366

### BOPCO, L.P.

201 MAIN ST.
FORT WORTH, TEXAS 76102-3131
817/390-8400

July 10, 2015

RECEIVED GCD 2015 JUL 13 P 2: 39

### FEDERAL EXPRESS

Bureau of Land Management Carlsbad District Office 620 E. Green St. Carlsbad, New Mexico 88220 Attn: Mr. Ed Fernandez New Mexico State Land Office Commissioner of Public Lands 310 Old Santa Fe Trail Santa Fe, New Mexico 87501 Attention: Mr. Pete Martinez

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

Re: Commercial Determination PLU CVX JV RR #006H (21-25-30) Lower Avalon Shale

Eddy County, New Mexico

Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the Lower Avalon Shale. Should you be in agreement that the Lower Avalon Shale is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

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.

Very truly yours,

R. Travis Mears

Bureau of Land Management	New Mexico State Land Office	New Mexico Oil Conservation Division
Ву:	Ву:	By:
Its:	Its:	Its:
Date:	Date:	Date:



### INTER-OFFICE MEMORANDUM

TO:

**Ross Sutton** 

FROM:

**Bryce Bezant** 

DATE:

7/8/2015

RE:

Commercial Determination

PLU CVX JV RR #006H (21-25-30) Poker Lake Unit (Lower Avalon Shale)

Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Ross Ranch #006H was drilled in 2012 to a total depth of 13,090' laterally and completed in the Lower Avalon Shale reservoir. The well is producing from perforations 8,183'-13,090'. On test 2/15/2013 the well flowed at the rate of 205 BOPD, 386 MCFD, and 2001 BWPD. This well has an expected recovery of approximately 48 MBOE (13:1 mcf/bbl) from the current completion.

The capital investment was taken from the AFE report and operating costs from the LIOR statement which included water hauling charges. The most recent strip price file was utilized adjusting for current area differentials. The Ross Ranch #006H will not be a commercial well and should not be incorporated into a participating area.

Bryce Bezant, P.E.

RBB/tah

Cc:

Travis Mears
Tom McCarthy

Steve Johnson

### **ECONOMIC PROJECTION**

Date:

Partner:

Case Type:

Archive Set:

Project Name:

7/8/2015

Lior: 1004506

As Of Date: 11/01/2012

1-1-2015 NSAI Review For BOPCO, LP As Of Date: 11/01 All cases Discount Rate (%): 5.00

LEASE CASE 1004506/PLU CVX JV RR/006H/LOW

Lease Name: 1004506/PLU CVX JV RR/006H/LOW

Reserv Cat.: Proved Producing

Field: CORRAL CANYON; BONE SPRING, SO

Present Worth Profile (M\$)

-5,022.86

60.00%:

1:48:33PM

Operator: BOPCO

Reservoir: BONE SPRING Co., State: EDDY, NM

Cum Oil (mbbls): Cum Gas (mmcf):  $0.00 \\ 0.00$ 

NS0115

Risk: 0.000 Inherited/ 0.000 Compounded

Gross Wet Production Gross Dry Gas & NGL Sales Oil Wet Gas Dry Gas Gas NGL Year (MMCF) (Mbbl) (MMCF) (MGal) (Mbbl) (MMCF) (MGal) 2012 0.000 0.000 0.000 0.000 0.000 0.000 0.000 13.016 605.075 15.404 204.590 102.234 716.065 86.387 2013 23.737 161.291 190.877 2014 3.331 56.216 28.091 2.814 45.972 2015 2.270 15.544 7.767 54.405 1.918 6.564 1.608 10.303 5.149 36.062 1.359 4.351 30.472 2016 1.241 7.944 3.970 27.803 1.048 3.354 23.494 2017 19.471 6.584 3.290 23.042 0.855 2.780 2018 1.012

Rem Total	0.000 24.865	0.000 301.181	0.000 150.500	0.000 1,048.254	0.000 21.011	0.000 127.173	0.000 885.775
Ult.	24.865	301.181					
		Average Price			Net Revent	ie	
Year	Oil \$/BBL	Gas \$/MCF	NGL \$/Gal	Oil (M\$)	Gas (M\$)	NGL (M\$)	Total (M\$)
2012	0.00	0.00	0.00	0.000	0.000	0.000	0.000
2013	87.00	3.31	0.75	1,132.457	285.767	453.806	1,872.031
2014	83.35	4.07	0.87	234.567	96.498	140.013	471.077
2015	50.48	2.57	0.44	96.849	16.899	20.148	133.895
2016	55.68	2.89	0.46	75.651	12.588	14.123	102.361
2017	57.02	3.06	0.46	59.781	10.270	10.889	80.940
2018	58.44	3.13	0.46	49.992	8.714	9.024	67.731
Rem	0.00	0.00	0.00	0.000	0.000	0.000	0.000
Total	78 50	3.39	0.73	1.649.297	430.736	648.002	2,728.036

		Expenditures				Future Ne	t Revenue	
Year	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)
2012	0.000	0.000	5,564.612	0.000	-5,564.612	-5,564.612	-5,564.612	-5,564.612
2013	139.949	6.062	0.000	737.638	988.381	-4,576.231	964.221	-4,600.391
2014	35.645	1.524	0.000	572.796	-138.888	-4,715.119	-125.581	-4,725.972
2015	9.875	0.434	0.000	396.834	-273.248	-4,988.366	-239.917	-4,965.888
2016	7.536	0.332	0.000	389.410	-294.916	-5,283.283	-246.573	-5,212.461
2017	5.959	0.262	0.000	386.310	-311.592	-5,594.874	-248.147	-5,460.609
2018	4.987	0.220	0.000	384.649	-322.124	-5,916.998	-244.341	-5,704.950
Pam	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Kem	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	203.951	8.834	5,564.612	2 867 637	-5 916 998	-5 916 998	-5,704.950	-5.704.950
Total	203.931	0.034	3,304.012	2,007.057	-5,710.770	-5,710.770	5,704.550	5,701.550

Working Int:

'erfs 0 Revenue Int: 0.84500000 0 -5,704.95 -5,573.00 Disc. Initial Invest. (m\$): 5,564.612 5.00%: nitial Rate: mmcf/month 8.15 9.00% : 10.00% : Internal ROR (%) >1000.0 0.51 Abandonment : mmcf/month nitial Decline : ROInvestment (disc/undisc): -0.03 / -0.06 -5,544.23 = 1.400100.00 % year Years to Payout: 12.00%: -5,491.06 Beg Ratio 0.05 bbl/mmcf 0.15 Abandonment Date: 12/31/2018 15.00% -5,420.99 End Ratio 20.00% -5,325.54 Initial 1st Rev. 2nd Rev. 30.00% -5,192.33 0.00000000 0.00000000 Working Interest: 1.00000000 40.00% -5,109.10 Revenue Interest: 0.84500000 0.00000000 0.00000000 50.00%: -5,056.35

1.00000000

Rev. Date :
BEPCO Detailed WTD V9 Ver: 7/8/2015

Gas

Major Phase:

1004506/PLU CVX JV RR/006H/LOW

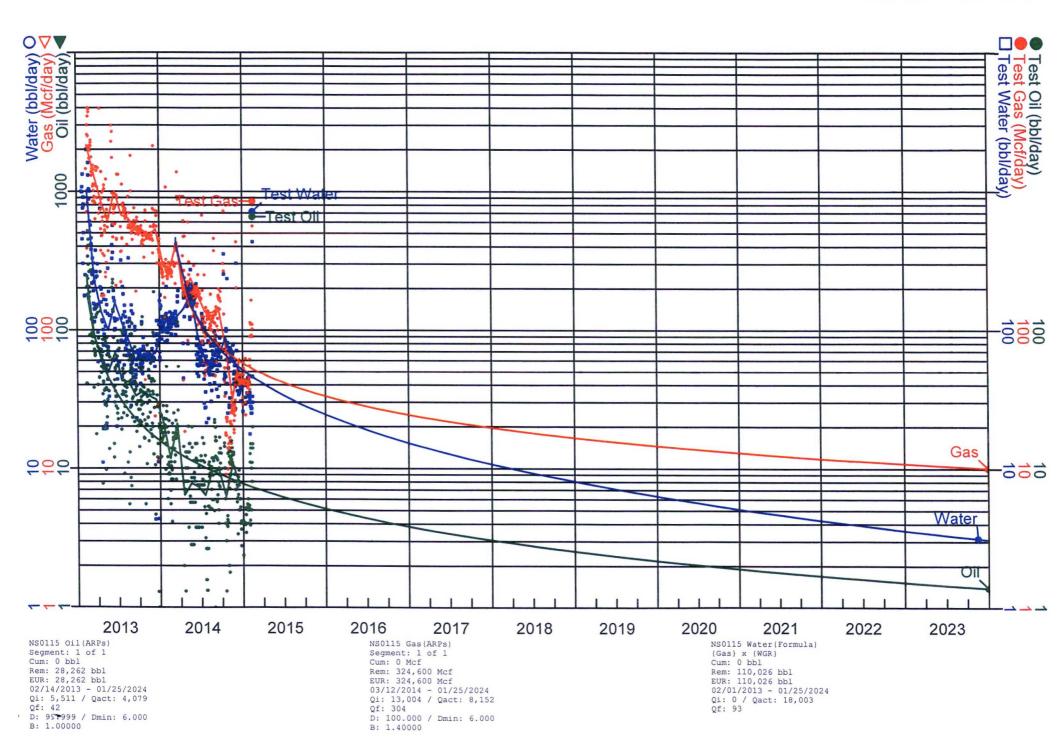
Oper: BOPCO

Major Phase: Gas

Field: CORRAL CANYON; BONE SPRING, SOUTH

EDDY, NM

ECL Date: 01/25/2024



### WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

### WELL DATA

WELL PLU CV	( JV ROSS RANCH #006H	FORMATION _	LOW	ER AVALON
LOCATIONUNIT	, <u>125</u> FEET FROM NORT	HLINE &	400 FEET FR	OM <u>WEST</u> LIN
SECTION21TOWNSHIP2	S RANGE 30E COUNT	Υ	Eddy	, NEW MEXICO
SPUD DATE 10/2/2012 C	OMPLETION DATE 12/17/2012	INITIAL PRO	DDUCTION	12/17/201
PERFORATIONS 8183-13090				
BHL: 101' FSL & <u>389' FWL SEC 21 T25S R3</u>	30E			
STIMULATION:				
ACID				
-				
FRACTURE See A	Attached			1
		JLATION		
	ore Sketch of Completed Well.)  VOLUMETRIC CALCU	JLATION	POTENTIALLY PE	PODLICTIVE
Attach Copy of C-105. Attach Copy of Wellb	ore Sketch of Completed Well.)	JLATION	POTENTIALLY PF	RODUCTIVE
Attach Copy of C-105. Attach Copy of Wellb	volumetric calcusting sands perforated	JLATION	POTENTIALLY PF	RODUCTIVE
Attach Copy of C-105. Attach Copy of Wellb  area (A) proration unit size, acres  area (Φ), %	VOLUMETRIC CALCU SANDS PERFORATED	JLATION	POTENTIALLY PF	RODUCTIVE
Attach Copy of C-105. Attach Copy of Wellb  area (A) proration unit size, acres  forosity (Φ), %  Vater saturation (Sw), %	VOLUMETRIC CALCU SANDS PERFORATED 160 17.5%	JLATION	POTENTIALLY PF	RODUCTIVE
Attach Copy of C-105. Attach Copy of Wellb  Area (A) proration unit size, acres  Porosity (Φ), %  Vater saturation (Sw), %  let Thickness (H), ft.	SANDS PERFORATED  160  17.5%  11%	JLATION	POTENTIALLY PF	RODUCTIVE
Attach Copy of C-105. Attach Copy of Wellb  Area (A) proration unit size, acres  Porosity (Φ), %  Vater saturation (Sw), %  Jet Thickness (H), ft.  Temperature (T), Fahrenheit	SANDS PERFORATED  160  11%  110	JLATION	POTENTIALLY PR	RODUCTIVE
Attach Copy of C-105. Attach Copy of Wellb  Area (A) proration unit size, acres  Prorosity (Φ), %  Vater saturation (Sw), %  let Thickness (H), ft.  Emperature (T), Fahrenheit  Fottom Hole pressure (P), psia	SANDS PERFORATED  160  17.5%  11%  110  133	JLATION	POTENTIALLY PF	RODUCTIVE
Attach Copy of C-105. Attach Copy of Wellb  Area (A) proration unit size, acres  Porosity (Φ), %  Vater saturation (Sw), %  Net Thickness (H), ft.  Temperature (T), Fahrenheit  Sottom Hole pressure (P), psia  Recovery factor (RF), %	SANDS PERFORATED  160  17.5%  11%  110  133  3,775	JLATION	POTENTIALLY PR	RODUCTIVE
POTENTIAL (2/15/2012): 205 B0 (Attach Copy of C-105. Attach Copy of Wellb)  Area (A) proration unit size, acres Porosity (Φ), %	VOLUMETRIC CALCU SANDS PERFORATED 160 17.5%	JLATION	POTENTIALLY PF	RODUCTIVE
Attach Copy of C-105. Attach Copy of Wellb	SANDS PERFORATED  160  17.5%  11%  110  133  3,775	JLATION	POTENTIALLY PF	RODUCTIVE
Attach Copy of C-105. Attach Copy of Wellb  Area (A) proration unit size, acres  Porosity (Φ), %  Nater saturation (Sw), %  Net Thickness (H), ft.  Femperature (T), Fahrenheit  Bottom Hole pressure (P), psia  Recovery factor (RF), %	SANDS PERFORATED  160  17.5%  11%  110  133  3,775  60%	JLATION	POTENTIALLY PF	RODUCTIVE
Attach Copy of C-105. Attach Copy of Wellb  Area (A) proration unit size, acres  Porosity (Φ), %  Nater saturation (Sw), %  Net Thickness (H), ft.  Femperature (T), Fahrenheit  Bottom Hole pressure (P), psia	SANDS PERFORATED  160  17.5%  11%  110  133  3,775  60%	JLATION	POTENTIALLY PF	RODUCTIVE

### Continued

### PERFORMANCE DATA

(If sufficient history exist	s, attach plot of oil production	on rate v time.)			
CUMULATIVE PRODUC	CTION TO5/3°	1/201520,001	BBL Oil281,168N	MCF Gas	
INITIAL RATE (qi)			428		
ECONOMIC LIMIT (ql)			10 MCFD		
HYPERBOLIC DECLINE	E RATE, dy	n =1.	4, d = 99%/yr		
REMAINING MCF (Q) =			0		
ULTIMATE RECOVERA	ABLE MMCF		301		
(Attach plat showing pro	ration unit and participating	area.)			
		E	CONOMIC		
GROSS WELL COST	\$2,114,553 (to the depth	n of formation completed)			
COMPLETION COST	\$3,450,059				
GROSS TOTAL COST	\$5,564,612				
YEAR	GROSS MCF MMCF	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW	
ZERO					
1	0.000	0.0	0.0	-5564.6	
2	204.590	1872.0	883.6	964.2	
3	56.216	471.1	610.0	-125.6	
4	15.544	133.9	407.1	-239.9	
5	10.303	102.4	397.3	-246.6	
6	7.944	80.9	392.5	-248.1	
7	6.584	67.7	389.9	244.3	
8			0.0		
9			0.0		
10			0.0		
REMAINDER			0.0		
TOTAL	301.181	2728.0	3080.4	-5705.0	

WELL IS NOT COMMERCIAL

Form 3160-4 (August 2007)

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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

NMOCD ARTESIA

	WELL	COMP	LETION	OR REC	OMPLET	ION R	EPOR	CANDE	06	DEPENDENT NAME OF THE PARTY OF		ease Serial			
la. Type	of Well	Oil Wel	l 🔲 Gas			Other					6. If	Indian, Al	lottee o	Tribe Na	ame
b. Type	of Completio	,—	New Well er	□ Work 0	Over ' .	Deepen	Plu	ig Back	Diff. F	Resvr.	7. U	nit or CA 2	Agreeme 3X	ent Name	and No.
2. Name o	of Operator			E-Mail: tjch			JCHER	RY	<del></del>		8. L	ease Name	and We	ll No.	30 USA 1H
3. Addres	S	D, TX, 79			,,,	3a	Phone No. 432-22	lo. (include 21-7379	area code)	)	9. API Well No. 30-015-40580-00-S1				-
4. Locatio	on of Well (R	eport loca	tion clearly a	nd in accord	lance with I	ederal red	quirement	s)*				Field and P			ry .
	face NWN								. •					-	d Survey E Mer NMP
At top prod interval reported below NWNW 666FNL 427FWL										12. (	County or I		13. St	tate	
		VSW 101	FSL 389FW				16 D	0 1.	,			DDY	(DE ME	NI DT CI	-
14. Date S 10/02/				ate T.D. Re 0/18/2012	ached	•	DD&	e Complete A 🔯 7/2012	Ready to P	rod.	17. 1	Elevations 32	41 GL	, KĮ, GL	
18. Total	Depth:	MD	1309 .8303		Plug Bac	k T.D.:	MD TVD			20. Dep	th Bri	dge Plug S		MD TVD	
21. Type I CALIP	Electric & Ot ER RESISS	her Mecha STIVITY S	nical Logs R SPECTRAL	un (Submit SR	copy of eac	h)				well cored DST run? tional Sur		No  No  No  No	☐ Yes	(Submit a (Submit a (Submit a	analysis)
23. Casing a	and Liner Rec	cord (Repo	ort all string.	set in well)											
Hole Size	. Size/C	Grade	Wt. (#/ft.)	Top (MD)	Botton (MD)		Cementer Depth		Sks. & f Cement	Slurry (BBI		Cement	Top*	Amou	nt Pulled
17.50	0 13.3	375 H-40	48.0			53			1450				0		
11.00	_	.625 J-55	32.0			00			1700			-	0	,	
7.87	5.50	00 P-110	17.0		0 130	90		-	1900		_		3200		
· · · · ·	·		·			+						(41)			
		-					•								
24. Tubing	g Record														
Size	Depth Set (N		acker Depth		Size De	epth Set (1	MD) I	Packer Dep	th (MD)	Size	'De	pth Set (M	D) I	acker De	pth (MD)
2.875	ing Intervals	7671		7653		26 Perfor	ation Reco	ord ·							
	ormation .		Тор	В	ottom		Perforated		.	Size	I	lo. Holes		Perf. Sta	itus
A)	BONE SP	RING	Тор	8183	13090			8528 TO	13053				OPEN		
B)											I				
C)									1		-		20	[31 7]	(NIII)
D)	racture, Trea	tmant Car	nant Saugaz	Etc						CAF	TAT	FNI	UIV UIV	HEL.	OKU
Z7. Acid, F	Depth Interv		·	, Elt.	*		A	mount and				LUI	011		
			53 FRAC L	SING TOTA	L 45338 BB	LS FLUID									
												1		114	
									-		-1	TPH T	3.20		
28 Product	tion - Interval	Ι Δ					-		-		1	tro	0		}
Date First	Test	Hours	Test	Oil	Gas	Water	Oil G		Gas	DUE	rogructio	Pr OPhedAN	ID MA	MAGEN	ENT
12/13/2012	Date 02/15/2012	Tested 24	Production	205.0	MCF 386.0 •	BBL 2001.	О Соп.	API	Gravity	BUF	CATE	LECTRIC	PUMP'S	OFFICE UB-SURF	ACE
Choke Size	Tog. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:O Ratio		Well Sta		O/A			, 1	
20- D 1	SI Yeteen	-1 D		205	386	2001		1883	P	ow					
	Test	Hours	Test	Oil	Gas	Water	Oil Gr	avity	Gas	I p	roductio	on Method			
Date First Produced	Date	Tested	Production	BBL	MCF	BBL	Corr.		Gravity		uttil			•	,
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:O Ratio	il	Well Sta	atus .		ECLA	MA	TIO	n, S
	51		1									1 77	-/	1-1	5

001 0 1		-1.0										
	uction - Interv	_	T	To'l	Ic.	Water	Oil Gravity	Gas		Production Method		
Date First Produced	Test Date	Hours Tested	Production	Oil BBL	Gas MCF	BBL	Corr. API	Grav		Production Method		
Choke	Tbg. Press.	Csg.	24 Hr.	Oil	Gas	Water	Gas:Oil	Well	1 Status			
Size	Flwg.	Press.	Rate	BBL	MCF	BBL	Ratio		٠			
28c. Produ	uction - Interv	al D										
Date First	Test	Hours	Test	Oil	Gas	Water	Oil Gravity	Gas		Production Method		
Produced	Date ,	Tested	Production	BBL	MCF	BBL	Согт. АРІ	Grav	vity			
Choke Size	Tbg. Press. Flwg. S1	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil · Ratio ·	Well	I Status			
29. Dispos SOLD	sition of Gas(S	Sold, used j	for fuel, vent	ed, etc.)								
30. Summ	ary of Porous	Zones (Inc	lude Aquife	rs):					31. Forr	nation (Log) Mark	ers	,
tests, i	all important a neluding depti coveries.	zones of po h interval t	orosity and co ested, cushic	ontents there on used, tim	e of: Cored e tool oper	intervals an i, flowing an	d all drill-stem ad shut-in pressures	S				
									<del>                                     </del>			Тор
	Formation		Тор	Bottom		Descript	ions, Contents, etc.			Name		Meas. Depth
	t.								RUS SAL BAS BEL CHE BRL	1247 1322 3010 3810 4695 5908		
					1							
13							*				· ·	
		1								*		
					1							
						(*)						
32. Additio Well dr	nal remarks (i	include plu npleted in	gging proce 2012. Car	dure): nnot find re	cord of Fe	orm 3160-4	being filed.					
		•										•
	enclosed attach		1.6.11			o Carlanii	. Daniel	2	DOT Descri		Dissetter	1.0
	trical/Mechan dry Notice for					<ol> <li>Geologic</li> <li>Core An</li> </ol>			DST Repo Other:	π .	Direction	at Survey
S. Sunc	iy Notice for	prugging a	ind cement v	emication		o. Core Am	aiysis	. /	Oulet.			
24 I hereby	certify that th	ne foregoir	og and attach	ed informat	ion is com	plete and co	rrect as determined	from all	available r	ecords (see attache	d instruction	16).
54. Thereby	coming that the	ic foregon	_			•	by the BLM We			,	d mad dello	
					For BO	PCO LP, s	ent to the Carlsba	ad				
				d to AFMS	S for proc	essing by J	AMES AMOS on					
Name (p	olease print) <u>T</u>	RACIE J	CHERRY				Title RE	GULATO	DRY ANAL	. 181		
Signatu	re(	Electronic	Submissio	n)			Date 04/	/03/2014				
										•		
Title 18 U.S	S.C. Section 10	001 and Ti	tle 43 U.S.C	Section 12	12, make i	t a crime for	any person knowi	ngly and	willfully to	make to any depa	rtment or age	ency
of the Unite	d States any f	alse, fictitie	ous or fradul	ent stateme	nts or repre	esentations a	s to any matter wit	thin its jur	risdiction.	•		

District I 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720

811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 District III 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 State of New Mexico

Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

1220 S. St. Francis Dr., Phone: (505) 476-3460						*		M	otivis ,	04/01/19		
			WELL LO	OCATIO:	N AND ACR	EAGE DEDIC	CATION PLA	T	iwo.	40 11		
17	API Number	r		2 Pool Code	e	<sup>3</sup> Pool Name						
30-	015-4058	80		13354	Corral Canyon; Bone Spring, South							
4 Property (	Code				5 Property N	ame			" Well	Number		
3/33	72			P	oker Lake Unit (	CVX JV RR			(	6H		
OGRID!			<sup>8</sup> Operator Name · <sup>9</sup> Elevation									
260737 BOPCO, LP								3241				
				,	<sup>10</sup> Surface L	ocation						
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East	/West line	County		
D	21	25	30E		125	North.	400		West	Eddy		
			" Bo	ttom Ho	le Location If	Different Fron	1 Surface					
UL or lot no.	Section	Townsl	hip Range	Lot Idn	Feet from the	North/South line	Feet from the	East	/West line	County		
M	21	25	25S 30E 101 South 389 West									
12 Dedicated Acres	13 Joint or	Infili '	4 Consolidation	Code 15 Or	rder No.							
162.98												

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.

	_			
125				17 OPERATOR CERTIFICATION
400' SHL .				I hereby certify that the information contained herein is true and complete
i			,	to the best of my knowledge and belief, and that this organization either
				owns a working interest or unleased mineral interest in the land including
<u> </u>				the proposed hottom hole location or has a right to drill this well at this
ſ				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.
1				marchen 1 ml harlill
				Milly Coly Old 1919
				Signature Date
	*			Tracie J Cherry
				Printed Name
				tjcherry@basspet.com E-mail Address
			·	"SLIDVEYOD CEDTIFICATION
1				SURVEYOR CERTIFICATION
				I hereby certify that the well location shown on this
				plat was plotted from field notes of actual surveys
i.				made by me or under my supervision, and that the
1				same is true and correct to the best of my belief.
1.				
1 '				
				Date of Survey
ì				Signature and Seal of Professional Surveyor:
1				
1				
I				
389'   BI+L				Certificate Number
101				
	•			

**Downhole Profile - Vertical Wells** 

Well Name: POKER LAKE UNIT CVX JV RR #006H (21-25-30)

BOPCO, L.P. - West Texas

Well ID: 30-015-40580

Sect: 21 Town: 25S Rng: 30E County: Eddy State: New Mexico

ation: 125' FNL & 400' FWL, Sec 21, T25S-R30E

Field: Corral Canyon

S	urfa	ace Location: 125' FNL 8	& 400' FWL, S	ec 21,	T25	S-R30E										
		Horizontal - Original Hole, 4/16	/2015 1:16:03 AM			Well Info	ormation	lev (ft)	KB-Grd (	(ft) Spud Date	IOn	Productio	n Date	PBTD (All	(ftKB)	
MD (ftK B)	In cl	Vertical schematic (act	(less)	Column I	st		3,258.00		,241.00	17.00 Spud Date		2/13/20		(All	,,	
B)	(°)	Vertical schematic (act	iuai)	Descript	То	Wellbore	es Name: Origin	al Hole	e			Kick Off	Depth (ft			
		H-40; 120.00	ACAA MALKERUSUSUSUSUS		П		Size (i		30	Act T	op (ftKB)	17.0		Act B	tm (ftKB)	120.0
-		Conductor Cement; 17.00;	30; Conductor; 17.00-120.00		П				17 1/2			120.0				954.0
	1.7	120.00	17 1/2; Surface; 120.00-954.00		П				7 7/8			954.0 3,700.0				3,700.0 13,090.0
-					П	Schema	tic Annotati		at them.			Annota	tlen			
		Surface Casing Cement; 17.00;			П		Туре	- 0	Depth (ftKB)			Annota	RION			
		953.00 13 3/8 in; 48.00				Casing S	Strings	_					_			Тор
-		953.00 ftKB			П	Conductor	Csg Des	+	Wellbore	OD (in)	Wt (lb/ft) 94.00	Grade H-40	Top Weld	Thread led	Set @ (ft	KB) (ftKB)
	**	TOC @:		RUSTLER	1,2	Surface			riginal Hole	13 3/8	48.00	H-40	ST&	0	953	17.0
· cons	0.3	2,100.00; 10/20/2012 Intermediate		SALADO	1,3	Intermedia Production			riginal Hole	8 5/8 5 1/2	32.00 . 17.00 i	P-110	CDC		3,700 13,090	
7100-	**	Casing Cement; 17.00; 3,125.00	_11; Intermediate; 954.00-3,700.00		П	Perforat Perf D		/BVD)	Blm (ftKB)		Zone			Cum	ent Status	
2004		Intermediate Casing Cement;		ELEV GR	3,2	12/8/2012		(ftKB) 8,528.	0 8,993.0	Avalon Shale, Original	ginal Hole			Cult	orn otator	
AMI	21	3,125.00; 3,700.00				12/8/2012 12/8/2012		9,108.		Avalon Shale, Original						
1.00	24	8 5/8 in; 32.00 lb/ft; J-55;			П	12/8/2012 12/8/2012		0,268.		Avalon Shale, Ori						
L-ma	21	3,700.00 ftKB		LAMAR	3,7	12/8/2012	1	1,428.	0 11,893.0	Avalon Shale, Original	ginal Hole					
1001	22	311				12/8/2012		2,008.0		Avalon Shale, Original						
1941	12			RAMSEY CHERR	3,8 4,6	Tubing S	Strings		Run Date		String Length	(ft)		Set Dept	h (fike)	
4,901	"			OLD IN	4.7	Tubing De Tubing - P	Production		4	1/9/2014	Carring Length		7,758.0	0	Grade	7,775.00 Top (ftKB)
April 1				MANZA	4,8		2-7/8" EUE 8rd			es		Jts 242	OD (in) 2 7/8	Wt (lb/ft) 6.50	L-80	17.0
UH 1				49ER Z ABBY	4,9 5,1		2-7/8" x 5-1/2" 7 2-7/8" 6.5 ppf J					1	2 7/8	6.50	J-55	7,665.3 7,668.0
ALBERT.				SAND D	5,3	7-4 2	-7/8" Mech. Se	eating r	nipple			1	2 7/8			7,700.0
LONG S				SAND D PLU 52	5,3 5,5		!-7/8" x 3-1/2' x !-7/8" EUE 8rd		avins GA/Desand	er		1	2 7/8	6.50	L-80	7,701.1 7,718.6
Asses	12			SHALE	5,6 5,7		-7/8"X 24" Che -7/8" Bull plug					1	2 7/8			7,750.6 7,774.6
	,,			LCC	5,8	Rod Stri	ings	4 00			In	(6)		In., p.,	(6140)	
				BRUSH BUCK	5,9 6,0	Rod Descr Rod	ription			/10/2014	String Length		7,683.0			7,694.00
				LEGG LRA	6,1 6,2	2-1 1	1/2" X 26' pol	lished i	rod	es		Jts 1	OD (in) 1 1/2	Wt (lb/ft)	Grade	Top (ftKB) 11.0
ana a				LRB	6,2	2-2 7	/8" x 25' Tenar	is KD		A muides/rod		20 11	7/8 7/8	0.00	D 97 D 97	39.0 564.0
LINE 2				HEFLIN	6,3	2-4 7	/8" x 25' Tenar	is KD	sucker rod	4 goldes lod		80	7/8		D 97	839.0
un)	,,,			JRU 13 SHELL	6,3 6,6		.5" API C sinke					181 12	3/4 1 1/2		D 97 D <b>97</b>	2,839.0 7,364.0
con .				U	7,1	2-7 1-		ump H	IVR w/ Gas Baile	r		1	2 1/2			7,664.0
1,000				LOWER MKR	7,3	Cement	tor Cement	, 9/27	7/2012							
Gas.	71	34		V	7,4		onductor, 120.0		(B) Stage B		luation Result Cement Ret (bb	1)	op Meas	urement M	ethod	
1,481	2.0			w	7,4		1 Flui		17.0	120.0 Amount (sacks)	Class		/olume C	alculations	Yield	f (ft³/sack)
1461	2.5			X Y	7,4	Lead	Fiui	0		Amount (sacks)	27 C		Delia (i	13.70	Tions	1.65
nam a				Z	7,5	String: St	Casing Cen urface, 953.00f	nent,	, 10/5/2012	Cement Eva	luation Result	s:				
Sant	111			BS LIME BONE S	7,5 7,5	Stage Nun	mber Stage T	op (ftK	(B) Stage B	lottom (ftKB) Vol 953.0	Cement Ret (bb		op Meas Circulated	urement M	ethod	
1901	2.0					Land	Flui	d		Amount (sacks)	Class 27 C	1	Dens (I	13.70	Yield	(ft³/sack) 1.65
	1.				П	Lead Tail					5 C			14.80		1.33
		<b>M</b>	2; Rod; 11.00- 7,694.00		П	Intermed	diate Casing termediate, 3,7	O0.00f	nent , 10/8/20	12 Cement Eva	luation Result	s:				
1.00 T	"		7; Tubing -		П		mber Stage T				Cement Ret (bb	1)		urement Me alculations	ethod	
1141	22			AVALON	7,7	Stage Nun	mber Stage T				Cement Ret (bb	1)	op Meas	urement Me alculations	ethod	
(74)	n n		7,775.00	AVALO	7,7	Y-1	Flui		-,	Amount (sacks)	7 Poz 50/50	_	Dens (I		Yield	(ft³/sack) 1.41
1,007	11		Production; 3,700.00-			Tail Producti	ion Casing (	Ceme	ent , 10/20/201	12				14.20		1.41
that .	7.	<b>19</b>	13,090.00 Perforated;			String: Pr	oduction, 13,0	90.00ft	tKB	Cement Eva	luation Result Cement Ret (bb	1)		urement Me	ethod	
60°1	0.3 84	11	8,528.00- 8,993.00; 12/8/2012				1 Flui	- N N	2,100.0	13,090.0 Amount (sacks)		0.0	Dens (I	ond Log		(ft³/sack)
gan.	""		Perforated; 9,108.00-			Lead	Fidi			(	600 H					
MET		1	9,573.00; 12/8/2012			Tail		_		1,3	100 H					
LMC:		1	Perforated; 9,688.00-													
MASS .	127	1	10,153.00; 12/8/2012													
10.00		11-	Perforated; 10,268.00-													
500		11-	10,733.00; 12/8/2012													
4,000	112	11	Perforated; 10,848.00- 11,313.00;													
10,000 0			12/8/2012 Perforated;													
1,311		11	11,428.00-													
1.01			12/8/2012 Perforated;													
1,801			12,008.00- 12,473.00;													
10,461	n.r		12/8/2012 Perforated;													
COM I	82 h 80 h	Production Casing Cement;	12,588.00- 13,053.00; 12/8/2012													
10,000 7	96.2 96.2	2,100.00; 13,090.00	LIVEUTE													
	HE 2	5 1/2 in; 17.00 lb/ft; P-110;	TD - Original													
	66.2	13,090.00 ftKB	Hole; 13,090.00													

# \*

**Schematic - Vertical Production** 

Field: Corral Canyon

Well Name: POKER LAKE UNIT CVX JV RR #006H (21-25-30)

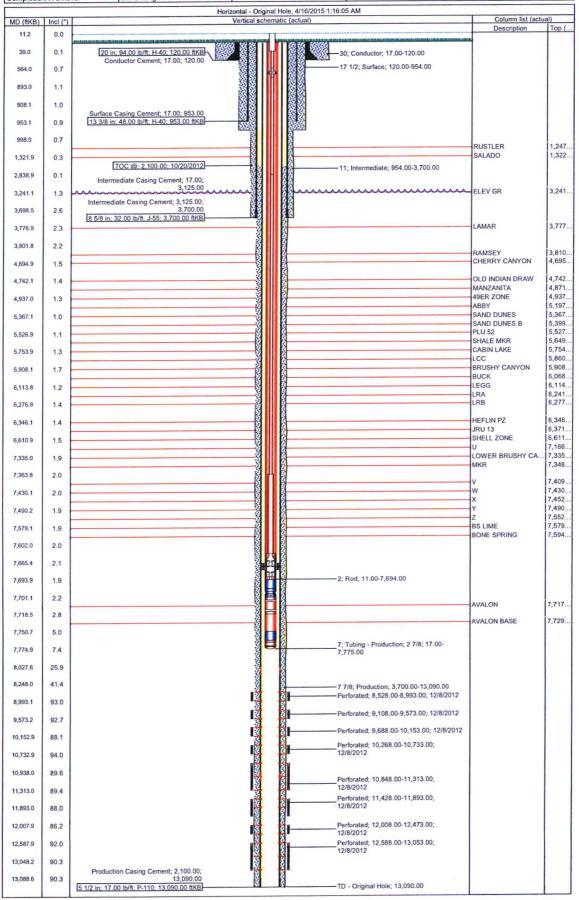
BOPCO, L.P. - West Texas Well ID: 30-015-40580

Sect: 21 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

 Completion/Workover
 Lift Change
 Workover
 4/4/2014
 4/11/2014

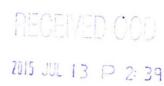


### BOPCO, L.P.

201 MAIN ST.

FORT WORTH, TEXAS 76102-3131 817/390-8400

July 10, 2015



### FEDERAL EXPRESS

Bureau of Land Management Carlsbad District Office 620 E. Green St. Carlsbad, New Mexico 88220 Attn: Mr. Ed Fernandez New Mexico State Land Office Commissioner of Public Lands 310 Old Santa Fe Trail Santa Fe, New Mexico 87501 Attention: Mr. Pete Martinez New Mexico Oil Conservation Division 1220 St. Francis Santa Fe, New Mexico 87505 Attention: Mr. William Jones

Re: Commercial Determination

PLU CVX JV Pierce Canyon #010H (20-24-30)

Upper Avalon Shale Eddy County, New Mexico

### Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the Upper Avalon Shale. Should you be in agreement that the Upper Avalon Shale is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

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.

Very truly yours,

R. Travis Mears

Bureau of Land Management	New Mexico State Land Office	New Mexico Oil Conservation Division
By:	Ву:	By:
Its:	Its:	Its:
Date:	Date:	Date:



### INTER-OFFICE MEMORANDUM

TO:

**Ross Sutton** 

FROM:

**Bryce Bezant** 

DATE:

7/8/2015

RE:

Commercial Determination

PLU CVX JV Pierce Canyon #010H (20-24-30)

Poker Lake Unit (Upper Avalon Shale)

Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Pierce Canyon #010H was drilled in 2012 to a total depth of 12,615' laterally completed in the Upper Avalon Shale reservoir. The well is producing from perforations 7,972'-12,595'. On test 4/9/2012 the well flowed at the rate of 386 BOPD, 3107 MCFD, and 1831 BWPD. This well has an expected recovery of approximately 162 MBOE (13:1 mcf/bbl) from the current completion.

Economic cases were taken from the 1/1/2015 NSAI bankers database, with the capital investment taken from the AFE report and operating costs from the LIOR statement which included water hauling charges. The most recent strip price file was utilized adjusting for current area differentials. The PC #010H will not be a commercial well and should not be incorporated into a participating area.

R. Bryce Bezant, P.E.

RBB/tah

Cc:

Travis Mears
Tom McCarthy
Steve Johnson

### **ECONOMIC PROJECTION**

Date: 4/24/2015 1004412

Lease Name: 1004412/PLU CVX JV PC/010H/UPP

954.769

2:23:24PM

Project Name: 1-1-2015 NSAI Review For BOPCO, LP

All cases Partner:

9.826

Case Type: LEASE CASE Archive Set: NS0115

Cum Oil (Mbbl): Cum Gas (MMcf):

Rem

0.00 0.00

674.329

As Of Date: 05/01/2012 Discount Rate (%): 5.00

1004412/PLU CVX JV PC/010H/UPP

Reserv Cat.: Proved Producing

Field: PIERCE CROSSING (BONE SPRING), E.

