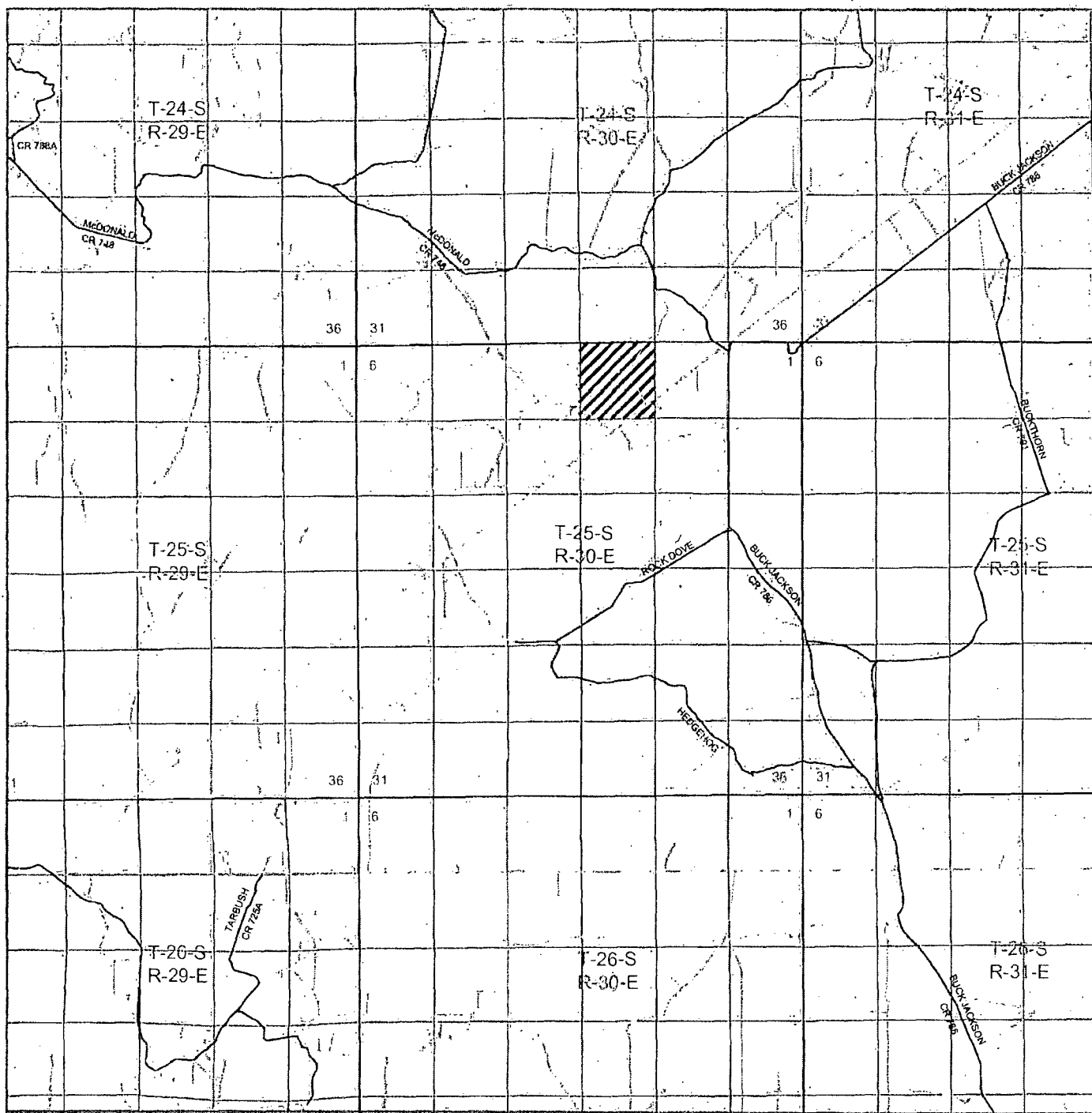
SECTION 3, TOWNSHIP 25 SOUTH, RANGE 30 EAST,

N.M.P.M., EDDY COUNTY, NEW MEXICO.

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W.O. Number: 26071 | Drawn By: J. SMALL | Date: 08-22-2011 | Survey Date: 08-18-2011 | Sheet: 1 of 1 Sheets



POKER LAKE UNIT 348H

Located 814' FSL and 1630' FEL
 Section 3, Township 25 South, Range 30 East,
 N.M.P.M., Eddy County, New Mexico.

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0 1 MI 2 MI 3 MI 4 MI

SCALE: 1" = 2 MILES

W.O. Number: JMS 25011

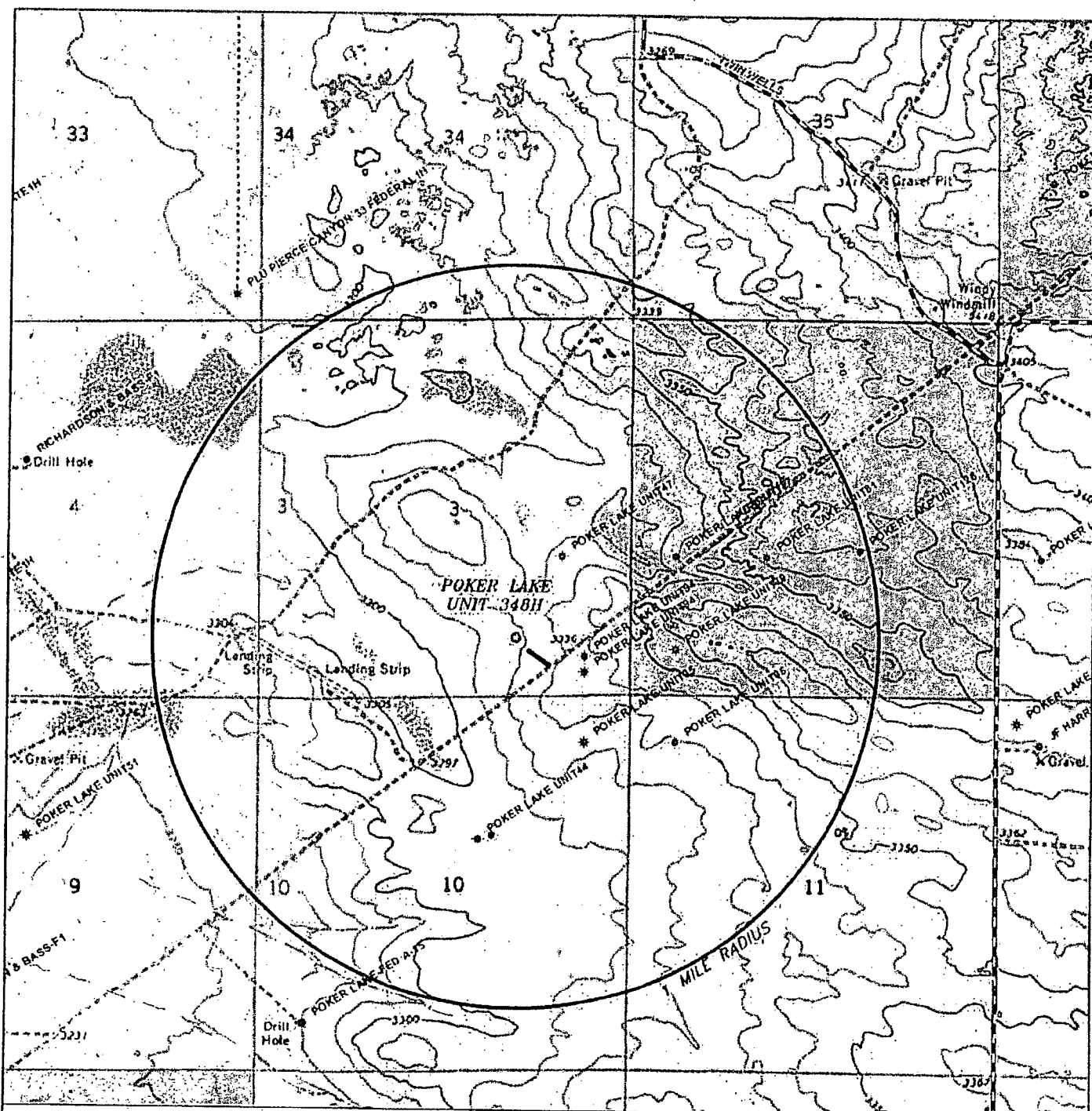
Survey Date: 08-18-2011

YELLOW TINT - USA LAND

BLUE TINT - STATE LAND

NATURAL COLOR - FEE LAND

BOPCO, L.P.



