

**BOPCO, L.P.**  
810 Houston St  
Fort Worth, Texas 76102  
817-885-2453

RECEIVED 005  
2017 OCT 13 P 12:15

October 12, 2017

**FEDERAL EXPRESS**

Bureau of Land Management  
Carlsbad District Office  
620 E. Green St.  
Carlsbad, New Mexico 88220  
Attn: Mr. Chris Walls

New Mexico State Land Office  
Commissioner of Public Lands  
310 Old Santa Fe Trail  
Santa Fe, New Mexico 87501  
Attention: Mr. Anchor Holm

New Mexico Oil Conservation Division  
1220 St. Francis  
Santa Fe, New Mexico 87505  
Attention: Mr. William Jones

Re: Commercial Determination  
Poker Lake Unit CVX JV BS No. 36H  
Bone Spring Formation  
Eddy County, New Mexico

Gentlemen:

Please find attached hereto one (1) copy of XTO's (as agent and attorney in fact for BOPCO, LP) commercial determination worksheets and exhibits which indicate that the subject well is a Commercial well in the Bone Spring Formation. Please indicate your concurrence to the above Commercial Determination to the undersigned at the address above.

Thank you very much and should you have any questions or comments in regard to the attached commercial determination, please do not hesitate to contact the undersigned at the number or email address below.

Very truly yours,

Law Armstrong  
(817) 885-2453  
Allen\_armstrong@xtoenergy.com

Bureau of Land Management

New Mexico State Land Office

New Mexico Oil Conservation Division

By: \_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

Its: \_\_\_\_\_

Its: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

## BOPCO, L.P.

Date: October 3, 2017

To: Law Armstrong

From: Trent Boneau

Re: **Commercial Determination: PLU CVX JV BS #036H**  
**API 3001542428**  
**24S 31E Sec 19**  
**Eddy County, New Mexico**

Attached is the economic worksheet and well forecast to be submitted for commercial determination. The PLU CVX JV BS #36H was drilled in 2014 as a horizontal producer to a measured depth of 17915' in the 3rd Bone Spring Shale. The well is producing from perforations from 10721'-17549'. By mid-year 2017 the well has produced 115 kBO and as of Oct 1, 2017 was testing 95 bopd, 284 kcf/d, and 44 bwpd on gas lift. This well is expected to recover approximately 501 kBOE from the current completion. The 35H cost \$12.1M to drill and complete, but a portion of that was atypical trouble time, so a reduced estimate of \$9.7M was used for economic evaluation.

Historical data along with the most recent EIA future pricing estimates for oil and natural gas were utilized in the economic evaluation. Prices were adjusted downward by approximately 12% to account for local conditions. Operating costs were assumed to be \$10k/mo, declining to \$5k/mo plus a fixed \$0.75/bw cost for water disposal.

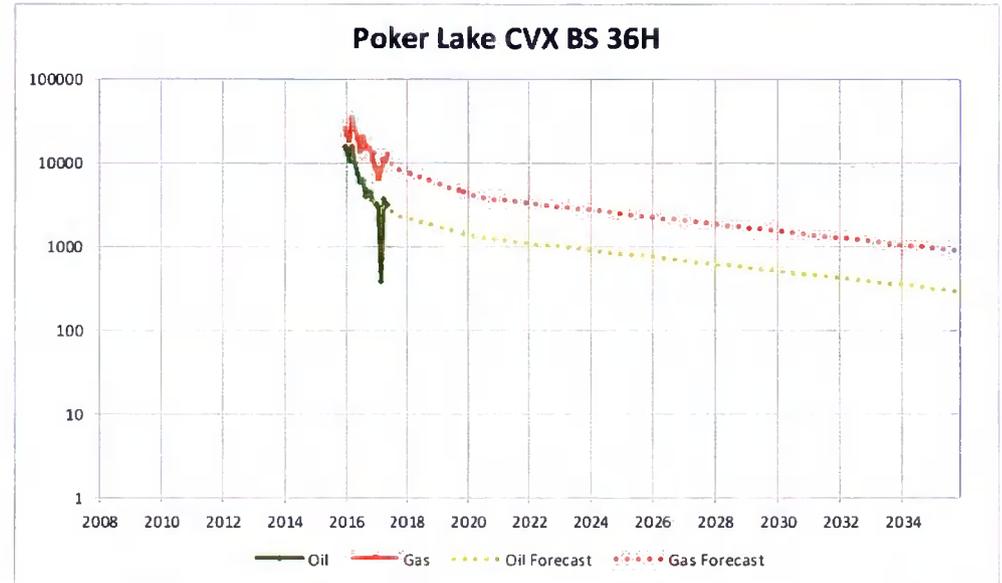
The PLU CVX JV BS #36H is expected to have a lifetime undiscounted cashflow of approximately \$5.4M and bring > 5% rate of return. **It is commercial.**