Operator: BOPCO

578.048

Reservoir: BONE SPRING Co., State: EDDY, NM

Risk: 0.000 Inherited/ 0.000 Compounded

	Gross Wet Pro	oduction	Gross Dry Gas	& NGL		Sales	
Year	Oil (Mbbl)	Wet Gas (MMcf)	Dry Gas (MMcf)	NGL (Mgal)	Oil (Mbbl)	Gas (MMcf)	NGL (Mgal)
2012	3.315	51.650	50.658	116.035	2.897	44.275	101.414
2013	7.709	201.809	197.934	326.931	6.737	172.995	285.737
2014	3.609	126.731	124.298	205.304	3.154	108.636	179.436
2015	2.186	125.338	122.932	203.048	1.911	107.442	177.464
2016	1.736	105.785	103.754	171.372	1.517	90.681	149.779
2017	1.453	91.845	90.081	148.789	1.269	78.731	130.041
2018	1.262	81.805	80.234	132.523	1.103	70.124	115.826
2019	1.123	74.053	72.631	119.966	0.981	63.480	104.850
2020	1.018	68.039	66.733	110.223	0.890	58.324	96.335
2021	0.930	62.769	61.564	101.686	0.813	53.807	88.873

Total	34.166	1,664.153	1,632.201	2,728.289	29.861	1,426.544	2,384.525
Ult.	34.166	1,664.153	,				
		Average Price			Net Reve	enue	
Year	Oil (\$/bbl)	Gas (\$/Mcf)	NGL (\$/gal)	Oil (M\$)	Gas (M\$)	NGL (M\$)	Total (M\$)
2012	82.06	2.75	0.75	237.75 592.87	121.95 568.56	76.06 214.30	435.75 1,375.74
2013 2014	88.00 85.13	3.29 3.95	0.75 0.81	268.49	429.04	145.86	843.39
2015 2016	45.93 52.03	2.55 2.85	0.45	87.76 78.93	273.99 258.27	80.53 70.80	442.27 408.00
2017 2018	54.61 56.08	3.07 3.16	0.47	69.33 61.88	241.44 221.50	61.47 54.75	372.24 338.13
2019	57.19	3.23	0.47	56.13 51.95	205.16 194.44	49.56 45.54	310.86 291.93
2020 2021	58.37 59.17	3.33 3.47	0.47 0.47	48.08	186.55	42.01	276.64
Rem Total	59.91 69.24	4.05 3.53	0.47 0.54	514.52 2,067.68	2,339.23 5,040.13	451.32 1,292.20	3,305.07 8,400.01

1,092,413

8.588

>1000.0

0.00

0.43 / 0.59

01/19/2041

661.382

		Expenditures				Future Net	Revenue		_
Year	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)	
2012	32.80	0.81	7,432.89	115.33	-7,146.07	-7,146.07	-7,150.28	-7,150.28	
2013	104.88	2.54	0.00	725.29	543.02	-6,603.05	515.37	-6,634.91	
2014	65.10	1.56	0.00	232.63	544.09	-6,058.95	491.23	-6,143.68	ļ.
2015	34.59	0.82	0.00	89.06	317.80	-5,741.15	272.45	-5,871.23	
2016	31.93	0.75	0.00	88.42	286.89	-5,454.26	234.25	-5,636.98	
2017	29.15	0.69	0.00	87.97	254.43	-5,199.83	197.85	-5,439.13	
2018	26.49	0.62	0.00	87.64	223.38	-4,976.45	165.44	-5,273.69	
2019	24.36	0.57	0.00	87.39	198.54	-4,777.91	140.04	-5,133.65	
2020	22.88	0.54	0.00	87.19	181.32	-4,596.59	121.79	-5,011.86	
2021	21.70	0.51	0.00	87.02	167.42	-4,429.17	107.08	-4,904.78	
Rem	259.70	6.09	0.00	1,640.66	1,398.61	1,398.61	668.59	668.59	
<b>Fotal</b>	653.59	15.49	7,432.89	3,328.60	-3,030.56	-3,030.56	-4,236.19	-4,236.19	
Major Phase Perfs: nitial Rate:	:	Gas 0 0 0.00 Mcf/mc	onth	Working In Revenue In Disc. Initia		1.00000000 0.87400000 7,432.890	Pre	sent Worth Profi 5.00%: 9.00%:	ile (M\$) -4,236.19 -4,803.8

Years to Payout: 3eg Ratio: 0.00 bbl/Mcf Abandonment Date: End Ratio: 0.01 bbl/Mcf 10/01/2012 Forecast Start: Initial 1st Rev. 1.00000000 Working Interest: 0.87400000 Revenue Interest:

Ver: 4/24/2015

Rev. Date :

52.00 % year b = 1.400

1,544.50 Mcf/month

2nd Rev. 0.00000000 0.00000000 0.00000000 0.00000000

ROInvestment (disc/undisc):

Internal ROR (%):

9.00%: -4,803.88 10.00%: -4,913.44 -5,104.60 12.00%: 15.00%: -5,336.81 -5,624.32 -5,989.95 20.00% : 30.00% : 40.00%: -6,214.50 50.00%: -6,367.83 60.00%: -6,479.91

Page 1

3OPCO Detailed V9.rpt

Abandonment:

nitial Decline:

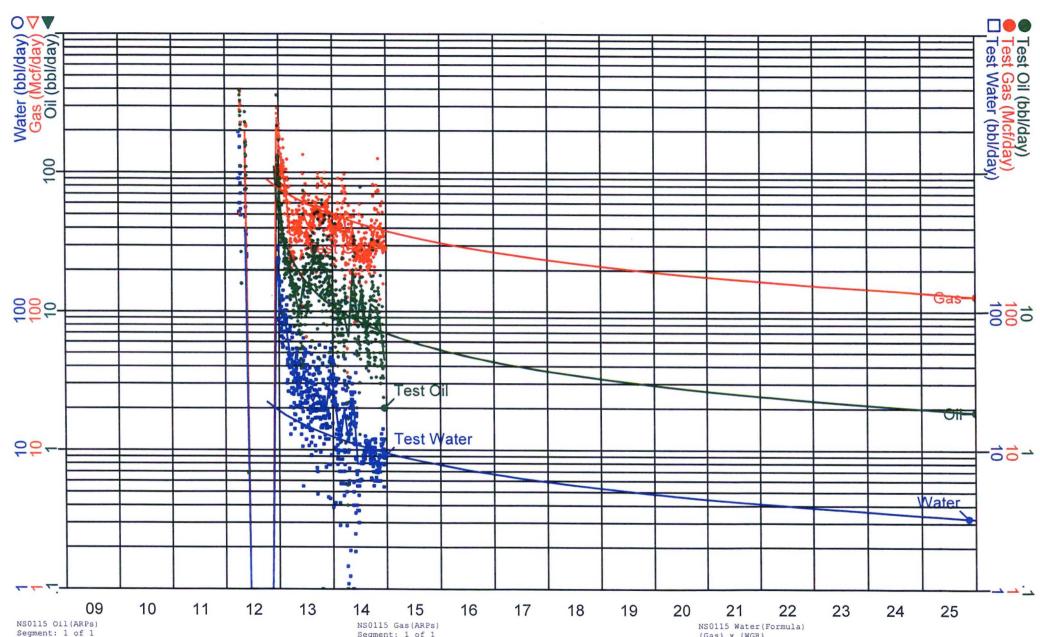
1004412/PLU CVX JV PC/010H/UPP

Oper: BOPCO

Major Phase: Gas

Field: PIERCE CROSSING (BONE SPRING), EAST EDDY, NM

ECL Date: 04/30/2062



Cum: 0 bbl Rem: 37,667 bbl EUR: 37,667 bbl 11/29/2012 - 04/24/2067 Qi: 3,347 / Qact: 0 Of: 4 . D: 102 000 / Dmin: 6.000 B: 1.40000

Segment: 1 of 1 Cum: 0 Mcf Rem: 1,904,701 Mcf EUR: 1,904,701 Mcf 10/09/2012 - 04/24/2067 Qi: 27,039 / Qact: 0 Qf: 304 D: 52.000 / Dmin: 6.000 B: 1.40000

(Gas) x (WGR) Cum: 0 bbl Rem: 64,404 bbl EUR: 64,404 bbl 05/01/2012 - 04/24/2067 Qi: 0 / Qact: 4,187 Qf: 8

### WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

### **WELL DATA**

WELL PLU CVX JV PIE	ERCE CANYON #010H (20-24-30)	FORMATIONUpper	Avalon
LOCATIONUNIT	, 75 FEET FROM NORTH	LINE & 1725 FEET FRO	M <u>EAST</u> LINE
SECTION20TOWNSHIP24	S RANGE 30E COUNTY	Eddy	, NEW MEXICO
SPUD DATE <u>1/3/2012</u> CC	DMPLETION DATE 3/23/2012	INITIAL PRODUCTION	4/8/2012
PERFORATIONS7972-12595			
BHL: 100' FSL & <u>1980' FEL SEC 20 T24S R</u>	30E		
STIMULATION:			
ACID			
FRACTURE See	Attached		
POTENTIAL(4/9/2012): 386 BO	PD, 3107 MCFPD, 1831 BWPD		
(Attach Copy of C-105. Attach Copy of Wellb	ore Sketch of Completed Well.)		
	VOLUMETRIC CALCUL	ATION	
	, ozometniko oniego		
	SANDS PERFORATED	POTENTIALLY PROI	DUCTIVE
Area (A) proration unit size, acres	160	_	
Porosity (Φ), %	15%		
Water saturation (Sw), %	17%		
Net Thickness (H), ft.	238		
Temperature (T), Fahrenheit	150		
Bottom Hole pressure (P), psia	3,728		
Recovery factor (RF), %	60%		
SHRINKAGE (fg)	98%		
Recoverable gas, BCF *(See eq. below)	47.8		
*Sometimes unable to match performance due	e to volumetric uncertainty or low recovery effic	ciency of shale gas wells.	
Formula = ((43.560 MCF/ac-ft) (por) (1-5	Sw)(RF)(Bgi scf/mcf)( $f_{g}$ )(A) (h))/1000 мсг/ммсг	Bgi = 259.00 SCF/RCF	

### PERFORMANCE DATA

(If sufficient history exists, attach plot of oi	I production rate v tin	ne.)			
CUMULATIVE PRODUCTION TO _	12/31/2014	14,630	BBL Oil	381,660	MCF Gas
INITIAL RATE (qi)		88	9 mcfd		
ECONOMIC LIMIT (ql)		10	) mcfd		-
HYPERBOLIC DECLINE RATE, dy		n =1.4,	d = 52%/yr		
REMAINING MCF (Q) =			0		
ULTIMATE RECOVERABLE MCF		1,8	86,654		
(Attach plat showing proration unit and pa	rticipating area.)				

### **ECONOMIC**

GROSS WELL COST \$2,973,156 (to the depth of formation completed)

COMPLETION COST \$4,459,734

GROSS TOTAL COST \$7,432,890

<u>YEAR</u>	GROSS GAS MMCF	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	51.650	435.8	148.9	-7150.3
2	201.809	1375.7	832.7	515.4
3	126.731	843.4	299.3	491.2
4	125.338	442.3	124.5	272.5
5	105.785	408.0	121.1	234.3
6	91.845	372.2	117.8	197.9
7	81.805	338.1	114.8	165.4
8	74.053	310.9	112.3	140.0
9	68.039	291.9	110.6	121.8
10	62.769	276.6	109.2	107.1
REMAINDER	674.329	3305.1	1906.5	668.6
TOTAL	1664.153	8400.0	3997.7	-4236.2

### WELL IS NOT COMMERCIAL

NMC	MAY 01	2012 COMPL RTESI	DEPAR BUREA ETION C	TMEN U OF L	T OI LANI	MAN.	NTE AGE	MENT N REPO	RT	OCD A			1	OM Exp ease Serial NMNM0286	IB No I ires: July No. 60	PROVED 004-0137 y 31, 2010 r Tribe Name	
	f Completion	N ⊠ N		□ Wo	rk Ov		Dee		Plug	Back	Diff.	Resvr		Init or CA A		ent Name and No.	
2 Name of CHESA	f Operator APEAKE OF	PERATIN	IG INC E	-Mail·	erın.c	Contact arson@							F		CE CA	ell No NYON 20 24 30 USA	1H
3. Address	OKLAHO		, OK 7315					Ph: 405	5-935	5-2896	e area code	:)		PI Well No	30-0	15-39692-00-S1	
4. Location	n of Well (Re		ion clearly ar 1725FEL	nd in ac	corda	ice with	Fede	ral requirem	nents	)*	96	473	10	Field and Po	ool, or	Exploratory  Block and Survey	.5. , E.
	orod interval			NE 555	FNL	1730FE	L						C	or Area Se	c 20 T	24S R30E Meř NMP	
	depth SW												E	County or P		13. State NM	
14. Date S 01/03/2				ate T.D. /23/20		hed		16.	Date D & . 03/23	Complet A B/2012	Ready to I	Prod.	17.	Elevations ( 327	DF, KI 72 GL	B, RT, GL)*	
18. Total L	Depth:	MD TVD	1261: 7922	5	19.	Plug Ba	ck T.	D· MI			2524 331	20 De	pth Br	idge Plug So		MD TVD	
3272 G						opy of ea	ich)					well core DST run ctional Su	d? rvey?	No No No	☐ Yes ☐ Yes ☒ Yes	(Submit analysis) (Submit analysis) (Submit analysis)	
23. Casing and Hole Size	nd Liner Rec		Wt. (#/ft.)	To (MI	р	Botto (MD		Stage Ceme Depth	enter		of Sks. &	Slurry (BE		Cement '	Top*	Amount Pulled	
17.500	13.3	375 H-40	48 0		0		575	Бери		Турс	800		,,,,				
11 000		625 J-55	32.0		0	3	665				1850	0					
7 875	5.5	500 L-80	20.0		0	12	615	4	479		1960	0					
	-																
54 #	Description																
24. Tubing	Depth Set (N	AD) P	acker Depth	(MD)	Si	ze I	Depth	Set (MD)	Pa	acker De	pth (MD)	Size	De	epth Set (M	D)	Packer Depth (MD)	
						1	26	Perforation	Pass								
	ormation		Top		Bo	ttom	26. 1			Interval		Size		No. Holes		Perf Status	
	T BONE SP	RING	ТОР	7972	- 50	12595				7972 TC	12575				OPE	V	
B)													1				
C)													+		_		
D) · 27. Acid, Fr	racture, Treat	tment, Cer	ment Squeeze	e, Etc.													
	Depth Interv										d Type of N						
	797	2 TO 12	575 CLEAN	FLUID:6	54,224	GAL, AC	CID-30	0,000 GAL, I	PROF	PPANT-2,	,900,935 LB	S	,				
	-		_										RI	CLA	MA	TION	
													D	TE (	2-2	3-12	
28. Product	ion - Interval	Hours	Test	Oil	10	Gas	Iw.	ater [0	Oil Gra	ivity	Gas		Product	ion Method			
Produced	Test Date	Tested	Production	BBL 386	1	MCF 3107.0	BE		Corr A		Gravit				VS FR	ECORD!	
04/08/2012 Choke	04/09/2012 Tbg Press	Csg 24	24 Hr	Oil		Gas		ater (	Gas Or		Wellis	1300 FI	11	UFU	1.11	1110010	
Size 48/64	Flwg 560 SI		Rate	BBL 386		MCF 3107	BE	1831	Ratio	5665		POW C					
	tion - Interva	al B							-						2012		
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL		Gas MCF	Wa		Oil Gra		Gas Gravity	,	Produce	on Method O	2012		
. 1000000	Julio											1	1	Com	No		
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL		Gas MCF	Wi BE		Gas Oil Ratio		Well S	BUR	ZAU	OF LAND	MAN	AGEMENT FFICE	

(See Instructions and spaces for additional data on reverse side)
ELECTRONIC SUBMISSION #135673 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*

Date First Produced Date  Choke Size Flwg S1  28c. Production - Interva  Date First Produced Date  Choke Tibg Press Flwg S1  28c. Production - Interva  Date First Date  Choke Tibg Press Flwg S1  29 Disposition of Gas/So SOLD  30. Summary of Porous 2 Show all important zo tests, including depth and recoveries.  Formation	Hours Tosted Pr	est roduction	Oil	Ic						
Produced Date  Choke Tbg Press Flwg S1  28c. Production - Interva  Date First Date  Choke Tbg Press Flwg S1  Choke Tbg Press Flwg S1  29 Disposition of Gas/So SOLD  30. Summary of Porous Z Show all important zo tests, including depth and recoveries.	Tested Pr				Water	Oil Gravity	Gas		Production Method ,	
Size Flwg S1  28c. Production - Interva  Date First Produced Date  Choke Tbg Press Flwg S1  29 Disposition of Gas(Sc SOLD)  30. Summary of Porous 2  Show all important zc tests, including depth and recoveries.			BBL .	Gas MCF	BBL	Corr API		vity	Production Method ,	
Date First Produced Date  Choke Size Flwg Si  29 Disposition of Gas/So SOLD  30. Summary of Porous 2  Show all important zo tests, including depth and recoveries.	-	4 Hr ate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Wel	l Status		
Date First Produced  Choke Size  Tbg Press Flwg S1  29 Disposition of Gas/So SOLD  30. Summary of Porous 2 Show all important zc tests, including depth and recoveries.	ID									
Choke Size Tbg Press Fiwg SI  29 Disposition of Gas/So SOLD  30. Summary of Porous 2 Show all important zo tests, including depth and recoveries.	Hours To	est	Oil	Gas	Water	Oil Gravity	Gas		Production Method	
Play Sil  29 Disposition of Gas/So SOLD  30. Summary of Porous 2  Show all important zo tests, including depth and recoveries.			BBL	MCF	BBL	Corr API		vity		
SOLD  30. Summary of Porous 2  Show all important zo tests, including depth and recoveries.		4 Hr ate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Wel	l Status		
Show all important zo tests, including depth and recoveries.	old, used for j	fuel, vent	ed, etc.)							
tests, including depth and recoveries.	Cones (Includ	le Aquifer	s):					31. For	mation (Log) Markers	
Formation	ones of poros interval teste	ety and co	ontents ther on used, tim	eof: Cored te tool ope	intervals and n, flowing ar	d all drill-stem nd shut-in press	sures			
		Тор	Bottom		Descripti	ons, Contents,	etc.		Name	Top Meas Deptl
								TO BA BE CH	STLER P SALT SE OF SALT LL CANYON ERRY CANYON USHY CANYON	436 791 3412 3664 4590 5846
					•					
•										
-AA . 18.2								<u>L</u>		
32. Additional remarks (i CONFIDENTIAL			aure).							
LOGS SENT VIA U	PS OVERN	IGHT							,	
,									,	
33. Circle enclosed attach	ments:									
1. Electrical/Mechani	ical Logs (1 f				2. Geologic	-		DST Rep	oort 4. Direct	onal Survey
5 Sundry Notice for	plugging and	cement v	rerification		6. Core An	alysis	7	Other:		
34. I hereby certify that th	e foregoing a	and attach	ed informa	tion is con	nplete and co	orrect as detern	nined from a	ll available	records (see attached instruc	tions).
			For CHE	SAPEAK	E OPERAT	d by the BLM	nt to the Ca	rlsbad		
Name (please print) E			AFMSS I	or proces	sing by KUI	RT SIMMONS Title			CHNICIAN ·	
_			20)			Data	04/18/2013	2		
Signature (E	lectronic S	upmissio	011)			Date	04/10/201/			
		1		010				42018-01	to make to any department o	

### RECEIVED

APR 20 2012

DISTRICT I 1625 M. French Dr., Hobbs, NM 66240 DISTRICT II 1301 W. Grand Avenue, Artesia, NM 6821

State of New Mexico NAMOCD ARTESIA

Form C-102 levised July 16, 2010

y to appropriate
District Office

DISTRICT III
DISTRICT III

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 67410

DISTRICT IV 1220 S. St. Francis Dr., Santa Fe, NM 07603 OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number 30-015-39692	96473 Pierce Crossing Pool Name	EAST
Property Code 38938	PLU PIERCE CANYON 20 24 30 USA	Well Number
OGRID No. 147179	Operator Name CHESAPEAKE OPERATING CO.	Elevation 3272'

#### Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
В	20	24 S	30 E		75	NORTH	1725	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
N	20	24 S	30 E		100	SOUTH	1980	EAST	EDDY
Dedicated Acr	es Joint o	r Infill Co	nsolidation	Code Or	der No.	11101			
160					NSL-6	6486-A			

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

Lot - N 32.21021755' Long - W 103.9004616' NMSPCE - N 440480.804 E 675216.069 (NAD-83) Lot - N 32.21009439' Lot -	SURFACE LOCATION Lot = N \$2.21021755; Long = W 103.9004616; NMSPCE = N 440480.804 (NAD-83) Lot = N 32.21009439; Long = W 103.89997555; NMSPCE = N 40421.980 (NAD-27)  Solution = N 40421.980 (NAD-27)
or to a voluntary pooling agreement or compulsory pooling order heratofore enter the division.  Bugan Manual O4/17/  Signature  Bryan Arrant  Printed Name bryan.arrant@chk.com  Email Address  SURVEYOR CERTIFICATION  I hereby certify that the well location on this plat was plotted from field no actual surveys made by me or under the surveys made by	PROPOSED BOTIOM HOLE LOCATION Lot - N 32.1961577' Long - W 103.9013241' NMSPCE- N 45354.993



**Downhole Profile - Vertical Wells** 

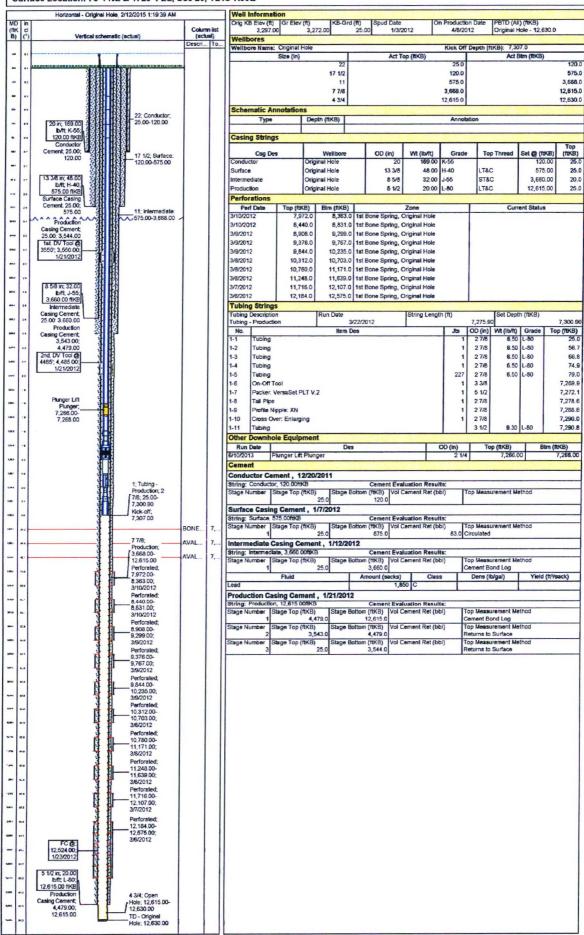
Well Name: POKER LAKE UNIT CVX JV PC #010H (20-24-30)

Sect: 20 Town: 24S Rng: 30E County: Eddy State: New Mexico

BOPCO, L.P. - West Texas

Well ID: 30-015-39692

Field: Wildcat - Bone Spring
Surface Location: 75' FNL & 1725' FEL, Sec 20, T24S-R30E



## \*

**Schematic - Vertical Production** 

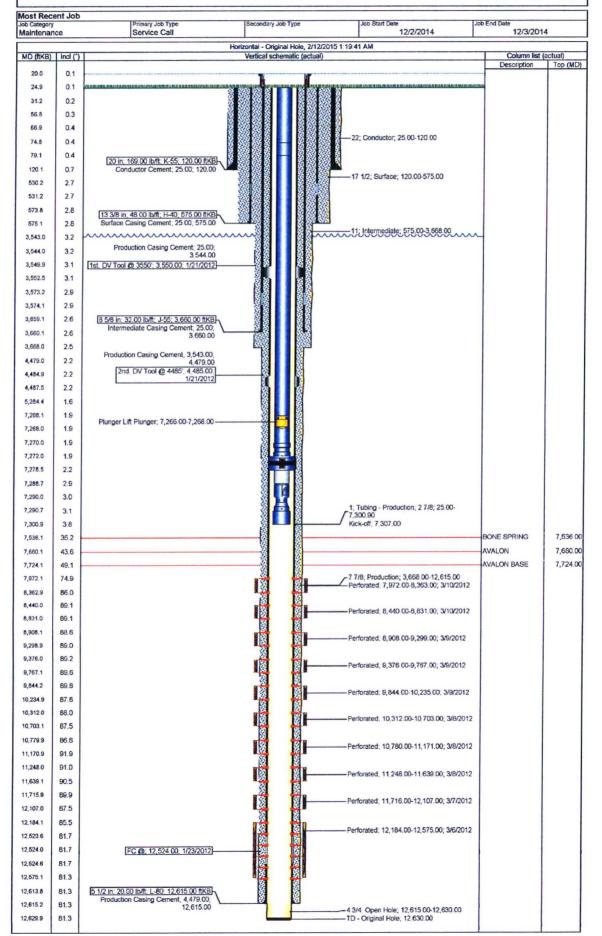
Well Name: POKER LAKE UNIT CVX JV PC #010H (20-24-30)

BOPCO, L.P. - West Texas Well ID: 30-015-39692

Field: Wildcat - Bone Spring

Sect: 20 Town: 24S Rng: 30E Eddy Co., State: New Mexico

Blk: Survey:

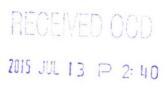




### BOPCO, L.P.

201 MAIN ST. FORT WORTH, TEXAS 76102-3131 817/390-8400

July 10, 2015



### FEDERAL EXPRESS

Bureau of Land Management Carlsbad District Office 620 E. Green St. Carlsbad, New Mexico 88220 Attn: Mr. Ed Fernandez New Mexico State Land Office Commissioner of Public Lands 310 Old Santa Fe Trail Santa Fe, New Mexico 87501 Attention: Mr. Pete Martinez New Mexico Oil Conservation Division 1220 St. Francis Santa Fe, New Mexico 87505 Attention: Mr. William Jones

Re: Commercial Determination PLU CVX JV Remuda Basin #002H (32-23-30) Lower Avalon Shale Eddy County, New Mexico

### Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the Lower Avalon Shale. Should you be in agreement that the Lower Avalon Shale is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

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.

Very truly yours,

R. Travis Mears

Bureau of Land Management	New Mexico State Land Office	New Mexico Oil Conservation Division
Ву:	Ву:	By:
Its:	Its:	lts:
Date:	Date:	Date:



### INTER-OFFICE MEMORANDUM

TO:

**Ross Sutton** 

FROM:

**Bryce Bezant** 

DATE:

7/8/2015

RE:

Commercial Determination

PLU CVX JV Remuda Basin #002H (32-23-30)

Poker Lake Unit (Lower Avalon Shale)

Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Remuda Basin #002H was drilled in 2012 to a total depth of 12,950' laterally completed in the Lower Avalon Shale reservoir. The well is producing from perforations 8,408'-12,827'. On test 9/21/2012 the well flowed at the rate of 324 BOPD, 1500 MCFD, and 1301 BWPD. This well has an expected recovery of approximately 70 MBOE (13:1 mcf/bbl) from the current completion.

The capital investment was taken from the AFE report and operating costs from the LIOR statement which included water hauling charges. The most recent strip price file was utilized adjusting for current area differentials. The Remuda Basin #002H will not be a commercial well and should not be incorporated into a participating area.

Bryce Bezant, P.E.

RBB/tah

Cc:

Travis Mears
Tom McCarthy

Steve Johnson

### **ECONOMIC PROJECTION**

Date:

1/28/2015

Lior: 1004801

Lease Name: 1004801/PLU CVX JV RB/002H/LOW

Project Name: commercial determination Partner:

All cases Case Type: LEASE CASE Discount Rate (%): 5.00

As Of Date: 05/01/2012

Reserv Cat.: Proved Producing

2:25:54PM

Field: FORTY NINER RIDGE; BONE SPRING 1004801/PLU CVX JV RB/002H/LOW

Operator: BOPCO

Reservoir: LOWER AVALON Co., State: EDDY, NM

Risk: 0.000 Inherited/ 0.000 Compounded

Archive Set: NS0714 Cum Oil (Mbbl): Cum Gas (MMcf):

0.00 0.00

	Gross Wet Production		Gross Dry Gas	& NGL		Sales	
Year	Oil (Mbbl)	Wet Gas (MMcf)	Dry Gas (MMcf)	NGL (Mgal)	Oil (Mbbl)	Gas (MMcf)	NGL (Mgal)
2012	6.517	47.458	24.204	161.357	5.696	21.154	141.026
2013	6.686	92.440	47.144	297.465	5.844	41.204	259.984
2014	3.614	55.031	28.066	187.105	3.158	24.529	163.530
2015	2.393	40.498	20.654	137.692	2.092	18.051	120.342
2016	1.791	31.249	15.937	106.245	1.566	13.929	92.858
2017	1.426	25.336	12.921	86.143	1.246	11.293	75.289
2018	1.187	21.354	10.891	72,604	1.037	9.518	63.456
2019	1.017	18.456	9.413	62.750	0.889	8.227	54.844
2020	0.892	16.293	8.310	55.398	0.779	7.263	48.418
2021	0.790	14.514	7.402	49.347	0.691	6.469	43.129

2232				160.01	56.01	105 77	(22 52
	(\$/bbl)	(\$/Mcf)	(\$/gal)	(M\$)	(M\$)	(M\$)	(M\$)
Year	Oil	Gas	NGL	Oil	Gas	NGL	Total
		Average Price			Net Reve	enue	
Ult.	32.721	481.386					
Total	32.721	481.386	245.507	1,619.907	28.598	214.573	1,415.799
Rem	6.408	118.758	60.566	403.802	5.600	52.935	352.923

Year	Oil (\$/bbl)	Gas (\$/Mcf)	NGL (\$/gal)	(M\$)	(M\$)	(M\$)	(M\$)
2012	82.49	2.69	0.75	469.84	56.91	105.77	632.52
2013	87.15	3.35	0.75	509.28	138.20	194.99	842.46
2014	84.14	3.93	0.81	265.72	96.43	133.11	495.26
2015	46.17	2.84	0.44	96.56	51.31	52.94	200.82
2016	51.97	3.14	0.47	81.36	43.69	43.20	168.25
2017	55.84	3.30	0.47	69.59	37.23	35.03	141.85
2018	58.10	3.38	0.47	60.28	32.22	29.52	122.01
2019	59.42	3.47	0.47	52.81	28.54	25.51	106.87
2020	60.26	3.56	0.47	46.97	25.85	22.52	95.34
2021	60.69	3.65	0.47	41.91	23.61	20.06	85.59
Rem	61.17	4.09	0.47	342.58	216.64	164.19	723.41
Total	71.23	3.50	0.58	2,036.91	750.63	826.85	3,614.38

		Expenditures				Future Net	Revenue	
Year	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)
2012	23.27	0.99	6,155.36	428.87	-5,975.96	-5,975.96	-5,902.62	-5,902.62
2013	62.98	2.65	0.00	494.89	281.94	-5,694.03	269.11	-5,633.52
2014	37.31	1.56	0.00	239.08	217.31	-5,476.71	196.98	-5,436.54
2015	15.22	0.63	0.00	249.85	-64.89	-5,541.61	-55.52	-5,492.06
2016	12.75	0.53	0.00	242.92	-87.95	-5,629.55	-71.69	-5,563.75
2017	10.74	0.45		238.48	-107.82	-5,737.38	-83.75	-5,647.50
2018	9.24	0.38	0.00	235.50	-123.10	-5,860.48	-91.08	-5,738.58
2019	8.09	0.34		233.32	-134.88	-5,995.36	-95.06	-5,833.63
2020	7.22 0.30		0.00	231.70	-143.88	-6,139.24	-96.57	-5,930.20
2021	6.48 0.27			230.37	-151.53	-6,290.77	-96.87	-6,027.07
Rem	54.89	2.27	0.00	3,538.22	-2,871.97	-2,871.97	-1,231.43	-1,231.43
Total	248.20	10.37	6,155.36	6,363.20	-9,162.73	-9,162.73	-7,258.50	-7,258.50

1.00000000 Working Int: Major Phase: Gas Present Worth Profile (M\$) 0.87400000 0 Revenue Int: Perfs: 5.00%: 9,644.00 Mcf/month Disc. Initial Invest. (m\$): 6,080.172 Initial Rate: 9.00%: >1000.0 Internal ROR (%): 304.17 Mcf/month Abandonment: 10.00%: 0.00 / 0.00 Initial Decline: 60.00 % year b = 1.000ROInvestment (disc/undisc): 12.00%: 0.08 bbl/Mcf Years to Payout 0.00 Beg Ratio: End Ratio: 15.00%: 09/21/2037 0.05 bbl/Mcf Abandonment Date: 20.00% : 03/01/2013 Forecast Start: 2nd Rev. 1st Rev. Initial

-5,977.50 -5,728.84 -5,455.36 40.00%: -5,298.63 Working Interest: 1.00000000 0.00000000 0.00000000 50.00%: -5,187.210.00000000 0.87400000 0.00000000 Revenue Interest: -5,097.87 60.00%:

Rev. Date: 3OPCO Detailed V9.rpt Ver: 1/28/2015

Page 1

-7,258.50

-6,533.88

-6,409.29

-6,204.47

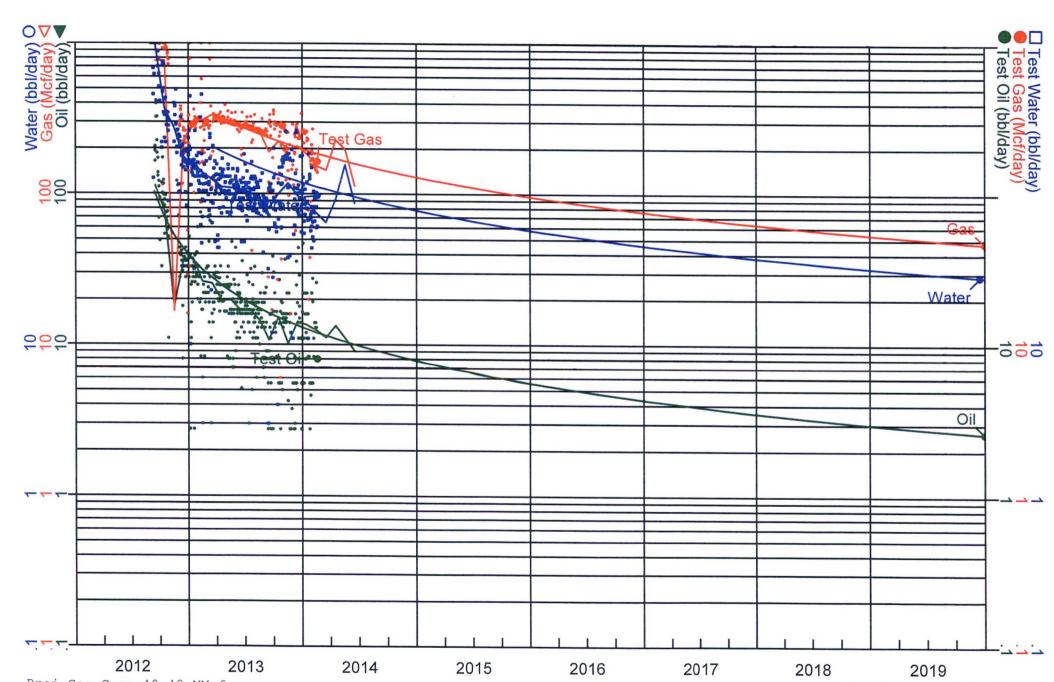
Oper: BOPCO

Reservoir: LOWER AVALON

Field: FORTY NINER RIDGE; BONE SPRING

EDDY, NM

ECL Date: 09/21/2037



Proj Gas Cum: 40.48 MMcf Gas Rem: 440.91 MMcf

Gas EUR: 481.39 MMcf

Proj Oil Cum: 5.11 Mbbl Oil Rem: 27.61 Mbbl

Oil EUR: 32.72 Mbbl

### WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

### **WELL DATA**

WELL PLU CVX JV F	Remuda Basin #002H(32-23-30)	FORMATION _	BONE	SPRING
LOCATIONUN	IT,150 FEET FROMS	OUTH LINE &	660 FEET FRO	OM <u>WEST</u> LINE
SECTION32 TOWNSHIP2	23S , RANGE, CO	UNTY	Eddy	, NEW MEXICO
SPUD DATE 6/12/2012 CO	MPLETION DATE 8/30/2012	INITIAL PR	ODUCTION	9/13/201
PERFORATIONS 8408-12827				
BHL: 258' FNL & <u>623' FWL SEC 32 T23S F</u>	R30E			
STIMULATION:				
ACID				
FRACTURE See	e Attached			
				-
OTENTIAL(9/21/2012): 324	BOPD, 1500 MCFPD, 1301 BWPD			
POTENTIAL (9/21/2012): 324   Attach Copy of C-105. Attach Copy of Well				
	lbore Sketch of Completed Well.)			
	lbore Sketch of Completed Well.)	ALCULATION	SANDS NOT PERFOR	
Attach Copy of C-105. Attach Copy of Well	lbore Sketch of Completed Well.)  VOLUMETRIC C	ALCULATION		
Attach Copy of C-105. Attach Copy of Well	VOLUMETRIC CA	ALCULATION		
Attach Copy of C-105. Attach Copy of Well  area (A) proration unit size, acres  arosity (Φ), %	VOLUMETRIC C.  SANDS PERFORATE  160	ALCULATION		
Attach Copy of C-105. Attach Copy of Well  Area (A) proration unit size, acres  Porosity (Φ), %  Vater saturation (Sw), %	SANDS PERFORATED  160  18%	ALCULATION		
	SANDS PERFORATE  160  18%  11%	ALCULATION		
Attach Copy of C-105. Attach Copy of Well  Area (A) proration unit size, acres  Porosity (Φ), %  Vater saturation (Sw), %  Let Thickness (H), ft.  Temperature (T), Fahrenheit	SANDS PERFORATED  160  18%  11%  110	ALCULATION		
Attach Copy of C-105. Attach Copy of Well  Area (A) proration unit size, acres  Porosity (Φ), %  Vater saturation (Sw), %  Let Thickness (H), ft.  Emperature (T), Fahrenheit  Fottom Hole pressure (P), psia	VOLUMETRIC C.   SANDS PERFORATED     160	ALCULATION		
Attach Copy of C-105. Attach Copy of Well  Area (A) proration unit size, acres  Porosity (Φ), %  Vater saturation (Sw), %  Let Thickness (H), ft.	SANDS PERFORATE  160  18%  11%  110  131  3,775	ALCULATION		

### PERFORMANCE DATA

(If sufficient history exists, attach plot of oil production rate v time.)										
CUMULATIVE PRODUCTION TO	12/31/2014	167,708	BBL Oil	188,947	_MCF Gas					
INITIAL RATE (qi)		89	00 mcfd		_					
ECONOMIC LIMIT (qI)			10		_					
HYPERBOLIC DECLINE RATE, dy	-	n =1, d = 55%/yr								
REMAINING MMCF (Q) =			600		_					
ULTIMATE RECOVERABLE MMCF		789								
(Attach plat showing proration unit and participating area.)										