POKER LAKE UNIT 348H

Located 814' FSL and 1630' FEL
 Section 3, Township 25 South, Range 30 East,
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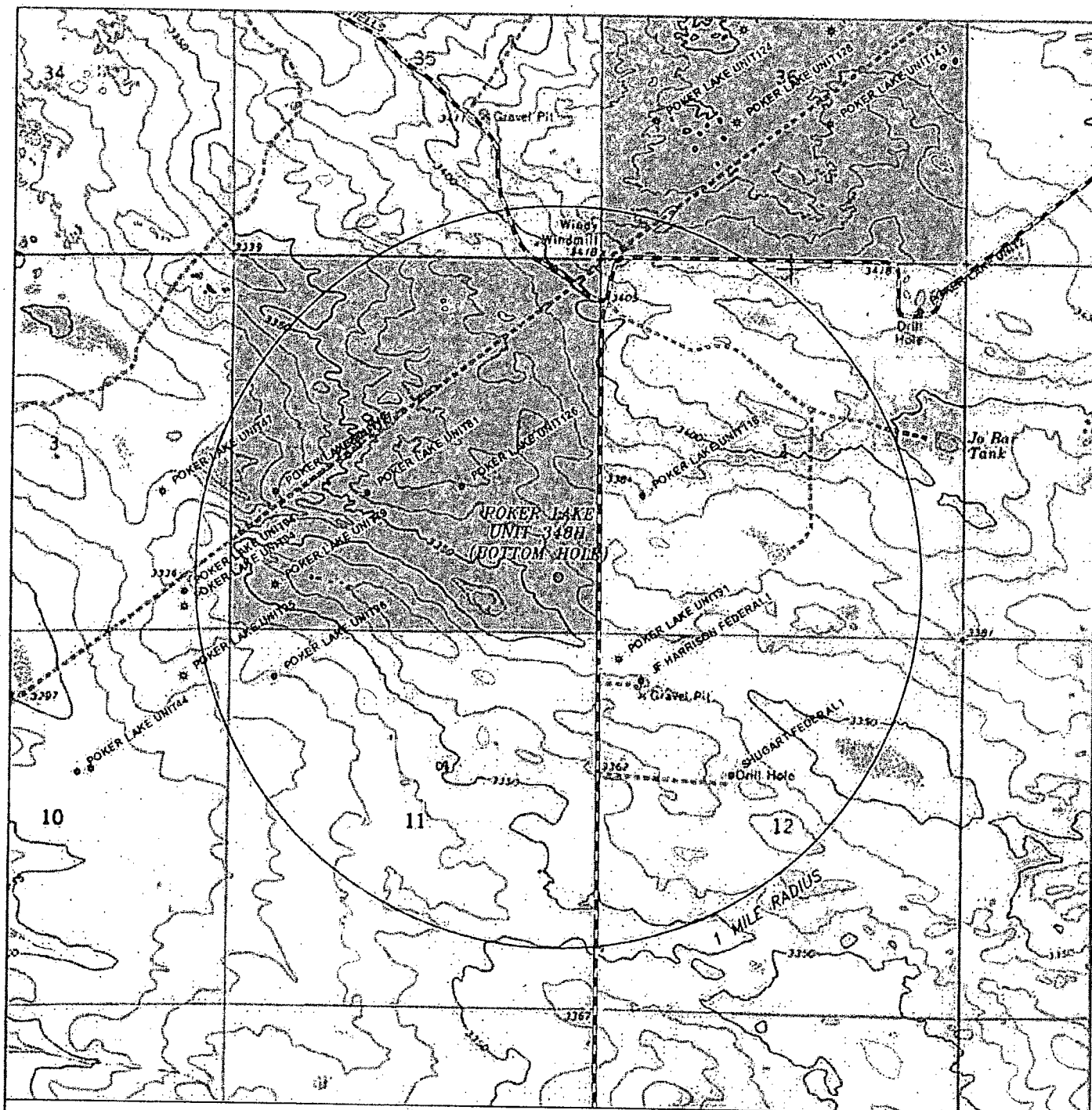
0' 1000' 2000' 3000' 4000'
 SCALE: 1" = 2000'

W.O. Number: JMS 25011

Survey Date: 08-18-2011

YELLOW TINT - USA LAND
 BLUE TINT - STATE LAND
 NATURAL COLOR - FEE LAND

BOPCO, L.P.



POKER LAKE UNIT 348H (BOTTOM HOLE)

Located 814' FSL and 660' FEL
 Section 2, Township 25 South; Range 30 East,
 N.M.P.M., Eddy County, New Mexico.

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0' 1000' 2000' 3000' 4000'
 SCALE: 1" = 2000'

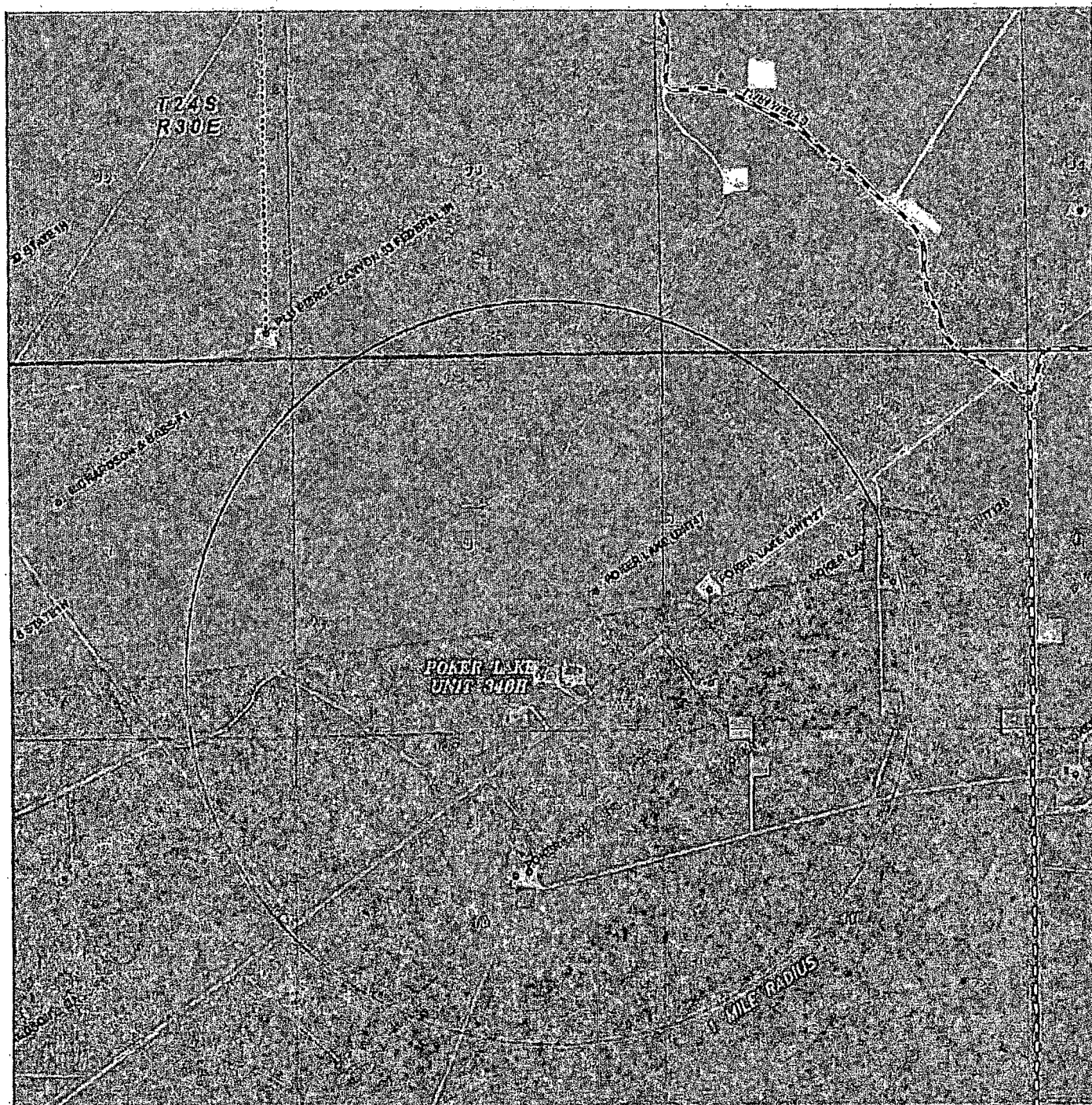
W.O. Number: JMS 25011

Survey Date: 08-18-2011

YELLOW TINT - USA LAND
 BLUE TINT - STATE LAND
 NATURAL COLOR - FEE LAND



BOPCO, L.P.



POKER LAKE UNIT 348H

Located 814' FSL and 1630' FEL

Section 3, Township 25 South, Range 30 East,
N.M.P.M., Eddy County, New Mexico.