Trent Boneau  
Reservoir Engineering Advisor  
Delaware Basin Subsurface Team

Well Name **Poker Lake CVX BS 36H**  
 API Number **3001542428**  
 Formation **Bone Spring**  
 Actual CAPEX, \$K **12177.825**  
 First Production Date **2/1/2016**  
 First Forecast Date **1/1/2017**  
 Cum Oil to Date (kbo) **117.67**  
 Cum Wet Gas to Date (Mcf) **287,506**  
 Water to Date (kbw) **114.034**  
 Assumed Shrink **0.6**  
 NGL Yield Assumed **125**  
 WTI Price % **0.9**  
 HHub Price % **0.82**  
 NGL Price % **0.8**  
 Tax Gas **8.19**  
 Tax Oil **7.09**  
 W1 % **100**  
 NRI % **85.79294**  
 OPX/mo Yr 1-3 **10000**  
 OPX/mo Yr 4+ **5000**  
 OPX/water (\$/bbl) **0.75**  
 ECON CAPEX, \$k **9675**

**COMMERCIAL**

TOTAL NCF 0% DISCOUNT **5,437 KS**  
 TOTAL NCF 5% DISCOUNT **1,351 KS**  
 EUR Oil **337599 bo**  
 EUR Wet Gas **979123 kcf**  
 EUR BOE **500,786**



ECONOMICS MODULE

	Date	Oil Volume	Wet Gas Volume	Dry Gas Volume	NGL Volume, gals	Oil Price \$/BO	Gas Price \$/kcf	NGL Price \$/gal	Total Gross Revenue \$M	Net Revenue \$M	Total Opco \$M	Local Taxes \$M	Net Oper Income \$M	Total Capital \$M	BTax CFlow \$M	Discounted
																Cash Flow 5%
		BO	kcf	kcf	gal											
HISTORICAL	2016	97822	220711	132427	1158733	43.00	2.52	0.25	4293.7	3684	91.1	281.31	3311	9675	-6364	-6364
FORECAST	2017	33748	124774	74864	655062	46.07	2.70	0.27	1707.1	1465	144.5	109.69	1210	0	1210	1153
FORECAST	2018	23991	82319	49391	432173	49.37	2.89	0.29	1283.5	1101	137.4	82.52	881	0	881	799
FORECAST	2019	19193	61739	37043	324130	52.90	3.10	0.31	1088.6	934	73.9	70.02	790	0	790	682
FORECAST	2020	15548	47171	28303	247647	56.68	3.32	0.33	936.3	803	71.3	60.26	672	0	672	553
FORECAST	2021	13874	41671	25003	218774	60.73	3.56	0.36	893.8	767	70.1	57.45	639	0	639	501
FORECAST	2022	12625	37921	22753	199085	65.08	3.81	0.38	871.6	748	69.2	55.92	623	0	623	465
FORECAST	2023	11489	34508	20705	181167	69.73	4.09	0.41	849.8	729	68.4	54.44	606	0	606	431
FORECAST	2024	10455	31402	18841	164862	74.71	4.38	0.44	828.6	711	67.6	53.01	590	0	590	400
FORECAST	2025	9514	28576	17146	150024	80.06	4.51	0.47	805.4	691	66.9	51.61	572	0	572	369
FORECAST	2026	8658	26004	15603	136522	81.58	4.61	0.48	747.0	641	66.3	47.84	527	0	527	323
FORECAST	2027	7879	23664	14198	124235	83.13	4.71	0.49	692.9	594	65.7	44.35	484	0	484	283
REMAINDER		72802	218663	131198	1147982				7330	6288	1613	470	4205	0	4205	1756
<b>TOTAL</b>		<b>337599</b>	<b>979123</b>	<b>587474</b>	<b>5140396</b>				<b>22328</b>	<b>19156</b>	<b>2605</b>	<b>1439</b>	<b>15112</b>	<b>9675</b>	<b>5437</b>	<b>1351</b>

**INTER-OFFICE MEMORANDUM**  
**MIDLAND OFFICE**

May 9, 2016

**TO:** FT. WORTH  
**FOR:** KENT A ADAMS  
**FROM:** STEPHEN M MARTINEZ  
**RE:** UPWARD SUPPLEMENT AFE #25684  
PLU CVX JV BS #036H  
BONE SPRING  
EDDY COUNTY, NEW MEXICO

Attached for your approval is a supplement to AFE #25684 in the amount of \$3,600,000 (BOFCO WI - 50%) to crib and complete the subject well.