### **ECONOMIC**

GROSS WELL COST \$2,339,037 (to the depth of formation completed)

COMPLETION COST \$3,816,323

GROSS TOTAL COST \$6,155,360

YEAR	GROSS MCF MMCF	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	47.458	632.5	453.1	-5902.6
2	92.440	842.5	560.5	269.1
3	55.031	495.3	278.0	197.0
4	40.498	200.8	265.7	-55.5
5	31.249	168.3	256.2	-71.7
6	25.336	141.9	249.7	-83.8
7	21.354	122.0	245.1	-91.1
8	18.456	106.9	241.8	-95.1
9	16.293	95.3	239.2	-96.6
10	14.514	85.6	237.1	-96.9
REMAINDER	118.758	723.4	3595.4	-1231.4
TOTAL	481.387	3614.4	6621.8	-7258.5

### WELL IS NOT COMMERCIAL

Submit To Appropr Two Copies	rict Office	,	State of New Mexico Energy, Minerals and Natural Resources										Re		orm C-105 august 1, 2011		
1625 N. French Dr. District II			)	.011								1. WELL	API		0-015	-40341	1
811 S. First St., Arte District III 1000 Rio Brazos Ro						il Conserva 20 South S						2. Type of Le	ease				
District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 Santa Fe, NM 87505								Λ.		3. State Oil &		FEE Lease No		FED/IND	JIAN		
				RECO	OMPL	ETION RE	PO	RT A	NE	LOG		1000000000000000000000000000000000000		in the second	Ki, i		
4. Reason for filing:								5. Lease Nam PLU REM	c or U	Jnit Agree A BASI	ment N N 32	ame 23 30					
▼ COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only)									6. Well Numb	ег:		R	ECE	EIVED			
C-144 CLOSURE ATTACHMENT (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)										1H				SEP 2	5 2012		
7. Type of Comp  NEW V	letion: VELL	☐ WOR	KOVER [	DEEP	ENING	□PLUGBACE	K 🗆	DIFFE	EREN	NT RESERV	OIR	OTHER					
8. Name of Opera	tor Ch	nesape	ake Ope	erating	Inc.							9. OGRID	147	179	NIVI	OCD	ARTESIA
10. Address of Op P.O. Box 184		dahom	a City C	N 73	154							11. Pool name FORTY-NI			F· BC	NF SE	PRING W
	Unit Lt		ection	Towns		Range	Lot			Feet from the	he	N/S Line		from the	E/W I		County
Surface:	M	32		235		30E	-			150		S	660	)'	W		EDDY
BH:	D	32		23S		30E				258'	- 1	N	623		W		EDDY
13. Date Spudded 06/12/2012	14. E	Date T.D. 06/201	Reached 2	15. f	Date Rig 10/20	Released			16. 08/	Date Comple /30/2012	eted	(Ready to Prod	ucc)	RI	r, GR, e	etc.) 324	and RKB, 41' GR
18. Total Measure 12950'	d Depth	of Well		19. F	lug Bad 50'	ck Measured Dep	oth		20. YE		ional	Survey Made?	,	21. Type GR/IN			her Logs Run
22. Producing Interval(s), of this completion - Top, Bottom, Name 8408'-12827'																	
23.					CAS	ING REC	OR	D (R	epo	ort all str	ing						
CASING SIZ 13 3/8"	E	48	EIGHT LB./	FT.	775'	DEPTH SET		17 1/		LE SIZE		CEMENTING 1200	FRE	CORD	AN	TOUNT	PULLED
8 5/8"		32			3725		-	11				1600					
5 1/2"		20			1287			7 7/8	111			1900					
											_						
24.					LIN	ER RECORD					25.	T	JBIN	NG RECO	ORD		
SIZE	ТОР		BO	ITOM		SACKS CEMI	ENT	SCR	EEN		SIZ	ZE DEPTH SET PACKER SE 78" 7417' 7425'			ER SET		
				··							2 11	0	1/4	17		1425	
26. Perforation r 8408'-12827';	ecord (i	nterval, s	ize, and nur	nber)					-		FRA	CTURE, CEN					
12027	0 0.									NTERVAL 2827'		984 Gals 15% HCI					
				CONFIDENTIAL					4,481,480 #s				s Sand rels Slick Water/Gel				
20					** /-		PD	ODU	СТ	ION		98,654 Bar	rels	Slick V	vater/	Gel	
28. Date First Producti	ion					wing, gas lift, pu						Well Status	Prod	or Shut-i	n)		
09/13/2012	Li	TF 1	Sub p					0.1	DLI		0	Prod.	Wa	ter - Bbl.		Gas - O	il Patio
Date of Test 09/21/2012	24	s Tested		oke Size . 164	علما	Prod'n For Test Period		Oil - 324	BDI	1	Gas 150		1	01		Gas - O	TI Kado
Flow Tubing		g Pressur		culated 2	4-	Oil - Bbl.		1		MCF	1	Vater - Bbl.	_	Oil Grav	ity - AP	l - (Corr	:)
Press. 620 29. Disposition of 6	600				l	324			1500	)	17.	301	30. Te	est Witness	sed By		
Flared; Flare	e Peri	mit App	proved th	rough	11/30	0/2012											
31. List Attachmen	ts																
32. If a temporary p	oit was i	used at th	e well, attac	h a plat	with the	location of the to	empo	orary pi	1.				-				
33. If an on-site but	rial was	used at the	he well, rep	ort the ex	caet loca		te bu	rial:				Longitude				NAI	1927 1983
I hereby certify	hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief																
Signature U	131	y	Ne	1/		rinted Name Bryan	Arra	ant		Title	R	egulatory S	pec	ialist II		Date	09/24/2012
E-mail Address	bryan	.arrant(	@chk.com	<sub>n</sub> <i>V</i>		Am	014	hed	-	المولال .	P	OTCHT:	L	C	ONE	IDEN	ITIAL

### **INSTRUCTIONS**

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

### INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southe	astern New Mexico	Northy	vestern New Mexico
T. Anhy	T. Canyon	T. Ojo Alamo	T. Penn A"
T. Salt	T. Strawn	T. Kirtland	T. Penn. "B"
B. Salt	T. Atoka	T. Fruitland	T. Penn. "C"
T. Yates	T. Miss	T. Pictured Cliffs	T. Penn. "D"
T. 7 Rivers	T. Devonian	T. Cliff House	T. Leadville
T. Queen	T. Silurian	T. Menefee	T. Madison
T. Grayburg_	T. Montoya	T. Point Lookout	T. Elbert
T. San Andres	T. Simpson	T. Mancos	T. McCracken
T. Glorieta	T. McKee	T. Gallup	T. Ignacio Otzte
T. Paddock	T. Ellenburger	Base Greenhorn	T.Granite
T. Blinebry	T. Gr. Wash	T. Dakota	
T.Tubb	T. Delaware Sand 3600	T. Morrison	
T. Drinkard	T. Bone Springs 7373	T.Todilto	
T. Abo	T.	T. Entrada	
T. Wolfcamp	T.	T. Wingate	
T. Penn	T.	T. Chinle	
T. Cisco (Bough C)	T.	T. Permian	OIL OR GAS

	,		SANDS OR ZONES
No. 1, from	to	No. 3, from	to
No. 2, from	to	No. 4, from	to
	IMPORTANT V	VATER SANDS	
Include data on rate of water	inflow and elevation to which water	r rose in hole.	
No. 1, from	toto	feet	
No. 2, from	to	feet	
	to		
	ITHOLOGY RECORD (		

	From	То	Thickness In Feet	Lithology	From	То	Thickness In Feet	Lithology
				* *				
- 1								

District I 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 District II 811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 District III 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

162.87

### State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr.

Santa Fe, NM 87505

. Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

	AMENDED	REPOR
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1220 S. St. Francis D Phone: (505) 476-346									Met	is ofoll
		WI	ELL LO	CATION	N AND ACE	REAGE DEDIC	CATION PL	AT A	fface	of ogogi
1	API Numbe	er		<sup>2</sup> Pool Code	2		<sup>3</sup> Pool Na	me	~	
30-015-40341				96526		Forty-	Niner Ridge; Bo	one Sprin	g, West	
4 Property				5 Property	Name	• • • • • • • • • • • • • • • • • • • •	a B	6 Well Number		
3/23				Poker Lake Un	it CVX IJV RB		. eb	2H ·		
'OGRID	No.		8 Operator Name						9	Elevation
26073	37			BOPCO, LP				•	3241	
					" Surface 1	Location				
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East	/West line	County
M	32	23S	30E		150	South	660		West	Eddy
			" Bot	tom Hole	e Location If	Different From	n Surface			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East	/West line	County
D	32	23S	30E		258	North	623		West	Eddy
12 Dedicated Acre	s 13 Joint o	r Infill 14 Co	nsolidation	Code 15 Ore	der No.					

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.

16	1258'			"OPERATOR CERTIFICATION
6231	BHL			I hereby certify that the information contained herein is true and complete to the
623.	1 0112			best of my knowledge and belief, and that this organization either owns a
	i			working interest or unleased mineral interest in the land including the proposed
	1			bottom hole location or has a right to drill this well at this location pursuant to
	i			a contract with an owner of such a mineral or working interest, or to a
<b>!</b> .	1			voluntary pooling agreement or a compulsory pooling order heretofore entered
	1			by the division.
				Shirthury Olf Date
	!	ı.		Tracie J Cherry Printed Name
	!			ticherry@basspet.com E-mail 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
!				
1				best of my belief.
. 1				
	-			Date of Survey
1	. }			Signature and Seal of Professional Surveyor:
	1			
1	_			
1	Top perf			
, b	509' FSL 541 FWL			
1			1	
€ 660'	SHL.			Certificate Number
	150'			



**Downhole Profile - Vertical Wells** 

BOPCO, L.P. - West Texas

Well Name: POKER LAKE UNIT CVX JV RB #002H (32-23-30) Well ID: 30-015-40341
Field: Sect: 32 Town: 23S Rng: 30E County: Eddy State: New Mexico

150' FSL & 660' FWL. Sec 32, T23S-R30E

Sı	rface Location: 15	0' FSL & 660' FWL,	Sec 32, T2	3S-R30	E								
MD		nal Hole, 9/18/2014 1:17:05 AM			nformation B Elev (ft) Gr Elev	(th) IVP Con	f (ft) Spud Date	Ion	Production	on Date	PBTD (AI	I) (AKB)	
MD (ftK B)	In cl (*) Vertical s	chamatic (actual)	Column list		3,264.00	(ft) KB-Grd 3,241.00	23.00 6/17		9/19/20		FBID (A	i) (IIND)	
5,		Chematic (actual)		o Wellbo	ores re Name: Original I	Hole			Kick Off	Depth (fi	tKB): 7,69	2.0	
					Size (in)	24	Act T	op (flKB)	23.0		Act I	Btm (ftKB)	120.0
			1 11	11		17 1/2			120.0				379.0
	<u> </u>					11 7 7/8			379.0 3,540.0				3,540.0
				Schen	natic Annotation				3,540.01				12,550.0
_					Туре	Depth (ftKB)			Annota	ation			
	20 in; 133.00			Casing	g Strings								1
-	b/ft; J-55; 120.00 ftKB	24; Conductor;			Csg Des	Wellbore	OD (in)	Wt (lb/ft)	Grade	Tot	Thread	Set @ (ftKi	Top (ftKB)
-	Conductor Cement; 23.00	23.00-120.00		Conduc	tor		20	133.00		Weld	led	120.0	0 23.0
	a.	17 1/2; Surface;		Surface		Original Hole Original Hole	13 3/8 8 5/8	48.00 32.00	J-55 J-55	ST&C		378.0 3,540.0	
	.	120.00-379.00		Product		Original Hole	5 1/2	17.00	P-110	$\perp$		12,950.0	0 23.0
	- 3			Perfor	Date Top (fth	(B) Blm (ftKB)	T	Zone		T	Curr	ent Status	
B=1	Surface Casing			8/17/201 8/17/201	12 8,4	08.0 8,879.0	Avalon Shale, Ori						
~	Cement; 333.00			8/17/201			Avalon Shale, Ori						
~	** lb/ft; J-55; 378.00 ftKB	M W		8/17/201			Avalon Shale, Ori						
				8/17/201	11,2	28.0 11,699.0	Avalon Shale, Ori	ginal Hole					
-	"	11; Intermediate;		8/17/201 8/17/201			Avalon Shale, Ori						
100		24; Conductor;   23:00-120.00		Tubing	Strings								
100.	<u>"</u>	<b>*********</b>			Description Production	Run Date 8	3/19/2014	String Length	r (ft)	7,590.7	Set Dep	h (ftKB)	7,613.75
				No.	2-7/8" 6.5 ppf L-80	item [			Jts 232	OD (in) 27/8	Wt (Ib/ft)	Grade L-80	Top (ftKB) 23.0
	1; 23.00			3-1	Anchor/catcher	BRD Tubing			1	2 7/8	6.50	L-80	7,578.7
	8 5/8 in; 32.00			3-3 3-4	Pump Seating Nipp Perforated Joint	ole			1	2 7/8			7,581.2 7,582.3
	3,540.00 ftKB			3-5	Bull Plug				1	3			7,613.3
2401				Rod St Rod Des		Run Date		String Length	(0)		Set Dept	h (AKR)	
				Rod	Сприон	8	/19/2014	Sulling Letigui		7,582.00			7,582.25
A-01				Item # 2-1	1-1/2" X 26' Spray !	Item D Metal Polished Rod			Jts 1	1 1/2	Wt (lb/ft)	Grade	Top (ftKB) 0.3
ran				2-2	Sucker Rod				1	7/8	2.22	non- API	26.3
tam-				2-3	Sucker Rod				109	7/8	2.22	non- API	28.3
Om 1			BON 7.	2-4	Sucker Rod				180	3/4	1.63	non- API	2,728.3
(m)			AVA 7,	2-5	Sucker Rod				12	1	2.90	non-	7,228.3
-	"			2-6	Sucker Rod				1	1	2.90	API non-	7,528.3
(max		NON			Continuous Sucker	Pod				,	2.67	API Specia	7,532.3
· ·											2.07	I	
				2-8 Cemen	25-125-RHBC-24 R	od Pump			''	-1			7,558.3
04C3	ii i	7,582.25			ctor Cement, 6								
040		Production; 2		String: C	Conductor, 120.00fth umber Stage Top (	ftKB) Stage B	Bottom (ftKB) Vol (	luation Result Cement Ret (bb	I) T		rement Me	ethod	
984		7,613.75		-	1 Fluid	23.0	120.0 Amount (sacks)	Class		Dens (It		Yield (f	t³/sack)
	•			Lead									
Uma	Production			String: S	Casing Cemen Surface, 378.00ftKB			luation Results					
Comm	Casing Cement; 3,025.00	3,540.00-		Stage Nu	Stage Top (	ftKB) Stage B 333.0	Sottom (ftKB) Vol 0 378.0	Cement Ret (bb			rement Me Iculations	ethod	
Lea: 1		Perforated;		Tail	Fluid		Amount (sacks)	Class		Dens (It		Yield (fi	<sup>3</sup> /sack)
		8,879.00;			ediate Casing Ce	ment , 6/22/20		IIIc			13.30		1.73
		Perforated;		String: Ir	ntermediate, 3,540.0 mber   Stage Top (	OftKB		luation Results	s:	op Measu	rement Me	thod	
		6/1//2012			1 Fluid	23.0	3,540.0 Amount (sacks)	Class		irculated Dens (It		Yield (ft	No note)
		9,536.00-		Lead	Fillio		1,9	50 C		Dens (ic		nij bish	
	·	8/17/2012		Lead Tail				33 TXI 10 Poz 50/50			12.00 14.20		1.95 1.37
	" f	10,100.00-		Stage Nu	mber Stage Top (	ftKB) Stage B	ottom (ftKB) Vol C	Cement Ret (bbl	) To	op Measu	rement Me	thod	
	1				tion Casing Cem								
					roduction, 12,950.00 mber   Stage Top (	ftKB) Stage Bo	ottom (ftKB) Vol C	luation Results Cement Ret (bbl	) To	op Measu	rement Me	thod	
	.]				1 Fluid	3,025.0	7,737.0 Amount (sacks)	Class	0.0 V	Dens (Ib	lculations	Yield (ft	³/sack)
401 11	.]	10,664.00-		Lead		auch) To:		14 H			12.40		2.19
F. CO. 1		11,135.00; 8/17/2012		Stage Nu	2	7,737.0 Stage Bo	12,950.0	ement Ret (bbl		olume Cal			,
11,294 88	· A	11,228.00-		Tail	Fluid		Amount (sacks)	Class 29 H	-	Dens (Ib	/gal) 14.50	Yield (ft	1.28
11,000 1 mg	.	8/17/2012											
1,001	·	11,792.00-											
H	1	8/17/2012											
	·	12,356.00-											
500°   10		12,827.00; 8/17/2012											
eres; 12	1												
4mm 15	1												
EM. 14	Production												
CM-1 St	Casing Cement; 7,737.00												
EM1 84	5 1/2 in; 17.00 lb/ft; P-110;	TD - Original Hole; 12,950.00											
	12,950.00 ftKB	71010, 12,000.00											

# \*

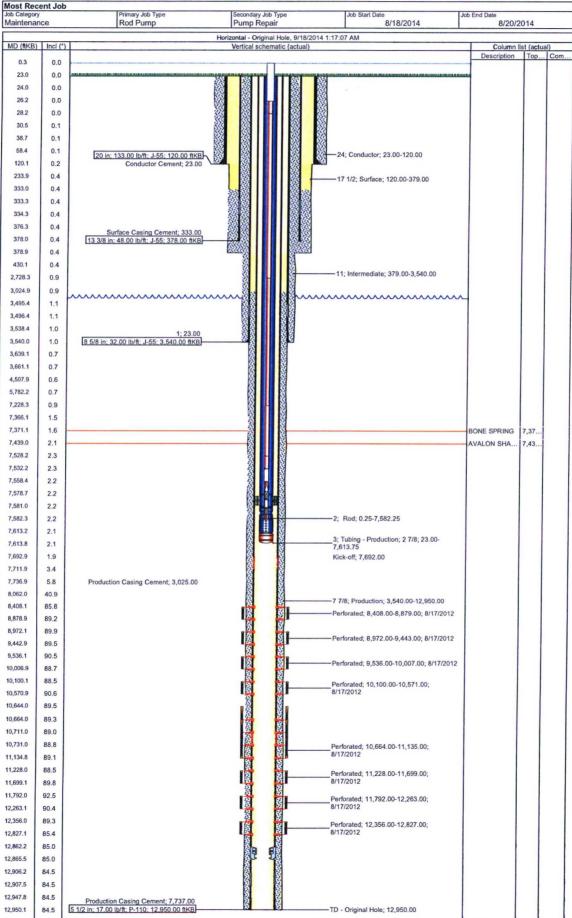
Schematic - Vertical Production

Well Name: POKER LAKE UNIT CVX JV RB #002H (32-23-30)

BOPCO, L.P. - West Texas Well ID: 30-015-40341

d: Sect: 32 Town: 23S Rng: 30E Eddy Co., State: New Mexico Blk: Survey:

Dik. Guivey.



366

### BOPCO, L.P.

201 MAIN ST.

FORT WORTH, TEXAS 76102-3131
817/390-8400

July 10, 2015

RECEIVED OCD

### **FEDERAL EXPRESS**

Bureau of Land Management Carlsbad District Office 620 E. Green St. Carlsbad, New Mexico 88220 Attn: Mr. Ed Fernandez New Mexico State Land Office Commissioner of Public Lands 310 Old Santa Fe Trail Santa Fe, New Mexico 87501 Attention: Mr. Pete Martinez New Mexico Oil Conservation Division 1220 St. Francis Santa Fe, New Mexico 87505 Attention: Mr. William Jones

Re: Commercial Determination
PLU CVX JV Big Sinks #017H (7-25-31)
1st Bone Spring Shale
Eddy County, New Mexico

### Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the 1<sup>st</sup> Bone Spring Shale. Should you be in agreement that the 1<sup>st</sup> Bone Spring Shale is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

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.

Very truly yours,

R. Travis Mears

Bureau of Land Management	New Mexico State Land Office	New Mexico Oil Conservation Division
Ву:	By:	Ву:
Its:	Its:	Its:
Date:	Date:	Date:



### INTER-OFFICE MEMORANDUM

TO:

**Ross Sutton** 

FROM:

**Bryce Bezant** 

DATE:

7/8/2015

RE:

Commercial Determination

PLU CVX JV Big Sinks #017H (7-25-31) Poker Lake Unit (1<sup>st</sup> Bone Spring Shale)

Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Big Sinks #017H was drilled in 2012 to a total depth of 14,050' laterally completed in the 1<sup>st</sup> Bone Spring Shale reservoir. The well is producing from perforations 8,013'-14,050'. On test 2/12/2013 the well flowed at the rate of 371 BOPD, 285 MCFD, and 1524 BWPD. This well has an expected recovery of approximately 109 MBOE (13:1 mcf/bbl) from the current completion.

Economic cases were taken from the 1/1/2015 NSAI bankers database, with the capital investment taken from the AFE report and operating costs from the LIOR statement which included water hauling charges. The most recent strip price file was utilized adjusting for current area differentials. The Big Sinks #017H will not be a commercial well and should not be incorporated into a participating area.

R Bryce Bezant, P.E.

RBB/tah

Cc:

Travis Mears
Tom McCarthy
Steve Johnson

### **ECONOMIC PROJECTION**

Date:

Partner:

Rem

Case Type:

4/24/2015

All cases

LEASE CASE

Project Name: 1-1-2015 NSAI Review For BOPCO, LP

Lior: 1004616

0.000

Lease Name: 1004616/PLU CVX JV BS/017H/1ST

2:28:34PM

0.000

As Of Date: 01/01/2013 Discount Rate (%): 5.00

Reserv Cat.: Proved Producing

Field: WILDCAT G-06 S2530020;BONE SPRIN

1004616/PLU CVX JV BS/017H/1ST

Operator: BOPCO

Reservoir: 1st BONE SPRING SHALE

Co., State: EDDY, NM

0.000

Risk: 0.000 Inherited/ 0.000 Compounded

Archive Set: BOPCO0115 Cum Oil (Mbbl): Cum Gas (MMcf):

0.00 0.00

Gross Wet Production

0.000

0.000

	Gross wet Pro	duction	Gloss Dry Gas	& NOL		Sales			
Year	Oil (Mbbl)	Wet Gas (MMcf)	Dry Gas (MMcf)	NGL (Mgal)	Oil (Mbbl)	Gas (MMcf)	NGL (Mgal)		
2013	22.757	98.768	47.577	148.152	19.435	40.630	126.522		
2014	11.164	57.696	27.792	86.544	9.534	23.735	73.909		
2015	9.949	48.620	23.420	72.930	8.497	20.001	62.282		
2016	7.974	38.718	18.650	58.077	6.810	15.927	49.597		
2017	6.730	32.029	15.428	48.044	5.748	13.176	41.029		
2018	5.892	27.374	13.186	41.061	5.032	11.261	35.066		
2019	5.274	23.902	11.514	35.853	4.504	9.833	30.619		
2020	4.810	21.268	10.245	31.902	4.107	8.749	27.244		
2021	4.405	19.063	9.183	28.595	3.762	7.842	24.420		
2022	1.516	6.494	3.128	9.741	1.295	2.672	8.319		

0.000

Gross Dry Gas & NGI

Total	80.473	373.932	180.123	560.898	68.724	153.825	479.007
-			180.123	300.090	00.724	133.623	479.007
Ult.	80.473	373.932					
		Average Price			Net Rev	enue	
Year	Oil	Gas	NGL	Oil	Gas	NGL	Total
	(\$/bbl)	(\$/Mcf)	(\$/gal)	(M\$)	(M\$)	(M\$)	(M\$)
2013	87.07	3.24	0.75	1,692.19	131.74	94.89	1,918.81
2014	81.41	3.92	0.80	776.15	93.04	59.42	928.62
2015	45.93	2.55	0.45	390.29	50.99	28.25	469.53
2016	52.04	2.85	0.47	354.38	45.36	23.44	423.18
2017	54.61	3.07	0.47	313.88	40.41	19.39	373.69
2018	56.09	3.16	0.47	282.21	35.57	16.58	334.36
2019	57.19	3.23	0.47	257.62	31.78	14.47	303.88
2020	58.38	3.33	0.47	239.77	29.17	12.88	281.81
2021	59.17	3.47	0.47	222.60	27.19	11.54	261.33
2022	59.62	3.67	0.47	77.19	9.80	3.93	90.92
Rem	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	67.03	3.22	0.59	4,606.28	495.04	284.81	5,386.13

0.000

		Expenditures			Future Net Revenue					
Year	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)		
013 014 015 016 017 018 019 020 021	60.50 67.60 34.20 30.80 27.19 24.32 22.09 20.48 18.99 6.61	1.55 1.72 0.87 0.78 0.69 0.62 0.56 0.52 0.48 0.17	6,521.90 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	1,213.49 293.34 269.34 258.79 250.15 243.39 237.82 233.31 229.16 81.93	-5,878.63 565.95 165.12 132.80 95.66 66.04 43.40 27.51 12.70 2.21	-5,878.63 -5,312.68 -5,147.56 -5,014.76 -4,919.10 -4,853.06 -4,809.66 -4,782.15 -4,769.46 -4,767.24	-5,872.82 527.22 146.28 112.10 76.90 50.57 31.66 19.12 8.42 1.42	-5,872.82 -5,345.60 -5,199.31 -5,087.21 -5,010.31 -4,959.73 -4,928.07 -4,908.96 -4,900.54 -4,899.12		
em otal	0.00 312.77	0.00 7.98	0.00 6,521.90	0.00 3,310.72	0.00 -4,767.24	0.00 -4,767.24	0.00 -4,899.12	0.00 -4,899.12		
Maior Phase: Perfs: nitial Rate: Abandonment nitial Decline Beg Ratio: End Ratio:	0 0 7,447.00 Mcf/month ent: 1,460.95 Mcf/month ine: 44.07 % year b = 1.000 0.31 bbl/Mcf		Internal RO	t: ! Invest. (m\$): !PR (%): ent (disc/undisc): yout:	1.00000000 0.85400000 6.521.900 >1000.0 0.25 / 0.27 0.00 05/13/2022	Pre	sent Worth Profi 5.00%: 9.00%: 10.00%: 12.00%: 15.00%: 20.00%:	-4,89 -4,98 -5,00 -5,03 -5,08 -5,15		

1st Rev.

0.00000000

0.00000000

2nd Rev.

0.00000000

0.00000000

3OPCO Detailed V9.rpt

orecast Start:

Rev. Date: Ver: 4/24/2015

Working Interest:

Revenue Interest:

Initial

1.00000000

0.85400000

04/01/2013

-5,453.24 Page 1

30.00%:

40.00%:

50.00%:

60.00%:

-5,158.45 -5,266.29 -5,345.39

-5,405.73

1004616/PLU CVX JV BS/017H/1ST

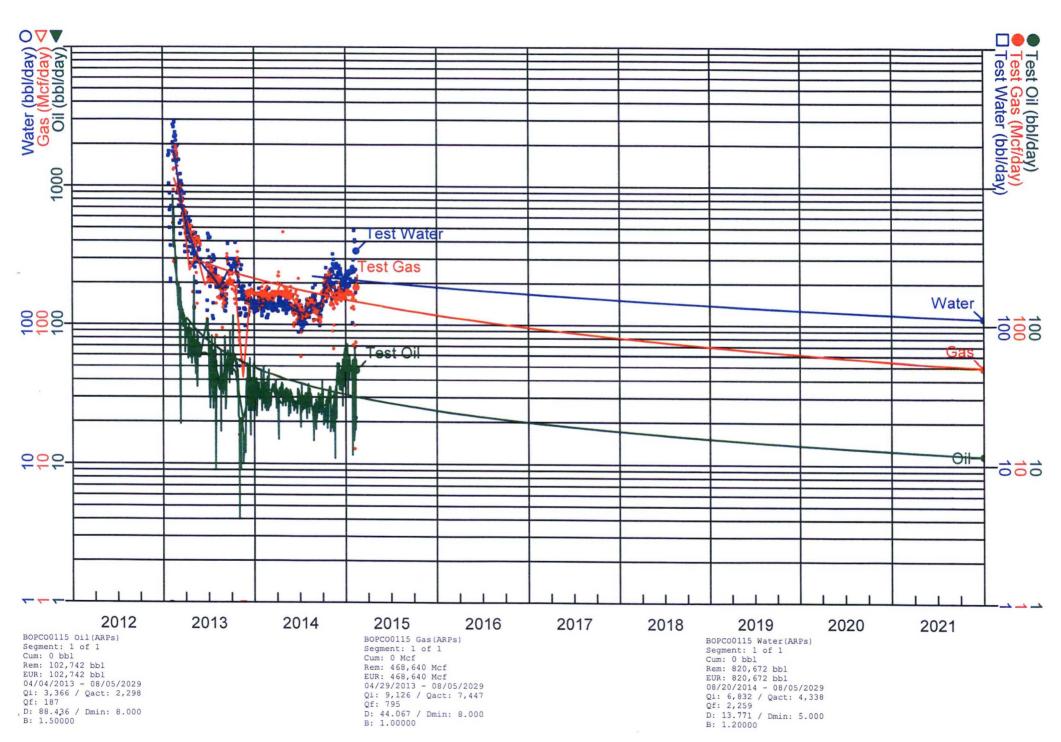
Oper: BOPCO

Major Phase: Gas

Field: WILDCAT G-06 S2530020; BONE SPRING

ECL Date: 05/13/2022

EDDY, NM



# WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

#### **WELL DATA**

WELL PLU CV	( JV Big Sinks #017H (7-25-31)	FORMATIONBONE	SPRING
LOCATIONU	NIT,150 FEET FROMNORTH	LINE & 1980 FEET FROM	M WEST LINE
SECTION7 TOWNSHIP	25S , RANGE31E, COUNTY	Eddy	, NEW MEXICO
SPUD DATE <u>8/30/2012</u> Co	OMPLETION DATE 2/6/2013	INITIAL PRODUCTION	2/12/2013
PERFORATIONS 8013-14050			
BHL: 106' FNL & <u>1970' FEL SEC 14 T24S</u>	S R30E		
STIMULATION:			
ACID			
FRACTURE Se	e Attached		
POTENTIAL(2/12/2013): 371	BOPD, 285 MCFPD, 1524 BWPD		
(Attach Copy of C-105. Attach Copy of We	ellbore Sketch of Completed Well.)		
	VOLUMETRIC CALCU	ATION	
	SANDS PERFORATED	SANDS NOT PERFORA POTENTIALLY PROD	
Area (A) proration unit size, acres	160		
Porosity (Φ), %	9%		
Water saturation (Sw), %	23%		
Net Thickness (H), ft.	65		
Temperature (T), Fahrenheit	140	_	
Bottom Hole pressure (P), psia	4,370		
Recovery factor (RF), %	12%		
Recoverable oil, MBO *(See eq. below)	385.9		
*Sometimes unable to match performance	due to volumetric uncertainty or low recovery e	efficiency of shale gas wells.	
	(por) (1-Sw)(RF)(Boi)(A) (h))/1000	Boi = 1.70 RB/MSTB	

Continued

#### PERFORMANCE DATA

(If sufficient history exis	ts, attach plot of oil product	tion rate v time.)			
CUMULATIVE PRODU	CTION TO12/31	//2014 33,921	BBL Oil157,046	MCF Gas	
INITIAL RATE (qi)	_		320 bopd		
ECONOMIC LIMIT (ql)	_		3 bopd		
HYPERBOLIC DECLIN	E RATE, dy	n =1	1.2, d = 99%/yr		
REMAINING MCF (Q) =			38		
ULTIMATE RECOVERA	ABLE MBO		71		
(Attach plat showing pro	ttach plat showing proration unit and participati				
		E	CONOMIC		
GROSS WELL COST_	\$2,478,321 (to the dep	th of formation complet	ted)		
COMPLETION COST	\$4,043,577				
GROSS TOTAL COST_	\$6,521,898				
<u>YEAR</u>	GROSS OIL MBO	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW	
ZERO					
1	22.757	1918.8	1275.5	-5872.8	
2	11.164	928.6	362.7	527.2	
3	9.949	469.5	304.4	146.3	
4	7.974	423.2	290.4	112.1	
5	6.730	373.7	278.0	76.9	
6	5.892	334.4	268.3	50.6	
7	5.274	303.9	260.5	31.7	
8	4.810	281.8	254.3	19.1	
9	4.405	261.3	248.6	8.4	
10	1.516	90.9	88.7	1.4	
REMAINDER	0.000	0.0	0.0	0.0	

### WELL IS NOT COMMERCIAL

80.471

5386.1

TOTAL

3631.5

-4899.1

Form 3160-4 (August 2007	)	ALZ I		THENT	OF	TATES THE IN MANA	ITERIO	R NT	OC	D Artes	ila			OM	B No. I	PROVED 004-0137 y 31, 2010	
	WELL	COMPL	ETION-	RE	CON	/IPLET	ION R	EPORT	AND	LOG				ease Serial IMNM0304			
la. Type o	f Weli 🗵	Oil Well	☐ Gas	Well	O D		Other						6. If	Indian, All	ottee o	r Tribe Nam	e
b. Type of	of Completion	Othe	ew Well	☐ Worl	c Ove	er 🔲	Deepen	☐ Plu	g Back	☐ Dif	ff. Re	svr.		nit or CA A 91000303		ent Name ar	id No.
2. Name of CHES.	f Operator APEAKE OF	PERATING	G INC E	-Mail: tjo				CHERR	Y					ease Name		ell No. 7 25 31 US	A 1H
3. Address	OKLAHO	MA CITY	OK 73154	1-0496				Phone N : 432-22		de area co	ode)		9. A	PI Well No		15-40447-0	0-S1
4. Locatio	n of Well (Re				rdan	ce with F								Field and Po VILDCAT	ool, or	Exploratory	
At surf			1980FWL									Ì	11. 5	Sec., T., R.,	M., or	Block and S 5S R31E M	urvey ler NMP
At top	prod interval	reported be	elow NEN	W 1373	FNL	2015FV	VL 32.15	2005 N L	.at, 103.	819399 \	W Lo	n	12. (	County or P		13. Stat	
At tota		SW 121F	SL 1981FV	/L ate T.D. I	Panch	and		16 Dat	e Comple	eted			_	DDY Elevations (	DE KI	B, RT, GL)*	
14. Date S 08/30/	2012			/18/2012		ied		DD&		Ready	to Pro	od.	17. 1		59 GL	b, KI, OL)	
18. Total l		MD TVD	1405 9434			Plug Back		MD TVD	1	3941				dge Plug Se		MD TVD	
ZĎĹ-C	Electric & Ot N-XMAC-H	DI				py of eac	h)			W	as D	ell cored ST run? onal Sur		No No No	☐ Yes ☐ Yes ☒ Yes	(Submit an (Submit an (Submit an	alysis) alysis) alysis)
23. Casing a	and Liner Rec	ord (Repo	rt all strings	Top		Botton	Stage	Cemente	- No	of Sks. &	,	Slurry	Vol				
Hole Size	Size/C	Grade	Wt. (#/ft.)	· (MD		(MD)		Depth		of Ceme		(BBI		Cement '	Гор*	Amount	Pulled
17.50		375 H-40	48.0		0		25		-		100				0		
7.87		625 J-55 00 P-110	32.0 17.0		0	41 140			-		725 200				U		
7.07	3.0	001-110	17.0		Ĭ	140											
24. Tubing		(D) D	I D d	040)	C:	. [ ]		MD)	Doolean D	anth (ME	, T	Size	Do	pth Set (M	D) T	Packer Dep	th (MD)
2.875	Depth Set (1	8812	acker Depth	(MD)	Siz	e De	epth Set (	(VID)	racket D	epth (MD	"	Size	De	pin set (w	)	Tacket Dep	in (IVID)
25. Produc	ing Intervals						26. Perfor	ration Rec	ord		_		_				
	Formation	DINO	Тор	0013	Bot	tom 14050		Perforated		O 13921	-	Size 0.43		No. Holes	OPE	Perf. Stati	ıs
A) B)	BONE SF	KING		8013		14030			101701	0 1332		0.40		210	OI LI		
C)													-				
D)	racture, Trea	tment Cen	nent Squeez	e Etc													
27. Acid, 1	Depth Interv	-	nent Bqueez	o, Lto.				A	mount a	nd Type o	of Ma	terial					
	101	76 TO 139	21 # propa	nt, 39161	bbls	fluid over	8 stages										
			-		_								N.	CCL	FAIV	IATIC	PIN
														DUE	8.	6-1	\$
28. Produc	tion - Interva	Hours	Test	Oil	Id	ias	Water	Oil C	ravity	G	as	Ti	Producti	ion Method			
Produced 02/10/2013	Date 02/12/2013	Tested	Production	BBL 371.0		1CF 285.0	BBL 1524	Corr.		G	ravity 0.	77		ELECTRIC	PUMP-	SUB-SURPA	CE
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL 371		ias ICF 285	Water BBL 152	. Gas:0 Ratio		W	ell Stat	AC	F	PTED	FO	R REC	CORD
28a. Produ	ction - Interv	al B		3/1		203	1 102		700		-	4.1.5					
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL		as ICF	Water BBL	Oil C Corr.	API	Gr Gr	as ravity		Producti	on Method	19	2013	
Choke Size	Tbg. Press. Flwg.	Csg. Press	24 Hr. Rate	Oil BBL		ias ICF	Water BBL	Gas:0		w	ell Stat	us		lan	1	<b>b</b>	
(See Instruc	ISI tions and spa	ces for ada	litional data	on revers	e sid	'e)						1	URZ	AU OF L	AND	MANAGE	VIENT
ELECTRO	NIC SUBMI	SSION #2	06822 VER 'ISED **	IFIED B	YTH	HE BLM						/	1	MREVI	D FIF	ID OFFIC	E

1		10									
28b. Proc	Test	Al C Hours	Test	Oil	Gas	Water	Oil Gravity	Ic	ias	Production Method	
Produced	Date	Tested	Production	BBL	MCF	BBL	Corr. API		iravity	Production Method	
Choke Size	Tbg. Press. Flwg. SI	Csg. Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	W	Vell Status		
28c. Proc	luction - Interv	al D									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API		as ravity	Production Method	
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	W	Vell Status		
29. Dispo	osition of Gas(S TURED	Sold, used f	or fuel, vent	ed. etc.)							
	nary of Porous	Zones (Inc	lude Aquife	rs):					31. For	rmation (Log) Markers	
tests,	all important a including deptiectoveries.	ones of po	rosity and co ested, cushic	ontents there on used, time	eof: Cored tool open	intervals and a n, flowing and s	ll drill-stem shut-in pressur	res			
	Formation		Тор	Bottom		Description	s, Contents, et	tc.		Name	Top Meas. Depth
	ional remarks ( .EASE HOLD	•			L			,	BA BE CH BR BO	STLER SE OF SALT LL CANYON LERRY CANYON USHY CANYON INE SPRING T BONE SPRING	707 3901 4137 5058 6312 8031 9005
	enclosed attac		1 full set re	g'd.)		2. Geologic R	tenort		3. DST Rep	port 4. Directio	nal Survey
	ndry Notice for	-				6. Core Analy			7 Other:	4. Directio	Dai vey
		Cor	Electr	onic Submi For CHE	ssion #206 SAPEAK	nplete and corre 6822 Verified I E OPERATIN 19 by JOHNNY	by the BLM V NG INC, sent Y DICKERSO	Well Info t to the C ON on 05	ormation Sys Carlsbad 5/10/2013 (13	3JLD0769SE)	ons):
Name	(please print)	I RACIE C	DERKI				itte	KEGULF	ATORY ANA	neidi	
Signa	ture	(Electronic	Submission	on)			Date 0	05/08/20	13		
Title 18 U	J.S.C. Section I	001 and Ti	tle 43 U.S.C ous or fradu	C. Section 12	212, make	it a crime for a resentations as	ny person kno to any matter	wingly a	nd willfully jurisdiction	to make to any department or a	gency