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0' 1000' 2000' 3000' 4000'

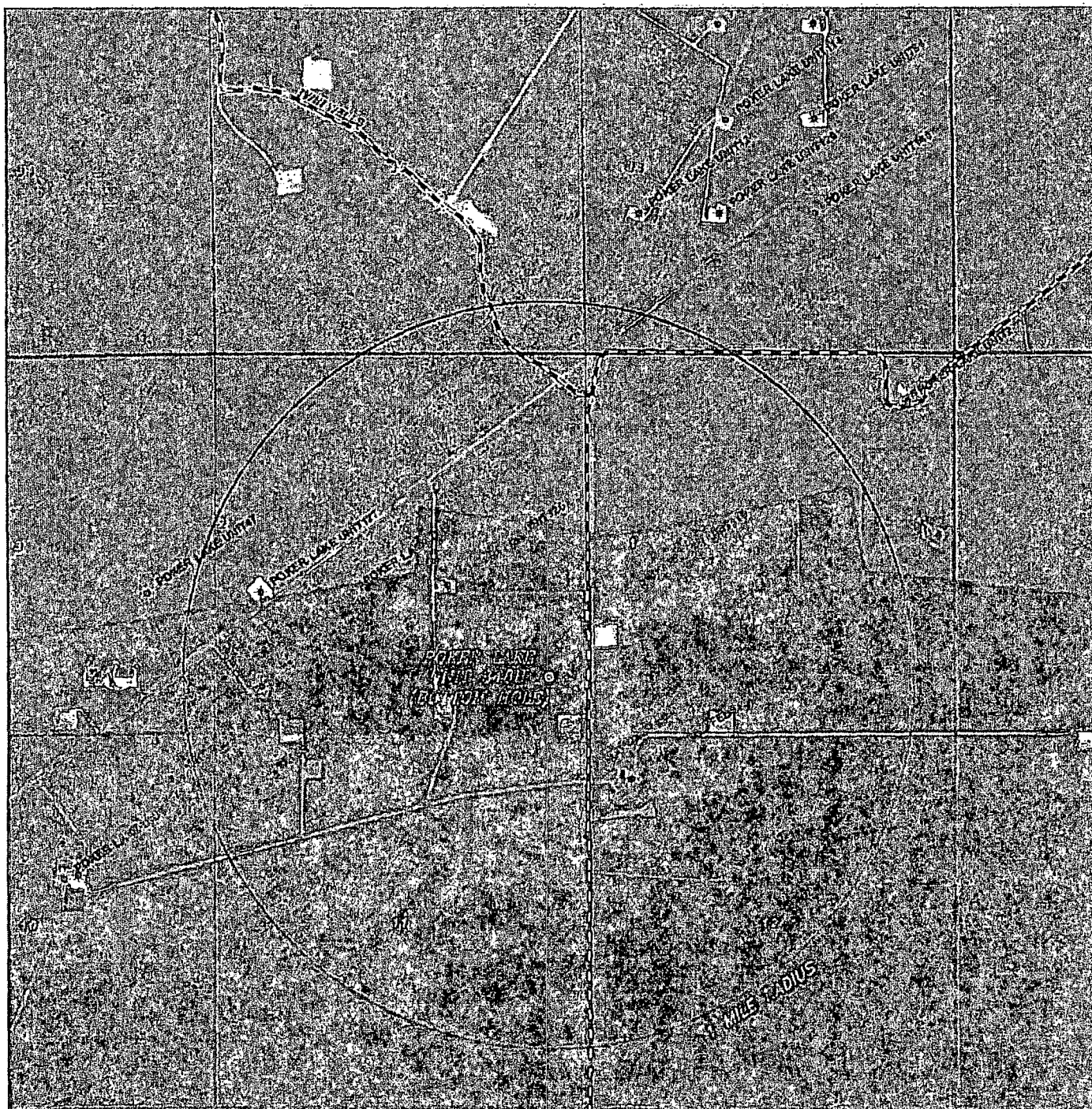
SCALE: 1" = 2000'

W.O. Number: JMS 25011

Survey Date: 08-18-2011

YELLOW TINT - USA LAND
BLUE TINT - STATE LAND
NATURAL COLOR - FEE LAND

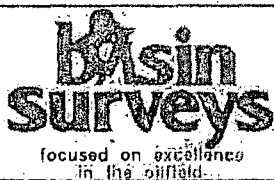
BOPCO, L.P.



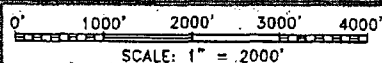
POKER LAKE UNIT 348H (BOTTOM HOLE)

Located 814' FSL and 660' FEL

Section 2, Township 25 South, Range 30 East,
N.M.P.M., Eddy County, New Mexico.



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W.O. Number: JMS 25011

Survey Date: 08-18-2011

YELLOW TINT - USA LAND
BLUE TINT - STATE LAND
NATURAL COLOR - FEE LAND

BOPCO, L.P. 

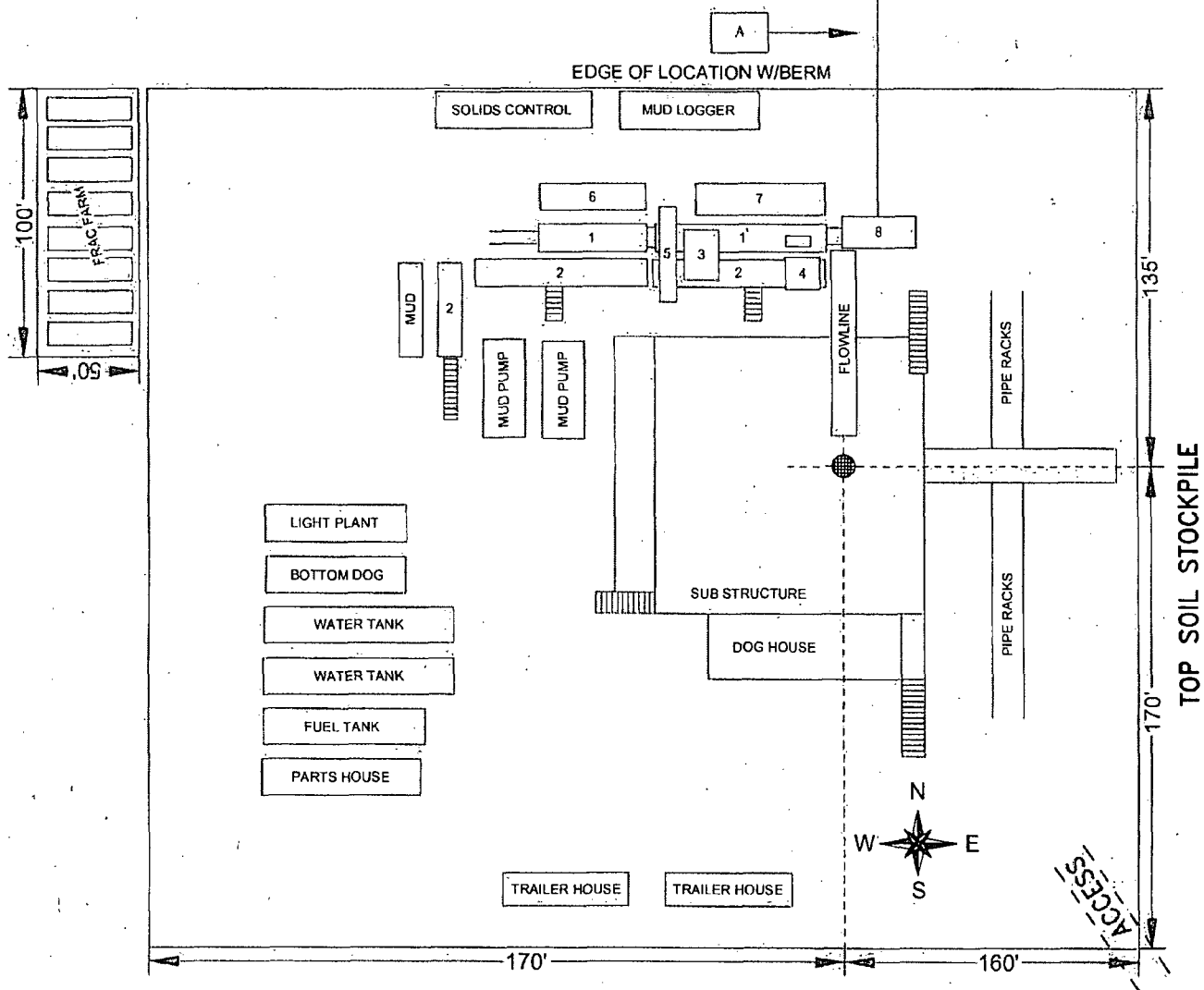
EXHIBIT "D"

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 | |

FLARE PIT 150' AWAY
FROM LOCATION IN H2S
AREA, 100' AWAY FROM
LOCATION OUTSIDE H2S



POKER LAKE UNIT 348H

Located 814' FSL and 1630' FEL

Section 3, Township 25 South, Range 30 East,
N.M.P.M., Eddy County, New Mexico.

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SCALE: NONE

W.O. Number: JMS 25011

Survey Date: 08-18-2011

BOPCO, L.P.