AFE No	25684
Original AFE	\$ 8,816,878
Supplement #1	\$ 3,600,000
New Total Amount	\$ 12,416,878

The original AFE was over-expended mainly due to trouble experienced during drilling and completions operations. The reasons for the over-expenditure are detailed below:

**Drilling**

- Trouble (\$ 880,000):
  - Slower than planned ROP and several directional tool failures resulted in an additional 10 days over planned AFE.

Description	AFE	Field Estimate	Scope	Market	Trouble	Other
Rig Contract- Daywork	\$ 70,000	\$ 29,780			\$ 39,780	
Rig Fee	\$ 88,400	\$ 27,871			\$ 116,271	
Directional Drilling Services	\$ 346,687	\$ 308,308			\$ 182,739	
Drilling Fluids - Mud	\$ 148,000	\$ 202,988			\$ 147,888	
<b>TOTAL</b>	<b>\$ 652,087</b>	<b>\$ 868,947</b>			<b>\$ 586,686</b>	

**Completions:**

- Trouble (\$1,821,829)
  - Unable to inject into well and pump down plugs or guns after drilling out float equipment and 10' of open hole. Eventually had to TCP toe stage.
  - Had a leak in the curve of the 5-1/2" production casing. Incurred additional workover and rental costs trying to determine source of the leak. Also incurred additional costs from running and cementing a 3-1/2" RTS-8 liner to remediate leak.
  - Incurred additional costs as a result of the 3-1/2" liner run, had to special order/manufacture stinger perforation and isolation tools for frac.
  - Had trouble effectively flushing proppant from the wellbore during the frac which resulted in losing wireline tools downhole several times during the frac. As a result the frac took 10 days longer than anticipated resulting in additional rental, standby, and flowback disposal costs.
  - Coil tubing was used on several operations as a result of several problems encountered during well prep, frac and drillout.

- Had to TCP toe stage after running the 3-1/2" liner in preparation for frac.
- Several fishing and milling operations on CTU was required during the frac due to wireline issues resulting from not being able to effectively clean the wellbore.
- Drilling out of frac plugs and sand took longer than anticipated due to ineffectiveness of stinger BHA. Some of the frac plugs, by design, proved difficult to drill out thereby contributing to longer mill times.

• Other (\$ 881,432):

- Well had to be TA'd after rig release due to downturn in market. All the initial prep and set up for frac had to be suspended while equipment mobilized for the initial design of PW frac had to be released. Also had to circulate corrosion inhibitor to displace wellbore fluid.
- Due to more favorable economics, the frac design base fluid was changed to fresh water. This purchase was not accounted for in the original cost estimate.
- Cost of flowback equipment and personnel were underestimated in the original AFE.

Cost Description	AFE vs Field Estimate			Supplement Breakdown			
	AFE	Field Estimate	Field Estimate - AFE	Scope Change	Market Change	Trouble	Other
Completion	\$ 28,000	\$ 91,836	\$ 63,836				\$ 63,836
Frac Tanks	\$ 22,875	\$ 149,882	\$ 127,007			\$ 14,508	\$ 112,499
Coil Tubing	\$ 880,000	\$ 880,000	\$ 0			\$ 686,523	
Flowing	\$ -	\$ 38,348	\$ 38,348			\$ 38,348	
Pulling Unit	\$ 64,805	\$ 104,765	\$ 39,960			\$ 37,005	\$ 12,955
Wireline Svcs	\$ 243,600	\$ 228,480	\$ 15,120			\$ 384,000	
3-1/2" Liner	\$ -	\$ 117,812	\$ 117,812			\$ 117,812	
3-1/2" liner Cementing Svcs	\$ -	\$ 68,170	\$ 68,170			\$ 68,170	
3-1/2" liner Hangers	\$ -	\$ 137,883	\$ 137,883			\$ 137,883	
Fresh Water	\$ -	\$ 678,841	\$ 678,841				\$ 678,841
Van Truck/ PW Hauling	\$ 480,000	\$ 288,918	\$ 191,082			\$ 483,000	\$ 142,918
Yubasco. crane, inspection	\$ 57,800	\$ 124,301	\$ 66,501			\$ 63,801	
Frac wellbore & flowback equip	\$ 88,000	\$ 238,888	\$ 150,888			\$ 88,188	\$ 62,700
<b>TOTAL</b>	<b>\$ 1,687,880</b>	<b>\$ 1,622,184</b>	<b>\$ 65,696</b>			<b>\$ 1,821,829</b>	<b>\$ 881,432</b>

If you have any questions please advise.