District 1
1625 N. French Dr., Hobbs, NM 88240
Phone: (\$75) 393-6161 Fax: (\$75) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (\$75) 748-1283 Fax: (\$75) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (\$05) 334-6178 Fax: (\$05) 334-6170

1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone. (505) 476-3460 Fax. (505) 476-3462

District IV

# State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

Afective afoi/14

WELL LOCATION	AND	ACREAGE	DEDICA	TION PL	AT
---------------	-----	---------	--------	---------	----

1	API Numbe	r		<sup>2</sup> Pool Code	e		<sup>3</sup> Pool Name	e			
30-	-015-404	47		97913		. WC	G-06 S253002o;	Bone Spring	ne Spring		
<sup>4</sup> Property					5 Property N	lame		6 1	Well Number		
3132	13			. Р	oker Lake Unit	CAX ÌA BS			17H		
'OGRID					8 Operator N	Name			9 Elevation		
260737 BOPCO, LP									3369		
					" Surface I	Location					
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County		
C	.7	258	31E		150	North	1980	West	. Eddy		
			" Bot	tom Hole	e Location If	Different Fron	n Surface				
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County		
Ν .	. 7	25S	31E		West	Eddy					
12 Dedicated Acres	Joint or	Infill 14 C	Consolidation	Code 15 Or	der No.						
160											

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

16		A		"OPEDATION CERTIFICATION
6		1		"OPERATOR CERTIFICATION
1980	150	SHL	1	I hereby certify that the information contained herein is true and complete to the
		Î		best of my knowledge and belief, and that this organization either owns a
				working interest or unleased mineral interest in the land including the proposed
		Į.		bottom hole location or has a right to drill this well at this location pursuant to
		l		a contract with an owner of such a mineral or working interest, or to a
		İ		voluntary pooling agreement or a compulsory pooling order heretofore entered
		į .		by the division.
				Survive Of Gullet Of Date Date
		1		Tracie J Cherry Printed Name.
				ticherry@basspet.com F-mail Address
				"SURVEYOR CERTIFICATION
			¥	I hereby certify that the well location shown on this plat was
		ı		plotted from field notes of actual surveys made by me or under
		!	*	my supervision, and that the same is true and correct to the
				·
		1		best of my belief.
		1		Date of Survey
		1	·	Signature and Seal of Professional Surveyor:
		1		
		1		
		•		
		BHL		
1980'		i		Certificate Number
	- '	,100'		



**Downhole Profile - Vertical Wells** 

Well Name: POKER LAKE UNIT CVX JV BS #017H (07-25-31)

Field: Wildcat - Bone Spring

Sect: 7 Town: 25S Rng: 31E County: Eddy State: New Mexico

BOPCO, L.P. - West Texas

ation: 150' FNL & 1980' FWL. Sec 7, T25S-R31E

S	urf	ace Location: 150' FNL & 1980' FWL,	Sec 7, 1	Γ25	S-R31E										
		Horizontal - Original Hole, 8/28/2014 1:25:05 AM			Well Inform		(n) Ivn o	140) 10					Inna (A)	10 (6)(5)	March 1
MD (ftK B)	In cl	Vertical schematic (actual)	Column (actua			86.00	(ft) KB-Gr 3,369.00	17.00 Sput	d Date 8/30/2		Production 11/20/2		PBTD (AI	I) (TIKB)	
0)		versual scrientauc (actual)	Descri		Wellbore Na	me: Original H	fole				Kick Off	Depth (f	tKB):		
	10	SOMETHER SOME	atma	П		Size (in)	30		Act To	op (ftKB)	17.0		Act 8	8tm (ftKB)	120.0
41				П			17 1/2				120.0				825.0
		30; Conductor;		П			7 7/8				825.0 4,100.0				4,100.0 14,050.0
		0.00 in; 0.00 lb/lt; 120.00 ftKB		П		Annotation	Depth (ftKB)				Annota	ation			
ca-	***	Surface Csg TOC; 17.00 17 17 1/2; Surface 13 3/8 in; 48.00 49 Hole; 120.00-		П			Depar (IIIIO)				Alliou	3001			
	10	1 h m u 40, eas ool 33 H 11 13 825.00		П	Casing Str			T				Т			KB) (fiKB)
Lara		Interm Csg TOC; Hole; 825.00-17.00 4,100.00		П	Conductor	Des	Wellbore Original Hole	OD	(in)	Wt (lb/ft)	Grade	То	Thread	Set @ (ft	
		8 5/8 in; 32.00 lb/ft; J-55;	1	П	Surface Intermediate		Original Hole Original Hole		13 3/8 8 5/8	48.00 I				825 4,100	
	П	4,100.00 fiKB		П	Production		Original Hole		5 1/2	17.00				14,050	
Abert	,.			П	Perforation Perf Date		B) Btm (ftKB)	1		Zone		Г	Curr	ent Status	
			BONE	8,	1/12/2012	10,17		1st Bone Sp 1st Bone Sp				Active (	10,176.0 -	10,561.0)	
M011			ТОР	8,	1/12/2012	11,13	6.0 11,521.0	1st Bone Sp	pring, C	Original Hole					
	1.2		UPPE	8,	1/12/2012 1/12/2012	11,61 12,09	6.0 12,481.0	1st Bone Sp 1st Bone Sp	pring, O	original Hole					
			BASE		1/12/2012	12,57 13,05		1st Bone Sp 1st Bone Sp							
	.,		BASE	0,	1/12/2012	13,53 13,92	6.0 13,825.0	1st Bone Sp	pring, O	riginal Hole					
Um	14				1/12/2012 Tubing Stri	ings		1st Bone Sp	Jinly, U						
	u.		LOWE	8,	Tubing Descri Tubing - Prod	iption	Run Date	5/19/2013		String Length	(ft)	8,907.8	Set Dept	h (ftKB)	8,924.87
	21				No. 4-1 Tubir		Item				Jts 274		Wt (lb/ft)	Grade L-80	Top (ftKB) 17.0
	2.5				4-2 Anch	nor/calcher					1	4.778			8,809.9
"	"			П	4-3 Tubii 4-4 Pum	ng p Seating Nippl	le				1	2 7/8 2 7/8	8.70	L-80	8,812.8 8,876.8
va.	"		BASE	8,		ander mical Sub					1	2 7/8 2 7/8	8.70	L-80	8,877.9 8,900.1
	23			П	4-7 HF -	Bull Plug w/ ba	all & seat				1	2 7/8	0.70		8,924.1
Leve	,,				Rod Strings Rod Description		Run Date			String Length	(ft)		Set Dept	h (ftKB)	
					Rod Item#		Item I	/19/2013 Des			Jts	8,861.19 OD (in)	Wt (lb/ft)	Grade	8,878.19 Top (ftKB)
4001	2.5	BHI.			1-1 1-1/2		letal Polished Roc				1	1 1/2 7/8			17.0 43.0
4841	25	1: Port 17.00				er Rod					3		2.22	API	
480	2.0	1; Rod; 17.00- 8,878.19				er Rod er Rod					103	7/8	2.90 2.22	D D	63.0 2,631.5
	21				1 - 140	er Rod er Rod					120 12	3/4	1.63 2.90		5,550.0 8,550.0
Ш														API D	
1001	-	4; Tubing -		Ш		er Rod Insert Pump Ea	agle gas pump				1	1 3/4	2.90	0	8,850.0 8,854.0
101		Production; 2 7/8; 17.00-8,924.87			Cement Surface Con	cina Coment	, <cementing< td=""><td>Start Date</td><td>25</td><td></td><td></td><td></td><td></td><td></td><td></td></cementing<>	Start Date	25						
		7 7/8; Production	1ST B		String: Surface	e, 825.00ftKB		Ceme	nt Eval	uation Results					
Can	,	14,050.00	1ST B	9.	Stage Number	1	17.0 Stage E	825.0	0	ement Ret (bbl		irculated			
					Lead	Fluid		Amount (s	sacks) 90	Class	+	Dens (II	b/gal)	Yield	(ft³/sack)
	** '		2ND B	- 11	Tail	Casina Cam	ent, <cemen< td=""><td>ting Start D</td><td>20</td><td></td><td></td><td></td><td></td><td></td><td></td></cemen<>	ting Start D	20						
4/41		Perforated; 10,176.00-			String: Produc	ction, 14,050.00	OftKB	Ceme	nt Eval	uation Results					
		10,561.00; 1/12/2012		Ш	Stage Number	Stage Top (f	tKB) Stage B	lottom (ftKB) 14,050.0		ement Ret (bbl		irculated			
	NO 2	Perforated;			Lead	Fluid		Amount (s	90	Class 0 H		Dens (It	o/gal)	Yield	(ft³/sack) 11.89
	*2 *	10,656.00-		- 1 4	Tail Intermediate	o Carlos C	ment, <ceme< td=""><td>ntine Start</td><td></td><td>юн</td><td></td><td></td><td></td><td></td><td>11.89</td></ceme<>	ntine Start		юн					11.89
		1/12/2012		11	String: Interme	ediate, 4,100.00	OftKB	Cerner	nt Evalu	uation Results		**-		thed	
1000		Perforated; 11,136.00-			Stage Number	Stage Top (fi	Stage E 17.0	4,100.0		ement Ret (bbl		irculated	rement Me		
		11,521.00; 1/12/2012		1	Lead	Fluid		Amount (s	1,40			Dens (It	o/gal)	Yield	(ft³/sack)
nan ,	.,	Perforated;			Tail					5 C					
,		11,616.00-													
		1/12/2012													
(IM)	12.1	Perforated; 12,096.00-													
q#1 ,		12,481.00; 1/12/2012													
SA: 1		Perforated; 12,966.00- 12,481.00, 11/12/2012  Perforated; 12,576.00- 12,961.00; 11/12/2012													
		12,576.00-													
	"	3 4													
		Perforated; 13,056.00-													
11.000 1		13,441.00; 1/12/2012													
		Perforated;													
		13,536.00-													
40.	"	1/12/2012													
4000		Perforated; 13,920.00-													
4481 11		5 1/2 in; 17.00 13,921.00; lb/ft; P-110; 1/12/2012													
NOTE IN		Production Csg TD - Original													
		TOC; 17.00 Hole; 14,050.00													

# \*

**Schematic - Vertical Production** 

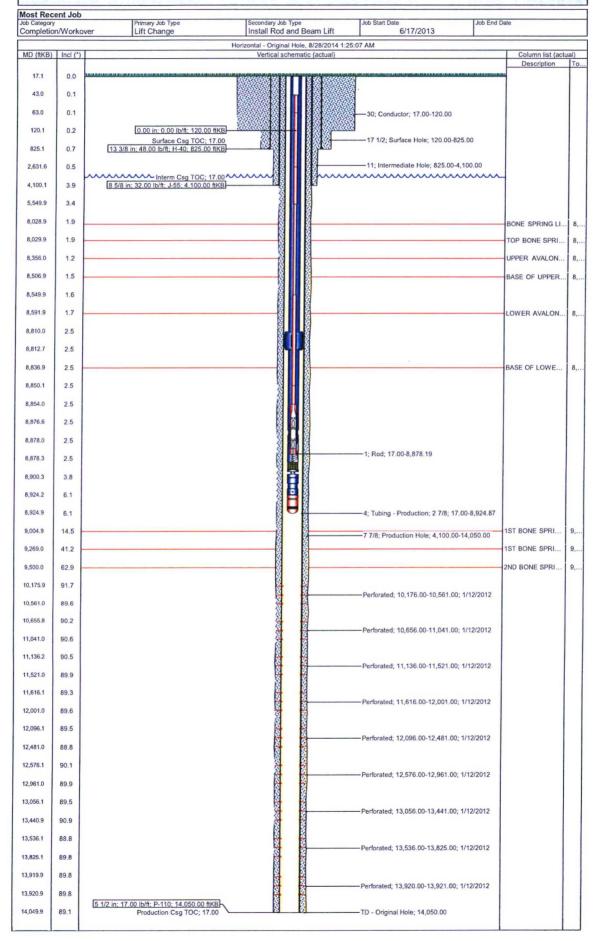
Well Name: POKER LAKE UNIT CVX JV BS #017H (07-25-31)

BOPCO, L.P. - West Texas Well ID: 30-015-40447

Field: Wildcat - Bone Spring

Sect: 7 Town: 25S Rng: 31E Eddy Co., State: New Mexico

Blk: Survey:





#### BOPCO, L.P.

201 MAIN ST.

FORT WORTH, TEXAS 76102-3131 817/390-8400

July 14, 2015



#### FEDERAL EXPRESS

Bureau of Land Management Carlsbad District Office 620 E. Green St. Carlsbad, New Mexico 88220 Attn: Mr. Ed Fernandez New Mexico State Land Office Commissioner of Public Lands 310 Old Santa Fe Trail Santa Fe, New Mexico 87501 Attention: Mr. Pete Martinez

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

Re: Commercial Determination PLU CVX JV RB #001H (4-24-30) 1<sup>st</sup> Bone Spring Shale Eddy County, New Mexico

#### Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the 1<sup>st</sup> Bone Spring Shale. Should you be in agreement that the 1<sup>st</sup> Bone Spring Shale is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

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.

Very truly yours,

R. Travis Mears

Bureau of Land Management	New Mexico State Land Office	New Mexico Oil Conservation Division
Ву:	By:	Ву:
Its:	Its:	Its:
Date:	Date:	Date:



# INTER-OFFICE MEMORANDUM

TO:

**Ross Sutton** 

FROM:

**Bryce Bezant** 

DATE:

7/8/2015

RE:

Commercial Determination

PLU CVX JV RB#001H (4-24-30)

Poker Lake Unit (1st Bone Spring Shale)

Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Remuda Basin #001H was drilled in 2012 to a total depth of 13,743' laterally and completed in the 1<sup>st</sup> Bone Spring Shale reservoir. The well is producing from perforations 8,979'-13,743'. On test 2/23/2013 the well flowed at the rate of 643 BOPD, 953 MCFD, and 1129 BWPD. This well has an expected recovery of approximately 277 MBOE (13:1 mcf/bbl) from the current completion.

The capital investment was taken from the AFE report and operating costs from the LIOR statement which included water hauling charges. The most recent strip price file was utilized adjusting for current area differentials. The Remuda Basin #001H will not be a commercial well and should not be incorporated into a participating area.

R. Bryce Bezant, P.E.

RBB/tah

Cc:

Travis Mears
Tom McCarthy

Steve Johnson

# WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

#### **WELL DATA**

## PERFORATIONS   8879-13743    BHL: 119' FSL & 655' FEL SEC 4 T24S R30E    STIMULATION:    ACID									
SECTION   4   TOWNSHIP   24S   RANGE   30E   COUNTY   Eddy   NEW MEXI	WELL	PLU C	OVX JV REMUDA BAS	SIN #001H		FORMATION		LOWER AV	/ALON
SPUD DATE _1/29/2012	LOCATION		JNIT,175	FEET FROM	NORTH	_LINE &	1250	FEET FROM	EAST_LINE
### PERFORATIONS   8879-13743   ### BHL: 119 FSL & 655 FEL SEC 4 T24S R30E   ### STIMULATION   ### ACID	SECTION4	TOWNSHIP_	24S , RANGE	30E, CC	UNTY		Eddy		, NEW MEXICO
### STIMULATION:  ### ACID	SPUD DATE <u>1/29/</u> 2	2012	COMPLETION DAT	E 4/26/2012		_ INITIAL PRO	DUCTION		12/13/2012
STIMULATION:   ACID	PERFORATIONS _	8879-13743							
### FRACTURE   See Attached	BHL: 119' FSL & <u>65</u>	55' FEL SEC 4 T24S	R30E						
POTENTIAL	STIMULATION:								
POTENTIAL (2/23/2013): 643 BOPD, 953 MCFPD, 1129 BWPD  (Attach Copy of C-105. Attach Copy of Wellbore Sketch of Completed Well.)  VOLUMETRIC CALCULATION  SANDS PERFORATED POTENTIALLY PRODUCTIVE  Area (A) proration unit size, acres 160  Porosity (Φ), % 8.8%  Water saturation (Sw), % 23%  Net Thickness (H), ft. 65  Temperature (T), Fahrenheit 140  Bottom Hole pressure (P), psia 4,370  Recovery factor (RF), % 12%  Recoverable oil, MBO *(See eq. below) 385.9	ACID_								
POTENTIAL (2/23/2013): 643 BOPD, 953 MCFPD, 1129 BWPD  (Attach Copy of C-105. Attach Copy of Wellbore Sketch of Completed Well.)  VOLUMETRIC CALCULATION  SANDS PERFORATED POTENTIALLY PRODUCTIVE  Area (A) proration unit size, acres 160  Porosity (Φ), % 8.8%  Water saturation (Sw), % 23%  Net Thickness (H), ft. 65  Temperature (T), Fahrenheit 140  Bottom Hole pressure (P), psia 4,370  Recovery factor (RF), % 12%  Recoverable oil, MBO *(See eq. below) 385.9									
VOLUMETRIC CALCULATION           VOLUMETRIC CALCULATION           SANDS PERFORATED         POTENTIALLY PRODUCTIVE           Area (A) proration unit size, acres         160         ————————————————————————————————————	FRAC	TURE	See Attached						
VOLUMETRIC CALCULATION           VOLUMETRIC CALCULATION           SANDS PERFORATED         POTENTIALLY PRODUCTIVE           Area (A) proration unit size, acres         160         ————————————————————————————————————									
VOLUMETRIC CALCULATION           VOLUMETRIC CALCULATION           SANDS PERFORATED         POTENTIALLY PRODUCTIVE           Area (A) proration unit size, acres         160         ————————————————————————————————————									
VOLUMETRIC CALCULATION           VOLUMETRIC CALCULATION           SANDS PERFORATED         POTENTIALLY PRODUCTIVE           Area (A) proration unit size, acres         160         ————————————————————————————————————									
VOLUMETRIC CALCULATION  SANDS PERFORATED POTENTIALLY PRODUCTIVE  160  Porosity (Φ), % 8.8%  Nater saturation (Sw), % 23%  Net Thickness (H), ft. 65  Femperature (T), Fahrenheit 140  Sottom Hole pressure (P), psia Recovery factor (RF), % 12%  Recoverable oil, MBO *(See eq. below) 385.9	POTENTIAL	(2/23/2013): 6	43 BOPD, 953 MCFP	D, 1129 BWPD					
SANDS PERFORATED         POTENTIALLY PRODUCTIVE           Area (A) proration unit size, acres         160           Porosity (Φ), %         8.8%           Water saturation (Sw), %         23%           Net Thickness (H), ft.         65           Temperature (T), Fahrenheit         140           Bottom Hole pressure (P), psia         4,370           Recovery factor (RF), %         12%           Recoverable oil, MBO *(See eq. below)         385.9	(Attach Copy of C-10	05. Attach Copy of \	Wellbore Sketch of Co	mpleted Well.)					
SANDS PERFORATED         POTENTIALLY PRODUCTIVE           Area (A) proration unit size, acres         160           Porosity (Φ), %         8.8%           Water saturation (Sw), %         23%           Net Thickness (H), ft.         65           Temperature (T), Fahrenheit         140           Bottom Hole pressure (P), psia         4,370           Recovery factor (RF), %         12%           Recoverable oil, MBO *(See eq. below)         385.9			,	OLUMETRIC C	VI CIII A	TION			
Area (A) proration unit size, acres       160         Porosity (Φ), %       8.8%         Water saturation (Sw), %       23%         Net Thickness (H), ft.       65         Temperature (T), Fahrenheit       140         Bottom Hole pressure (P), psia       4,370         Recovery factor (RF), %       12%         Recoverable oil, MBO *(See eq. below)       385.9			V	OLUMETRIC CA	ALCOLA	IION			
Area (A) proration unit size, acres       160         Porosity (Φ), %       8.8%         Water saturation (Sw), %       23%         Net Thickness (H), ft.       65         Temperature (T), Fahrenheit       140         Bottom Hole pressure (P), psia       4,370         Recovery factor (RF), %       12%         Recoverable oil, MBO *(See eq. below)       385.9			SA	NDS PERFORATEI	)		POTENTI	ALLY PRODUC	CTIVE
Water saturation (Sw), %         23%           Net Thickness (H), ft.         65           Temperature (T), Fahrenheit         140           Bottom Hole pressure (P), psia         4,370           Recovery factor (RF), %         12%           Recoverable oil, MBO *(See eq. below)         385.9	Area (A) proration ur	nit size, acres				_		-	
Net Thickness (H), ft. 65  Temperature (T), Fahrenheit 140  Bottom Hole pressure (P), psia 4,370  Recovery factor (RF), % 12%  Recoverable oil, MBO *(See eq. below) 385.9	Porosity (Φ), %		8.8%	_		_		-	
Femperature (T), Fahrenheit  140  Sottom Hole pressure (P), psia  4,370  Recovery factor (RF), %  12%  Recoverable oil, MBO *(See eq. below)  385.9	Water saturation (Sw	v), %	23%				-	-	
Recovery factor (RF), % 12%	Net Thickness (H), ft		65	_				-	
Recovery factor (RF), % 12%	Геmperature (Т), Fal	hrenheit	140	_				_	
Recoverable oil, MBO *(See eq. below) 385.9	Bottom Hole pressure	e (P), psia	4,370	_		_		-	
	Recovery factor (RF)	), %	12%					-	
	Recoverable oil, MB0	O *(See eq. below)	385.9	]		_		_	
Sometimes unable to match performance due to volumetric uncertainty or low recovery efficiency of shale gas wells.	Sometimes unable t	o match performanc	e due to volumetric ur	ncertainty or low rec	overy effici	iency of shale gas	wells.		
Formula = ((7758 rb/ac-ft) (por) (1-Sw)/(Boi rbo/stb)(RF)(A) (h))/1000 bo/Mbo Boi = 1.70 rb/stb	Formula =	((7758 rb/ac-ft) (por	) (1-Sw)/(Boi rbo/stb)	RF)(A) (h))/1000 bo/	Mbo	Boi =	1.70 r	b/stb	

#### PERFORMANCE DATA

(If sufficient history exist	ts, attach plot of oil produ	ction rate v time.)		
CUMULATIVE PRODUC	CTION TO5/3	31/2015 76,327	BBL Oil414,080N	ICF Gas
INITIAL RATE (qi)			230	
ECONOMIC LIMIT (ql)			3 BOPD	
HYPERBOLIC DECLINE	E RATE, dy	n =1.	2, d = 87%/yr	
REMAINING MCF (Q) =			0	
JLTIMATE RECOVERA	ABLE MBO		208	
Attach plat showing pro	oration unit and participati	ng area.)		
		E	CONOMIC	
GROSS WELL COST	\$2,468,871 (to the de	pth of formation complete	ed)	
COMPLETION COST	\$4,028,159			
GROSS TOTAL COST	\$6,497,030			
YEAR	GROSS OIL MBO	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	0.000	0.0	0.0	7916.8
2	58.663	5726.1	1503.3	4107.1
3	13.656	1224.6	845.0	351.6
4	18.036	972.4	457.5	450.5
5	13.618	803.9	422.6	318.0
6	11.002	664.9	399.6	210.7
7	9.306	574.3	384.8	143.3
8	8.096	509.2	374.4	97.1
9	7.205	461.0	366.7	64.7
10	6.473	419.3	360.2	38.6
REMAINDER	61 716	4113.8	7115.7	-967.0

### WELL IS NOT COMMERCIAL

207.771

15469.5

TOTAL

-3102.1

12229.9

# **ECONOMIC PROJECTION**

Date :

Project Name:

Partner:

Case Type:

Archive Set:

Cum Oil (mbbls):

7/9/2015

Lior: 1004802

As Of Date: 10/01/2012

1-1-2015 NSAI Review For BOPCO, LP

All cases LEASE CASE

NS0115

0.00

Discount Rate (%):5.00

1004802/PLU CVX JV RB/001H/1ST

Lease Name: 1004802/PLU CVX JV RB/001H/1ST

Reserv Cat.: Proved Producing

Field: WILDCAT G-06 S243026M;BONE SPRIN

11:30:49AM

Operator: BOPCO

-966.991

-3,102.062

-3,001.991

-4,703.680

-966.991

-3,102.062

Reservoir: BONE SPRING

Risk: 0.000 Inherited/ 0.000 Compounded Co., State: EDDY, NM

Cum Gas (mmcf)				Risk: 0.000 I	nherited/ 0.000 Co	ompounded	Co., State: EDDY, NM			
*	Gross	Wet Production		Gross Dry Gas &	& NGL		Sales			
Year	Oil (Mbbl)			Dry Gas (MMCF)	NGL (MGal)	Oil (Mbbl)	Gas (MMCF)	NGL (MGal)		
2012	0	.000	0.000	0.000	0.000	0.000	0.000	0.000		
2013			340.858	267.267	950.994	50.028	227.928	811.017		
2014		.656	60.113	47.135	167.715	11.646	40.197	143.029		
2015		.036	70.355	55.165	196.291	15.381	47.046	167.399		
2016		.618	51.737	40.567	144.347	11.613	34.596 27.562	123.101 98.072		
2017		.002	41.218	32.319	114.998 9.383 96.426 7.936		23.111	82.233		
018		.306	34.561			6.904	19.988	71.120		
2019		.096 .205	29.891 26.486	20.767	83.395 73.895	6.144	17.711	63.018		
2020 2021	6.473		23.718	18.597	66.172	5.520	15.860	56.432		
			225.222	177.750	526.020	52 (22	150.649	536.030		
Rem			225.290	176.650 709.004	536.030 2,522.778	52.632 177.188	604.646	2,151.450		
Total	207	.770	904.227	709.004	2,322.778	1771.00		, , , , , , , , , , , , , , , , , , , ,		
Jlt.	207.770 904.227		904.227 verage Price			Net Reven	ue			
Year		Oil	Gas	NGL	Oil	Gas	NGL	Total		
rear		\$/BBL	\$/MCF	\$/Gal	(M\$)	(M\$)	(M\$)	(M\$)		
2012		0.00 0.0		0.00	0.000	0.000	0.000	0.000		
2013		86.38	3.49	0.75	4,321.657	796.223	608.263	5,726.143		
2014	81.44 3.94 0.82			948.470	158.535	117.545 73.370	1,224.550 972.416			
2015			2.58	0.44	777.855	121.191 100.104	57.054	803.900		
2016	55.69				0.46	646.742 535.083	84.387	45.454	664.923	
2017	57.03 3.06		3.06	0.46	463.778	72.445	38.113	574.335		
2018		58.44 59.72	3.20	0.46	412.343	63.872	32.962	509.177		
2019		60.79	3.29	0.46	373.498	58.315	29.207	461.020		
2020 2021		61.46	3.40	0.46	339.284	53.871	26.155	419.310		
Rem		62.08	3.97	0.46	3,267.233	598.080	248.435	4,113.748		
Total		68.21	3.48	0.59	12,085.944	2,107.022	1,276.556	15,469.523		
		Expenditures	*			Future N	Vet Revenue	Cum. Disc. CF		
	Total	Total	Net	Total		Cumulative	Disc. Ann. CF 5.00 %	5.00 %		
Year S	Sev Taxes (M\$)	Adv Taxes (M\$)	Investments (M\$)	Net Opcosts (M\$)	Annual (M\$)	(M\$)	(M\$)	(M\$)		
2012	0.000	0.000	7,943.280				-7,916.798	-7,916.798		
2013	238.620	10.433	0.000				4,107.102	-3,809.695 -3,458.102		
2014	89.780	3.972	0.000				351.593			
2015	71.084	3.155	0.000				450.531	-3,007.571		
2016	58.734	2.608	0.000				318.006	-2,689.565		
2017	48.579	2.157	0.000				210.696	-2,478.869		
2018	41.947	1.863	0.000				143.317	-2,335.552		
2019	37.178	1.652	0.000				97.117	-2,238.435		
2020	33.661	1.496	0.000				64.745	-2,173.690		
2021	30.619	1.360	0.000	328.251	59.079	-1,701.690	38.618	-2,135.071		
			0.000	( 001 477	2 001 001	2 001 001	066 001	066 001		

Vajor Phase :         Gas           Perfs :         0           nitial Rate :         69.23           Abandonment :         0.30           nitial Decline :         99.99           Beg Ratio :         0.16           3nd Ratio :         0.27	0 mmcf/month mmcf/month % year b = bbl/mmcf	1.200	Working Int: Revenue Int: Disc. Initial Invest. (r Internal ROR (%): ROInvestment (disc/t Years to Payout: Abandonment Date:	undisc):	1.00000000 0.85281000 7.916.798 >1000.0 0.61 / 0.41 0.00 10/10/2043	Present Worth P 5.00%: 9.00%: 10.00%: 12.00%: 15.00%:	-3,102.06 -2,837.06 -2,824.31 -2,832.23 -2,893.50
	Working Interest: Revenue Interest: Rev. Date:	Initial         1st Rev.           1.00000000         0.00000000           0.85281000         0.00000000		2nd Rev. 0.00000000 0.00000000		20.00%: 30.00%: 40.00%: 50.00%:	-3,047.19 -3,364.52 -3,626.37 -3,835.49 -4,005.13

-3,001.991

-4,703.680

6,801.477

11,236.762

BEPCO Detailed WTD V9

300.917

951.119

Rem

Total

Ver: 7/9/2015

0.000

7,943.280

13.345

42.042

1004802/PLU CVX JV RB/001H/1ST

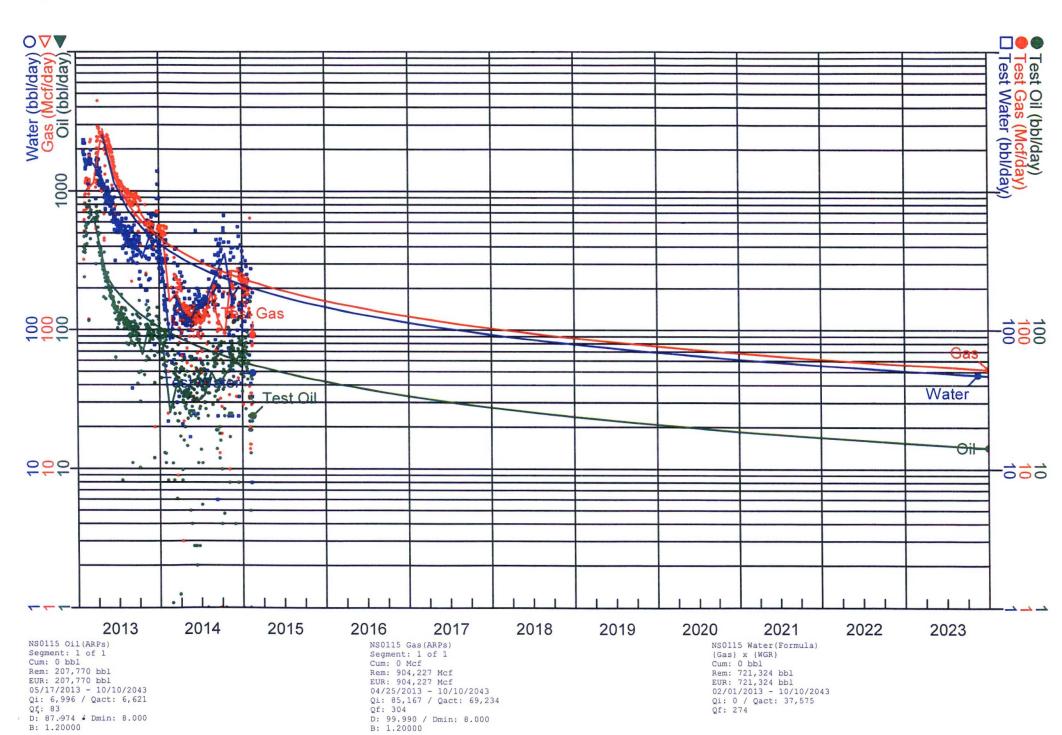
Oper: BOPCO

Major Phase: Gas

Field: WILDCAT G-06 S243026M; BONE SPRING

EDDY, NM

ECL Date: 10/10/2043



7

OCD Artesia

Form 3160-4 (August 2007)

# UNITED STATES DEPARTMENT OF THE INTERIOR BURGALLOF LAND MANAGEMENT

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

que

(,			BUREA	UOFL	AND	MANA	GEME	TV						Exp	ires: July	y 31, 2010	
	WELL COMPLETION OR RECOMPLETION REPORT AND LOG													ease Serial			
la. Type of	Well 🗵	Oil Well	Gas	Well		ry 🔲	Other						6. 1	Indian, Al	lottee o	r Tribe Nan	ie
b. Type of	f Completion		lew Well er	☐ Wor		r 🔲 [	Deepen	☐ Pl	ug Ba	ck [	Diff. R	lesvr.	7. U	Init or CA A	Agreem	ent Name a	nd No.
2. Name of	Operator	DEDATIN	G INC F	Mail: ti		Contact: 7		J CHE	RRY				8. L	ease Name	and We	ell No. ASIN 4 24	30 USA 11
3. Address		ERATIN	GINC E	-iviali. ij	CHEIT	y @ Dassp		. Phone I	No. (ir	nclude ar	rea code)			PI Well No		10114-12-1	30 00/11
	OKLAHO		, OK 7315				Ph	1: 432-2	21-73	379						15-40660-0	0-S1
<ol><li>Location</li></ol>	of Well (Re	port locat	ion clearly a	nd in acc	ordano	ce with Fe	deral red	uiremen D	ts)*	FI	VED	77	10. L	Field and Pour Nown	ool, or l	Exploratory	
At surfa			1250FEL	IE 4755	'NII 4'	פרבו						, I	11. 3	Sec., T., R., or Area Se	M., or	Block and S 4S R30E M	Survey Ier NMP
At total	orod interval	•	NL 1250FE		INL 12	25UFEL			APR	02	2013		12. (	County or F	arish	13. Sta	e
14. Date Sp 10/26/2	oudded	701	15. D	ate T.D. /20/201		ed		I G PDa	@C01 28/20	pleted- Re	TES	A	17. 1	Elevations (	DF, KI 09 GL	3, RT, GL)*	
18. Total D	epth:	MD TVD	1374 9056	3	19. P	lug Back	T.D.:	MD TVD	20/20	13648 9054		20. Dep	th Bri	dge Plug Se		MD TVD	
21. Type E ARRAY	lectric & Otl IND SPEC	ner Mecha GR CAL	nical Logs R CPDENS C	un (Subr NL SGF	nit cop	oy of each . CBL	)			22	Was I	vell cored OST run? tional Sur		⊠ No	Yes Yes	(Submit and (Submit and (Submit and	alysis)
23. Casing ar	nd Liner Rec	ord (Repo	ert all strings	set in w	ell)												
Hole Size	Size/C	irade	Wt. (#/ft.)	Top (MD		Bottom (MD)		Cemente Depth		No. of Sl ype of C		Slurry (BBI		Cement 1	Гор*	Amount	Pulled
17.500	13.3	375 H-40	48.0		0	65	0				900				0		
12.250		625 J-55	32.0		0	382			-		1850				0		
7.875	5.50	00 P-110	17.0		0	1371	5	386	3		2785				0		
					_		+		+								
					_		+		+								
24. Tubing	Record																
	Depth Set (N		acker Depth	(MD)	Size	Dep	th Set (	MD)	Packe	er Depth	(MD)	Size	De	pth Set (M	D)	Packer Dep	h (MD)
2.875 25. Producir		7995			-	26	Perfor	ation Rec	cord								
	rmation		Тор	T	Bott			Perforated		val		Size	T	No. Holes		Perf. Statu	ıs
A)	BONE SP	RING		8979		3743				7 TO 13	3678	0.40			OPEN	N/PRODUC	
B)																	
C)													+				
D) 27. Acid, Fr	acture Treat	ment Cen	nent Squeeze	Etc			-										
	Depth Interv			, Lic.	-			A	Amour	nt and Ty	ype of M	aterial					
			78 FRAC II	NTERVAL	_ W/TC	OTAL 2,03	5,195 G						D DO	WN 5 1/2 C	ASING	IN 9 STAGE	S.
													1	CCL	AIV	AIN	VIV
													9	DIF	7.	28-1	3
28. Producti			T	0.1	Ic		Water	lone	San day		T <sub>C</sub>		) dt	on Method			
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Ga M	CF	Water BBL	Corr	Gravity . API		Gas Gravity	ľ					
02/01/2013	02/23/2013	24		643.0	-	953.0	1129. Water	.0 Gas:	46	.0	Well Sta		[	ELECTRIC	PUMPS	SUB-SURFA	CE
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL 643	M		BBL 1129	Ratio		82	PK		FP	TFD	FOF	REC	ORD
28a. Product	tion - Interva	al B										* * * * *		The second			
Date First	Test	Hours Tested	Test Production	Oil BBL	Ga		Water BBL		Gravity API		Gas Gravity	L	roduction	on Method			
Produced	Date	resteu	- Coduction	300	IVI									MAR	30	2013	
Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Mo		Water BBL	Gas:0			Well Sta	tus		16	2	6	
See Instruction		es for add	itional data	on revers	se side	)							UDE	MINELA	ND A	IANAGEN	ENT
ELECTRON			02333 VER				BLM I	NFORM REVIS	ED '	N SYST	TEM I REV	SED *	BL	MIRÊVÎ	SED	OFFICE	

	~	-	
;		7	
	1	•	
	٦.	Š.	

28b. Pro	duction - Interv	al C		,	,						
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API		ias iravity	Production Method	
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	W	Vell Status		
28c. Prod	duction - Interv	al D									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API		as ravity	Production Method	
Choke Size	Tbg. Press. Flwg. S1	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	w	ell Status		
29. Dispo	osition of Gas(S	Sold, used fo	or fuel, vent	ed, etc.)							
	mary of Porous	Zones (Inc	lude Aquife	rs):					31. Form	nation (Log) Markers	
Show tests,	vall important a including depth ecoveries.	ones of por	rosity and co	ontents there				res			
	Formation		Тор	Bottom		Descriptio	ons, Contents, e	tc.		Name	Top Meas. Depth
32. Additional remarks (include plugging procedure): ***PLEASE HOLD INFORMATION CONFIDENTIAL***							BAS BEL CHE BRU	STLER SE OF SALT L CANYON ERRY CANYON JSHY CANYON NE SPRING	489 3701 3980 4861 6142 7750		
Perfs	done in 9 clus	sters. Clus	ter 1 30 ho	les, 2-9 24	holes/each	٦.					
Well	drilled by Che	sapeake, t	urned over	to BOPCC	for comple	etion.					
	enclosed attack				THE REAL PROPERTY OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO						***
	ectrical/Mechan	-				. Geologic I			3. DST Repo	ort 4. Directi	onal Survey
5. Sui	ndry Notice for	plugging a	nd cement v	erification	0.	. Core Anal	ysis	,	7 Other:		
34. I herel	by certify that the	he foregoin								ecords (see attached instruct	ions):
		C		For CHES	SAPEAKE	OPERATI	by the BLM V NG INC, sent I SIMMONS	to the Ca	arlsbåd		
Name	(please print)	RACIE J	CHERRY				Title F	REGULAT	TORY ANAL	YST	
Signat	ure(	Electronic	Submissio	n)			Date 0	3/22/201	3		
										- Aug	

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 fradulent statements or representations as to any matter within its jurisdiction.