PLU #348H RE-ENTRY CEMENT

INTERVAL	AMOUNT SXS	FT of FILL	TYPE	GAL/SX	PPG	FT3/SX
7" PRODUCTION						
Stage 1						
Lead: 5,000-9,500'	375	4,500	Tuned Light IV + 0.50 lbm CFR-3 + 0.125 pps Poly-E-Flake	14.84	11.0	2.71
Tail: 9,500-11,808'	320	2,308	VersaCem "H" + 0.5% Halad-344 + 0.40% CFR-3 + 1 lbm Salt	8.84	13.00	1.67
DV TOOL AT 5,000'						
Stage 2						
Lead: 0-5,000'	480	5,000	Tuned Light III + 0.125 pps Poly-E-Flake	12.63	11.0	2.35
4-1/2" LINER						
Tail: 11,758- 17,339'	310	5,581	SoluCem "H" + 0.65% HR-601	11.21	15.0	2.62



Schematic - Vertical Production

BOPCO, L.P. - West Texas

Well Name: POKER LAKE UNIT #348H (Formerly PC-3 FED'S)

Well ID: 30-015-38669

Field: Poker Lake SW (Delaware)

Sect: 3 Town: 25S Rng: 30E Eddy Co. State: New Mexico

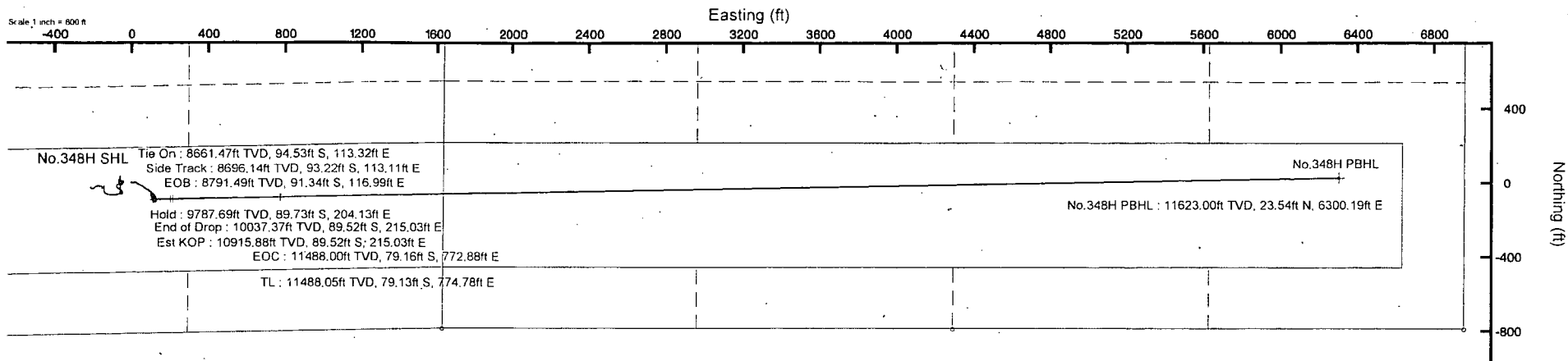
Blk Survey

Most Recent Job

Job Category	Primary Job Type	Secondary Job Type	Job Start Date	Job End Date
Drilling	Drill and Complete		12/12/2012	

Vertical - Original Hole, 8/29/2014 1:13:37 PM
Vertical schematic (actual)

MD (ft)	Ind (")	Description	Top (MD)
24.9	1.0		
31.5	1.0		
36.7	1.0		
37.1	1.0		
39.0	1.0		
145.0	1.0	20 in; 94.00 lb/ft; J-55; 145.00 ftKB	
1,029.9	1.1		
1,265.7	2.5		
1,308.4	2.3		
1,309.4	2.3		
1,352.0	2.1		
1,354.0	2.1	16 in; 84.00 lb/ft; J-55; 1,354.00 ftKB Surface Casing Cement; 31.40	
3,876.3	2.5		
3,878.6	2.4		
3,950.8	2.2		
3,953.1	2.2	Intermediate Casing Cement; 25.00 13 3/8 in; 68.00 lb/ft; HCN-80; 3,953.00 ftKB	
3,958.0	2.2		
5,505.9	1.5		
5,508.2	1.5	Intermediate 2 Casing Cement; 1,030.00	
5,508.9	1.5		
8,899.9	1.3		
9,153.9	0.9		
9,600.1	1.3		
9,653.9	1.3		
9,655.8	1.3		
9,660.1	1.3	Intermediate 2 Casing Cement; 5,506.00	
9,730.0	1.3		
10,399.0	1.5		
10,450.1	1.5	Parted Casing Squeeze; 9,730.00	
10,497.0	1.4	Casing Squeeze; 9,656.00	
10,567.9	1.4		
10,569.9	1.4	Bridge Plug - Permanent; 10,568.00-10,570.00	
10,692.9	1.3		
10,789.0	1.2		
11,598.5	1.0		
11,597.8	1.0		
11,641.7	1.0		
11,658.1	1.0		
11,660.1	1.0	Cement Retainer; 11,658.00-11,660.00	
11,687.7	1.0		
11,690.0	1.0	Casing Shoe Squeeze; 10,399.00 9 5/8 in; 53.50 lb/ft; HCP-110, HCL-80; 11,690.00 ftKB	
14,000.0	1.0		
16,500.0	1.0		
		18 1/8; Surface; 25.00-1,354.00	
		14 3/4; Intermediate 1; 1,354.00-3,958.00	
		12 1/4; Intermediate 2; 3,958.00-11,690.00	
		TD - Original Hole; 11,690.00	

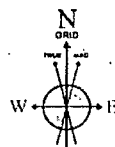
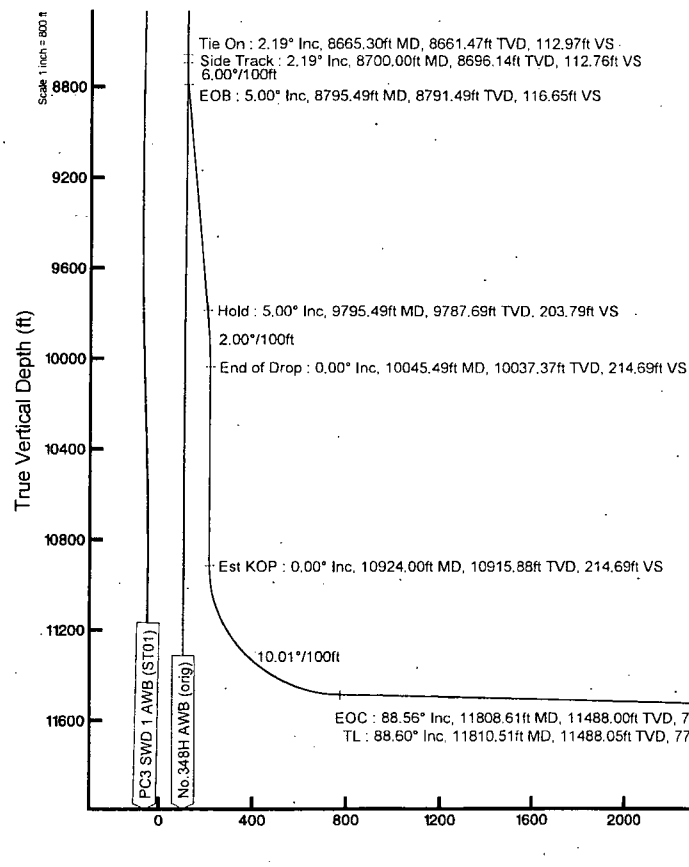


WTD - West Texas Division

Location: Eddy County, NM
Field: Poker Lake Unit
Facility: PLU Pad (348H, PC3 SWD)

Slot: No.348H SHL
Well: No.348H
Wellbore: No.348H PWB

BOPCO, L.P.



IGRF-11 (1900.0 thru 2014.0) Dip: 60.00° Field: 48235.1 nT
Magnetic North is 7.34 degrees East of True North (at 7/18/2014)
Grid North is 0.25 degrees East of True North
To correct azimuth from True to Grid subtract 0.25 degrees
To correct azimuth from Magnetic to Grid add 7.09 degrees

Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	8665.30	2.190	350.960	8661.47	-94.53	113.32	0.00	112.97
Side Track	8700.00	2.190	350.960	8696.14	-93.22	113.11	0.00	112.76
EOB	8795.49	5.000	88.936	8791.49	-91.34	116.99	6.00	116.65
Hold	9795.49	5.000	88.936	9787.69	-89.73	204.13	0.00	203.79
End of Drop	10045.49	0.000	88.936	10037.37	-89.52	215.03	2.00	214.69
Est KOP	10924.00	0.000	88.936	10915.88	-89.52	215.03	0.00	214.69
EOC	11808.61	88.563	88.936	11488.00	-79.16	772.88	10.01	772.57
TL	11810.51	88.601	88.936	11488.05	-79.13	774.78	2.00	774.48
No.348H PBHL	17338.53	88.601	88.936	11623.00	23.54	6300.19	0.00	6300.24

Plot reference wellpath is B-1	
True vertical depths are referenced to Rig on No.348H SHL (KB)	Grid System: NAD27 / TM New Mexico SP, Eastern Zone (3001) US feet
Measured depths are referenced to Rig on No.348H SHL (KB)	North Reference: Grid north
Rig on No.348H SHL (KB) to Mean Sea Level: 3348 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: No.348H SHL): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: BVGentry on 7/18/2014

No.348H PBHL: 88.60° Inc, 17338.53ft MD, 11623.00ft TVD, 6300.24ft VS

Scale 1 inch = 800 ft



Planned Wellpath Report

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BOPCO, L.P.