  
STEPHEN M. MARTINEZ

OTA

Actuals from Wellview

**SUBTRACT TROUBLE COSTS FROM WELL TOTAL = \$12177k - \$1622k - \$880k = \$9675k**

**NM OIL CONSERVATION**  
ARTESIA DISTRICT

State of New Mexico JUN 20 2016  
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

**DISTRICT I**

1028 N. French Dr., NM 88240  
Phone: (505) 836-8111 Fax: (505) 836-0720

**DISTRICT II**

811 E. First St., Artesia, NM 88210  
Phone: (505) 740-1295 Fax: (505) 740-0720

**DISTRICT III**

1000 Mio Brazos, Aztec, NM 87610  
Phone: (505) 334-8178 Fax: (505) 334-8170

**DISTRICT IV**

1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 478-3180 Fax: (505) 478-3182

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

AMENDED REPORT  
*As Drilled*

API Number 30-015-42428	Pool Code 97975	Pool Name - WC-015-G-06 S5243119C;B.S.
Property Code 313213	Property Name POKER LAKE UNIT CVX JV BS	Well Number 036H
OGRID No. 260737	Operator Name BOPCO, L.P.	Elevation 3498'

**Surface Location**

CL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	19	24 S	31 E		150'	NORTH	2332'	WEST	EDDY

**Bottom Hole if Different From Surface**

CL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	30	24 S	31 E		2323'	NORTH	1985'	WEST	EDDY

Dedicated Acreage 240	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**  
 Lat - N 32°12'34.3"  
 Long - W 103°49'03.5"  
 NADSPCE - N 440329.5  
 E 659483.0  
 OAD-27

**TOP PERFORATION**  
 Lat - N 32°12'31.0"  
 Long - W 103°49'04.9"  
 NADSPCE - N 439881.1  
 E 659381.8  
 OAD-27

**BOTTOM PERFORATION**  
 Lat - N 32°12'24.3"  
 Long - W 103°49'07.6"  
 NADSPCE - N 439834.7  
 E 659173.2  
 OAD-27

**TERMINUS LOCATION**  
 Lat - N 32°11'00.50"  
 Long - W 103°49'07.67"  
 NADSPCE - N 439888.0  
 E 659176.0  
 OAD-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 unless mineral interest in the land including the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or is a voluntary pooling agreement or a compulsory pooling order heretofore entered by the Division.

*Tracie J. Cherry*  
 Signature Date

Tracie J. Cherry  
 Printed Name  
 tjcherry@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 knowledge and belief.

*Vasilios Kalogirou*  
 Signature Date

Vasilios Kalogirou  
 Certified Professional Surveyor  
 2014  
 MALFP ASSOC., INC. 23714-WOR1

**BLM OIL CONSERVATION**  
**ARTESIA DISTRICT**  
 Form 3160-4  
 (August 2007)  
**JUN 20 2016**

**NMOCD**  
**Artesia**

UNITED STATES  
 DEPARTMENT OF THE INTERIOR  
 BUREAU OF LAND MANAGEMENT

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

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

5. Lease Serial No.  
**NMNM025533**

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.  
**891000303X**

8. Lease Name and Well No.  
**POKER LAKE UNIT CVX JV BS 036H**

9. API Well No.  
**30-015-42428-00-S1**

10. Field and Pool, or Exploratory  
**WC015G06S243119C-BONE SPRING**

11. Sec., T., R., M., or Block and Survey  
 or Area **Sec 19 T24S R31E Mer NMP**

12. County or Parish  
**EDDY**

13. State  
**NM**

17. Elevations (DF, KB, RT, GL)\*  
**3498 GL**

1a. Type of Well  Oil Well  Gas Well  Dry  Other

1b. Type of Completion  New Well  Work Over  Deepen  Plug Back  Diff. Resvr.  
 Other \_\_\_\_\_

2. Name of Operator  
**BOPCOLP**

Contact: **TRACIE J CHERRY**  
 E-Mail: **tjcherry@basspet.com**

3. Address: **P O BOX 2760**  
**MIDLAND, TX 79702**

3a. Phone No. (include area code)  
 Ph: **432-683-2277**

4. Location of Well (Report location clearly and in accordance with Federal requirements)\*  
 Sec 19 T24S R31E Mer NMP  
 At surface **NENW 150FNL 2332FWL 32.123431 N Lat, 103.490357 W Lon**  
 Sec 19 T24S R31E Mer NMP  
 At top prod interval reported below: **NENW 484FNL 2219FWL**  
 Sec 30 T24S R31E Mer NMP  
 At total depth **SEnw 2323FNL 1985FWL**