• District.1 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 District.11 811 S. First St., Artesia, NM 88210

Phone: (505) 334-6178 Fax: (505) 334-6170

District JV 1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462 State of New Mexico

Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION

WELL LOCATION AND ACREAGE DEDICATION PLAT

1220 South St. Francis ECEIVED OCD Santa Fe, NM 87505

2014 JUN -9 P 3: 50

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

	ENDED RE	EPORT
101	1,-	1/1/
CHI	aure 0	4/01/14
' ///	•	, , , ,

1	AP1 Numbe	r		<sup>2</sup> Pool Cod	e		<sup>3</sup> Pool Na	me				
30	-015-4066	60		97798		WC	G-06 S243026	M; Bone Spring	Bone Spring			
<sup>4</sup> Property	Code				5 Property N	Name		6,	Well Number			
3/33	70				1H							
<sup>7</sup> OGRID			<sup>8</sup> Operator Name <sup>9</sup> Eleva									
26073	7		BOPCO, LP 3409									
					<sup>10</sup> Surface I	ocation						
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County			
Lot 1	4	248	30E		175	North	1250	East	Eddy			
			" Bo	ttom Ho	le 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	4	248	30E		119	655	East	Eddy				
12 Dedicated Acres	Joint or	r Infill	Consolidation	Code 15 O	rder No.							
162.61		.	· ,									

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.

16		175	SHL LOT !	"OPERATOR CERTIFICATION
			1250'	I hereby certify that the information contained herein is true and complete
			1	to the best of my knowledge and belief, and that this organization either
			1	owns a working interest or unleased mineral interest in the land including
			1	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.
		,		Steamure Dale 14/14
			1	Tracie J Cherry Printed Name
	,		1	tjcherry@basspet.com E-mail Address
				INSURVEYOR CERTIFICATION  I hereby certify that the well location shown on this
		1	1	plat was plotted from field notes of actual surveys
		{	1	made by me or under my supervision, and that the
			١ .	
			1	same is true and correct to the best of my belief.
			1	
				Date of Survey .
			1	Signature and Seal of Professional Surveyor:
			.	
		ł	1	
			1	
			,	
			BAL	
			119 2 655'	Certificate Number



## **Downhole Profile - Vertical Wells**

Well Name: POKER LAKE UNIT CVX JV RB #001H (04-24-30)
Field: Wildcat - Bone Spring Sect: 4 Town

BOPCO, L.P. - West Texas Well ID: 30-015-40660

Sect: 4 Town: 24S Rng: 30E County: Eddy State: New Mexico

Surface Location: 175' FNL & 660' FEL, Sec 4, T24S-R30E

S	urfa	ace Location: 175	5' FN	NL & 660' FEL, S	ec 4, T24	S-R30	E								
		Horizontal - Origin	al Hole	e, 6/9/2015 1:26:49 AM			Informati			16. 10. 10		B - 1 - 0 -	Data Innan	All (AICE)	
MD (ftK	In cl (°)				Column list		KB Elev (ft) 3,518.0	Gr Elev	(ft) KB-Grd 3,495.00		26/2012	Production 2/20/201	3 Origina	All) (ftKB) I Hole - 13,730	0.0
B)	(°)	Vertical sci	hemati	ic (actual)	(actual) Description		lbores bore Name:	Original	Hole			Kick Off D	epth (ftKB): 8	491.0	
.**			П			Wei	ore Name:	Size (in)	Hole	A	t Top (flKB)			t Btm (ftKB)	
	**	325		ARTICAL DE LA CONTRACTOR DE LA CONTRACTO	1				24 17 1/2			23.0 120.0			120.0 650.0
-		A44				Ш			11			650.0			3,822.0
	"	888							7 7/8			3,822.0			13,743.0
-	12	20 in; 84.00 lb/ft;				Scr	ematic An Type	notation	Depth (ftKB)			Annotati	on		
-	.,	J-55; 120.00 ftKB		24; Conductor;											
	8.7	Conductor Cement; 23.00;		23.00-120.00 17 1/2; Surface;		Cas	ing String						T	T	Top (ftKB)
-		120.00		120.00-650.00		Con	Csg Des	s	Wellbore Original Hole	OD (in)	Wt (lb/ft) 20 84.00	Grade J-55	Top Thread	Set @ (ftKi	
-	"	13 3/8 in; 48.00		<b>X</b>		Surf			Original Hole	13 :	48.00	H-40	ST&C	650.0	00 23.0
-	"	lb/ft; H-40; 650.00 ftKB	Ш	*			mediate uction		Original Hole Original Hole	5 1		J-55 P-110	LT&C	3,822.0 13,715.0	
-	Ľ	Surface Casing Cement; 23.00;		1			orations		Original Flore						
***	,,	650.00 Intermediate		11; Intermediate;		1/22	erf Date	Top (ft)	(B) Btm (ftKB) 37.0 9,683.0	1st Bone Sprin	Zone g Shale, Original	Hole	С	urrent Status	
are.	1.1	Casing Cement; 23.00; 3,822.00		650.00-3,822.00			2013		97.0 10,144.0		g Shale, Original				
APPE	11	8 5/8 in; 32.00 lb/ft; J-55;	Ш				2013		92.0 10,638.0 87.0 11,133.0		g Shale, Original g Shale, Original				
ken	"	3,822.00 ftKB Production					2013 2013	11,2			g Shale, Original				
gens	11	Casing Cement; 23.00; 3,865.00					2013	11,7			g Shale, Original g Shale, Original				
Liera	"	DV Tool @:					2013 2013	12,2 12,7			g Shale, Original				
Swe's		3,865.00; 11/19/2012				1/9/2		13,2	37.0 13,678.0	1st Bone Sprin	g Shale, Original	Hole			
100	u u	3					ing String: g Description		Run Date		String Lengt	h (ft)	Set D	epth (ftKB)	
AMC+	14	į.				Tubi	g - Producti			2/12/2014			8,251.20 DD (in) Wt (lb/		8,274.20 Top (ftKB)
Leg.		K				6-1		JE 8rd 6.5	ppf L-80 Tbg	762		249	2 7/8 6.	50 L-80	23.0
441	"	3		0		6-2			w/ 40,000 shear			1 2	5 1/2 2 7/8 6.	50 L-80	8,090.6 8,093.3
100		3				6-3 6-4		ech Seatin	8RD Tubing g nipple			1	2 7/8	30   2-00	8,158.3
1,000	**	3			DONE S	6-5			6.5ppf L-80 nipple	w-71'dip tube		1	2 7/8 8. 3 1/2	70 N-80	8,159.0 8,159.0
7761	"	į,			BONE S	7. 6-6 6-7			SHEILD SEP			1	3 1/2	1 1	8,182.9
	"				UPPER	6-8		/8" L-80 tl	og			2	2 7/8 6. 2 7/8	50	8,208.4 8,273.5
	12	3	Ш			6-9 Oth	BullPlug er Downho		ment			1 1	2 110		0,270.0
4862	12	3				R	in Date		De	s		OD (in)	Top (ftKB) 13,73		n (ftKB) 13,743.00
4181	t.r	,					/2012 C	Cement				5 1/2	13,73	0.00	13,743.00
6184	11	1		3; Rods; 12.00-		Rod	Description		Run Date	2/9/2014	String Lengt	h (ft)	8,146.00 Set De	epth (ftKB)	8,158.00
4100	111	à		8,158.00		Rod	_		Item C				OD (in) Wt (lb/	ft) Grade	Top (ftKB)
4:00	"	Š				3-1			ished Rod			1 3	1 1/2 7/8		12.0 38.0
NIN.		Į.				3-2		d -8'-6'-2' aris MMS :	Sucker Rods			146		22 D	54.0
us:	ia i		Ш		BASE O	3-4	3/4" N-97	7				160	3/4 1.	63 Specia	3,704.0
Name of	.,	,	Ш	6; Tubing -		3-5		is sucker F				17	1 2.		7,704.0
6243	1.7	j	۳	Production; 2 7/8; 23.00-		3-6		pony rod v 5 x RHBM	w/ moulded guides			1 1	2 1/2	90 D	8,129.0 8,132.0
L)m1				8,274.20 Kick-off;	LOWER	3-8		71' dip lub				1	1 1/4		8,158.0
Logi	21	1	1	8,491.00 7 7/8;		Cen									
	21	Ñ	1	Production; 3,822.00-	1ST BO	Con	g: Conducto	ment , 1 r, 120.00ft	<b>0/25/2012</b> KB	Cement	Evaluation Resul	ts:			
	21 .	Į.		13,743.00	101 00			Stage Top		Bottom (ftKB) 120.0	ol Cement Ret (b		p Measurement rculated	Method	
£181	31.7	Į.						Fluid	20.0	Amount (sac	ks) Clas		Dens (lb/gal)	Yield (	ft³/sack)
Kann	ш.			Perforated;	2ND BO	Lead	Casla	- Como	4 40/20/2012		С				
Line		ĺ	1	9,337.00- 9,683.00;		Strin	g: Surface, 6	550.00ftKB	nt , 10/28/2012		Evaluation Resul				
1491		5	H	1/22/2013 Perforated;		Stage	Number 5	Stage Top	(ftKB) Stage E	Bottom (ftKB) 650.0	ol Cement Ret (b	86.0 Cir	p Measurement rculated	Method	
1761	117	Ĺ		9,797.00-				Fluid		Amount (sac		s	Dens (lb/gal) 13.		ft³/sack) 1.65
441		N		1/22/2013 Perforated;		Lead Tail					675 C 225 C		14.		1.33
4341		À		10,292.00- 10,638.00;		Inte	mediate C	asing C	ement , 11/1/20						
-	117	Ę		1/22/2013 Perforated;			ntermedia Number S	ate, 3,822. Stage Top	(ftKB) Stage B	Bottom (ftKB)	Evaluation Result ol Cement Ret (b	bl) To	p Measurement	Method	
~	123	Ď	1 1	10,787.00-			1	Fluid	23.0	3,822.0 Amount (sac		100.0 Re	Dens (lb/gal)	•	ft³/sack)
1001		N. Carlotte	H	1/22/2013 Perforated;		Lead		riuid		Amount (sac	1,500 C		12.3	30	1.81
HJR7		i i	h	11,282.00-		Tail			444000	42	350 C		14.3	20	1.37
~***	m/	Ď		1/22/2013			: Production	n, 13,715.		Cement	Evaluation Resul				
1001	m.	Ž.						Stage Top		3,743.0	ol Cement Ret (b	107.0 Re	p Measurement turns to Surface		
5/20		N		Perforated; 11,777.00-				Fluid	23.0	Amount (sac		s	Dens (lb/gal)	Yield (	ft³/sack)
12.00				12,123.00;		Lead					800 Poz 35/65 1,460 Poz 50/50		12.4		2.19 1.28
1071	11.1	å		Perforated; 12,282.00-		,	Number S	Stage Top			ol Cement Ret (b)	ol) To	p Measurement	Method	
NLM?			1	12,618.00;		1	2	Fluid	23.0	3,865.0 Amount (sac	ks) Clas		Dens (lb/gal)	Yield (	ft³/sack)
		ES N	H	Perforated;		Lead					325 TXI		12.4	10	1.76 1.33
gw.	10.1	Ŕ		12,767.00-		Tail					200 C		14.0	~	1.33
MARK.		3		1/22/2013 Perforaled;		11									
4000	***	8		13,237.00-											
		8	H	1/9/2013											
16441		5 1/2 in; 17.00 lb/ft; P-110;		.		11									
9244		13,715.00 ftKB Cement;				11									
9,441	m./	13,730.00-	1			11									
4.001		Production Casing Cement;		TD - Original											
440	"	23.00; 13,743.00	- 4	Hole; 13,743.00											

# \*

**Schematic - Vertical Production** 

Well Name: POKER LAKE UNIT CVX JV RB #001H (04-24-30)

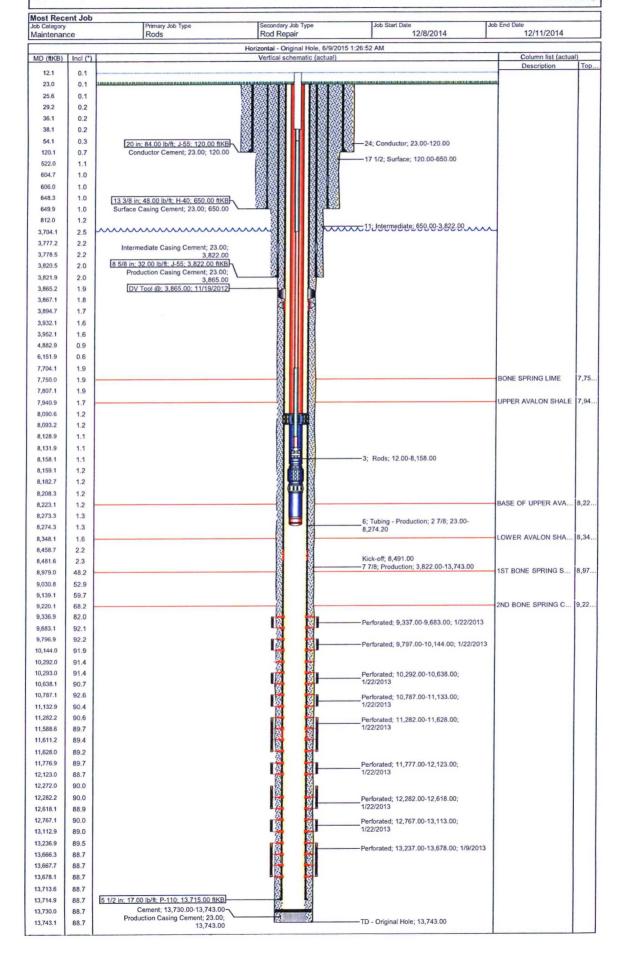
BOPCO, L.P. - West Texas

Well ID: 30-015-40660

Field: Wildcat - Bone Spring

Sect: 4 Town: 24S Rng: 30E Eddy Co., State: New Mexico

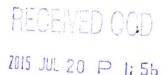
Blk: Survey:



#### BOPCO, L.P.

201 MAIN ST.
FORT WORTH, TEXAS 76102-3131
817/390-8400

July 17, 2015



#### FEDERAL EXPRESS

Bureau of Land Management Carlsbad District Office 620 E. Green St. Carlsbad, New Mexico 88220 Attn: Mr. Ed Fernandez New Mexico State Land Office Commissioner of Public Lands 310 Old Santa Fe Trail Santa Fe, New Mexico 87501 Attention: Mr. Pete Martinez New Mexico Oil Conservation Division 1220 St. Francis Santa Fe, New Mexico 87505 Attention: Mr. William Jones

Re: Commercial Determination

PLU CVX JV BS #009H (PLU Big Sinks 23-24-30 #1H)

Upper Avalon Shale Eddy County, New Mexico

#### Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the Upper Avalon Shale. Should you be in agreement that the Upper Avalon Shale is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

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.

Very truly yours,

2 7 11

Bureau of Land Management	New Mexico State Land Office	New Mexico Oil Conservation Division
Ву:	By:	Ву:
Its:	Its:	Its:
Date:	Date:	Date:



# INTER-OFFICE MEMORANDUM

TO:

Frank McCreight

FROM:

**Bryce Bezant** 

DATE:

1/16/2014

RE:

Commercial Determination PLU Big Sinks 23-24-30 #1H

Poker Lake Unit (Upper Avalon) Field

Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Big Sinks 23-24-30 #1H was drilled in 2012 to a total depth of 12,730' laterally completed in the Upper Avalon Shale reservoir. The well is producing from perforations 8,255'-12,681'. On test 3/2/2012 the well flowed at the rate of 726 BOPD, 1658 MCFD, and 1903 BWPD. This well has an expected recovery of approximately 201MBOE (13:1 mcf/bbl) from the current completion.

The capital investment was taken from the AFE report and operating costs from the LIOR statement which included water hauling charges. The most recent strip price file was utilized adjusting for current area differentials. Plant yields are 3.2 gpm with a gas sales fraction of 56.7%. The Big Sinks 23-24-30 #1H will not be a commercial well and should be incorporated into a participating area.

R. Bryce Bezant

RBB/tah

Cc:

Ross Sutton Andy Morrison Tom McCarthy Steve Johnson

### **ECONOMIC PROJECTION**

Rem

Case Type:

1/20/2014

Lior: 1004609

11:18:57AM

Project Name: BOPCO, L.P. Partner:

Archive Set: 1-1-2014

All cases LEASE CASE As Of Date: 03/01/2011

Lease Name: 1004609/PLU BIG SINKS 23-24-30 USA/ Reserv Cat.: Proved Producing

Discount Rate (%): 5.00

Field: WILDCAT; BONE SPRING

1004609/PLU BIG SINKS 23-24-30 USA/

Operator: BOPCO

Reservoir: BONE SPRING Co., State: EDDY, NM

Risk: 0.000 Inherited/ 0.000 Compounded

Cum Oil (Mbbl): 0.00 Cum Gas (MMcf): 0.00

24.497

487.332

	Gross Wet Pro	oduction	Gross Dry Gas	& NGL		Sales	ted/ 0.000 Compoun
Year	Oil (Mbbl)	Wet Gas (MMcf)	Dry Gas (MMcf)	NGL (Mgal)	Oil (Mbbl)	Gas (MMcf)	NGL (Mgal)
2011	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2012	32.278	272.512	154.514	14.147	25.015	119.748	10.964
2013	14.593	168.666	95.633	31.872	11.309	74.116	24.701
2014	6.502	113.663	64.447	306.890	5.039	49.946	237.840
2015	4.583	83.715	47.466	226.030	3.552	36.786	175.173
2016	3.552	66.470	37.688	179.468	2.752	29.208	139.088
2017	2.887	54.881	31.118	148.179	2.238	24.116	114.839
2018	2.438	46.841	26.559	126.471	1.889	20.583	98.015
2019	2.110	40.859	23.167	110.320	1.635	17.955	85.498
2020	1.864	36.328	20.598	98.086	1.445	15.963	76.016

Rem	24.497	487.332	276.317	1,315.797	18.985	214.146	1,019.742
Total	95.303	1,371.266	777.508	2,557.260	73.860	602.569	1,981.877
Ult.	95.303	1,371.266				002.009	1,501.077
		Average Price			Net Reve	enue	
Year	Oil	Gas	NGL	Oil	Gas	NGL	Total
	(\$/bbl)	(\$/Mcf)	(\$/gal)	(M\$)	(M\$)	(M\$)	(M\$)
2011	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	92.63	2.59	0.73	2,317.18	309.81	7.96	2,634.95
2013 2014 2015	93.88 89.50	3.50 3.69	0.73 0.73	1,061.67 451.01	259.26 184.20	17.93 172.67	1,338.86 807.88
2016	84.26	3.84	0.73	299.29	141.15	127.18	567.62
	80.20	3.91	0.73	220.76	114.27	100.98	436.01

1,315.797

18.985

276.317

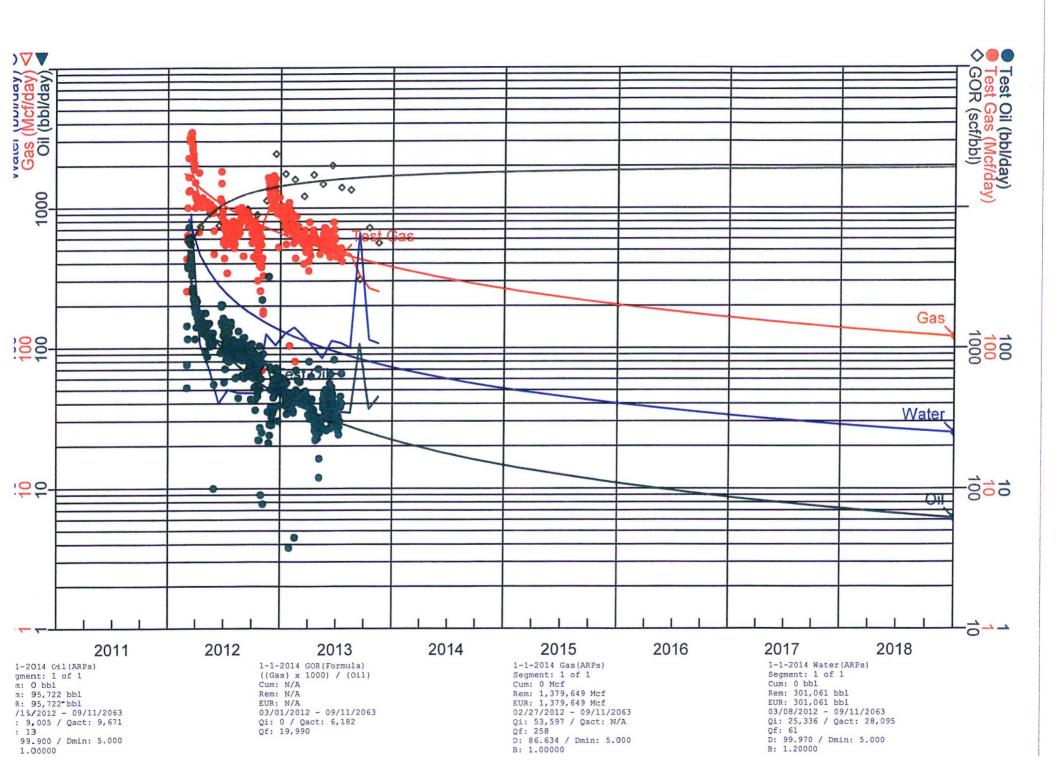
2011	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	92.63	2.59	0.73	2,317,18	309.81	7.96	2,634.95
2013	93.88	3.50	0.73	1.061.67	259.26	17.93	1,338.86
2014	89.50	3.69	0.73	451.01	184.20	172.67	807.88
2015	84.26	3.84	0.73	299.29	141.15	127.18	567.62
2016	80.20	3.91	0.73	220.76	114.27	100.98	436.01
2017	77.95	3.99	0.73	174.43	96.22	83.37	354.02
2018	76.62	4.08	0.73	144.75	83.99	71.16	299.90
2019	75.71	4.22	0.73	123.80	75.82	62.07	261.68
2020	75.28	4.39	0.73	108.77	70.10	55.19	234.06
Rem	74.76	5.20	0.73	1,419.26	1,114.41	740.33	3,274.00
Total	85.58	4.06	0.73	6,320.91	2,449.23	1,438.84	10,208.99

		Expenditures			Future Net Revenue									
Year	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)						
2011 2012	0.00 214.53	0.00 15.81	119.53 6,543.47	0.00 552.97	-119.53 -4,691.83	-119.53 -4.811.36	-115.11 -4,486.23	-115.11 -4,601.34						
2013 2014	109.93 67.85	8.02 4.76	0.00	357.95 361.03	862.95 374.24	-3,948.41 -3,574.17	765.59 317.17	-3,835.76 -3,518.59						
2015 2016 2017	47.81 36.80	3.34 2.56	0.00 0.00	363.65 356.67	152.82 39.98	-3,421.35 -3,381.38	123.25 30.82	-3,395.34 -3,364.52						
2017 2018 2019	29.92 25.37 22.16	2.08 1.76 1.54	0.00 0.00	351.98 348.72	-29.96 -75.95	-3,411.34 -3,487.28	-21.63 -52.43	-3,386.15 -3,438.57						
2020	19.83	1.38	0.00 0.00	346.29 344.44	-108.30 -131.59	-3,595.58 -3,727.18	-71.18 -82.29	-3,509.75 -3,592.04						
Rem Total	278.24 852 44	19.25	0.00	13,413.43	-10,436.92	-10,436.92	-2,496.29	-2,496.29						

Total	032.44	00.49	,003.00	16,797.15	-14,164.09	-14,164.09	-6,088.33	-6,088.	33
Maior Phase : Perfs : Initial Rate : Abandonment : Initial Decline : Beg Ratio : End Ratio :	293. 86. 0.	0 36 Mcf/month 87 Mcf/month 63 % year b = 1.0 00 bbl/Mcf 05 bbl/Mcf	000	Working Int: Revenue Int: Disc. Initial Ir Internal ROR ROInvestmen Years to Payo Abandonment	nvest. (m\$): (%): t (disc/undisc): ut:	1.00000000 0.77500000 6,337.329 >1000.0 0.04 / 0.00 0.00	Prese	5.00%: 9.00%: 10.00%: 12.00%: 15.00%:	-6,088.33 -4,477.18 -4,269.73 -3,967.50 -3,682.16
Forecast Start :	03/01/20			1st Rev. 0.00000000 0.00000000	2nd Rev. 0.00000000 0.00000000	02/28/2061		20.00% : 30.00% : 40.00% : 50.00% :	-3,413.20 -3,121.85 -2,909.54 -2,713.00 -2,522.20

Rev. Date: Ver: 1/20/2014 BOPCO Detailed V9.rpt

Page 1



# WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

#### WELL DATA

WELLE	BIG SINKS 23-24-30	_ FORMATION		BONE SP	RING	
LOCATIONU	UNIT,175_ FEET FROM_SOUTH	LINE &	4001	FEET FROM .	EAST	LINE
SECTION23TOWNSHIP_	24S , RANGE 30E, COUNT	Υ	Eddy		_ NEW MI	EXICO
SPUD DATE <u>12/5/2011</u> (	COMPLETION DATE 3/1/2012	_ INITIAL PRO	DUCTION		4/8	3/2011
PERFORATIONS 8255-12681						
BHL: 406' FSL & <u>1925' FEL SEC 23 T2</u>	4S R30E					
STIMULATION:						
ACID						_
						-
FRACTURE	See Attached	,	×			-
						-
						-
						_
	BOPD, 1658 MCFPD, 1903 BWPD				2	-
					2	-
					2	-
	Wellbore Sketch of Completed Well.)					-
	Wellbore Sketch of Completed Well.)  VOLUMETRIC CALC		SANDS NO	OT PERFORAT		_
Attach Copy of C-105. Attach Copy of	Wellbore Sketch of Completed Well.)		SANDS NO			-
(Attach Copy of C-105. Attach Copy of A	Wellbore Sketch of Completed Well.)  VOLUMETRIC CALC  SANDS PERFORATED		SANDS NO	OT PERFORAT		_
Attach Copy of C-105. Attach Copy of Area (A) proration unit size, acres	Wellbore Sketch of Completed Well.)  VOLUMETRIC CALCI  SANDS PERFORATED  160		SANDS NO	OT PERFORAT		_
Area (A) proration unit size, acres Porosity (Φ), % Water saturation (Sw), %	VOLUMETRIC CALCI  SANDS PERFORATED  160  18%		SANDS NO	OT PERFORAT		-
Area (A) proration unit size, acres Porosity (Φ), % Water saturation (Sw), % Net Thickness (H), ft.	VOLUMETRIC CALCI  SANDS PERFORATED  160  18%  4%		SANDS NO	OT PERFORAT		-
Area (A) proration unit size, acres Porosity (Φ), % Water saturation (Sw), % Net Thickness (H), ft. Temperature (T), Fahrenheit	VOLUMETRIC CALCI  SANDS PERFORATED  160  18%  4%  234		SANDS NO	OT PERFORAT		- - - - -
Area (A) proration unit size, acres Porosity (Φ), % Water saturation (Sw), % Net Thickness (H), ft. Temperature (T), Fahrenheit Bottom Hole pressure (P), psia	VOLUMETRIC CALCI  SANDS PERFORATED  160  18%  4%  234  150		SANDS NO	OT PERFORAT		- - - - -
POTENTIAL (40970): 726 (Attach Copy of C-105. Attach Copy of C-10	VOLUMETRIC CALCI  SANDS PERFORATED  160  18%  4%  234  150  3,728  60%		SANDS NO	OT PERFORAT		- - - - - -

### PERFORMANCE DATA

(If sufficient history exists, attach plot of	oil production rate v time.)	
CUMULATIVE PRODUCTION TO	4/30/2013 36,856 BBL Oil 338,911	MCF Gas
INITIAL RATE (qi)	1,762	
ECONOMIC LIMIT (qI)	300 MCFD	
HYPERBOLIC DECLINE RATE, dy	n =1, d = 99.54%/yr	
REMAINING MCF (Q) =	0	
ULTIMATE RECOVERABLE MCF	690,611	
(Attach plat showing proration unit and p	participating area.)	
	ECONOMIC	
GROSS WELL COST\$2,531,940_(	to the depth of formation completed)	
COMPLETION COST \$4,131,061	_	
GROSS TOTAL COST \$6,663,001	_	
GROSS N	MCF REIT NET OPERATING COST (ALL)	5% NET BFIT

YEAR	GROSS MCF MMCF	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	0.000	0.0	0.0	-115.1
2	272.512	2635.0	553.0	-4486.2
3	168.666	1338.9	358.0	765.6
4	113.663	807.9	361.0	317.2
5	83.715	567.6	363.7	123.3
6	66.470	436.0	356.7	30.8
7	54.881	354.0	352.0	-21.6
8	46.841	299.9	348.7	-52.4
9	40.859	261.7	346.3	-71.2
10	36.328	234.1	344.4	-82.3
REMAINDER	487.332	3274.0	13413.4	-2496.3
TOTAL	1371.267	10209.0	16797.1	-6088.3

WELL IS NOT COMMERCIAL

Form 3160-4 March RECEIVED UNITED STATES FORM APPROVED EPARTMENT OF THE INTERIOR OCD Artesia OMB NO 1004-0137 JUL 24 2012 Expires October 31, 2014 **BUREAU OF LAND MANAGEMENT** 5. Lease Serial No. NMOCD ARTESIA ETION OR RECOMPLETION REPORT AND LOG NMNM030452 ☐ Gas Well ☐ Dry ☐ Other ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr, la Type of Well X Oil Well 6 If Indian, Allottee or Tribe Name b. Type of Completion New Well 7. Unit or CA Agreement Name and No. 891000303X Other: 2. Name of Operator 8. Lease Name and Well No. BOPCO, L.P. PLU Big Sinks 23-24-30 USAH 9. API Well No. 30-015-39633 3. Address 3a. Phone No (include area code) P O Box 2760 Midland Tx 79702 (432)683-2277 4. Location of Well (Report location clearly and in accordance with Federal requirements)\* 10. Field and Pool or Exploratory Wildcat: G-065243026M; Bone Spring At surface ULB; 100' FNL 1980' FEL; Lat. N 32.21035388 11. Sec, T., R, M., on Block and Survey or Area 23;24S;30E At top prod. interval reported below 12. County or Parish 13. State Eddy NM At total depth ULO; 23, 24S, 30E; 406' FSL 1925' FEL 14. Date Spudded 12/05/2011 15. Date T.D. Reached 17. Elevations (DF, RKB, RT, GL)\* 3428 GL 16 Date Completed 03/01/2012 12/25/2011 D&A X Ready to Prod. MD 12,730 TVD8,295 18. Total Depth: 19. Plug Back T D .: 20. Depth Bridge Plug Set: MD 12,639 MD TVD Type Electric & Other Mechanical Logs Run (Submit copy of each) Yes (Submit analysis)
Yes (Submit report) Was well cored? Y No Caliper; Comp Z-DCompN.Digital Spectra Mini G.R.; Was DST run? X No Directional Survey? ☐ No Yes (Submit copy) 23 Casing and Liner Record (Report all strings set in well) Stage Cementer No of Sks. & Slurry Vol. Hole Size Size/Grade Wt. (#/ft.) Top (MD) Bottom (MD) Cement Top\* Amount Pulled Depth Type of Cement (BBL) 17-1/2 13-3/8 H40 635 651 CLC 200 CIR 12-1/4 8-5/8 J-55 4,061 1,387 Poz 450 CIR 7-7/8 5-1/2 L80 12,730 4.922 1,840 Poz 477 2,150 CBL Tubing Record Size Depth Set (MD) Packer Depth (MD) Size Depth Set (MD) Packer Depth (MD) Depth Set (MD) Packer Depth (MD) 2-7/8 7,718 7,688 25. Producing Intervals Perforation Record Formation Top Bottom Perforated Interval Size No. Holes Perf Status A)Bone Spring 4,108 7,946 8,255-12,681 Frac Ports Producing

30/50 Ottawa Sand; 17,902 Linear Gel; 20,264 Slickwater; 4785 X-LinkGel RECLAMATION 28. Production - Interval A Production Method DUE Date First Test Date Hours Test Oil Gas Water Oil Gravity Produced Tested Production BBL MCF BBI. Corr. API Gravity 3/2/12 3/9/12 24 726 1658 1903 Flowing Choke Tbg. Press Csg. 24 Hr. Oil Gas Water Gas/Oil Well Status Size Flwg Press Rate BBL MCF BBL Ratio ED FOR RECORD 480 48/64 10 726 1658 1903 2284 P.O 28a. Production - Interval B Date First Test Date Hours Test Oil Water Gas Oil Gravity Gas Production Method Produced Tested MCF Production BBL BBL Corr. API Gravit 2 108 Choke Tbg. Press Csg 24 Hr. Oil Gas Water Gas/Oil Well Status Size Flwg Press. Rate BBL MCF BBL Ratio SI BUREAU OF LAND MANAGEMENT CARLSBAD FIELD OFFICE \*(See instructions and spaces for additional data on page 2)

Amount and Type of Material

609,381 gals 100 Mesh Sand; 333,956 lbs 20/40 Super LC; 1,086,378 lbs. 30/50 Ottawa Sand;

B) C) D)

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

Depth Interval

8,255 - 12,681

2 . 1 .											
28b. Prod	Test Date	rval C Hours	Test	Oil	Cas	Water	bite	Gravity	Kan	Deadustion Mathed	
Produced	rest Date	Tested	Production	BBL	Gas MCF	BBL		API	Gas Gravity	Production Method	
Choke Sıze	Tbg. Press Flwg SI	Csg. Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas/ Ratio		Well Status		
28c. Produ	uction - Inte	rval D			1			-			
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Gas Gravity	Production Method	-			
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/ Ratio		Well Status		
29. Dispos	sition of Gas	Solid, us	ed for fuel, ve	nted, etc.)	1						
Sold											
30. Sumn	nary of Poro	us Zones (	Include Aqui	fers):					31. Formation	on (Log) Markers	
Show a includi	ng depth int	zones of perval tested	orosity and c	ontents thered, time too	reof: Cored in l open, flowin	tervals and all g and shut-in p	drill-ste	em tests, s and			
Forn	nation	Тор	Bottom		Descr	iptions, Conte	nts. etc.			Name	Тор
						,,	, 0.0.			Name	Meas. Depth
									Rustler		573
									Top of Sa	ılt	918
									Base of S	alt	3863
									Bell Cany	/on	4108
									Cherry Ca		4989
									Brushy C		
										•	6299
									1st B.S. C	Carbonate	7946
				1							
32. Additi	onal remark	s (include	plugging prod	cedure):							
2-7/8" F 8-5/8" c	EUE 6.40	ppf L-8	0 tubing; not 4,065	COO effi ' as listed	ective 2.23 I on the Su	.12 ndry filed	12/20/				
20											
33. Indicat	te which iter	ns have be	en attached by	y placing a	check in the a	ppropriate box	ces:				
☐ Elect	mical/Mecha	nical Logs (	I full set req'o	1.)	□G	eologic Report		DST Rep	oort	☑ Directional Survey	
☐ Sund	lry Notice fo	r plugging a	nd cement ver	rification	□с	ore Analysis		Other			
34. I hereb	y certify tha	t the foreg	oing and attac	hed inform	ation is comp	lete and correc	ct as dete	rmined from	all available rec	cords (see attached instructions)*	
Na	me (please	print) Sa	ndra J. Be	lt ext.	7.379				atory Clerk	cords (see attached instructions)+	
	gnature	San	alla	J. 1.	Belt			07/16/201			
Title 18 U :	S.C Section ous or fraud	1001 and	Title 43 U.S.0	C. Section 1	212, make it a	a crime for any er within its ju	y person urisdiction	knowingly a	and willfully to n	nake to any department or agency	of the United States any
(Continued											(Form 3160-4 page 2)

RECEIVED

JUL 17 2012

Form C-102

State of New Mexico Energy, Mucrols and Natural Resources Department

MMOCD ARTESIA District Office

1301 W. Grand Arenue, Arteris, NH 85210 DISTRICT III 1000 Rio Drazos Rd., Azleo, Nil 07410

1825 H. French Dr., Hobbs, 101 88240

DISTRICT I

DISTRICT II

DISTRICT IV

1920 B. St. Francis Dr., Santa Pe, 181 07505

OIL CONSERVATION DIVISION 1220 South St. Francis Dr.

Santa Fc, New Mexico 87505

MENDED REPORT

	WELL LOCATION AND	ACREAGE DEDICATION PLAT	MAMENDED REPORT
30-015-39633	, Pool Code 96403	Pool Name WILDCAT G-06 S243026;B	ONE SPRING
Property Code 38923		erly Name". S 23 24 30 USA	Well Number
147179		OPERATING CO.	Elevation , 3428'

Surface Location Ul. or lot No. Section Tounship Range Lot Idn Foot from the North/South line Feet from the' East/West Hao County. B 23 24 S 30 E 100 NORTH 1980 **EAST** EDDY Bottom Hole Location If Different From Surface

Ul. or lot No. Section Township Lot Idn Range Feet from the North/South line Feet from the East/West line County 0 23 24 S 30 E 406 SOUTH 1925 EAST EDDY Dedicated Acres Joint or Infill Consolidation Code Order Ho. 160

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD JUNIT-HAS BEEN APPROVED BY THE DIVISION

SURFACE LOCATION Lol - N 32,21055365 Long - W 103,0493731 MISSPCE II 43037,784 E. 631016,660 (IND-83)  3423.9'		3428.5	3432.1'~	
ACTUAL BOTTOM HOLE LOCATION HOLE SOME AND A STATE OF THE S	Loi - N 32; Long - W 103; NMSPCE- N 44 E .69	OCATION 21035388' 8493731' 3423.9' 3	1 1080' , 1080	.I hereby certify that the information
ACTUAL BOTTOM HOLE LOCATION - 406' FSL & 1925' FEL  PROPOSED BOTTOM HOLE LOCATION Lot - N 32.19710474' Long - W 103.6494285' NMSPCT. N 435777.866 PMSPCT. B 691021,220 (NAD-83)  Date Superpose and that the some is runder my superpose and that the some is frue and correct to the best of my teller.  Signatur u see of the best of my teller.  Signatur u see of the best of my teller.  Signatur u see of the best of my teller.  Cortification No. Gory L. Jonos 7977				Signature Date  Bryan Arrant  Printed Namie  bryan.arrant@chk.com  Email .Address  SURVEYOR CERTIFICATION  1 hereby certly that the well location shown
	HOLE LOCA 406' FSL & 192  PROPOSED B HOLE LOCY Lot - N 32. Long - W 103. NMSPCE- N 43.	TTOM TION 8.5' FEL OHOM 19710474' 8494285' 5777.866 1021.220	1980	octual sureps made by me or under my supervison and that the same is true and correct to the best of my teller.  Date Supervisor of MERICO Professional Surveyor of Professional Surveyor.