REFERENCE WELLPATH IDENTIFICATION			
Operator	WTD - West Texas Division	Slot	No.348H SHL
Area	Eddy County, NM	Well	No.348H
Field	Poker Lake Unit	Wellbore	No.348H PWB
Facility	PLU Pad (348H, PC3 SWD)	Sidetrack from	No.348H AWB (orig) at 8665.30 MD

REPORT SETUP INFORMATION			
Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 4.0.1
North Reference	Grid	User	BWGentry
Scale	0.999933	Report Generated	7/18/2014 at 1:48:54 PM
Convergence at slot	0.25° East	Database/Source file	WellArchitectDB/No.348H_PWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	644935.23	420264.31	32°09'16.404"N	103°51'54.026"W
Facility Reference Pt			644935.23	420264.31	32°09'16.404"N	103°51'54.026"W
Field Reference Pt			675156.40	424489.10	32°09'56.776"N	103°46'02.231"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on No.348H SHL (KB) to Facility Vertical Datum	3348.00ft
Horizontal Reference Pt	Slot	Rig on No.348H SHL (KB) to Mean Sea Level	3348.00ft
Vertical Reference Pt	Rig on No.348H SHL (KB)	Rig on No.348H SHL (KB) to Mud Line at Slot (No.348H SHL)	3348.00ft
MD Reference Pt	Rig on No.348H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	89.79°



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BOPCO, L.P.

REFERENCE WELLPATH IDENTIFICATION

Operator	WTD - West Texas Division	Slot	No.348H SHL
Area	Eddy County, NM	Well	No.348H
Field	Poker Lake Unit	Wellbore	No.348H PWB
Facility	PLU Pad (348H, PC3 SWD)	Sidetrack from	No.348H AWB (orig) at 8665.30 MD

WELLPATH DATA (198 stations) = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	27.430	0.00	0.00	0.00	0.00	644935.23	420264.31	32°09'16.404"N	103°51'54.026"W	0.00	
78.50	0.440	27.430	78.50	0.14	0.27	0.14	644935.37	420264.58	32°09'16.407"N	103°51'54.025"W	0.56	
172.90	0.420	58.910	172.90	0.60	0.77	0.60	644935.83	420265.08	32°09'16.412"N	103°51'54.019"W	0.25	
267.20	0.610	110.000	267.19	1.37	0.77	1.37	644936.60	420265.08	32°09'16.412"N	103°51'54.010"W	0.50	
361.60	0.750	116.700	361.59	2.40	0.33	2.39	644937.62	420264.63	32°09'16.408"N	103°51'53.999"W	0.17	
456.00	0.860	114.400	455.98	3.59	-0.25	3.59	644938.82	420264.06	32°09'16.402"N	103°51'53.985"W	0.12	
550.30	0.730	90.490	550.27	4.83	-0.54	4.84	644940.06	420263.77	32°09'16.399"N	103°51'53.970"W	0.37	
644.70	0.770	81.220	644.66	6.06	-0.45	6.06	644941.29	420263.86	32°09'16.400"N	103°51'53.956"W	0.14	
739.00	0.780	83.520	738.95	7.33	-0.28	7.33	644942.55	420264.03	32°09'16.401"N	103°51'53.941"W	0.03	
833.40	0.740	85.920	833.34	8.57	-0.17	8.57	644943.80	420264.14	32°09'16.402"N	103°51'53.927"W	0.05	
927.80	0.910	89.690	927.73	9.93	-0.12	9.93	644945.16	420264.19	32°09'16.403"N	103°51'53.911"W	0.19	
1022.10	1.000	89.120	1022.02	11.50	-0.10	11.50	644946.73	420264.21	32°09'16.403"N	103°51'53.893"W	0.10	
1086.09	1.325	87.750	1086.00	12.80	-0.06	12.80	644948.03	420264.24	32°09'16.403"N	103°51'53.877"W	0.51	Top Rustler Anhydrite
1116.50	1.480	87.310	1116.40	13.55	-0.03	13.55	644948.77	420264.28	32°09'16.404"N	103°51'53.869"W	0.51	
1210.80	2.190	86.390	1210.65	16.56	0.17	16.56	644951.79	420264.45	32°09'16.405"N	103°51'53.834"W	0.75	
1305.20	2.310	89.310	1304.98	20.26	0.28	20.26	644955.49	420264.58	32°09'16.406"N	103°51'53.791"W	0.18	
1399.60	1.880	107.230	1399.31	23.64	-0.16	23.64	644958.87	420264.15	32°09'16.402"N	103°51'53.751"W	0.82	
1493.90	1.950	111.530	1493.56	26.61	-1.21	26.61	644961.84	420263.10	32°09'16.391"N	103°51'53.717"W	0.17	
1588.30	2.300	117.340	1587.90	29.78	-2.67	29.79	644965.02	420261.64	32°09'16.377"N	103°51'53.680"W	0.43	
1652.45	1.891	123.973	1652.00	31.80	-3.85	31.81	644967.04	420260.46	32°09'16.365"N	103°51'53.657"W	0.74	Top Salt
1682.60	1.710	128.160	1682.14	32.56	-4.41	32.58	644967.80	420259.90	32°09'16.359"N	103°51'53.648"W	0.74	
1777.00	1.330	139.990	1776.51	34.37	-6.11	34.39	644969.61	420258.19	32°09'16.342"N	103°51'53.627"W	0.52	
1871.40	1.120	141.560	1870.88	35.64	-7.68	35.67	644970.89	420256.63	32°09'16.327"N	103°51'53.612"W	0.23	
1965.70	0.780	141.050	1965.17	36.61	-8.90	36.64	644971.87	420255.41	32°09'16.315"N	103°51'53.601"W	0.36	
2060.10	0.500	142.640	2059.56	37.26	-9.72	37.30	644972.52	420254.59	32°09'16.307"N	103°51'53.593"W	0.30	
2154.40	0.300	139.350	2153.86	37.67	-10.24	37.71	644972.93	420254.07	32°09'16.301"N	103°51'53.588"W	0.21	
2248.80	0.010	339.360	2248.26	37.83	-10.42	37.87	644973.09	420253.89	32°09'16.300"N	103°51'53.586"W	0.33	
2343.20	0.290	308.730	2342.66	37.64	-10.26	37.68	644972.90	420254.05	32°09'16.301"N	103°51'53.589"W	0.30	
2437.50	0.330	308.340	2436.96	37.24	-9.94	37.28	644972.50	420254.37	32°09'16.304"N	103°51'53.593"W	0.04	
2531.90	0.380	308.050	2531.36	36.78	-9.58	36.82	644972.04	420254.73	32°09'16.308"N	103°51'53.599"W	0.05	
2626.20	0.570	304.340	2625.66	36.15	-9.12	36.18	644971.41	420255.18	32°09'16.313"N	103°51'53.606"W	0.20	
2720.60	0.650	299.600	2720.05	35.30	-8.60	35.33	644970.56	420255.71	32°09'16.318"N	103°51'53.616"W	0.10	
2815.00	0.680	306.730	2814.44	34.39	-8.00	34.42	644969.64	420256.31	32°09'16.324"N	103°51'53.626"W	0.09	
2909.30	0.500	309.900	2908.74	33.62	-7.40	33.65	644968.88	420256.91	32°09'16.330"N	103°51'53.635"W	0.19	
3003.70	0.800	278.090	3003.13	32.66	-7.04	32.68	644967.91	420257.27	32°09'16.333"N	103°51'53.647"W	0.49	
3098.00	0.990	285.610	3097.42	31.22	-6.73	31.25	644966.47	420257.58	32°09'16.336"N	103°51'53.663"W	0.24	
3192.40	0.440	95.070	3191.82	30.80	-6.54	30.82	644966.05	420257.77	32°09'16.338"N	103°51'53.668"W	1.51	
3286.80	2.790	107.040	3286.17	33.35	-7.25	33.38	644968.61	420257.06	32°09'16.331"N	103°51'53.638"W	2.50	
3381.10	3.400	109.560	3380.34	38.18	-8.86	38.21	644973.44	420255.45	32°09'16.315"N	103°51'53.582"W	0.66	
3475.50	4.370	115.580	3474.52	44.05	-11.35	44.09	644979.32	420252.96	32°09'16.290"N	103°51'53.514"W	1.11	
3569.80	4.880	118.600	3568.51	50.80	-14.82	50.85	644986.08	420249.49	32°09'16.256"N	103°51'53.436"W	0.60	
3664.20	5.030	125.140	3662.56	57.69	-19.12	57.76	644992.99	420245.19	32°09'16.213"N	103°51'53.355"W	0.62	
3741.93	4.873	126.980	3740.00	63.10	-23.07	63.19	644998.41	420241.24	32°09'16.173"N	103°51'53.293"W	0.29	Base Salt
3758.60	4.840	127.390	3756.61	64.22	-23.92	64.31	644999.54	420240.39	32°09'16.165"N	103°51'53.280"W	0.29	
3852.90	2.580	130.500	3850.71	68.98	-27.72	69.09	645004.31	420236.60	32°09'16.127"N	103°51'53.224"W	2.41	



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BOPCO, L.P.