14. Date Spudded  
**09/21/2014**

15. Date T.D. Reached  
**11/08/2014**

16. Date Completed  
 D & A  Ready to Prod.  
**01/25/2016**

18. Total Depth: MD **17915** TVD **10785**

19. Plug Back T.D.: MD **17830** TVD **10784**

20. Depth Bridge Plug Set: MD **17830** TVD **10784**

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)  
**CNL AIT RCBL BOREHOLEPROFILE**

22. Was well cored?  No  Yes (Submit analysis)  
 Was DST run?  No  Yes (Submit analysis)  
 Directional Survey?  No  Yes (Submit analysis)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 J-55	54.5	0	895		755	225	0	
12.250	9.625 J-55	40.0	0	4290		1230	418	0	
8.750	5.500 HCP-110	17.0	0	17915	5764	3495	985	3850	
5.500	3.500 P-110	9.3	9722	17820		485	104	9722	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	9700	9700						

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) BONE SPRING 2ND	10721	17549	10721 TO 17549	0.180	2448	OPEN
B)						
C)						
D)						

26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) BONE SPRING 2ND	10721	17549	10721 TO 17549	0.180	2448	OPEN

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
10721 TO 17549	FRAC INTERVAL USING TOTAL 484,614 BBLs FLUID, 6,844,748# PROPANT ACROSS 18 STAGES

**Accepted for record - NMOCD**

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity (Corr. API)	Gas Gravity	Production Method
01/28/2016	02/10/2016	24	→	567.0	1034.0	834.0	46.4	0.80	GAS LIFT

Choke Size	Thg. Press. Fwng. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
	SI		→	567	1034	834		PGW

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity (Corr. API)	Gas Gravity	Production Method
			→						

Choke Size	Thg. Press. Fwng. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
	SI		→					

**ACCEPTED FOR RECORD**  
**TS/ DAVID R. GLASS**  
**JUN 02 2016**

(See Instructions and spaces for additional data on reverse side)  
 ELECTRONIC SUBMISSION #331411 VERIFIED BY THE BLM WELL INFORMATION SYSTEM  
 \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED

**RECLAMATION DUE:**  
**JUL 25 2016**

**DAVID R. GLASS**  
**PETROLEUM ENGINEER**

*DL*  
*6/22/16*

**28b. Production - Interval C**

Date First Produced	Test Date	Hours Tested	Test Production →	Oil HBL	Gas MCF	Water HBL	Oil Gravity Con. API	Gas Gravity	Production Method
Choke Size	Thg. Press. Flowg. SI	Cap. Press.	24 Hr. Rate →	Oil HBL	Gas MCF	Water HBL	Gas/Oil Ratio	Well Status	

**28c. Production - Interval D**

Date First Produced	Test Date	Hours Tested	Test Production →	Oil HBL	Gas MCF	Water HBL	Oil Gravity Con. API	Gas Gravity	Production Method
Choke Size	Thg. Press. Flowg. SI	Cap. Press.	24 Hr. Rate →	Oil HBL	Gas MCF	Water HBL	Gas/Oil Ratio	Well Status	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)  
**SOLD**

**30. Summary of Porous Zones (Include Aquifers):**

Show all important zones of porosity and contents thereof. Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

**31. Formation (Log) Markers**

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
RUSTLER	547	923		RUSTLER	547
BELL CANYON	4309	5172	SANDSTONE	BASE OF SALT	4060
CHERRY CANYON	5172	6500	SANDSTONE	BELL CANYON	4309
BRUSHY CANYON	6500	8155	SANDSTONE	CHERRY CANYON	5172
BONE SPRING 2ND	10721	17549	SANDSTONE/LIMESTONE	BONE SPRING	8155
				BONE SPRING 1ST	9095
				BONE SPRING 2ND	10960

32. Additional remarks (include plugging procedure):

\*\*\*PLEASE HOLD CONFIDENTIAL\*\*\*

**33. Circle enclosed attachments:**

- 1. Electrical/Mechanical Logs (1 full set req'd.)
- 2. Geologic Report
- 3. DST Report
- 4. Directional Survey
- 5. Sundry Notice for plugging and cement verification
- 6. Core Analysis
- 7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #331411 Verified by the BLM Well Information System.  
For BOPCO LP, sent to the Carlsbad  
Committed to AFMS for processing by JENNIFER SANCHEZ on 05/20/2016 (16JAS1557SE)

Name (please print) TRACIE J CHERRY Title REGULATORY ANALYST

Signature (Electronic Submission) Date 02/11/2016

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.

**\*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\***