# \*

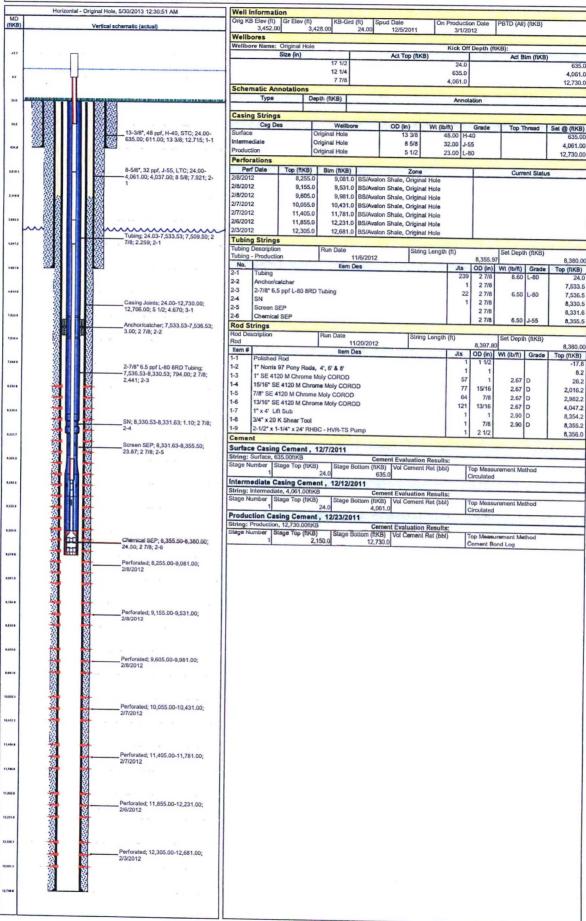
010.Downhole Profile - Vertical Wells

Well Name: PLU BIG SINKS 23-24-30 USA #1H Field: Wildcat - Bone Spring

BOPCO, L.P. - West Texas Well ID: 30-015-39633

Sect: 23 Town: 24S Rng: 30E County: Eddy State: New Mexico

Surface Location: 100' FNL & 1980' FEL, Sec 23, T24S, R30E

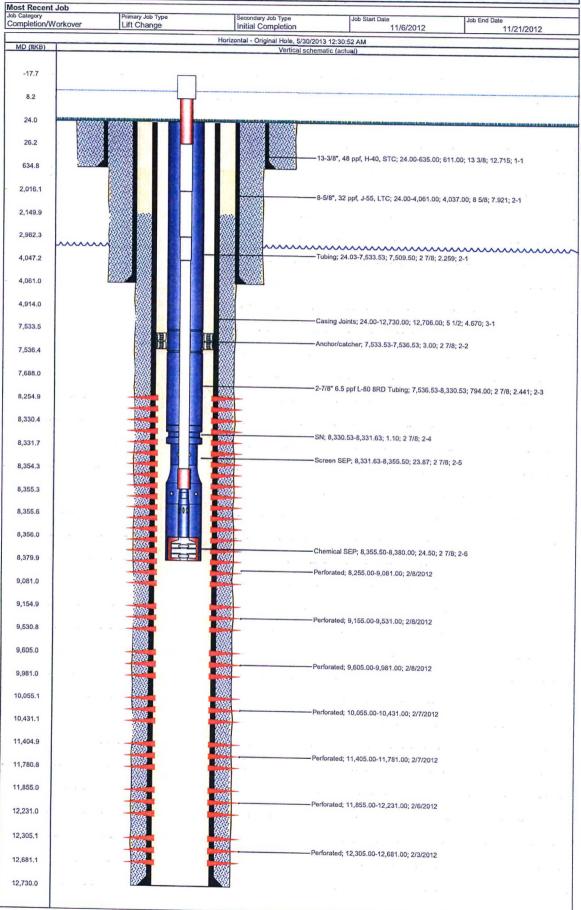


# 035.Schematic - Vertical Production Well Name: PLU BIG SINKS 23-24-30 USA #1H Field: Wildcat - Bone Spring

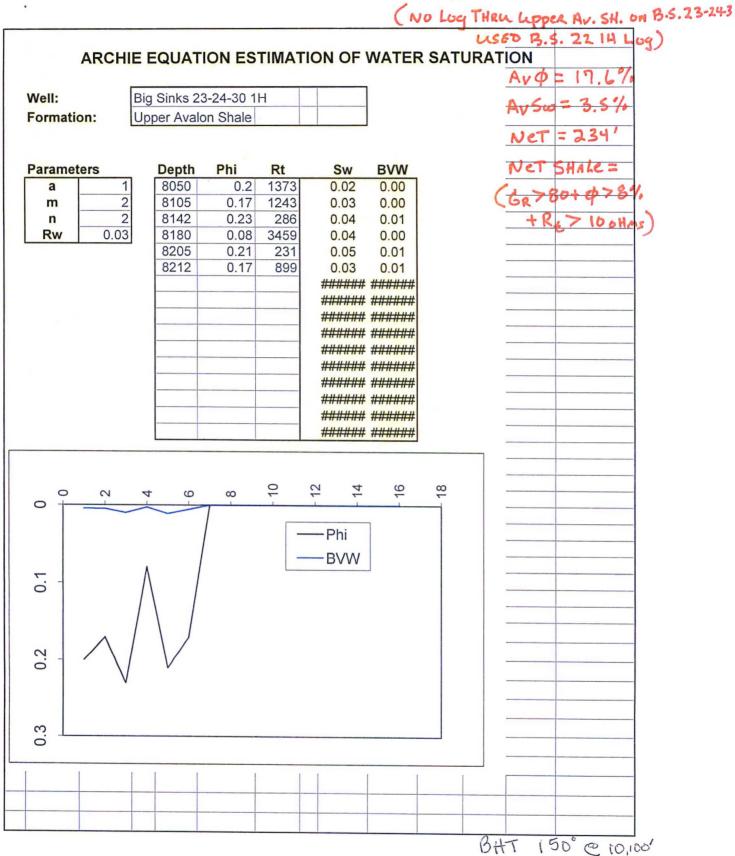
BOPCO, L.P. - West Texas Well ID: 30-015-39633

Sect: 23 Town: 24S Rng: 30E Eddy Co., State: New Mexico

Blk: Survey:



UPPER AVALON SHALE



BHT 150° @ 10,100'

(NO Log THRU Upper Av. SH. on B.S. 23-24-30 USED B.S. 22 14 Log) ARCHIE EQUATION ESTIMATION OF WATER SATURATION Av = 17.6% Big Sinks 23-24-30 1H Well: AVSw = 3.5% Upper Avalon Shale Formation: NeT = 234' NET SHALE = Depth Phi Rt Sw **BVW Parameters** 0.2 1373 0.00 8050 0.02 GR>80+078" 2 0.00 8105 0.17 1243 0.03 m + R. > 100HA 2 8142 0.23 286 0.04 0.01 n 0.03 0.08 3459 0.00 8180 0.04 Rw 8205 0.21 231 0.05 0.01 8212 0.17 899 0.03 0.01 ###### ###### ###### ###### 8 0 -Phi -BVW 0.1 0.2 3

### Prepared August 21, 2012

### **BASS ENTERPRISES** 12 Month Status Report - Type/Division Active amd Major Carryover

(does not include special or closed)



**OUTSIDE OPERATED** 

DEVELOPMENT&EXPLOITATION WELL Carryover AFE's WEST TEXAS DIVISION

Bass Net Charges Posted - by Accounting Date

AFE#	AFE Name		Authorized		Carry - In from															
Oper		WI	Gross	SUP		8/ 2011	9/ 2011	10/ 2011	11/ 2011	12/ 2011	1/ 2012	2/ 2012	3/ 2012	4/ 2012	5/ 2012	6/ 2012	7/ 2012	Total	% Over (-)	-
Name			Net		Prior Months													Gross/Net		Supplement
24855	PLU PIERCE CANYON	0.25	6,150,500	N	2,196,344	4.853.476	0	521,641	368,793	139,190	0	0	-487,017	0	60,000	0			Authorized	Needed
CHESAPEAK	16 #1H		1,537,625		549,086	1,213,369	0	130,410	92,198	34,797	0	0		Ū	62,028	0	-20,517	7,633,939	24.11%	Y
	DENINY DINICHED 24				040,000	1,210,000			92,190	34,797	0	0	-121,754	0	15,507	0	-5,129	1,908,485		
	PENNY PINCHER 21 FED COM #4H 2ND	0.20	4,526,858	N		0	0	3,068,398	1,943,506	2,849,654	0	509,803	0	218,071	239,173	0	2,370	8,830,975	95.07%	Y
	BONE SP		905,372			0	0	613,680	388,701	569,931	0	101,961	0	43,614	47,835	0	474	1,766,195		
	PLU BIG SINKS 2-24- 30ST#1H	0.25	6,333,900	N		17,143	0	778,021	1,667,807	5,524,016	0	0	1,523,973	0	131,154	0	3,880	9,645,993	52.29%	V
CHESAPEAK	3031#1H		1,583,475			4,286	0	194,505	416,952	1,381,004	0	0	380,993	0	32,788	0	970	2,411,498	02.2370	1
	PLU BIG SINKS 2-25- 30ST #1H	0.25	6,269,400	N		0	0	8,387	375,808	3,030,710	0	0	4,124,265	0	251,997	9,124	-9,124	7,791,166	24.27%	
CHESAPEAK	3031#1П		1,567,350			0	0	2,097	93,952	757,677	0	0	1,031,066	0	62,999	2,281	-2,281	1,947,792	24.21 /0	1
	PLU BIG SINKS 14-25-	0.25	6,645,400	Ν		0	0	0	0	1,717,461	0	0	6,122,891	-1,013	728,202	0	46,680	8,614,221	29.62%	v
CHESAPEAK	30 USA #1H		1,661,350			0	0	0	0	429,365	0	0	1,530,723	-253	182,050	0	11,670	2,153,555	20.0270	Y
	PLU BIG SINK 23-24-	0.25	6,010,000	N		0	0	0	0	119,530	0	0	3,419,486	0	3,029,479	0	94,507	6,663,001	10.86%	V
CHESAPEAK	30 USA #1H		1,502,500			0	0	0	0	29,882	0	0	854,871	0	757,370	0	23,627	1,665,750	10.00%	Y

Current Year AFE's

WEST TEXAS DIVISION

#### Bass Net Charges Posted - by Accounting Date

AFE#	AFE Name		Authorized		Carry - In from													T-4-1	N 0 ()	I man te
Oper		WI	Gross	SUP		8/ 2011	9/ 2011	10/ 2011	11/ 2011	12/ 2011	1/ 2012	2/ 2012	3/ 2012	4/ 2012	5/ 2012	6/ 2012	7/ 2012	Total Gross/Net	% Over (-) Under +	"Y" if Supplement
Name			Net		Prior Months														Authorized	
		0.20	4,526,858	N		0	0	1,517	-1,517	0	0	0	0	0	0	0	0	Expended	-100.00%	Weeded
CIMAREX	FEDCOM #2H		905,372			0	0	303	-303	0	0	0	0	0	0	0	0		-100.00%	
	PIERCE CANYON 20-	0.25	5,959,700	N		0	0	0	0	0	0	0	2,683,108	0	4,131,504	0	219,146	7,033,758	18.02%	V
CHESAPEAK	24-30 USA #1H		1,489,925			0	0	0	0	0	0	0	670,777	0	1,032,876	0	54,786	1,758,439	10.02%	Y
	PLU BIG SINKS 24-24-	0.25	7,284,000	N		0	0	0	0	0	0	0	1,611,347	0	3,960,555	0	925.129	6,497,031	40.0004	
CHESAPEAK	30 USA #1H		1,821,000			0	0	0	0	0	0	0	402,837	0	990,139	0	231,282	1,624,258	-10.80%	
	PLU BIG SINKS 15-25-	0.25	7,253,280	N		0	0	0	0	0	0	0	301,962	0	2,475,710	0	2,086,425	4.864.097	-32.93%	
CHESAPEAK	30 USA #1H		1,813,320			0	0	0	0	0	0	0	75,491	0	618,927	0	521,606	1,216,024	-32.93%	

## BASS ENTERPRISES Operations Report 12/2012

Property ID 1004609

PLU BIG SINKS 23-24-30 USA #1H

OPERATED PROPERTIES
WEST TEXAS DIVISION
CARLSBAD DISTRICT
NEW MEXICO
PLU-CHK FIELD



### **ACTIVE PROPERTIES**

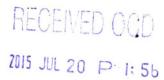
Wrkg Int	0.50000000
NRI Int	0.38750000
Roy Int	0.08999999

								-					Month	% of	YTD	YTD	% of	10%
	1/2012	2/2012	3/2012	4/2012	5/2012	6/2012	7/2012	8/2012	9/2012	10/2012	11/2012	12/2012	Budget	Bud	Actual	Budget		Flag
Lease Operating Expe	enses (8/8	()																
Company Labor	0	0	0	0	0	0	0	0	0	0	1598	1027	0	0	2625	0	0	
Employee Benefits	0	0	0	0	0	0	0	0	0	0	464	289	0	0	753	0	0	
Employee Expenses	0	0	0	0	0	0	0	0	0	0	254	85	0	0	339	0	0	
Contract Labor	0	0	0	319	0	0	0	0	0	0	1273	2205	0	0	3797	0	0	
Contract Services	0	0	0	21239	18708	2224	2724	104	3046	160	627	2869	0	0	51701	0	0	
Maint Mat/Sup	0	0	0	5868	0	0	0	0	0	0	0	2796	0	0	8664	0	0	
Pulling Expense	0	0	0	0	0	0	0	0	0	0	0	2329	0	0	2329	0	0	
Fuel Water Power	0	0	0	5858	0	0	0	0	0	0	0	12321	0	0	18179	0	0	
Purchased Gas Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Treating Chemicals	0	0	0	0	783	0	0	0	0	837	228	5100	0	0	6948	0	0	
Lease Srv & Mnt	0	0	0	0	0	0	5429	0	0	0	387	0	0	0	5816	0	0	
Location & Access	0	0	0	66315	0	0	0	0	0	0	0	5593	0	0	71908	0	0	
Environ Safety	0	0	0	0	1866	0	0	0	0	0	0	0	0	0	1866	0	0	
Alloc Sys & Fac	0	0	0	0	0	0	0	0	0	1646	6604	77362	0	0	85612	0	0	
Alloc Area Expense	0	0	0	0	0	0	0	0	220	231	279	390	0	0	1120	0	0	
Total NLOE (\$)	0	0	0	99599	21357	2224	8153	104	3266	2874	11714	112366	0	0	261657	0	0	
AFEd Expense	0	0	0	0	0	0	0	0	0	0	0	22150 I	0	0	22150	0	0	
Misc Exp/Rec	0	0	0	897	177663	1144	51724	54965	726	14343	646	-1373	0	0	300735	0	0	
Marketing Exp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Title Exam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total LOE (\$)	0	0	0	100496	199020	3368	59877	55069	3992	17217	12360	133143	0	0	584542	0	0	
Expenses - Bass Shar	е																	
Total LOE (Net)	0	0	0	50248	99510	1684	29938	27535	1996	8608	6180	65561 I	0	0	291260	0	0	
Ad Valorem	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severance Tax	0	0	0	37102	22021	15998	3479	12849	12020	12856	8838	5870	0	0	131033	0	0	
Haul & Other	0	0	0	3426	4299	4370	1547	3727	3499	3637	2467	1707	0	0	28679	0	0	
Total Net LOE (\$)	0	0	0	90776	125830	22052	34964	44111	17515	25101	17485	73138	0	0	450972	0	0	
Capital Expenditures	0	0	0	0	0	0	0	0	0	0	0	3851	0	0	3851	0	0	
<b>COPAS Overhead</b>	0	0	50	50	50	50	50	50	50	50	50	50	0	0	500	0	0	
AFEd Net Expense	0	0	0	0	0	0	0	0	0	0	0	11075	0	0	11075	0	0	
-					,	-	3	9	3	J	U	11075	J	U	11075	U	U	

#### BOPCO, L.P.

201 MAIN ST. FORT WORTH, TEXAS 76102-3131 817/390-8400

July 17, 2015



#### FEDERAL EXPRESS

Bureau of Land Management Carlsbad District Office 620 E. Green St. Carlsbad, New Mexico 88220 Attn: Mr. Ed Fernandez New Mexico State Land Office Commissioner of Public Lands 310 Old Santa Fe Trail Santa Fe, New Mexico 87501 Attention: Mr. Pete Martinez New Mexico Oil Conservation Division 1220 St. Francis Santa Fe, New Mexico 87505 Attention: Mr. William Jones

Re: Commercial Determination

PLU CVX JV BS #008H (PLU Big Sinks 14-25-30 #1H)

1<sup>st</sup> Bone Spring

Eddy County, New Mexico

#### Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the 1<sup>st</sup> Bone Spring reservoir. Should you be in agreement that the 1<sup>st</sup> Bone Spring is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

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.

Very truly yours,

R. Travis Mears

Bureau of Land Management	New Mexico State Land Office	New Mexico Oil Conservation Division
Ву:	By:	Ву:
Its:	Its:	Its:
Date:	Date:	Date:



# INTER-OFFICE MEMORANDUM

TO:

Frank McCreight

FROM:

**Bryce Bezant** 

DATE:

1/23/2014

RE:

Commercial Determination

PLU Big Sinks 14-25-30 #1H

Poker Lake Unit (1st Bone Spring) Field

Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Big Sinks 14-25-30 #1H was drilled in 2011 to a total depth of 13,865' laterally completed in the 1<sup>st</sup> Bone Spring reservoir. The well is producing from perforations 9,250'-13,830'. On test 2/29/2012 the well flowed at the rate of 346 BOPD, 2074 MCFD, and 623 BWPD. This well has an expected recovery of approximately 92 MBOE (13:1 mcf/bbl) from the current completion.

The most recent strip price file was utilized adjusting for current area differentials. Plant yields are 3.2 gpm with a gas sales fraction of 56.7%. Actual operating costs inclusive of water expense were used through December, 2013. Starting January, 2014 operating costs of \$30,000/month plus \$1.25/bbl water expense were used until the economic limit was reached. The Big Sinks 14-25-30 #1H will not be a commercial well and should not be incorporated into a participating area.

R. Bryce Bezant

RBB/tah

Cc:

Ross Sutton Andy Morrison Tom McCarthy Steve Johnson

### **ECONOMIC PROJECTION**

ise Type:

1/31/2014

Lior: 1004608

Lease Name: 1004608/PLU BIG SINKS 14-25-30 USA/

oject Name: BOPCO, L.P. rtner:

All cases LEASE CASE As Of Date: 01/01/2012

Reserv Cat.: Proved Producing

1:55:12PM

Discount Rate (%): 5.00

Field: WILDCAT G-S2530020; BONE SPRING

1004608/PLU BIG SINKS 14-25-30 USA/

Operator: BOPCO

Reservoir: BONE SPRING Co., State: EDDY, NM

Risk: 0.000 Inherited/ 0.000 Compounded

ım Oil (Mbbl): ım Gas (MMcf):

chive Set: 1-1-2014

0.00 0.00

	Gross Wet Pro	duction	Gross Dry Gas	& NGL		Sales	) ICI		
/ear	Oil (Mbbl)	Wet Gas (MMcf)	Dry Gas (MMcf)	NGL (Mgal)	Oil (Mbbl)	Gas (MMcf)	NGL (Mgal)		
012	28.869	188.932	83.130	510.116	22.373	64.426	395.340		
013	11.211	134.727	59.280	363.763	8.689	45.942	281.916		
014	10.209	86.195	37.926	232.727	7.912	29.393	180.364		
015	7.888	61.987	27.274	167.366	6.113	21.138	129.708		
016	6.538	49.156	21.629	132.721	5.067	16.762	102.859		
017	5,605	40.842	17.971	110.274	4.344	13.927	85.462		
018	4.945	35.178	15.478	94.981	3.833	11.996	73.610		
019	4,444	30.999	13.639	83.696	3.444	10.571	64.865		
020	4.058	27.849	12.254	75.192	3.145	9.497	58.274		
021	3.724	25.204	11.090	68.052	2.886	8.595	52.740		

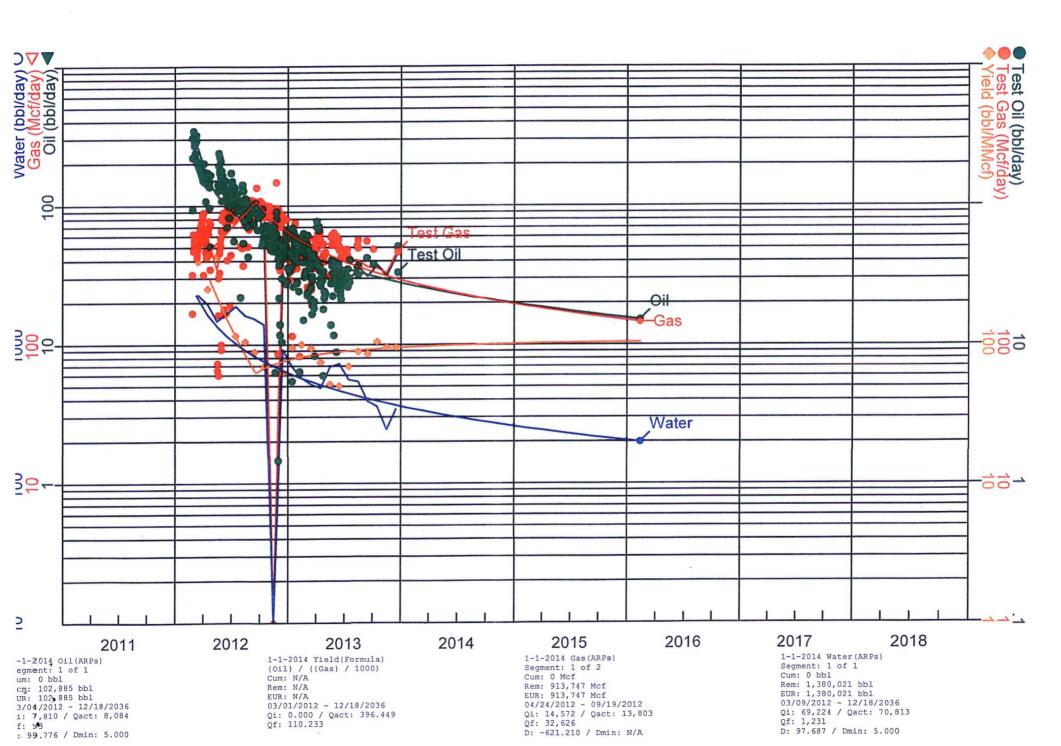
em	27.836	180.554	79.444	487.497	21.573	61.569	377.810
otal	115.328	861.624	379.115	2,326.385	89.379	293.814	1,802.949
lt.	115.328	861.624					
		Average Price			Net R	evenue	
Year	Oil	Gas	NGL	Oil	Gas	NGL	Total
	(\$/bbl)	(\$/Mcf)	(\$/gal)	(M\$)	(M\$)	(M\$)	(M\$)

Year	(\$/bbl)	(\$/Mcf)	(\$/gal)	(M\$)	(M\$)	(M\$)	(M\$)
:012	91.54	2.65	0.73	2,048.06	170.48	287.02	2,505.56
:013	92.83	3.51	0.73	806.52	161.46	204.67	1,172.65
:014	89.47	3.69	0.73	707.94	108.38	130.94	947.26
:015	84.23	3.84	0.73	514.91	81.11	94.17	690.19
:016	80.19	3.91	0.73	406.30	65.58	74.68	546.55
:017	77.95	3.99	0.73	338.60	55.57	62.05	456.21
:018	76.61	4.08	0.73	293.63	48.95	53.44	396.02
:019	75.71	4.22	0.73	260.73	44.64	47.09	352.46
:020	75.28	4.39	0.73	236.72	41.70	42.31	320.73
:021	74.92	4.57	0.73	216.24	39.32	38.29	293.85
Rem	74.74	5.18	0.73	1,612.48	318.94	274.29	2,205.71
Total	83.27	3.87	0.73	7,442.14	1,136.12	1,308.94	9,887.19

		Expenditures			Future Net Revenue				
	Total	Total	Net	Total			Disc. Ann. CF	Cum. Disc. CF	
<i>l</i> ear	Sev Taxes	Adv Taxes	Investments	Net Opcosts	Annual	Cumulative	5.00 %	5.00 %	
	(M\$)	(M\$)	(M\$)	(M\$)	(M\$)	(M\$)	(M\$)	(M\$)	
:012	131.68	9.46	7,840.35	1,820.81	-7,296.74	-7,296.74	-7,298.95	-7,298.95	
:013	97.27	6.93	0.00	893.19	175.27	-7,121.48	161.13	-7,137.83	
:014	78.12	5.61	250.00	435.26	178.26	-6,943.22	161.93	-6,975.89	
2015	56.93	4.09	0.00	232.02	397.15	-6,546.07	333.22	-6,642.68	
2016	45.09	3.24	0.00	210.91	287.31	-6,258.76	229.23	-6,413.44	
2017	37.64	2.70	0.00	196.62	219.25	-6,039.51	166.35	-6,247.09	
2018	32.68	2.35	0.00	186.64	174.36	-5,865.15	125.83	-6,121.26	
2019	29.09	2.09	0.00	179.13	142.15	-5,723.00	97.57	-6,023.68	
2020	26.48	1.90	0.00	173.41	118.95	-5,604.06	77.66	-5,946.02	
2021	24.26	1.74	0.00	168.54	99.31	-5,504.75	61.67	-5,884.35	
Rem	182.20	13.09	0.00	1,600.21	410.21	410.21	212.26	212.26	
<b>Cotal</b>	741.45	53.21	8,090.35	6,096.73	-5,094.54	-5,094.54	-5,672.09	-5,672.09	

Total	741.45	55.21	070.55	0,030.15	0,00	0,00	0,0,0,0	,,,,,,	
Major Phase:	Gas			Working Int:		1.00000000	Preser	nt Worth Pro	ofile (M\$)
Perfs:	0	0		Revenue Int:		0.77500000		5.00%:	-5.672.09
nitial Rate:	13,803.00	Mcf/month		Disc. Initial In	vest. (m\$):	8,057.326		9.00%:	-5,992.91
Abandonment:	1.069.16	Mcf/month		Internal ROR	(%):	>1000.0			
			00		(disc/undisc):	0.30 / 0.37	_	0.00%:	-6,059.28
nitial Decline:		% year $b = 0.0$	00				1	2.00%:	-6,178.77
Beg Ratio:		bbl/Mcf		Years to Payou		0.00	1	5.00%:	-6,330.32
End Ratio:	0.16	bbl/Mcf		Abandonment	Date:	05/29/2032		20.00% :	-6,527.26
Forecast Start:	04/01/2012		Initial	1st Rev.	2nd Rev.			0.00%:	-6,788.72
. Or evalue brane .	0 1/ 0 1/ 20 12		muai	1st Rev.	Ziid Kev.				
	V	Vorking Interest:	1.00000000	0.00000000	0.00000000			10.00%:	-6,950.40
		evenue Interest :	0.77500000	0.00000000	0.00000000		5	50.00%:	-7,058.10
	N	The state of the s	0.77500000	0.00000000	0.00000000		6	50.00%:	-7,134.10
		Rev Date:						0.0070.	7,151.10

60.00%: Rev. Date: 3OPCO Detailed V9.rpt Ver: 1/31/2014 Page 1



## WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

#### **WELL DATA**

WELLF	LU Big Sinks 14-25-30	FORMATION	BONE SF	PRING
LOCATION B P	UNIT,350 FEET FROM_	SOUTH_LINE &	1980 FEET FROM	EASTLINE
SECTION14 TOWNSHIP_		COUNTY	Eddy	_ NEW MEXICO
SPUD DATE 10/26/2011	COMPLETION DATE2/21/20	012 INITIAL PRO	DUCTION	2/26/2012
PERFORATIONS 9250-13830				
BHL: 357' FNL & <u>1982' FWL SEC 14</u>	T25S R30E			
STIMULATION:				
ACID				
FRACTURE	See Attached			
	ZAC DODD 2074 MOEDD C22 DWE	ID.		
NELL				
	SANDS PERFORA	TED		
Area (A) proration unit size, acres				
Porosity (Φ), %	7%			
Water saturation (Sw), %	22%			
Net Thickness (H), ft.	112			
Temperature (T), Fahrenheit	136			
Bottom Hole pressure (P), psia	4,313			
Recovery factor (RF), %	39%			
Recoverable gas, BCF *(See eq. bel	ow)4.8			
*Sometimes unable to match perform	nance due to volumetric uncertainty a	and limited drainage in unco	onventional reservoirs.	
Formula = (7758) (A) (h) (por) (1-	Sw)(RF)/Bgi	Bgi =	0.62	

Commercial Determination Page #1 1/31/2014

Continued

#### PERFORMANCE DATA

(If sufficient history exists, attach plot of oil production rate v time.)  CUMULATIVE PRODUCTION TO 12/31/2013 40,080 BBL Oil 323,659
CUMULATIVE PRODUCTION TO         12/31/2013         40,080         BBL Oil         323,659
INITIAL RATE (qi) 480
ECONOMIC LIMIT (ql) 147
HYPERBOLIC DECLINE RATE, dy n = 0, d = 100.2%/yr
REMAINING MCF (Q) = 180,554
ULTIMATE RECOVERABLE MCF 861,624
(Attach plat showing proration unit and participating area.)
ECONOMIC

GROSS WELL COST \$3,136,141 (to the depth of formation completed)

COMPLETION COST \$4,704,211

GROSS TOTAL COST \$7,840,352

YEAR	GROSS MCF MMCF	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO			-	
1	188.932	2505.6	1962.0	-7299.0
2	134.727	1172.6	997.4	161.1
3	86.195	947.3	519.0	161.9
4	61.987	690.2	293.0	333.2
5	49.156	546.6	259.2	229.2
6	40.842	456.2	237.0	166.4
7	35.178	396.0	221.7	125.8
8	30.999	352.5	210.3	97.6
9	27.849	320.7	201.8	77.7
10	25.204	293.9	194.5	61.7
REMAINDER	180.554	2205.7	1795.5	212.3
TOTAL	861.623	9887.2	6891.4	-5672.1

WELL IS NOT COMMERCIAL

OCD Artesla CEIVED UNITED STATES
DEPARTMENT OF THE INTERIOR Form 3160-4 FORM APPROVED (August 2007) OMB No 1004-0137 APR 12 BUREAU OF LAND MANAGEMENT Expires July 31, 2010 WELL COMPLETION OR RECOMPLETION REPORT AND LOG Lease Serial No. NMLC063873A Dry Other -⊠-Oil-Well Gas Well 6. If Indian, Allottee or Tribe Name New Well ☐ Work Over b. Type of Completion ☐ Deepen Plug Back Diff. Resvr. Unit or CA Agreement Name and No. 891000303X Other 2 Name of Operator CHESAPEAKE OPERATING INC Lease Name and Well No. PLU BIG SINKS 14 25 30 USA 1H Contact: LYNDEE SONGER E-Mail: lyndee.songer@chk.com 3. Address. 3a Phone No (include area code) Ph: 405-935-2411 9. API Well No. **OKLAHOMA CITY, OK 73154-0496** 30-015-39508-00-S1 4. Location of Well (Report location clearly and in accordance with Federal requirements)\* 10. Field and Pool, or Exploratory WILDCAT At surface SESW 300FSL 1980FWL 11. Sec., T, R, M, or Block and Survey or Area Sec 14 T25S R30E Mer NMP At top prod interval reported below SESW 380FSL 1941FWL County or Parish 13. State At total depth NENW 357FNL 1982FWL EDDY NM 14. Date Spudded 15. Date T D. Reached 16. Date Completed 17. Elevations (DF, KB, RT, GL)\* 10/26/2011 11/22/2011 3369 GL 18 Total Depth: 19. Plug Back T D .: 20. Depth Bridge Plug Set MD TVD 9213 TVD TVD Type Electric & Other Mechanical Logs Run (Submit copy of each) Was well cored? ⊠ No ⊠ No Yes (Submit analysis) 3369 GL Was DST run? Yes (Submit analysis) □ No Yes (Submit analysis) Directional Survey? 23. Casing and Liner Record (Report all strings set in well) Bottom Stage Cementer No of Sks. & Slurry Vol. Hole Size Size/Grade Wt. (#/ft.) Cement Top\* Amount Pulled (MD) (MD) Depth Type of Cement (BBL) 17.500 13.375 H40 48.0 0 1362 1500 11.000 8 625 J-55 32.0 0 4083 1500 1362 7.875 5.500 L-80 20.0 0 13865 2140 24. Tubing Record Size Depth Set (MD) Packer Depth (MD) Size Depth Set (MD) Packer Depth (MD) Size Depth Set (MD) Packer Depth (MD) 25 Producing Intervals 26. Perforation Record Top Bottom Perforated Interval No. Holes Size Perf Status A) 1ST BONE SPRING 9250 13830 9250 TO 13830 **OPEN** B) C) D) 27 Acid, Fracture, Treatment, Cement Squeeze, Etc Amount and Type of Material 9250 TO 13830 PROP 4,043,739 # SAND; 88,011 BBLS OF WATER 28. Production - Interval A Date First Test Test Gas MCF Production Method Date Production BBL Produced Tested BBL Corr API Gravity 02/26/2012 02/29/2012 24 346 0 2074.0 623 0 FLOWS-FROM-WELL Choke Tbg Press 24 Hr Csg Gas Oil Water Ratio Size Flwg Press Rate BBL MCF BBL SI 32/64 440 0 346 2074 623 28a Production - Interval B Date First Test Hours Test Oil Gas Water Oil Gravity Production Method BBL MCF Date Tested Production

(See Instructions and spaces for additional data on reverse side)
ELECTRONIC SUBMISSION #133992 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*

Gas

MCF

Choke

Tbg Press

Flwg

SI

Csg Press

24 Hr

Rate

BBL

BBL

Water

BBL

Corr API

Gas Oil

Ratio

Gravity

Well Status

8 2012

CARLSBAD FIELD OFFICE

BLM-REVISED-\*\*

NO MANAGEMENT

APR

8b. Prod	uction - Inter	val C									,
ite First oduced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	I	Production Method	
oke e	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Sta	atus		
8c. Prod	uction - Inter	val D									
te First oduced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity		Production Method	
oke	Tbg Press Flwg S1	Csy Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Sta	atus	,	
	osition of Gas TURED	(Sold, used	for fuel, ver	ited, etc)							
0. Sumr	mary of Porou	is Zones (In	clude Aquif	ers).					31. Form	nation (Log) Markers	
tests,	all importan including de ecoveries	t zones of p pth interval	orosity and tested, cush	contents the ion used, ti	ereof: Corec me tool ope	d intervals and a en, flowing and s	ll drill-stem shut-ın pressur	es .			
	Formation		Тор	Bottor	n	Description	s, Contents, etc	c		Name	Top Meas Dept
32. Add COI	itional remar NFIDENTIAI	ks (include	plugging pro	ocedure):		•			TOF BAS BEL CHE BRU	STLER P SALT SE OF SALT L CANYON ERRY CANYON JSHY CANYON ST BONE SPRING SAND	1161 1427 3821 4050 4989 6572 8816
#52	CONT Sec	ond Bone	Spring Carb	onate 930	)1						
LOC	SS SENT VI	A UPS OV	/ERNIGHT								
(CH	IK PN 63997	73)									
1. E	ele enclosed a Electrical/Med Sundry Notice	chanical Lo	gs (1 full set		ion	Geologic     Core Ana			DST Rep	port 4. Directi	onal Survey
34. The	reby certify th	nat the foreg	_	tronic Sub	mission #1	33992 Verified	by the BLM	Well Inform	nation Sy	e records (see attached instruc	ctions):
		С	ommitted to	For C AFMSS for	HESAPEA or processi	KE OPERATION OF THE PROPERTY O	ING INC, sen AH MCKINN	t to the Car EY on 03/2	Isbad 8/2012 (1	2DLM0867SE)	
Nan	ne (please pri	nt) LYNDE	E SONGE	3			Title	REGULAT	ORY CO	MPLIANCE ANALYST	
Sign	nature	(Electro	onic Submis	ssion)			Date	03/27/2012	2		

DISTRICT I 1825 N. French Dr., Hobbs, NM 88240 DISTRICT II 1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT IV

State of New Mexico Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

Form C-102 Revised July 16, 2010

Submit one copy to appropriate
District Office

#### DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410

1220 S. St. Francis Dr., Santa Pe, NM 87505

Santa Fe, New Mexico 87505

1220 South St. Francis Dr.

☐ AMENDED REPORT

	WELL LOCATION AND	ACREAGE DEDICATION PLAT	☐ AMENDED REPORT
API Number 30-015-39508	Pool Code 96403	Wildcat; Bone S	Spring
Property Code 38836		erty Name IKS 14 25 30 USA	Well Number
ogrid № 147179	•	operating co.	Elevation , 3369'

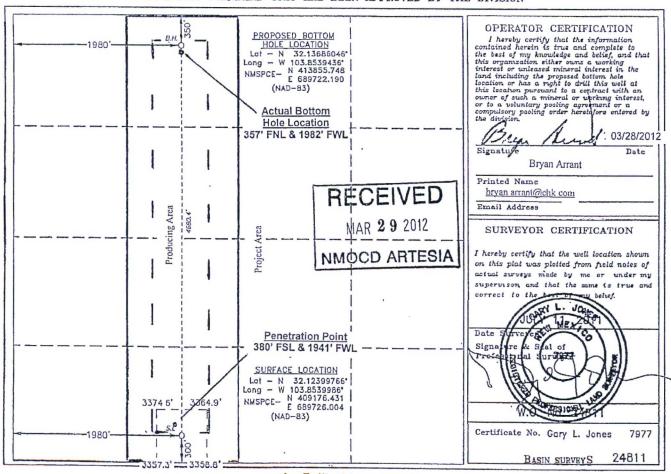
#### Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	14	25 S	30 E		300	SOUTH	1980	WEST	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
С	14	25 S	30 E		357	NORTH	1982	WEST	EDDY
Dedicated Acres	Joint o	r Infill C	consolidation	Code Or	der No.				
160									