REFERENCE WELLPATH IDENTIFICATION

Operator	WTD - West Texas Division	Slot	No.348H SHL
Area	Eddy County, NM	Well	No.348H
Field	Poker Lake Unit	Wellbore	No.348H PWB
Facility	PLU Pad (348H, PC3 SWD)	Sidetrack from	No.348H AWB (orig) at 8665.30 MD

WELLPATH DATA (198 stations) = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3947.30	2.140	127.050	3945.02	72.00	-30.16	72.11	645007.33	420234.15	32°09'16.103"N	103°51'53.189"W	0.49	
3950.28	2.136	126.901	3948.00	72.09	-30.22	72.20	645007.42	420234.09	32°09'16.102"N	103°51'53.188"W	0.22	Top Del. Mtn. Grp.
4041.60	2.030	122.090	4039.26	74.81	-32.11	74.93	645010.15	420232.21	32°09'16.083"N	103°51'53.156"W	0.22	
4136.00	2.220	120.810	4133.60	77.79	-33.93	77.92	645013.14	420230.38	32°09'16.065"N	103°51'53.122"W	0.21	
4230.40	1.470	124.060	4227.95	80.36	-35.54	80.49	645015.71	420228.77	32°09'16.049"N	103°51'53.092"W	0.80	
4324.70	1.210	119.090	4322.22	82.23	-36.71	82.36	645017.58	420227.61	32°09'16.038"N	103°51'53.070"W	0.30	
4419.10	1.280	117.390	4416.60	84.03	-37.68	84.17	645019.39	420226.64	32°09'16.028"N	103°51'53.049"W	0.08	
4513.40	1.470	120.610	4510.87	86.00	-38.78	86.15	645021.37	420225.54	32°09'16.017"N	103°51'53.026"W	0.22	
4607.80	1.540	129.330	4605.24	88.02	-40.20	88.17	645023.39	420224.11	32°09'16.003"N	103°51'53.003"W	0.25	
4702.20	1.290	127.060	4699.61	89.84	-41.64	90.00	645025.22	420222.67	32°09'15.988"N	103°51'52.982"W	0.27	
4796.50	1.410	121.800	4793.89	91.67	-42.89	91.83	645027.05	420221.42	32°09'15.976"N	103°51'52.960"W	0.18	
4890.90	1.570	124.580	4888.25	93.72	-44.24	93.88	645029.10	420220.07	32°09'15.963"N	103°51'52.937"W	0.19	
4985.20	1.480	132.300	4982.52	95.68	-45.79	95.85	645031.07	420218.52	32°09'15.947"N	103°51'52.914"W	0.24	
5079.60	1.360	130.220	5076.89	97.43	-47.33	97.61	645032.83	420216.98	32°09'15.932"N	103°51'52.893"W	0.14	
5174.00	1.350	127.470	5171.26	99.16	-48.73	99.34	645034.56	420215.58	32°09'15.918"N	103°51'52.873"W	0.07	
5268.30	1.440	125.310	5265.54	101.00	-50.10	101.19	645036.41	420214.22	32°09'15.904"N	103°51'52.852"W	0.11	
5362.70	1.590	130.410	5359.90	102.96	-51.63	103.16	645038.38	420212.68	32°09'15.889"N	103°51'52.829"W	0.21	
5457.00	1.540	136.040	5454.17	104.83	-53.39	105.03	645040.25	420210.92	32°09'15.872"N	103°51'52.807"W	0.17	
5551.40	1.360	137.090	5548.54	106.47	-55.12	106.68	645041.90	420209.19	32°09'15.854"N	103°51'52.788"W	0.19	
5645.80	1.330	133.820	5642.91	108.02	-56.70	108.23	645043.74	420207.61	32°09'15.839"N	103°51'52.770"W	0.09	
5740.10	1.510	131.550	5737.18	109.73	-58.28	109.95	645045.17	420206.03	32°09'15.823"N	103°51'52.750"W	0.20	
5834.50	1.690	136.040	5831.55	111.62	-60.11	111.85	645047.06	420204.20	32°09'15.805"N	103°51'52.728"W	0.23	
5928.80	1.700	142.480	5925.81	113.43	-62.22	113.66	645048.88	420202.09	32°09'15.784"N	103°51'52.707"W	0.20	
6023.20	1.580	147.230	6020.17	114.98	-64.43	115.22	645050.44	420199.89	32°09'15.762"N	103°51'52.689"W	0.19	
6117.60	1.580	147.320	6114.53	116.98	-66.62	116.63	645051.85	420197.70	32°09'15.740"N	103°51'52.673"W	0.00	
6211.90	1.640	145.620	6208.79	117.83	-68.82	118.09	645053.31	420195.49	32°09'15.718"N	103°51'52.656"W	0.08	
6306.30	1.610	146.130	6303.16	119.33	-71.04	119.59	645054.81	420193.27	32°09'15.696"N	103°51'52.639"W	0.04	
6400.60	1.480	143.420	6397.42	120.78	-73.12	121.06	645056.28	420191.20	32°09'15.676"N	103°51'52.622"W	0.16	
6495.00	1.360	146.050	6491.79	122.13	-75.03	122.41	645057.63	420189.29	32°09'15.657"N	103°51'52.606"W	0.14	
6589.40	1.250	152.200	6586.17	123.23	-76.87	123.51	645058.73	420187.45	32°09'15.638"N	103°51'52.594"W	0.19	
6683.70	1.150	155.310	6680.45	124.10	-78.64	124.39	645059.61	420185.68	32°09'15.621"N	103°51'52.584"W	0.13	
6778.10	1.070	158.450	6774.83	124.81	-80.32	125.11	645060.33	420184.00	32°09'15.604"N	103°51'52.575"W	0.11	
6872.40	1.040	161.240	6869.11	125.40	-81.95	125.71	645060.93	420182.37	32°09'15.588"N	103°51'52.568"W	0.06	
6966.80	1.100	169.310	6963.50	125.84	-83.65	126.15	645061.37	420180.67	32°09'15.571"N	103°51'52.563"W	0.17	
7061.20	1.090	164.350	7057.88	126.24	-85.40	126.56	645061.78	420178.91	32°09'15.554"N	103°51'52.559"W	0.10	
7155.50	1.210	163.110	7152.16	126.77	-87.22	127.09	645062.31	420177.10	32°09'15.536"N	103°51'52.553"W	0.13	
7249.90	1.430	166.560	7246.54	127.32	-89.32	127.66	645062.87	420175.00	32°09'15.515"N	103°51'52.546"W	0.25	
7344.20	1.390	175.230	7340.81	127.68	-91.60	128.02	645063.24	420172.71	32°09'15.492"N	103°51'52.542"W	0.23	
7438.60	1.520	177.550	7435.18	127.82	-93.99	128.17	645063.39	420170.32	32°09'15.469"N	103°51'52.540"W	0.15	
7533.00	1.500	182.520	7529.54	127.81	-96.48	128.17	645063.39	420167.84	32°09'15.444"N	103°51'52.540"W	0.14	
7627.30	1.540	189.470	7623.81	127.54	-98.96	127.91	645063.13	420165.35	32°09'15.420"N	103°51'52.544"W	0.20	
7721.70	1.390	197.950	7718.18	126.97	-101.30	127.35	645062.57	420163.01	32°09'15.396"N	103°51'52.550"W	0.28	
7752.53	1.340	210.926	7749.00	126.67	-101.97	127.05	645062.27	420162.35	32°09'15.390"N	103°51'52.554"W	1.01	Top Bone Spring Lime
7816.00	1.460	237.400	7812.45	125.60	-103.04	125.99	645061.21	420161.27	32°09'15.379"N	103°51'52.566"W	1.01	
7910.40	1.330	255.670	7906.83	123.53	-103.97	123.92	645059.14	420160.35	32°09'15.370"N	103°51'52.590"W	0.50	



Planned Wellpath Report

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BOPCO, L.P.

REFERENCE WELLPATH IDENTIFICATION

Operator	WTD - West Texas Division	Slot	No.348H SHL
Area	Eddy County, NM	Well	No.348H
Field	Poker Lake Unit	Wellbore	No.348H PWB
Facility	PLU Pad (348H, PC3 SWD)	Sidetrack from	No.348H AWB (orig) at 8665.30 MD

WELLPATH DATA (198 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8004.80	1.340	261.040	8001.20	121.37	-104.41	121.77	645056.98	420159.90	32°09'15.366"N	103°51'52.615"W	0.13	
8099.10	1.150	273.600	8095.48	119.34	-104.53	119.73	645054.95	420159.79	32°09'15.365"N	103°51'52.639"W	0.35	
8193.50	0.860	282.130	8189.86	117.70	-104.32	118.09	645053.31	420160.00	32°09'15.367"N	103°51'52.658"W	0.34	
8287.80	0.780	251.420	8284.15	116.40	-104.37	116.79	645052.01	420159.94	32°09'15.367"N	103°51'52.673"W	0.47	
8382.20	0.830	338.680	8378.55	115.55	-103.94	115.94	645051.16	420160.38	32°09'15.371"N	103°51'52.683"W	1.18	
8476.60	1.950	343.640	8472.92	114.85	-101.76	115.24	645050.45	420162.55	32°09'15.392"N	103°51'52.691"W	1.19	
8570.90	2.480	343.190	8567.15	113.83	-98.27	114.19	645049.41	420166.05	32°09'15.427"N	103°51'52.703"W	0.56	
8628.80†	2.297	347.725	8625.00	113.23	-95.94	113.58	645048.80	420168.38	32°09'15.450"N	103°51'52.710"W	0.45	Top 1st Bone Spring Sand
8665.30†	2.190	350.960	8661.47	112.97	-94.53	113.32	645048.54	420169.78	32°09'15.464"N	103°51'52.713"W	0.00	Tie On
8700.00	2.190	350.960	8696.14	112.76	-93.22	113.11	645048.33	420171.09	32°09'15.477"N	103°51'52.715"W	0.00	Sidetrack
8765.30†	3.394	77.260	8761.39	114.46	-91.57	114.80	645050.02	420172.75	32°09'15.493"N	103°51'52.696"W	6.00	
8795.49	5.000	88.936	8791.49	116.65	-91.34	116.99	645052.21	420172.97	32°09'15.495"N	103°51'52.670"W	6.00	EOB
8865.30†	5.000	88.936	8861.04	122.73	-91.23	123.07	645058.29	420173.08	32°09'15.496"N	103°51'52.599"W	0.00	
8965.30†	5.000	88.936	8960.66	131.44	-91.07	131.79	645067.00	420173.25	32°09'15.498"N	103°51'52.498"W	0.00	
9065.30†	5.000	88.936	9060.28	140.16	-90.91	140.50	645075.72	420173.41	32°09'15.499"N	103°51'52.397"W	0.00	
9099.15†	5.000	88.936	9094.00	143.11	-90.85	143.45	645078.67	420173.46	32°09'15.499"N	103°51'52.362"W	0.00	Top 2nd Bone Spring A' Sand
9165.30†	5.000	88.936	9159.90	148.87	-90.75	149.21	645084.43	420173.57	32°09'15.500"N	103°51'52.295"W	0.00	
9265.30†	5.000	88.936	9259.52	157.59	-90.58	157.93	645093.14	420173.73	32°09'15.501"N	103°51'52.194"W	0.00	
9365.30†	5.000	88.936	9359.14	166.30	-90.42	166.64	645101.86	420173.89	32°09'15.502"N	103°51'52.093"W	0.00	
9465.30†	5.000	88.936	9458.76	175.02	-90.26	175.36	645110.57	420174.06	32°09'15.504"N	103°51'51.991"W	0.00	
9565.30†	5.000	88.936	9558.38	183.73	-90.10	184.07	645119.28	420174.22	32°09'15.505"N	103°51'51.890"W	0.00	
9665.30†	5.000	88.936	9658.00	192.45	-89.94	192.78	645128.00	420174.38	32°09'15.506"N	103°51'51.789"W	0.00	
9765.30†	5.000	88.936	9757.62	201.16	-89.77	201.50	645136.71	420174.54	32°09'15.507"N	103°51'51.687"W	0.00	
9795.49	5.000	88.936	9787.69	203.79	-89.73	204.13	645139.34	420174.59	32°09'15.508"N	103°51'51.657"W	0.00	Hold
9865.30†	3.604	88.936	9857.30	209.03	-89.63	209.36	645144.58	420174.69	32°09'15.508"N	103°51'51.596"W	2.00	
9882.03†	3.269	88.936	9874.00	210.03	-89.61	210.37	645145.58	420174.71	32°09'15.509"N	103°51'51.584"W	2.00	Top of Carbonate 2
9965.30†	1.604	88.936	9957.20	213.57	-89.54	213.91	645149.12	420174.77	32°09'15.509"N	103°51'51.543"W	2.00	
10045.49	0.000	88.936	10037.37	214.69	-89.52	215.03	645150.24	420174.79	32°09'15.509"N	103°51'51.530"W	2.00	End of Drop
10065.30†	0.000	88.936	10057.18	214.69	-89.52	215.03	645150.24	420174.79	32°09'15.509"N	103°51'51.530"W	0.00	
10165.30†	0.000	88.936	10157.18	214.69	-89.52	215.03	645150.24	420174.79	32°09'15.509"N	103°51'51.530"W	0.00	
10265.30†	0.000	88.936	10257.18	214.69	-89.52	215.03	645150.24	420174.79	32°09'15.509"N	103°51'51.530"W	0.00	
10365.30†	0.000	88.936	10357.18	214.69	-89.52	215.03	645150.24	420174.79	32°09'15.509"N	103°51'51.530"W	0.00	
10465.30†	0.000	88.936	10457.18	214.69	-89.52	215.03	645150.24	420174.79	32°09'15.509"N	103°51'51.530"W	0.00	
10565.30†	0.000	88.936	10557.18	214.69	-89.52	215.03	645150.24	420174.79	32°09'15.509"N	103°51'51.530"W	0.00	
10653.12†	0.000	88.936	10645.00	214.69	-89.52	215.03	645150.24	420174.79	32°09'15.509"N	103°51'51.530"W	0.00	Top 3rd Bone Spring
10665.30†	0.000	88.936	10657.18	214.69	-89.52	215.03	645150.24	420174.79	32°09'15.509"N	103°51'51.530"W	0.00	
10765.30†	0.000	88.936	10757.18	214.69	-89.52	215.03	645150.24	420174.79	32°09'15.509"N	103°51'51.530"W	0.00	
10865.30†	0.000	88.936	10857.18	214.69	-89.52	215.03	645150.24	420174.79	32°09'15.509"N	103°51'51.530"W	0.00	
10924.00	0.000	88.936	10915.88	214.69	-89.52	215.03	645150.24	420174.79	32°09'15.509"N	103°51'51.530"W	0.00	Est KOP
10965.30†	4.135	88.936	10957.15	216.18	-89.50	216.52	645151.73	420174.82	32°09'15.509"N	103°51'51.512"W	10.01	
11055.26†	13.142	88.936	11046.00	229.68	-89.24	230.01	645165.22	420175.07	32°09'15.511"N	103°51'51.356"W	10.01	Top Wolfcamp A
11065.30†	14.146	88.936	11055.75	232.05	-89.20	232.38	645167.59	420175.11	32°09'15.512"N	103°51'51.328"W	10.01	
11165.30†	24.158	88.936	11150.10	264.81	-88.59	265.14	645200.35	420175.72	32°09'15.516"N	103°51'50.947"W	10.01	
11214.42†	29.076	88.936	11194.00	286.81	-88.18	287.14	645222.34	420176.13	32°09'15.519"N	103°51'50.691"W	10.01	Top Wolfcamp B
11265.30†	34.170	88.936	11237.11	313.47	-87.69	313.80	645249.01	420176.63	32°09'15.523"N	103°51'50.381"W	10.01	



Planned Wellpath Report

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BOPCO, L.P.

REFERENCE WELLPATH IDENTIFICATION

Operator	WTD - West Texas Division	Slot	No.348H SHL
Area	Eddy County, NM	Well	No.348H
Field	Poker Lake Unit	Wellbore	No.348H PWB
Facility	PLU Pad (348H, PC3 SWD)	Sidetrack from	No.348H AWB (orig) at 8665.30 MD