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION





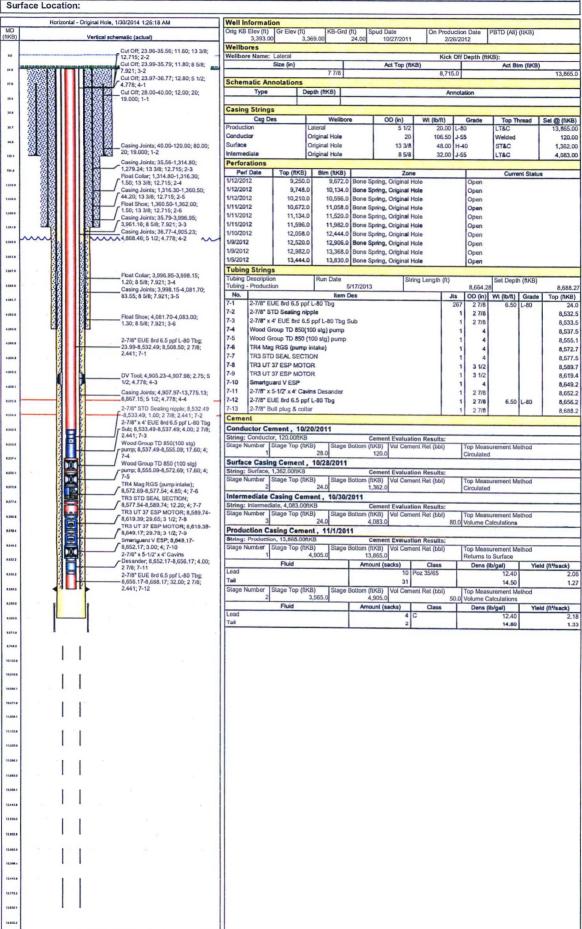
**Downhole Profile - Vertical Wells** 

Well Name: PLU BIG SINKS 14-25-30 USA #1H

Field: Wildcat - Bone Spring

BOPCO, L.P. - West Texas

Well ID: 30-015-39508 Sect: 14 Town: 25S Rng: 30E County: Eddy State: New Mexico



# THE SE

## Schematic - Vertical Production Well Name: PLU BIG SINKS 14-25-30 USA #1H

Field: Wildcat - Bone Spring

BOPCO, L.P. - West Texas

Well ID: 30-015-39508 Sect: 14 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

 Maintenance
 Sub Pump
 Pump Repair
 8/21/2013
 Job End Date

Horizontal - Lateral, 1/30/2014 1:26:20 AM MD (ftKB) Vertical schematic (actual) 0.0 24.0 Cut Off; 23.96-35.56; 11.60; 13.3/8; 12.715; 2-2 27.9 Cut Off; 23.99-35.79; 11.80; 8 5/8; 7.921; 3-2 Cut Off; 23.99-35.79; 11.80; 8 5/8; 7.921; 3-2 Cut Off; 23.97-36.77; 12.80; 5 1/2; 4.778; 4-1 Cut Off; 28.00-40.00; 12.00; 20; 19.000; 1-1 35.4 35.8 36.7 40.0 120.1 Casing Joints; 40.00-120.00; 80.00; 20; 19.000; 1-2 754.9 Casing Joints; 35.56-1,314.80; 1,279.24; 13 3/8; 12.715; 2-3 1,315.0 1,316.3 Float Collar; 1,314.80-1,316.30; 1.50; 13 3/8; 12.715; 2-4 1.360.6 -Casing Joints; 1,316.30-1,360.50; 44.20; 13 3/8; 12.715; 2-5 Float Shoe; 1,360.50-1,362.00; 1.50; 13 3/8; 12.715; 2-6 - Casing Joints; 35.79-3,996.95; 3,961.16; 8 5/8; 7.921; 3-3 1.361.9 Casing Joints; 36.77-4.905.23; 4.868.46; 5.1/2; 4.778; 4-2 3,565.0 3,962.9 3.997.0 3,998.0 -Float Collar, 3,996.95-3,998.15; 1.20; 8 5/8; 7.921; 3-4 4,081.7 -Casing Joints; 3,998.15-4,081.70; 83.55; 8 5/8; 7.921; 3-5 4,082.0 4,083.0 -Float Shoe; 4,081.70-4,083.00; 1.30; 8 5/8; 7.921; 3-6 4.086.9 -2-7/8" EUE 8rd 6.5 ppf L-80 Tbg; 23.99-8,532.49; 8,508.50; 2 7/8; 2.441; 7-1 4,904.9 4,905.2 4,908.1 DV Tool; 4,905.23-4,907.98; 2.75; 5 1/2; 4.778; 4-3 8.003.9 8,009.8 8,532.5 8 533 5 2-7/8" STD Seating nipple; 8,532.49-8,533.49; 1.00; 2 7/8; 2.441; 7-2 8.537.4 2-7/8" x 4" EUE 8rd 6.5 ppf L-80 Tbg Sub; 8,533.49-8,537.49; 4.00; 2 7/8; 2.441; 7-3 8,555.1 Wood Group TD 850(100 stg) pump; 8,537.49-8,555.09; 17.60; 4; 7-4 8,572.8 Wood Group TD 850 (100 stg) pump; 8,555.09-8,572.69; 17.60; 4; 7-5 8.577.4 TR4 Mag RGS (pump intake); 8,572.69-8,577.54; 4.85; 4; 7-6 TR3 STD SEAL SECTION; 8,577.54-8,589.74; 12.20; 4; 7-7 8.589.9 TR3 UT 37 ESP MOTOR; 8,589.74-8,619.39; 29.65; 3 1/2; 7-8 8,619,4 8,649.3 TR3 UT 37 ESP MOTOR; 8,619.39-8,649.17; 29.78; 3 1/2; 7-9 8,652.2 Smartguard V ESP; 8,649.17-8,652.17; 3.00; 4; 7-10 8,656.2 2-7/8" x 5-1/2' x 4' Cavins Desander; 8,652.17-8,656.17; 4.00; 2 7/8; 7-11 -2-7/8" EUE 8rd 6.5 ppf L-80 Tbg; 8,656.17-8,688.17; 32.00; 2 7/8; 2.441; 7-12 8.688.3 8,714.9 9,250.0 9,500.0 -Casing Joints; 4,907.97-13,775.13; 8,867.15; 5 1/2; 4,778; 4-4 9,671.9 9,748.0 10.133.9 -Perforated; 9,748.00-10,134.00; 1/12/2012 10,210.0 10,596.1 Perforated; 10,210.00-10,596.00; 1/12/2012 10,671.9 11,058,1 Perforated; 10,672.00-11,058.00; 1/11/2012 11,133.9 11,520.0 -Perforated; 11,134.00-11,520.00; 1/11/2012 11,596.1 11.982.0 -Perforated; 11,596.00-11,982.00; 1/11/2012 12,058.1 12,443.9 -Perforated; 12,058.00-12,444.00; 1/10/2012 12,520.0 12,905.8 Perforated; 12,520.00-12,906.00; 1/9/2012 12,982.0 13,368.1 -Perforated; 12,982.00-13,368.00; 1/9/2012 13,443.9 13,775.3 -Perforated; 13,444.00-13,830.00; 1/5/2012 n. 13,776.2 -Float Collar, 13,775.13-13,776.33; 1.20; 5 1/2; 4.778; 4-5 13.830.1 Casing Joints; 13,776.33-13,863.70; 87.37; 5 1/2; 4.778; 4-6 13,863.8 -Float Shoe; 13,863.70-13,865.00; 1.30; 5 1/2; 4.778; 4-7 13,865.2

#### BOPCO, L.P.

201 MAIN ST.

FORT WORTH, TEXAS 76102-3131 817/390-8400

July 17, 2015

RECEIVED OGD
2015 JUL 20 P. 1: 56

#### FEDERAL EXPRESS

Bureau of Land Management Carlsbad District Office 620 E. Green St. Carlsbad, New Mexico 88220 Attn: Mr. Ed Fernandez New Mexico State Land Office Commissioner of Public Lands 310 Old Santa Fe Trail Santa Fe, New Mexico 87501 Attention: Mr. Pete Martinez New Mexico Oil Conservation Division 1220 St. Francis Santa Fe, New Mexico 87505 Attention: Mr. William Jones

Re: Commercial Determination

PLU CVX JV PC #009H (PLU Pierce Canyon 16 #1H)

Lower Avalon

Eddy County, New Mexico

#### Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the Lower Avalon reservoir. Should you be in agreement that the Lower Avalon is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

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.

Very truly yours,

R. Travis Mears

Bureau of Land Management	New Mexico State Land Office	New Mexico Oil Conservation Division
Ву:	By:	By:
Its:	Its:	Its:
Date:	Date:	Date:



### INTER-OFFICE MEMORANDUM

TO:

Frank McCreight

FROM:

**Bryce Bezant** 

DATE:

1/21/2014

RE:

Commercial Determination PLU Pierce Canvon 16 #1H

Poker Lake Unit (Bone Spring) Field

Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Pierce Canyon 16 #1H was drilled in 2011 to a total depth of 12,992' laterally completed in the Lower Avalon reservoir. The well is producing from perforations 8,450'-12,972'. On test 9/02/2011 the well flowed at the rate of 330 BOPD, 2528 MCFD, and 1090 BWPD. This well has an expected recovery of approximately 114 MBOE (13:1 mcf/bbl) from the current completion.

The most recent strip price file was utilized adjusting for current area differentials. Plant yields are 3.2 gpm with a gas sales fraction of 56.7%. Actual operating costs from the LIOR were used from inception through December, 2013. Starting January, 2014 the forecasted operating expenses are \$30,000/month plus \$1.25/bbl water until the economic limit is reached. The Pierce Canyon 16 #1H will not be a commercial well and should not be incorporated into a participating area.

R. Bryce Bezant

RBB/tah

Cc:

Ross Sutton Tom McCarthy

Andy Morrison Steve Johnson

#### **ECONOMIC PROJECTION**

1004409/PLU PIERCE CANYON 16 STATE/

1/21/2014

Lior: 1004409

2:01:58PM

'roject Name: BOPCO, L.P. 'artner:

All cases LEASE CASE

As Of Date: 03/01/2011 Discount Rate (%): 5.00

Lease Name: 1004409/PLU PIERCE CANYON 16 STA'

Reserv Cat.: Proved Producing

Field: CORRAL CANYON; BONE SPRING

Operator: BOPCO

Reservoir: BONE SPRING Co., State: EDDY, NM

Risk: 0.000 Inherited/ 0.000 Compounded

rchive Set: 1-1-2014 Cum Oil (Mbbl): Cum Gas (MMcf):

Case Type:

0.00 0.00

Gross Wet Production Oil

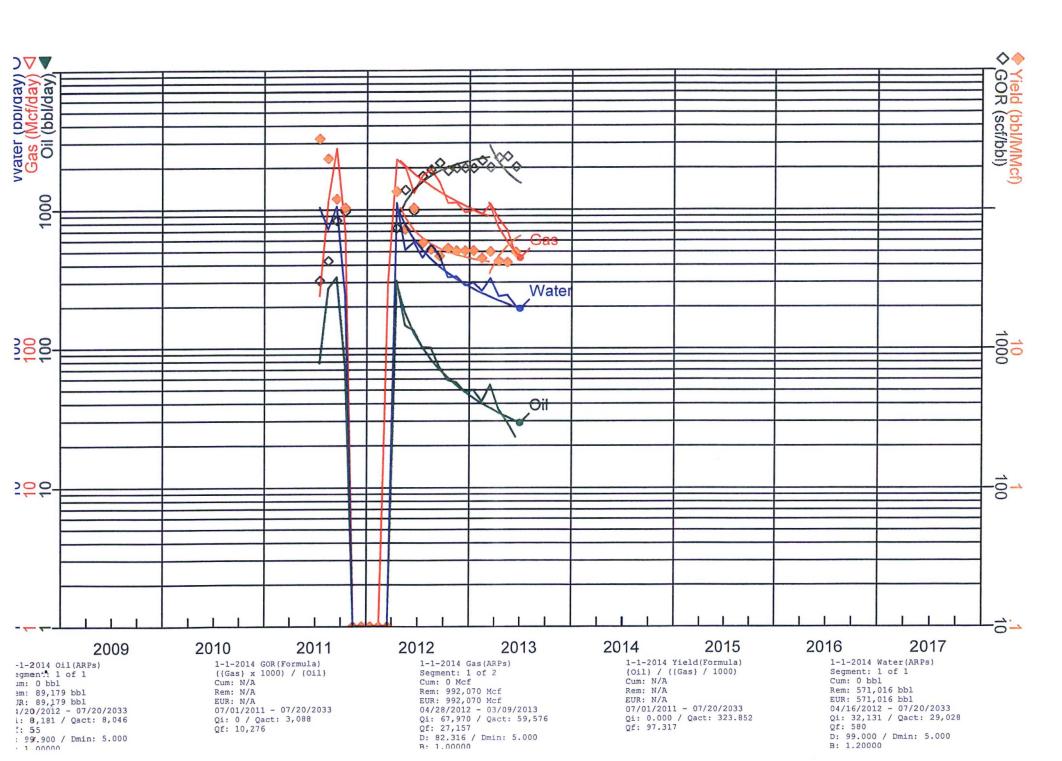
Gross Dry Gas & NGL Sales Dry Gas NGL

Year	Oil	Wet Gas	Dry Gas	NGL	Oil	Gas	NGL
	(Mbbl)	(MMcf)	(MMcf)	(Mgal)	(Mbbl)	(MMcf)	(Mgal)
2011	18.735	110.663	62.746	298.790	14.051	47.059	224.093
2012	25.719	357.956	202.961	962.994	19.289	152.221	722.246
2013	9.798	180.424	102.300	487.145	7.349	76.725	365.359
2014	5.647	59.775	33.892	161.392	4.235	25.419	121.044

otal	59.899	0.000 708.818	0.000 401.900	0.000 1,910.322	0.000 44.924	0.000 301.425	0.000 1,432.742
Jlt.	59.899	708.818					-,
		Average Price			Net Reve	enue	
Year	Oil (\$/bb1)	Gas (\$/Mcf)	NGL (\$/gal)	Oil (M\$)	Gas (M\$)	NGL (M\$)	Total (M\$)
2011 2012 2013 2014	82.93 89.74 91.63 89.72	3.88 2.57 3.49 3.66	0.73 0.73 0.73 0.73	1,165.21 1,731.06 673.38 379.95	182.40 390.94 267.59 93.15	162.69 524.35 265.25 87.88	1,510.30 2,646.35 1,206.22 560.98
						. ,	*
Rem Total	0.00 87.92	0.00 3.10	0.00 0.73	0.00 3,949.60	0.00 934.08	0.00 1,040.17	0.00 5,923.85

		Expenditures				Future Net Revenue						
Year	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % · (M\$)				
2011 2012 2013 2014	124.27 220.23 101.31 46.58	8.98 15.60 7.10 3.32	7,049.82 0.00 250.00 0.00	279.11 977.24 427.65 388.24	-5,951.87 1,433.29 420.17 122.84	-5,951.87 -4,518.58 -4,098.41 -3,975.58	-5,890.25 1,334.81 380.32 104.91	-5,890.25 -4,555.45 -4,175.13 -4,070.21				

Rem Total	0.00 492.38	0.00 34.99	0.00 7,299.82	0.00 2,072.23	0.00 -3,975.58	0.00 -3,975.58	0.00 -4,070.21	0.0 -4,070.2	_
Maior Phase : Perfs : Initial Rate : Abandonment : Initial Decline : Beg Ratio : End Ratio :	59,57 4,29 8	Gas 0 0 59,576.00 Mcf/month 4,294.61 Mcf/month 82.32 % year b = 1.000 0.14 bbl/Mcf 0.10 bbl/Mcf		Working Int: Revenue Int: Disc. Initial In Internal ROR ROInvestmen Years to Payo Abandonmen	nvest. (m\$): (%): t (disc/undisc): ut:	1.00000000 0.75000000 7,180.324 >1000.0 0.43 / 0.46 0.00 11/24/2014	1 1 1	-4,070 -4,136 -4,152 -4,181 -4,222	
Forecast Start :  30PC0 Detailed V9.r	04/01/.	Working Interest Revenue Interest Rev. Date : Ver: 1/21/2014		1st Rev. 0.00000000 0.00000000	2nd Rev. 0.00000000 0.00000000		. 4 5	20.00%: 80.00%: 40.00%: 50.00%:	-4,282 -4,374 -4,436 -4,471 -4,486 Page



## WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

#### WELL DATA

WELL PLU Piero	ee Canyon 16 #1H FORMA	ATIONLOWER AVALON
OCATION B P UNIT,	330 FEET FROM_SOUTH_LINE &	330FEET FROMEAST_ LINE
SECTION16TOWNSHIP25S	RANGE, COUNTY	Eddy , NEW MEXICO
SPUD DATE <u>4/22/2011</u> COMP	LETION DATE 6/27/2011 INIT	TIAL PRODUCTION 7/21/2011
PERFORATIONS8450-12972		
BHL: 350' FNL & 890' FEL SEC 16 T25S R3	0E	
STIMULATION:		
ACID		
FRACTURESee A	ttached	
POTENTIAL(40788): 330 BOPD	, 2528 MCFPD, 1090 BWPD	
(Attach Copy of C-105. Attach Copy of Wellb	ore Sketch of Completed Well.)	
	,	
	VOLUMETRIC CALCULATIO	N .
	0.1110.0 0.50 0.50 0.50	SANDS NOT PERFORATED BUT
	SANDS PERFORATED	POTENTIALLY PRODUCTIVE
Area (A) proration unit size, acres	160	
Porosity (Φ), %	19%	
Water saturation (Sw), %	17%	
Net Thickness (H), ft.	81	
Temperature (T), Fahrenheit	170	
Bottom Hole pressure (P), psia	4,723	
Recovery factor (RF), %	68%	
December of BOE */Con on holow)		
Recoverable gas, BCF *(See eq. below)	17.2	
Recoverable gas, BCF (See eq. below)	17.2	
	17.2 ue to volumetric uncertainty or low recovery effici	iency of shale gas wells.

#### PERFORMANCE DATA

(If sufficient history exists	, attach plot of oil produc	ction rate v time.)			
CUMULATIVE PRODUC	TION TO3/31/	2013 48,031	BBL Oil541,166MC	F Gas	
INITIAL RATE (qi)	_	389	90 MCFD		
ECONOMIC LIMIT (ql)	_	10	MCFD		
HYPERBOLIC DECLINE	RATE, dy	n =1.2,	d = 99.98%/yr		
REMAINING MCF (Q) =	_		0		
ULTIMATE RECOVERA	BLE MCF _	7	708,818		
(Attach plat showing pro	ration unit and participation	ng area.)			
		E	CONOMIC		
GROSS WELL COST	\$2,196,344 (to the dep	oth of formation compl	eted)		*
COMPLETION COST	\$4,853,476				
GROSS TOTAL COST	\$7,049,820				
<u>YEAR</u>	GROSS MCF MMCF	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW	
ZERO					
1	110.663	1510.3	415.4	-5890.3	
2	357.956	2646.4	1213.1	1334.8	
3	180.424	1206.2	536.1	380.3	
4	59.775	561.0	438.1	104.9	
5			0.0		
6			0.0		
7			0.0		
8			0.0		
9			0.0		
10					. 1.
REMAINDER			0.0		
TOTAL	708.818	5923.9	2602.6	-4070.2	

#### WELL IS NOT COMMERCIAL

Submit To Appropri	iate Distric	1 Office	T		. (	State of Ne	w N	1exic	co								rm C-105
Distict 1 1625 N. French Dr.,	Hobbe 'N	N 88740		Enc	rgy, l	Minerals and	1 Na	tural	Res	sources	-	July 17, 2008  1. WELL API NO.					
District II 1301 W. Grand Ave			,		0.11							I. WELL A	ri, i		0-015-3	37375	
District III	•		"			Conservat					1	2. Type of Lease					
Dishic IY						20 South St				ľ.	1	X STATE TEE FEDANDIAN					
1220 S. St. Francis									1. State Oil & Ons Lense No.								
4. Reason for fill		LEHOR	ORI	RECO	IMPL	E HON RE	100	RIA	MD	LOG		5. Lease Name	A. C.	Will A george	mant bloc	TAR TO	THE PROPERTY.
		Oras usin	t. I	1/2.41	1 422	c a					1	PLU PIEF	CE	CANY	ON 16	ST	
M COMPLETI						•		2.4			- 1	6. Well Numb	cù:				
#33; attach this at 7. Type of Comp	nd the pla	TACHMI	A4 closu	I in boxe	s #1 the	ough #9, #15 Da	to Ki 5.17.	g Relea	a bear	and #32 and/o	or	1H					
NEW-	YELL [	WORK	YER [	DEEPE	NING	DPLUGBACK		DIFFE	EREN	T RESERVO	orr	OTHER					
8. Name of Open	tor	esapea									7	9. OGRID.	147	179	M. S. A. B. AND Mr. BOOK	WANTED STATE	
10. Address of ()		and I day	io opo	, can ig	11101						-	11. Pool name					1
P.O. Box 184	196 Ok	lahoma	City, O	K 731	54							WILDCAT;	BO	NE SP	RING		
12, Location	Unit Lir		on	Towns	طابا	Range	Lot			Feet from th	ic.	N/S Line	Feet	from tho	DWL	lue	County
Surfacei	Р	16		258		30E				330'		S	330	j'	E		EDDY
BH:	Α	16		255		30E				357		N	86	7	E		EDDY
13. Date Spudded 04/22/2011	0.5/	16/2011	eached	05/	8/20				16.1	Date Comple /27/2011	ted	(Ready to Prod	ucc)	'R'	T, GR, ct	(c.) 32	and RKB, 89' GR
18, Total Measure 12992'	·			129	92'	k'Measured Dep	oth		20. YE		onal	Survey Made?		Mud L		c and O	her Logs Run
22. Producing Int 8450'-12972	erval(s), ': Bone	of this come Spring	pletion -	Top, Bot	loni, Na	une .								,			
23.					CAS	ING REC	OR	D (R	tepo	ort all str	ing	s set in wo	ell)				
CASING SI	ZE		HII LB.	PΤ,		DEPTH SET			1101	LE SIZE		CEMENTIN		CORD	٨٨	TAUOF	PULLED
13 3/8" 8 5/8"		32			1072 3881			17 1	12"			343 sxs 1300 sxs		-			·
5 1/2"		23			1299			8 3/4	1"	-		2110 sxs					
											<u> </u>						
SIZE	TOP		Ino	TTOM	. LIN	ER REGORD SACKS CEM	PNT	Lsen	REN		25: SIZ			NO REC	-	DACK	ER SET
	7.5.		- 100			Wite Street	13,11	1001	(17)		2 7		_	317'	-	7.826	
,												,					
26. Perfoiation 8450'-12972'	4 Spl	aterval, siz	e, and nu	inber)				27.	VCI	D, SHOT,	FR/	ACTURE, CE	ME	YT, SQU	BEZE,	ETC.	
			1. 1-17.							NTERVAL 2972'		4,259,220				USED	
								0,10		2012		4,895,232			vicitor		
												61,532 ga			L.		
28,							PR	ODU	JCT	MOL							
07/21/2011	•		Sub-F	ump'	od (Fla	owing, gas lift, p	umpi	ng - Sja	ze and	d (ypa pump)		Prod.	(Pra	d. or Shut	·In)		
Date of Test	1	s Tested	Çh	oke Size		Prod'n For	-	Oil	- Bbl		Gas	· MCF	, 11	ater - Bbl		Gas -	Dil Ratio
09/02/2011	24		30	0/64		Test Period		330	)		25	28	1	090			
Flow Tubing Press. 960	Costr	g Pressuro		lculated ? our Rate	24-	0il - Bbl. 330		1	Clas - 252	MCF	1	Water - Bbl. 2528		Oll Gra	wity - Al	P1 - (Co)	r.)
. 29; Disposition o	r Gas (So	ld, used for	fuel, ver	ited, etc.)	<del></del>	1000			202	.0	1	.020	30.	rest Witne	essed By		
31. List Attachm	ents	Ć-	104: W	/ell-bor	e Sch	emallo; Dire	actio	nal-S	Surve	avs' Flec	trio	Logs Con	, ID	curect			
32. If a temporar	v nil was											1.080, 0011	. 110	Adriagi			
									nt.								
33. If m on-site l						Latitude						Loughtude				M	D 1027 1002
I hereby certl	Sy that	he Infort	nation :	showing		h sides of this			rue c	and compl	ele	to the best of	finy	knowle	dge and	d belie	f 1927 1983
Signature	00	egr. 1	Him.	and !		Name Bryan	n Ar	rant		Titl	c	Sr. Regulato	ry (	Compl.	Sp.	.Date	10/5/2011
E-mail Addre	ss brya	n.arrant@	chk.co	mî			_										

## INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

		ION TOPS IN CONFORMA ern New Mexico					ern New Mexico
r. Anhy	988'	T. Canyon	T,	Ojo Alı	uno		T. Penn A"
r. Salt	1315'	T. Strawn	T.	Kirtlan	d		T, Penn. "B"
3. Salt	3869'	T. Atoka	T.	Fruitlat	ıd		T. Penn. "C"
r. Yates		T. Miss	T,	Picture	d Cliff's		T. Penn. "D"
r. 7 Rivers		T. Devonian	T.	Cliff'H	ouse	-	T. Leadville
Queen		T. Silurian	T.	Menete	e		T. Madison
C. Grayburg		T: Montoya	T.	Point L	ookout		T. Elbert-
. San Andres		T. Simpson	T.	Mancos	3		T. McCracken
r. Glorieta		T. McKee	T.	Gallup	- Anthropic - English - Community	7.77.2	T. Ignacio Otzte
. Paddock		T. Ellenburger	Ba	nse Gree	nhorn		T.Granite
f. Blinchry		T. Gr. Wash	T.	Dakota			
r.Tubb		T. Delaivare Sand	T.	Morriso	011		
. Drinkard		T. Bone Springs 7680		Todilto	- Innerentation	A second second	
`Abo		Т.	T.	Entrada	l		
'. Wolfcamp		T.	-	Wingat	ACCOUNT OF THE PARTY OF THE PAR	the same and the s	
r. Penn		T.		Chinle.	A CONTRACTOR OF THE PARTY OF TH		900
Cisco (Bough	iC)	T.		Permia	1	11 at an and a second at 11	
o. 2, from  clude data on  o. 1, from  o. 2, from	rate of water	inflow and elevation to which was	WA'	No. 4, fi TER S se in ho	on BAND: Ic.	S feetfeet	
	L/_L	THOLOGY RECORD	(Alt	ach ad	ditiona		ecessary)
from To	Thickness In Feet	Lithology		From	To:	Thickness In Feet	Lithology

From To Thickness In Feet Lithology From To Thickness In Feet Lithology

## PLU Plerce Canyon 16 #1H -330', FSL & 330' FEL Section 16, T-25-S, R-30-E 30015373750000

TOP	DEPTH
Rustler	988
Top of Salt	1315
Base of Salt	3869
Bell Canyon	4001
Cherry Canyon	4842
Brushy Canyon	6041
First Bone Spring Carbonate	7680
First Bone Spring Sand	8625
Second Bone Spring Carbonate	9078
Third Bone Spring Carbonate	9786

Lithology

midiology ,		
From	То	
1310	3870	Anhydrite and Salt
3870	4730	Sand and Shale with minor Limestone
4730	5080	Sand with some Limestone and Shale
5080	7680	Sand and Shale with minor Limestone
7680	8620	Limestone and shale with minor Sands
8620	9070	Sand with some Limestone and Shale
9070	TD	Limestone and shale with minor Sands