WELLPATH DATA (198 stations) Interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11365.30†	44.181	88.936	11314.73	376.55	-86.52	376.88	645312.08	420177.80	32°09'15.532"N	103°51'49.647"W	10.01	
11465.30†	54.193	88.936	11380.01	452.13	-85.11	452.45	645387.65	420179.20	32°09'15.543"N	103°51'48.768"W	10.01	
11565.30†	64.204	88.936	11431.15	537.91	-83.52	538.22	645473.41	420180.79	32°09'15.555"N	103°51'47.770"W	10.01	
11665.30†	74.216	88.936	11466.60	631.27	-81.79	631.58	645566.76	420182.53	32°09'15.568"N	103°51'46.684"W	10.01	
11765.30†	84.227	88.936	11485.28	729.37	-79.96	729.67	645664.85	420184.35	32°09'15.582"N	103°51'45.543"W	10.01	
11808.61	88.563	88.936	11488.00	772.57	-79.16	772.88	645708.05	420185.15	32°09'15.588"N	103°51'45.041"W	10.01	EOC
11810.51	88.601	88.936	11488.05	774.48	-79.13	774.78	645709.95	420185.19	32°09'15.588"N	103°51'45.019"W	2.00	TL
11865.30†	88.601	88.936	11489.38	829.24	-78.11	829.54	645764.71	420186.20	32°09'15.596"N	103°51'44.382"W	0.00	
11965.30†	88.601	88.936	11491.83	929.20	-76.25	929.50	645864.66	420188.06	32°09'15.610"N	103°51'43.219"W	0.00	
12065.30†	88.601	88.936	11494.27	1029.16	-74.40	1029.45	645964.60	420189.92	32°09'15.624"N	103°51'42.056"W	0.00	
12165.30†	88.601	88.936	11496.71	1129.12	-72.54	1129.40	646064.55	420191.78	32°09'15.638"N	103°51'40.893"W	0.00	
12265.30†	88.601	88.936	11499.15	1229.08	-70.68	1229.35	646164.50	420193.63	32°09'15.652"N	103°51'39.731"W	0.00	
12365.30†	88.601	88.936	11501.59	1329.04	-68.82	1329.31	646264.44	420195.49	32°09'15.666"N	103°51'38.568"W	0.00	
12465.30†	88.601	88.936	11504.03	1429.00	-66.97	1429.26	646364.39	420197.35	32°09'15.680"N	103°51'37.405"W	0.00	
12565.30†	88.601	88.936	11506.47	1528.96	-65.11	1529.21	646464.33	420199.20	32°09'15.694"N	103°51'36.243"W	0.00	
12665.30†	88.601	88.936	11508.91	1628.92	-63.25	1629.17	646564.28	420201.06	32°09'15.708"N	103°51'35.080"W	0.00	
12765.30†	88.601	88.936	11511.36	1728.88	-61.39	1729.12	646664.23	420202.92	32°09'15.722"N	103°51'33.917"W	0.00	
12865.30†	88.601	88.936	11513.80	1828.84	-59.54	1829.07	646764.17	420204.78	32°09'15.736"N	103°51'32.755"W	0.00	
12965.30†	88.601	88.936	11516.24	1928.80	-57.68	1929.02	646864.12	420206.63	32°09'15.750"N	103°51'31.592"W	0.00	
13065.30†	88.601	88.936	11518.68	2028.76	-55.82	2028.98	646964.07	420208.49	32°09'15.764"N	103°51'30.429"W	0.00	
13165.30†	88.601	88.936	11521.12	2128.71	-53.97	2128.93	647064.01	420210.35	32°09'15.778"N	103°51'29.267"W	0.00	
13265.30†	88.601	88.936	11523.56	2228.67	-52.11	2228.88	647163.96	420212.20	32°09'15.792"N	103°51'28.104"W	0.00	
13365.30†	88.601	88.936	11526.00	2328.63	-50.25	2328.84	647263.90	420214.06	32°09'15.806"N	103°51'26.941"W	0.00	
13465.30†	88.601	88.936	11528.44	2428.59	-48.39	2428.79	647363.85	420215.92	32°09'15.820"N	103°51'25.779"W	0.00	
13565.30†	88.601	88.936	11530.89	2528.55	-46.54	2528.74	647463.80	420217.77	32°09'15.834"N	103°51'24.616"W	0.00	
13665.30†	88.601	88.936	11533.33	2628.51	-44.68	2628.70	647563.74	420219.63	32°09'15.848"N	103°51'23.453"W	0.00	
13765.30†	88.601	88.936	11535.77	2728.47	-42.82	2728.65	647663.69	420221.49	32°09'15.862"N	103°51'22.290"W	0.00	
13865.30†	88.601	88.936	11538.21	2828.43	-40.97	2828.60	647763.63	420223.35	32°09'15.876"N	103°51'21.128"W	0.00	
13965.30†	88.601	88.936	11540.65	2928.39	-39.11	2928.55	647863.58	420225.20	32°09'15.890"N	103°51'19.965"W	0.00	
14065.30†	88.601	88.936	11543.09	3028.35	-37.25	3028.51	647963.53	420227.06	32°09'15.904"N	103°51'18.802"W	0.00	
14165.30†	88.601	88.936	11545.53	3128.31	-35.39	3128.46	648063.47	420228.92	32°09'15.918"N	103°51'17.640"W	0.00	
14265.30†	88.601	88.936	11547.97	3228.27	-33.54	3228.41	648163.42	420230.77	32°09'15.932"N	103°51'16.477"W	0.00	
14365.30†	88.601	88.936	11550.42	3328.22	-31.68	3328.37	648263.36	420232.63	32°09'15.946"N	103°51'15.314"W	0.00	
14465.30†	88.601	88.936	11552.86	3428.18	-29.82	3428.32	648363.31	420234.49	32°09'15.960"N	103°51'14.152"W	0.00	
14565.30†	88.601	88.936	11555.30	3528.14	-27.97	3528.27	648463.26	420236.35	32°09'15.974"N	103°51'12.989"W	0.00	
14665.30†	88.601	88.936	11557.74	3628.10	-26.11	3628.22	648563.20	420238.20	32°09'15.988"N	103°51'11.826"W	0.00	
14765.30†	88.601	88.936	11560.18	3728.06	-24.25	3728.18	648663.15	420240.06	32°09'16.002"N	103°51'10.664"W	0.00	
14865.30†	88.601	88.936	11562.62	3828.02	-22.39	3828.13	648763.09	420241.92	32°09'16.016"N	103°51'09.501"W	0.00	
14965.30†	88.601	88.936	11565.06	3927.98	-20.54	3928.08	648863.04	420243.77	32°09'16.030"N	103°51'08.338"W	0.00	
15065.30†	88.601	88.936	11567.50	4027.94	-18.68	4028.04	648962.99	420245.63	32°09'16.044"N	103°51'07.175"W	0.00	
15165.30†	88.601	88.936	11569.95	4127.90	-16.82	4127.99	649062.93	420247.49	32°09'16.058"N	103°51'06.013"W	0.00	
15265.30†	88.601	88.936	11572.39	4227.86	-14.97	4227.94	649162.88	420249.34	32°09'16.072"N	103°51'04.850"W	0.00	
15365.30†	88.601	88.936	11574.83	4327.82	-13.11	4327.90	649262.82	420251.20	32°09'16.086"N	103°51'03.687"W	0.00	
15465.30†	88.601	88.936	11577.27	4427.78	-11.25	4427.85	649362.77	420253.06	32°09'16.100"N	103°51'02.525"W	0.00	
15565.30†	88.601	88.936	11579.71	4527.73	-9.39	4527.80	649462.72	420254.92	32°09'16.114"N	103°51'01.362"W	0.00	



Planned Wellpath Report

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BOPCO, L.P.

REFERENCE WELLPATH IDENTIFICATION				
Operator	WTD - West Texas Division		Slot	No.348H SHL
Area	Eddy County, NM		Well	No.348H
Field	Poker Lake Unit		Wellbore	No.348H PWB
Facility	PLU Pad (348H, PC3 SWD)		Sidetrack from	No.348H AWB (orig) at 8665.30 MD

WELLPATH DATA (198 stations) interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
15665.30†	88.60†	88.936	11582.15	4627.69	-7.54	4627.75	649562.66	420256.77	32°09'16.127"N	103°51'00.199"W	0.00	
15765.30†	88.60†	88.936	11584.59	4727.65	-5.68	4727.71	649662.61	420258.63	32°09'16.141"N	103°50'59.037"W	0.00	
15865.30†	88.60†	88.936	11587.03	4827.61	-3.82	4827.66	649762.55	420260.49	32°09'16.155"N	103°50'57.874"W	0.00	
15965.30†	88.60†	88.936	11589.48	4927.57	-1.97	4927.61	649862.50	420262.34	32°09'16.169"N	103°50'56.711"W	0.00	
16065.30†	88.60†	88.936	11591.92	5027.53	0.01	5027.57	649962.45	420264.20	32°09'16.183"N	103°50'55.549"W	0.00	
16165.30†	88.60†	88.936	11594.36	5127.49	1.75	5127.52	650062.39	420266.06	32°09'16.197"N	103°50'54.386"W	0.00	
16265.30†	88.60†	88.936	11596.80	5227.45	3.61	5227.47	650162.34	420267.92	32°09'16.211"N	103°50'53.223"W	0.00	
16365.30†	88.60†	88.936	11599.24	5327.41	5.46	5327.42	650262.29	420269.77	32°09'16.225"N	103°50'52.060"W	0.00	
16465.30†	88.60†	88.936	11601.68	5427.37	7.32	5427.38	650362.23	420271.63	32°09'16.239"N	103°50'50.898"W	0.00	
16565.30†	88.60†	88.936	11604.12	5527.33	9.18	5527.33	650462.18	420273.49	32°09'16.253"N	103°50'49.735"W	0.00	
16665.30†	88.60†	88.936	11606.56	5627.29	11.04	5627.28	650562.12	420275.34	32°09'16.267"N	103°50'48.572"W	0.00	
16765.30†	88.60†	88.936	11609.01	5727.24	12.89	5727.24	650662.07	420277.20	32°09'16.281"N	103°50'47.410"W	0.00	
16865.30†	88.60†	88.936	11611.45	5827.20	14.75	5827.19	650762.02	420279.06	32°09'16.294"N	103°50'46.247"W	0.00	
16965.30†	88.60†	88.936	11613.89	5927.16	16.61	5927.14	650861.96	420280.91	32°09'16.308"N	103°50'45.084"W	0.00	
17065.30†	88.60†	88.936	11616.33	6027.12	18.46	6027.10	650961.91	420282.77	32°09'16.322"N	103°50'43.922"W	0.00	
17165.30†	88.60†	88.936	11618.77	6127.08	20.32	6127.05	651061.85	420284.63	32°09'16.336"N	103°50'42.759"W	0.00	
17190.24†	88.60†	88.936	11619.38	6152.01	20.78	6151.98	651086.78	420285.09	32°09'16.340"N	103°50'42.469"W	0.00	
17338.53	88.60†	88.936	11623.00	6300.24	23.54	6300.19	651234.99	420287.85	32°09'16.360"N	103°50'40.745"W	0.00	No.348H PBHL

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) No.348H PBHL	17338.53	11623.00	23.54	6300.19	651234.99	420287.85	32°09'16.360"N	103°50'40.745"W	point

SURVEY PROGRAM - Ref Wellbore: No.348H PWB - Ref Wellpath: B-1				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
27.00	8665.30	Generic gyro - northseeking (Standard)		No.348H AWB (orig)
8665.30	17338.53	NaviTrak (Standard)		No.348H PWB