	1 *1656 <b>(16</b> 56)		600 600 1-1			Size (in)			Act Top (fti	KB)			Act Dim	/AVD)	
1,071.9	22.00		8-5/8", 32 ppf, J-55, LTC; 24.00- 3,881.00; 3,857.00; 8 5/8; 7.921; 2-			Size (III)	17 1/2		Act Top (It	ND)	24.0		Act Btm	(ILKB)	1,072.0
3,379.9	,,,,		Tubing; 23.94-7,406.76; 7,382.82; 2				11 8 3/4				1,072.0 3,881.0				3,881.0
3,880.9			7/8; 2.441; 3-1 5-1/2", 15.5 ppf, J-55, LTC; 24.00-	Schen	natic Ann	otations	0 3/4				3,001.0		ULTO		12,992.0
7,406.8	3		12,992.00; 12,968.00; 5 1/2; 4.950; 3-1		Туре	Dep	oth (ftKB)				Annota	ation			
7,410,8	1		Tubing; 7,406.76-7,410.84; 4.08; 2	Casino	Strings										
7,410,8	3		7/8; 2.441; 3-2 Pump Seating Nipple; 7,410.84-		Csg Des		Wellbore	е	OD (in)	Wt (lb/f	t)	Grade	Top Thr	ead	Set @ (ftKB)
7,412.1	i i		7,411.94; 1.10; 2 7/8; 2.441; 3-3 FLT-BOH TA 2200 85 st pump;	Surface			riginal Hole		13 3/8 8 5/8	1	3.00 H-4 2. <b>00 J-</b> 5				1,072.00
7,432.1			7,411.94-7,432.00; 20.06; 3 3/8; 3-4 FLT-GE TA 2200 85 st pump;	Product			riginal Hole		5 1/2		3.00 L-8				3,881.00 12,992.00
7,451.4	§		7,432.00-7,451.40; 19.40; 3 3/8; 3-5 FLT-GE TA 2200 85 st pump;	Perfor		T (files)	D. (515)	17/							
7,470.8			7,451.40-7,470.80; 19.40; 3 3/8; 3-6 FLT-GE TA 2200 85 st pump;	6/17/20	Date	Top (ftKB) 8,450.0	8,852.0	Bone Sp	Zono pring, Original F			Active (8,	450.0 - 8,85	t Status 2.0)	
7,490.2			7,470.80-7,490.20; 19.40; 3 3/8; 3-7 FLT-GE TA 2200 85 st pump;	6/17/20		8,925.0	9,227.0		pring, Original H			Active (8,	925.0 - 9,22	7.0)	
7,509.5	3		7,490.20-7,509.60; 19.40; 3 3/8; 3-8 FLT-GE TA 2200 85 st pump;	6/16/20 <sup>-</sup>		9,300.0 9,675.0	The State of the S		oring, Original F oring, Original F				300.0 - 9,60 6 <b>75.0 -</b> 9,97		
	9		7,509.60-7,529.00; 19.40; 3 3/8; 3-9	6/16/20		10,050.0	10,352.0	Bone Sp	oring, Original H	Hole			,050.0 - 10,		
7,528.9	3		FLT-GE TA 2200 85 st pump; 7,529.00-7,548.40; 19.40; 3 3/8; 3-	6/15/20		10,425.0 10,800.0			oring, Original Foring, Original F				),425.0 - 10, ),800.0 - 11,		
7,548.6	1 1		TR3- RGS intake/ gas seperater;	6/13/20		11,175.0	11,477.0	Bone Sp	oring, Original H	łole			,175.0 - 11,		
7,550.5			7,548.40-7,550.60; 2.20; 3 3/8; 3-11 Seal Unit; 7,550.60-7,561.83; 11.23;	6/12/20		11,550.0 11,925.0			oring, Original F oring, Original F				,550.0 - 11, ,925.0 - 12,		
7,561.7	, i		3 3/4; 3-12 TR3-E37 motor; 7,561.83-7,586.43;	6/10/20	11	12,600.0	12,302.0		oring, Original F				2,600.0 - 12,		
7,586.3	- 3		24.60; 3 3/4; 3-13 _TR3-E37 motor; 7,586.43-7,615.85;	6/9/201	1 g Strings	12,674.0	12,972.0	Bone Sp	oring, Original H	lole		Active (12	2,674.0 - 12,	972.0)	
7,615.8	3		29.42; 3 3/4; 3-14 TR3-E37 motor; 7,615.85-7,646.93;	Tubing	Description		Run Date		Stri	ing Length	(ft)		Set Depth	(ftKB)	
	3		31.08; 3 3/4; 3-15	Tubing No.	- Production	n	Item D	/10/2012				7,818.89			7,842.83
7,647,0	3	DIVID	Smartguard V ESP; 7,646.93- 7,650.53; 3.60; 3 3/4; 3-16	3-1	Tubing		item D	763			Jts 234	OD (in) 27/8		Grade -80	Top (ftKB) 23.9
7,650.6			Cavin's 5-1/2" desander (17-23 LB CSG); 7,650.53-7,654.63; 4.10; 4; 3	3-2 3-3	Tubing Pump Sea	ating Nipple					1	2 7/8	6.50 L	-80	7,406.8
7,654.5	8		-17 2-7/8" EUE 8rd 6.5 ppf L-80 Tbg;	3-4	FLT-BOH	TA 2200 85 st					1	2 7/8 3 3/8	6.50 L	80	7,410.8 7,411.9
7,842.2	<u>§</u>		7,654.63-7,842.33; 187.70; 2 7/8; 2.441; 3-18	3-5 3-6		A 2200 85 st p					1	3 3/8			7,432.0
7,842.8			Bull Plug; 7,842.33-7,842.83; 0.50; 2 7/8; 3-19	3-7		A 2200 85 st p A 2200 85 st p					1	3 3/8 3 3/8	- 1		7,451.4 7,470.8
7,899.9	. 3		×	3-8 3-9		A 2200 85 st p	100				1	3 3/8	1		7,490.2
7.905.2			8	3-10		A 2200 85 st p A 2200 85 st p	•				1	3 3/8 3 3/8			7,509.6 7,529.0
				3-11	TR3- RGS	intake/ gas s					1	3 3/8			7,548.4
8,450.1	1		Perforated; 8,450.00-8,852.00; 6/17/2011	3-12	Seal Unit TR3-E37 r	motor					2	3 3/4 3 3/4			7,550.6
8,852.D	1 1		6/17/2011	3-14	TR3-E37	motor					1	3 3/4			7,561.8 7,586.4
8,924.9			Perforated; 8,925,00-9,227,00;	3-15 3-16	TR3-E37 Smartgua					1	1	3 3/4			7,615.9
9,227,0	<del></del>		Perforated; 8,925.00-9,227.00; 6/17/2011	3-17	Cavin's 5-	1/2" desander	(17-23 LB CS	G)			1	3 3/4			7,646.9 7,650.5
9,299.9			×	3-18	2-7/8" EUI Bull Plug	E 8rd 6.5 ppf L	80 Tbg			1	6	2 7/8	6.50 L	-80	7,654.6
9,602.0	N. T.		Perforated; 9,300.00-9,602.00; 6/16/2011		Strings						1	2 7/8			7,842.3
	, V		×	String D Fish	escription		Run Date	24/2012	Stri	ng Length	(ft)		Set Depth (	ftKB)	
9,574.9	Ň		Perforated; 9,675.00-9,977.00;	No.			Item [				Jts	287.09 OD (in)	Wt (lb/ft)	Grade	12,992.00 Top (ftKB)
9,977.0			6/16/2011	1-1		TD 1750 100 : 4 Mag 2 GE int						0.0	(111)	Gidao	12,704.9
10,049.9				1-3		BG seal unit (									12,722.5 12,727.4
10,352.0	- X	4	Perforated; 10,050.00-10,352.00; 6/16/2011	1-4 1-5		JT GE ( motor					1	3.87			12,738.6
10,424.9	, i			1-6	Smartguar	JT GE ( motor rd V ESP	,				:	3.87 3.87			12,763.4 12,794.7
10,727.0			Perforated; 10,425.00-10,727.00; 6/15/2011	1-7 1-8	Cavins de:		Tubin -				1	3.87			12,797.7
	3			1-8	2-7/8" 6.5 Bull Plug	ppf L-80 8RD	lubing				1	2 7/8 2 7/8	6.50	L-80	12,802.2 12,991.5
10,799.9	Y Y	N I	Perforated; 10,800.00-11,102.00; 6/14/2011		Downhole	e Equipmer						2 1/0	A STATE		12,991.5
11,102.0	N.		0/14/2011	2/24/201	and the same of th	eatherford arro	Des ow packer			01	0 (in) 4 3/4		(ftKB)	Bt	m (ftKB)
11,174.9			Perforated; 11,175.00-11,477.00;	Cemer	nt			12	19/11/2		4 3/4		7,900.00	-310	7,905.30
11,477.0			6/13/2011			Cement,	4/24/2011					112	BELLER		
11,549.9			Perforated; 11,550.00-11,852.00;	String: Stage N		072.00ftKB age Top (ftKB		ottom (ftl	KB) Vol Ceme	on Results ent Ret (bbl)		op Measu	rement Meth	od	
11,852.0			6/12/2011			Fluid	24.0	1,0	72.0			circulated			(B2)
11,924.9	V			Lead					nt (sacks)	Class	V 12 300	Dens (Ib	rgal)	Yield	(ft³/sack)
	Ž.		Perforated; 11,925.00-12,227.00; 6/11/2011				nt , 4/28/20				Spare 1	r 773	31 De Geg.	- 10 77	
12,227,0	V.		* · · · · · · · · · · · · · · · · · · ·	String: Stage N		e, 3,881.00ftK age Top (ftKB		Ce ottom (fth	(B) Vol Ceme	nt Ret (bbl)		op Measur	ement Meth	od	
12,301,8	<b>9</b>		Perforated; 12,600.00-12,302.00;			Fluid	24.0	3,8	81.0			circulated			
12,600.1			6/10/2011	Lead		riuid		Amou	1,300 C	Class	-	Dens (lb	gal)	Yield	(ft³/sack)
12,673.9		1					, 5/18/2011		17 500		/ September 1	1997			
12,705.1		1	(X)			12,992.00ftKE age Top (ftKB)			ement Evaluation			on Mac-	omost H-II	od	
	- W	1 1	8		1	3,	380.0	12,9	92.0			op Measur agged	ement Meth	ou	
12,722,4	W.		8	Lead		Fluid		Amou	nt (sacks) 2,110 C	Class		Dens (lb/	gal)	Yield	(ft³/sack)
12,727.4	N								_,,,,,						
12,738.5															
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-5-102   1.56 pg   .455, TUT   26.00 + 26.00 + 26.00   27.00   27.4 4302   3-1    -7.410.8			2000 V000 V000 V000	—Tubing; 23.94-7,406.76; 7,382.82; 2 7/8; 2.441; 3-1
- Prime Souting Naple: 7,410,647,411.94, 1.10; 2.70; 2.441; 3-3 - 7,412.1 -		la como de companyo de la companyo	**************************************	
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Fil-Cel TA 200 65 step might 7,454 69-74 780, 19 40, 3 30; 34-34 Fil-Cel TA 200 65 step might 7,450 69-74 200, 19 40; 3 30; 34-34 Fil-Cel TA 200 65 step might 7,450 69-74 200, 19 40; 3 30; 34-34 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 34-34 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3-9 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3-9 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3-9 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3-10 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3-10 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3-10 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3-10 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3-10 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3-10 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3-10 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3-10 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3-10 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3-10 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3-10 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3-10 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3-10 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3-10 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3-10 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3 40; 3-10 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3 40; 3-10 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3 40; 3-10 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3 40; 3-10 Fil-Cel TA 200 65 step might 7,450 69-75 200, 19 40; 3 30; 3 40	7,451.4			re particular and a mark the common to the contract of the con
Fil. Tel: Tx 2200 85 tig pump; 7,500,007,200,001 19,400, 33 38; 3-9 Fil. Tel: Tx 2200 85 tig pump; 7,500,007,200,001 19,400, 33 38; 3-9 Fil. Tel: Tx 2200 85 tig pump; 7,500,007,200,001 19,400, 33 38; 3-9 Fil. Tel: Tx 2200 85 tig pump; 7,500,007,200,001 19,400, 33 38; 3-9 Fil. Tel: Tx 2200 85 tig pump; 7,500,007,200,001 19,400, 33 38; 3-9 Fil. Tel: Tx 200,000 85 tig pump; 7,500,007,200,001 19,400, 33 38; 3-9 Fil. Tel: Tx 200,000 85 tig pump; 7,500,007,200,001 19,400, 33 38; 3-10 Tx3-EST motor; 7,500,007,501,837,506,432,440,60, 230, 33 34; 3-13 Tx3-EST motor; 7,501,837,506,432,440,60, 230, 33 34; 3-14 Tx3-EST motor; 7,501,837,506,432,440,60, 230, 33 34; 3-14 Tx3-EST motor; 7,501,857,506,532, 640, 33 34; 3-14 Tx3-EST motor; 7,501,857,500,532, 650, 33 34; 3-14 Tx3-EST motor; 7,501,857,760,503, 360, 33 34; 3-14 Tx3-EST motor; 7,501,857,760,503, 360, 33 34; 3-14 Tx3-EST motor; 7,501,857,760,503, 360, 33 34; 3-14 Tx3-EST motor; 7,501,857,500,532, 650, 33 34; 3-14 Tx3-EST motor; 7,501,857,500,532,				— FLT-GE TA 2200 85 st pump; 7,451.40-7,470.80; 19.40; 3 3/8; 3-6
Fil.Tide Tx 2020 85 tig pump; 7,500 607-5280,001 1940; 3 38; 3-9 Fil.Tide Tx 2020 85 tig pump; 7,500 607-5280,001 1940; 3 38; 3-9 Fil.Tide Tx 2020 85 tig pump; 7,500 607-5280,001 1940; 3 38; 3-10 TX3-RGS Intained gas separater; 7,594-526,002 220; 3 380; 3-11 Fil.Tide Tx 2020 85 tig pump; 7,500 607-5280,001 220; 3 380; 3-11 TX3-RGS Intained gas separater; 7,594-526,002 220; 3 380; 3-11 Fil.Tide Tx 2020 85 tig pump; 7,500 607-5280,001 220; 3 380; 3-11 Fil.Tide Tx 2020 85 tig pump; 7,500 607-5280,001 220; 3 380; 3-11 Fil.Tide Tx 2020 85 tig pump; 7,500 607-5280,001 220; 3 380; 3-11 Fil.Tide Tx 2020 85 tig pump; 7,500 607-5280,001 220; 3 380; 3-11 Fil.Tide Tx 2020 85 tig pump; 7,500 607-5280,001 220; 3 380; 3-11 Fil.Tide Tx 2020 85 tig pump; 7,500 607-5280,001 220; 3 380; 3-11 Fil.Tide Tx 2020 85 tig pump; 7,500 607-5280,001 320; 3-11 Fil.Tide Tx 2020 85 tig				—FLT-GE TA 2200 85 st pump; 7,470.80-7,490.20; 19.40; 3 3/8; 3-7
Fil. Tide Tide 200 55 st jump; 7,506 07-200, 19 40; 33 st; 34 51 70 7,508 51 7,548 60 19 44,5 38; 34 51 70 7,508 63 7,508 65 7,50				— FLT-GE TA 2200 85 st pump; 7,490.20-7,509.60; 19.40; 3 3/8; 3-8
Fil. To Cit No. 200 65 st pump; 75:50 07-5244, 619-60; 3-30; 3-10  TRS-ROS chalater gas personner; 75:64-87-7506, 62-20; 3-30; 3-11  TRS-BS minor; 75:61-83-7506, 42-246, 3-34; 3-13  TRS-BS minor; 75:61-83-7506, 42-246, 3-34; 3-14  TRS-BS minor; 75:61-85-7, 646-93; 3-40; 3-41  TRS-BS minor; 75:61-85-7, 646-93; 3-40; 3-41  TRS-BS minor; 75:61-85-7, 646-93; 3-10; 3-34; 3-15  Fill TRS-BS minor; 75:61-85-7, 646-93; 3-10; 3-34; 3-16  Fill TRS-BS minor;		WWW		—FLT-GE TA 2200 85 st pump; 7,509.60-7,529.00; 19.40; 3 3/8; 3-9
7,580.5 7,681.7 7,681.7 7,681.8 7,681.7 7,681.8 7,681.8 7,681.0 7,681.8 7,681.0 7,681.0 7,681.8 7,681.0 7,681.0 7,681.6 7,681.0 7,681.6 7,681.0 7,681.6 7,681.				a many and the fact of the fac
Seal Unit, 7,506,00-7,661,83,112,344,3412   TIRS-E37 motor, 7,566,83,7,664,82,46,03,344,513   TIRS-E37 motor, 7,566,43-7,615,65,2642,3344,3-14   TIRS-E37 motor, 7,566,43-7,615,65,2642,3344,3-14   TIRS-E37 motor, 7,566,43-7,615,65,2642,3344,3-14   TIRS-E37 motor, 7,566,43-7,615,65,2642,3344,3-14   TIRS-E37 motor, 7,566,43-7,615,65,2642,3344,3-15   Smartguard V E5P; 7,646,93-7,615,35,26,13,344,3-15   Cawin's 5-1/2* decamped (17-28 Lip Coligo); 7,650,53-7,644,63,4-10; 4; 3-17   7,642,8   TIRS-E37 motor, 7,644,83-7,642,33; 187,70; 27/8; 2441; 3-18   Dail Piug; 7,842,33-7,642,85; 0.50; 27/8; 3-19   Dail Piug; 7,842,33-7,642,85; 0.50; 27/8; 3-19   Dail Piug; 7,842,33-7,642,85; 0.50; 27/8; 3-19   Perforated; 8,450,03-8,522,00; 617/2011   8,562,0   8,524,9   9,277,0   9,277,0   9,277,0   9,277,0   9,277,0   9,277,0   9,277,0   9,277,0   9,277,0   9,277,0   9,277,0   9,277,0   9,277,0   10,499,9   10,424,9   10,425,0   10,425,0   10,425,0   10,425,0   11,720,0				—TR3- RGS intake/ gas seperater; 7,548.40-7,550.60; 2.20; 3 3/8; 3-11
7,586.3 7,616.8 7,616.8 7,616.8 7,616.8 7,647.0 7,647.0 7,647.0 7,647.0 7,647.0 7,647.0 7,647.0 7,647.0 7,647.0 7,647.0 7,647.0 7,647.0 7,647.0 7,647.0 7,647.0 7,647.0 7,647.0 7,647.0 7,647.0 8-martiguard V ESP, 7,646.93; 31,08; 3 34; 3-14 7,647.0 8-martiguard V ESP, 7,646.93; 31,08; 3 34; 3-15 8-martiguard V ESP, 7,646.93; 31,08; 3 34; 3-16 Cavins 5-12* desauder (17-22 LB CSG), 7,655.3; 26,03, 34; 3-17 7,642.2 7,642.3 7,642.2 7,642.2 7,642.3 7,642.2 7,642.2 7,642.3 7,642.2 7,642.3 7,642.2 7,642.3 7,642.2 7,642.3 7,642.3 7,642.2 7,642.3 7,642.3 7,642.2 7,642.3 7,642.3 7,642.3 7,642.3 7,642.3 7,642.3 7,642.3 7,642.2 7,642.3				——Seal Unit; 7,550.60-7,561.83; 11.23; 3 3/4; 3-12
7,615.8 7,647.0 7,658.8 7,647.0 7,658.8 7,647.0 7,658.8 7,647.0 7,658.8 7,647.0 7,658.8 7,647.0 7,658.8 7,647.0 7,658.8 7,647.2 7,658.8 7,648.2 7,658.2 7,668.2 7,668.2 7,668.2 7,668.2 7,668.2 7,668.2 7,668.2 7,668.	Charles and the contract of th			—TR3-E37 motor; 7,561.83-7,586.43; 24.60; 3 3/4; 3-13
7,647.0 7,650.6 7,650.				—TR3-E37 motor; 7,586.43-7,615.85; 29.42; 3 3/4; 3-14
7,650.5 7,654.5 7,654.5 7,654.5 7,684.2 7,842.2 7,842.2 7,842.8 8us Plug; 7,842.33-7,842.83; 0.50; 2.78; 3.419 8us Plug; 7,842.33-8; 3.419 8us Plug; 7,842.33-8				—TR3-E37 motor; 7,615.85-7,646.93; 31.08; 3 3/4; 3-15
7,654.5 7,842.2 7,842.8 7,842.8 7,842.8 7,842.8 7,842.8 7,842.8 7,842.8 7,842.8 7,842.8 7,842.8 7,842.8 7,842.8 7,842.8 7,842.8 7,842.8 7,842.8 7,842.8 7,842.8 8ull Plug; 7,842.33-7,842.83; 187.70; 2 7/8; 2.441; 3-18 8ull Plug; 7,842.33-7,842.83; 0.50; 2 7/8; 3-19 8ull				—Smartguard V ESP; 7,646.93-7,650.53; 3.60; 3 3/4; 3-16
7,842 2 7,842.8 7,893.9 7,893.9 7,895.2 8,450.1 8,852.0 8,924.9 9,227.0 9,209.9 9,602.0 9,674.9 9,977.0 10,049.9 11,020.0 111,749.9 11,174.9 11,174.9 11,1852.0 11,384.9 11,385.0 11,384.9 12,287.0 12,287.8				—Cavin's 5-1/2" desander (17-23 LB CSG); 7,650.53-7,654.63; 4.10; 4; 3-17
7,842.8 7,899.9 7,905.2 8,450.1 8,824.9 9,227.0 9,299.9 9,602.0 9,674.9 9,977.0 10,049.9 10,127.0 10,729.9 11,722.0 11,724.9 11,774.9 11,774.9 11,774.9 11,849.9 11,852.0 11,8			**************************************	2-7/8" EUE 8rd 6.5 ppf L-80 Tbg; 7,654.63-7,842.33; 187.70; 2 7/8; 2.441; 3-18
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8.450.1 8.852.0 8.024.9 9.227.0 9.299.9 9.602.0 9.674.9 9.377.0 10,049.9 10,352.0 10,727.0 11,727.0 11,727.0 11,174.9 11,177.0 11,174.9 11,177.0 11,1852.0 11,192.9 11,227.0 11,249.9 11,227.0 11,249.9 11,227.0 11,249.9 11,250.0 11,250.0 1				
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10,352.0 10,424.9 10,727.0 10,799.9 11,102.0 11,174.9 11,477.0 11,549.9 11,852.0 11,924.9 12,227.0 12,301.8 12,600.1 12,775.1 12,772.4		(Marie 1997)	T/20000	
10,424.9				—Perforated; 10,050.00-10,352.00; 6/16/2011
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10,799.9 11,102.0 11,174.9 11,477.0 11,549.9 11,852.0 11,924.9 12,227.0 12,301.8 12,600.1 12,673.9 12,722.4 12,727.4			-	Perforated; 10,425.00-10,727.00; 6/15/2011
Perforated; 10,800.00-11,102.00; 6/14/2011  11,174.9  11,477.0  11,549.9  11,852.0  11,924.9  12,227.0  12,301.8  12,600.1  12,727.4		3888 L	<b>■ (30.000)</b>	
- 11,174.9 - 11,477.0 - 11,549.9 - 11,924.9 - 12,227.0 - 12,673.9 - 12,727.4 - 12,727.4				——Perforated; 10,800.00-11,102.00; 6/14/2011
11,477.0 11,549.9 11,852.0 - 11,924.9 - 12,227.0 - 12,600.1 - 12,722.4 - 12,727.4		<b>3333 L</b>		
11,549.9 - 11,852.0 - 11,924.9 - 12,227.0 - 12,301.8 - 12,600.1 - 12,705.1 - 12,722.4 - 12,727.4				Perforated; 11,175.00-11,477.00; 6/13/2011
Perforated; 11,550.00-11,852.00; 6/12/2011  11,924.9  12,227.0  12,301.8  12,600.1  12,673.9  12,722.4  12,727.4		<b>3333</b> L		
- 11,924.9 - 12,227.0 - 12,301.8 - 12,600.1 - 12,705.1 - 12,722.4 - 12,727.4				Perforated; 11,550.00-11,852.00; 6/12/2011
Perforated; 11,925.00-12,227.00; 6/11/2011  12,301.8  12,600.1  12,673.9  12,705.1  12,727.4		2000	10000	
- 12,301.8 - 12,600.1 - 12,673.9 - 12,722.4 - 12,727.4		(MAX)		
12,600.1 12,705.1 12,722.4 12,727.4		WW.	10000	
- 12,673.9 12,705.1 - 12,722.4 - 12,727.4 - 12,727.4				Perforated; 12,600.00-12,302.00; 6/10/2011
- 12,705.1 - 12,722.4 - 12,727.4				
- 12,722.4 · · · · · · · · · · · · · · · · · · ·		ZZZZZZZ P		1 10 xm2 x m x m x m m m m m m m m m m m m m
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12,727.4				3 1 3 3 4 4 A 4 A 4 A 4 A 4 A 4 A 4 A 4 A 4
		The state of the s	20070000	
		(0)	**************************************	
12,763.5	12,763.5	2		

DISTRICT I 1825 N. French Dr., Hobbs, NM 88240 DISTRICT II

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revised July 16, 2010

Submit one copy to appropriate District Office

# 1301 W. Grand Avenue, Artesia, NM 88210 DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

# OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, New Mexico 87505

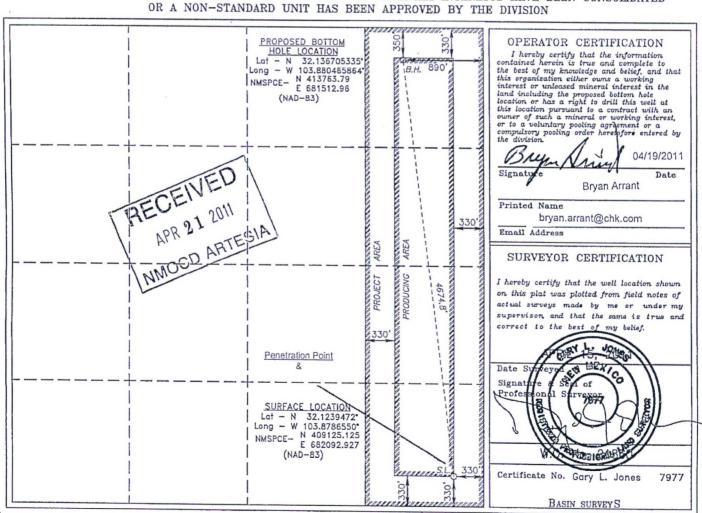
AMENDED REPORT

WELL	LOCATION	AND	ACREAGE	DEDICATION	PLAT

	Number 5-37375		1	Pool Code 96403	·	ring						
Property 3790			Р	LU PIER	Property Name	"16" STATE		Well Number				
ogrid n 14717			Operator Name Elevation CHESAPEAKE OPERATING CO. 3289'									
					Surface Loca	ation						
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County			
Р	16	25 S	30 E		330	SOUTH	330	EAST	EDDY			
			Bottom	Hole Loc	eation If Diffe	rent From Sur	face	1				
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County			
Α	16	25 S	30 E		350 -	NORTH	890	EAST	EDDY			
Dedicated Acre	s Joint o	r Infill Co	nsolidation	Code Ore	der No.							

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.



#### BOPCO, L.P.

201 MAIN ST.

FORT WORTH, TEXAS 76102-3131 817/390-8400

July 17, 2015

RECEIVED OCD

7015 JUL 20 P- 14:56

#### **FEDERAL EXPRESS**

Bureau of Land Management Carlsbad District Office 620 E. Green St. Carlsbad, New Mexico 88220 Attn: Mr. Ed Fernandez New Mexico State Land Office Commissioner of Public Lands 310 Old Santa Fe Trail Santa Fe, New Mexico 87501 Attention: Mr. Pete Martinez New Mexico Oil Conservation Division 1220 St. Francis Santa Fe, New Mexico 87505 Attention: Mr. William Jones

Re: Commercial Determination PLU CVX JV RR #004H (PL

PLU CVX JV RR #004H (PLU Ross Ranch 20 #1H)

Lower Avalon

Eddy County, New Mexico

#### Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the Lower Avalon reservoir. Should you be in agreement that the Lower Avalon is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

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.

Very truly yours,

R. Travis Mears

Bureau of Land Management	New Mexico State Land Office	New Mexico Oil Conservation Division
Ву:	Ву:	Ву:
Its:	Its:	Its:
Date:	Date:	Date:



### INTER-OFFICE MEMORANDUM

TO:

Frank McCreight

FROM:

**Bryce Bezant** 

DATE:

1/16/2014

RE:

Commercial Determination PLU Ross Ranch 20 #1H

Poker Lake Unit (Lower Avalon) Field

Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Ross Ranch 20 #1H was drilled in 2011 to a total depth of 12,740' laterally completed in the Lower Avalon reservoir. The well is producing from perforations 8,300'-12,725'. On test 5/13/2011 the well flowed at the rate of 114 BOPD, 0 MCFD, and 1098 BWPD. This well has an expected recovery of approximately 96.7MBOE (13:1 mcf/bbl) from the current completion.

Input for the capital costs came from the AFE report and operating costs from the LIOR statement, which included water hauling charges. The most recent strip price file was utilized adjusting for current area differentials. Plant yields are 3.2 gpm with a gas sales fraction of 56.7%. The Ross Ranch 20 #1H will not be a commercial well and should not be incorporated into a participating area.

RBB/tah

Cc:

Ross Sutton Andy Morrison Steve Johnson

#### ECONOMIC PROJECTION

Date:

1/20/2014

Lior: 1004504

11:29:05AM

Project Name: BOPCO, L.P. Partner: Case Type:

All cases

LEASE CASE Archive Set: 1-1-2014

As Of Date: 03/01/2011 Discount Rate (%): 5.00

Lease Name: 1004504/PLU ROSS RANCH 20 FEDERA

Reserv Cat.: Proved Producing

Field: UNDES BONE SPRING

1004504/PLU ROSS RANCH 20 FEDERAL/0

Operator: BOPCO Reservoir: BONE SPRING Co., State: EDDY, NM

Risk: 0.000 Inherited/ 0.000 Compounded

Cum Oil (Mbbl): 0.00 Cum Gas (MMcf): 0.00

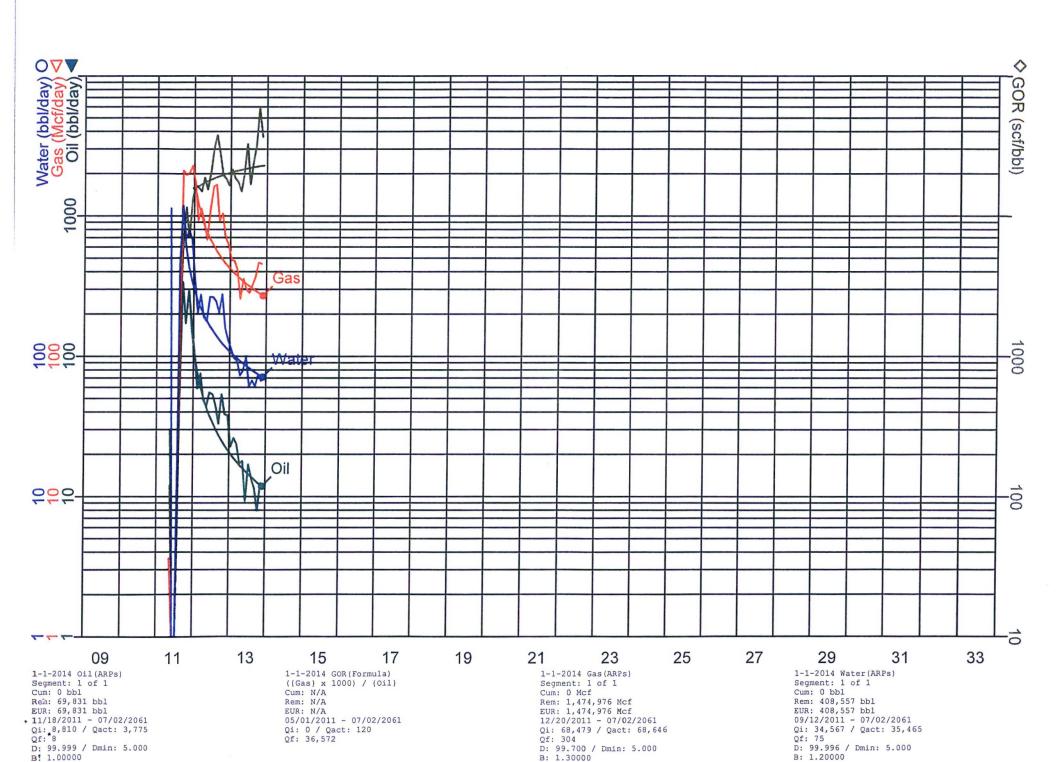
Gross Wet Production Gross Dry Gas & NGL Year Oil Wet Gas Dry Gas NGL Oil Gas NGL (Mbbl) (MMcf) (MMcf) (Mgal) (Mbbl) (MMcf) (Mgal) 21.252 15.971 2011 166.449 94.377 531.105 16.470 73.142 411.607 2012 2013 324.267 183.859 1,034.671 12.378 142.491 801.870 5.089 120.057 68.072 383.078 3.944 52.756 296.885

Rem	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	42.312	610.773	346.308	1,948.854	32.792	268.389	1,510.362
Ult.	42.312	610.773		*			
	A	Average Price			Net Reve	enue	
Year	Oil	Gas	NGL	Oil	Gas	NGL	Total
	(\$/bbl)	(\$/Mcf)	(\$/gal)	(M\$)	(M\$)	(M\$)	(M\$)
2011	86.79	3.45	0.73	1,429.46	252.34	298.83	1,980.63
2012	92.01	2.68	0.73	1,138.90	381.86	582.16	2,102.92
2013	92.49	3.43	0.73	364.78	181.18	215.54	761.50

Rem	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	89.45	3.04	0.73	2,933.14	815.39	1,096.52	4,845.05

		Expenditures				Future Net	Revenue	
Year	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)
2011 2012 2013	19.35 176.90 64.44	1.37 12.31 4.45	7,151.95 0.00 0.00	19.39 632.05 548.30	-5,211.43 1,281.66 144.31	-5,211.43 -3,929.76 -3,785.46	-5,275.83 1,205.63 129.39	-5,275.83 -4,070.20 -3,940.80

Rem Total	0.00 260.68	0.00 18.13	0.00 7,151.95	0.00 1,199.74	0.00 -3,785.46	0.00 -3,785.46	0.00 -3,940.80	0.0 -3,940.8	
Maior Phase : Perfs : Initial Rate : Abandonment : Initial Decline : Beg Ratio : End Ratio : Forecast Start :	68,64 13,66 9	as 0 0 6.00 Mcf/month 8.00 Mcf/month 9.70 % year b = 0.08 bbl/Mcf 0.03 bbl/Mcf 2011	1.300	Working Int: Revenue Int: Disc. Initial Ir Internal ROR ROInvestmen Years to Payo Abandonmen	nvest. (m\$) : (%) : t (disc/undisc) : ut :	1.00000000 0.77500000 7.151.948 >1000.0 0.45 / 0.47 0.00 11/30/2013	Present Worth Profile (N 5.00%: -3,9 9.00%: -4,0 10.00%: -4,0 12.00%: -4,1 15.00%: -4,2 20.00%: -4,3		
BOPCO Detailed V9.rp	pt	Working Interes Revenue Interes Rev. Date : Ver: 1/20/2014	t: 1.00000000	0.00000000 0.00000000	0.00000000 0.00000000		4 5	0.00% : 0.00% : 0.00% : 0.00% :	-4,600 -4,818 -5,014 -5,192 Page



## WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

#### WELL DATA

WELL PLU F	Ross Ranch 20 FOR	MATION LOWER AVALON
LOCATION B P UNIT,	330 FEET FROM_SOUTH_LINE	&330FEET FROMEASTLINE
SECTION16TOWNSHIP25S	RANGE 30E COUNTY	Eddy , NEW MEXICO
SPUD DATE <u>2/22/2011</u> COMP	LETION DATE <u>5/13/2011</u> II	NITIAL PRODUCTION 5/13/201
PERFORATIONS 8300-12725		
BHL: 363' FSL & 406' FWL SEC 20 T25S R3	30E	
STIMULATION:		
ACID		
FRACTURE See A	ttached	
POTENTIAL(40676): 114 BOPD	, 0 MCFPD, 1098 BWPD	
(Attach Copy of C-105. Attach Copy of Wellb	Clastata at Canada ta di Mallin	
than sepy of a root , made sopy of trems	pore Sketch of Completed Well.)	
( mass. copy of the foot mass. copy of thems	,	ON
( mass, cop) of the following the first terms of th	VOLUMETRIC CALCULATI	ON
(	,	SANDS NOT PERFORATED BUT
	,	
	VOLUMETRIC CALCULATI	SANDS NOT PERFORATED BUT
	VOLUMETRIC CALCULATI	SANDS NOT PERFORATED BUT
Area (A) proration unit size, acres Porosity (Φ), % Water saturation (Sw), %	SANDS PERFORATED  160	SANDS NOT PERFORATED BUT
Area (A) proration unit size, acres Porosity (Φ), %	SANDS PERFORATED  160  20%	SANDS NOT PERFORATED BUT
Area (A) proration unit size, acres Porosity (Φ), % Water saturation (Sw), % Net Thickness (H), ft. Temperature (T), Fahrenheit	SANDS PERFORATED  160 20% 10%	SANDS NOT PERFORATED BUT
Area (A) proration unit size, acres Porosity (Φ), % Water saturation (Sw), % Net Thickness (H), ft.	SANDS PERFORATED  160 20% 10% 97	SANDS NOT PERFORATED BUT
Area (A) proration unit size, acres Porosity (Φ), % Water saturation (Sw), % Net Thickness (H), ft. Temperature (T), Fahrenheit	VOLUMETRIC CALCULATI  SANDS PERFORATED  160 20% 10% 97 133.6	SANDS NOT PERFORATED BUT
Area (A) proration unit size, acres Porosity (Φ), % Water saturation (Sw), % Net Thickness (H), ft. Temperature (T), Fahrenheit Bottom Hole pressure (P), psia	VOLUMETRIC CALCULATI  SANDS PERFORATED  160 20% 10% 97 133.6 3,552	SANDS NOT PERFORATED BUT
Area (A) proration unit size, acres Porosity (Φ), % Water saturation (Sw), % Net Thickness (H), ft. Temperature (T), Fahrenheit Bottom Hole pressure (P), psia Recovery factor (RF), %	SANDS PERFORATED  160 20% 10% 97 133.6 3,552 60%	SANDS NOT PERFORATED BUT
Area (A) proration unit size, acres Porosity (Φ), % Water saturation (Sw), % Net Thickness (H), ft. Temperature (T), Fahrenheit Bottom Hole pressure (P), psia Recovery factor (RF), % Recoverable gas, BCF *(See eq. below)	SANDS PERFORATED  160 20% 10% 97 133.6 3,552 60%	SANDS NOT PERFORATED BUT POTENTIALLY PRODUCTIVE

Continued

#### PERFORMANCE DATA

(If sufficient history exists	, attach plot of oil produc	ction rate v time.)			
CUMULATIVE PRODUC	TION TO3/31/	2013 39,258	BBL Oil529,676 MC	F Gas	
INITIAL RATE (qi)	_	225	51 MCFD		
ECONOMIC LIMIT (ql)	_	10	) MCFD		
HYPERBOLIC DECLINE	RATE, dy	n =.75,	d = 96.11%/yr		
REMAINING MCF (Q) =	_		0		
ULTIMATE RECOVERA	BLE MCF _	6	10,773		
(Attach plat showing pror	ation unit and participati	ng area.)			
		E	CONOMIC		
					•
GROSS WELL COST	\$2,717,741 (to the dep	oth of formation comple	eted)		
COMPLETION COST .	\$4,434,209				
GROSS TOTAL COST_	\$7,151,950				
YEAR	GROSS MCF MMCF	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW	
ZERO					
1	166.449	1980.6	40.1	-5275.8	
2	324.267	2102.9	821.1	1205.6	
3	120.057	761.5	617.2	129.4	
4					
5					
6					
7					
8					
9					
10			0.0		
REMAINDER					
TOTAL	610.773	4845.1	1478.4	-3940.8	

WELL IS NOT COMMERCIAL

Form 3160-4 (August 2007)

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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

OCD- Actesia

	WELL C	OMPL	ETION O	R RE	CON	IPLET	ION R	EPOR	T AND	LOG		5.	Lease Serial NMLC064		
Ia. Type of	Well 🔯	Oil Well	☐ Gas V	Vell	o D	ry [	Other					6.	If Indian, Al	lottee o	r Tribe Name
b. Type of	Completion	Other	ew Well	□ Wor	k Ove	r 🗆	Deepen		lug Back	□ Dif	f. Re	esvr.	Unit or CA .	Agreem 16X	ent Name and No.
2. Name of CHESA	Operator PEAKE OP	ERATING	SINC E	-Mail: Iv			LYNDER @chk.co		SER			8.	Lease Name		ell No. CH 20 FEDERAL 1H
3. Address	OKLAHON	MA CITY,	OK 73154				3a	Phone	No. (inclu 935-2411	de area co	ode)	9.	API Well No	0.	15-38357-00-S1
4 Location	of Well (Rep Sec 20	ort locatio	on clearly an 30E Mer NA	d in acc	ordan	ce with I	rederal re	quireme	nts)*			10	). Field and I	ool, or	Exploratory
At surfa	ce NWNW	/ 100FNL	400FWL							•		11	. Sec., T, R	, M., or	DN; 89, SOUTH
At top p	rod interval re Sec	eported be	elow R30E Mer	NMP								-	or Area Se		25S R30E Mer NMP
At total	depth SW	SW 364F	SL 406FW	L	D								EDDY		NM
02/22/2	011			ite T.D. /16/201	1			16. D D 05	ate Comple & A 5/13/2011	Ready t	o Pr	od.	7. Elevations	(DF, K 199 GL	
18. Total D		MD TVD	12740 8127			Plug Bac		MD TVI		2402 789		20. Depth	Bridge Plug S		MD TVD
21 Type El CBL;HI	lectric & Otho DL GR ZDL	er Mechar CN SL G	nical Logs Ri R	un (Sub	mit co	py of ea	ch)			W	as D	vell cored? OST run? ional Surve	No No y? □ No	n Ye	s (Submit analysis) s (Submit analysis) s (Submit analysis)
23. Casing ar	nd Liner Reco	ord (Repo	rt all strings	set in v	vell)							onal Burre	7. 🔲 1.0	× ic	S (Submit analysis)
Hole Size	Size/Gr	rade	Wt. (#/ft )	To:		Bottor (MD)		Cemen Depth		of Sks. & of Ceme		.Slurry Vo (BBL)	Ol. Cement	Top*	Amount Rulled
17.500	-	75 H-40 25 J-55	48.0		0		300				750			0	10,
7.875		00 L-80	32 0 20.0		0		740	48	76		105 853			2080	
									70		000			2000	3 3 (1)
															18 VIII
24 Tubing	Record			L				,							
	Depth Set (M	ID) Pa	acker Depth	(MD)	S12	ze D	Depth Set	(MD)	Packer D	epth (ME	))	Size	Depth Set (N	MD)	Packer Depth (MD)
2.875 25. Produci	ng Intervals			7546			26 Perfo	ration R	ecord						V
	ormation		Тор		Bot	tom			ed Interval		T	Size	No. Holes		Perf Status
A)	BONE SPI								ALC: NO SECURITION	O 12725	5		48	0 OPE	N, Bone Spring
B) C)	AVALON S	SAND		8300		12725									
. D)				-		-					+	100	EDTEN	EO	ט טבריחטוז
	racture, Treat Depth Interva		nent Squeeze	e, Etc						1.00	-	UUU	LIILD	TU	N NEGUND
			725 FRAC V	V/ 60,00	0 GAL	15% HC	L, 100,082	2 BBL, 4,	Amount a		of M	ațerial			
													1111	2	2011
			_										1	2	
	ion - Interval	A										-	IDEALL OF	AND	MANIAGEMENIT
Date First Produced	Test Date	Hours . Tested	Test Production	Oil BBL		Gas MCF	Water BBL		orr API		as ravity	Pro	duction Method	LITT	LD OFFICE
05/13/2011 Choke	05/13/2011	24		114.	_	0.0	109								OM-WELL
Size	Tbg Press Flwg	Csg Press	24 Hr Rate	Oil BBL	1	Gas MCF	Water BBL	R	as Oil atio	lw	ell Sta				
28a Produc	si ction - Interva	313 0 I B		114	•	0	109	38			Р	OW			
Date First	Test	Hours	Test	Oil		Gas	Water		l Gravity		as		duction Method		
Produced 05/13/2011	Date 05/13/2011	Tested 24	Production	BBL 114	- 1	MCF 0.0	109		OIT API	G	ravity		FLO	WS FR	OM WELL
Choke Size	Tbg Press Flwg	Csg Press	24 Hr Rate	Oil BBL		Gas MCF	Water BBL		as Oil atio	W	ell St	atus			
	SI	313.0	->	114		0	109			}	Р	ow			

28b. Prod	duction - Interv	al C		-								
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API		Gravity	Production Method		
Choke	Tbg Press Flwg	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	· v	Well Status			
20. 5	SI											
111141444	duction - Interv											
Pate First Produced	Test Date	Hours Tested	Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API		Gas Gravity	Production Method		
Choke	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	V	Well Status			
29. Dispo	osition of Gas(S	Sold, used	for fuel, ven	ted, etc.)							,	
	mary of Porous	Zones (Inc	clude Aquife	rs).					121 For	mation (Loo) M		
Show tests,	all important	zones of po	prosity and c	ontents then	eof: Cored in tool open,	ntervals and flowing and	all drill-stem d shut-in pressu	ires	31. 101	mation (Log) Ma	arkers	
	Formation		Тор	Bottom		Description	ons, Contents, e	tc.		Name		Top Meas. Dept
#51 3791 4420 5061 6250 6540	itional remarks: SAPEAKE R cont: 1-4420 Mostly 1-6250 Mostly 1-6250 Mostly 1-6340 Mostly 1-7431 Mostly 1-6540 Mostly	Sand with Limeston Sand and Limeston Sand and	h minor Shale with Shale Shale with Shale wi	ENTIALITY  ale & Limes e & Sands n minor Lim e & Sands	stone tone estone	MAXIMUM	TIME ALLOV	VED.	,			
I. E	lectrical/Mecha	anical Logs	(1 full set re	eq'd.)		2 Geologic	Report		3. DST Re	port	4 Direction	nal Survey
5. Si	undry Notice fo	or plugging	and cement	verification		6. Core Ana	alysis		7 Other			-
34. There	eby certify that	the forego	ing and attac	ched informa	ation is com	plete and co	rrect as determi	ined from	n all available	e records (see att	ached instructi	one).
			Electr	onic Subm For CH	ission #110 ESAPEAKI	709 Verifie E OPERAT	d by the BLM	Well Inf	formation Sy Carlshad	stem.	actica instruction	ons).
Nam	e (please print)			to AFMSS	for process	ing by KUF	RT SIMMONS	on 06/1	7/2011 (11K)	MS1874SE) MPLIANCE AN	JAI YST	
	g p. my						Title	- COUL	211011100	INF LIMINGE AN	WEIGI	
Sign	ature	(Electron	ic Submiss	ion)	<del></del>		Date	06/16/2	011			

DISTRICT I 1625 N. French Dr. Hobbs, NM 88240

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revised October 15, 2009

Submit one copy to appropriate District Office

### DISTRICT II 1301 W. Grand Avenue, Artesia, NM 88210

#### DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410

#### DISTRICT IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

## OIL CONSERVATION DIVISION

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

BASIN SURVEYS

1220 S. St. Francis D	)r., Santa Fe, 1	NM 87505	WELL LO	CATIO	N AND	ACREA	GE DEDICATI	ON PLAT	☐ AMENDED	REPORT
API Number				Pool Code Pool			Pool Name		1/	
			1333	13354			rral Canyo		12	
3094			P	III RC		erty Nam	0" FEDERAL		well No	
OGRID N			/	LO INC		ator Nam			Eleva	
26073	37 /			CHES	APEAKE	OPER	ATING CO.		319	9'
					Surfa	ce Loca	ation			
UL or lot No.	Section	Township	Range	Lot Idn	Feet fr	om the	North/South line	Feet from the	East/West line	County
D	20	25 S	30 E		10	00	NORTH	400	WEST	EDDY
			${\bf Bottom}$	Hole L	ocation	If Diffe	rent From Sur	face		
UL or lot No.	Section	Township	Range	Lot Idn	Feet fre	om the	North/South line	Feet from the	East/West line	County
M	20	25 S	30 E		36	63	SOUTH	406	WEST	EDDY
Dedicated Acre	s Joint o	r Infill C	onsolidation (	Code	Order No.					
3197.4 NO ALLO	OWABLE W	TILL BE A	SSIGNED '	TO THIS	COMPLE	TION U	NTIL ALL INTER	ESTS HAVE BE	EEN CONSOLIDA	ATED
100'		OK A	NUN-STAN	UARU	JNII HAS	BEEN	APPROVED BY	THE DIVISION		
1 SL 9						1		OPERATO	OR CERTIFICAT	TION
L grannan		Lat - N	32.12258464*	l		i		I hereby ce	rtify that the inform	nation
3197 7 320	2 7'	Long - W 1	03.9107995° 408587.817 672146.356	İ		i		the best of my	in is true and comp knowledge and belief	lete to
		(NAD-		İ		i		interest or unle	n either owns a work ased mineral interest the proposed bottom	in the
						İ		location or has this location pu	a right to drill this	well at with an
						1		or to a volunta	a mineral or working ry pooling agreement ing order heretofore	07 a
	1 - 1			+		-+-		the division.	ing order heretojore	entered by
						ļ		Sandy	1 Bolt	8-31-11
								Signature	4,000	Date
				1		i		Sand	lra J. Bel	+
		NOTE: SURVEY	CERTIFICATION IS	1		1		Printed Nam		
			RFACE LOCATION				WIED \			
	-			<u> </u>		EGE	02 2011 CD ARTESIA	SURVEYO	R CERTIFICAT	'ION
					14	I J	0.5 5011	I hereby certify	that the well locate	
				1	\	Str	TESIA	actual surveys	as plotted from field made by me or	-
					\	100	D ARTI	supervison, an	d that the same is e best of my belie	
				1	\	MUS				
				1	·			1	DE MONTH TO THE	
	-1-1			! 				Date Surveye	MEA/CO	<b>\</b>
						1		Signature & Professional	surveyor	$\parallel$
		воттом	LOCATION	i		i		119		]]
		Lat - N	32.10924444° 103.9107667°	ĺ		i		1 113	J 7	<b>*</b>
			403736.443 672173.072	ĺ		i			De Marionale The	
406' May		(NAD-		ĺ		i		Cartificate		7077
406'. BH						i		Certificate N	o. Gary L. Jones	7977
I E M	å			I .		1		η	CIN GUDURNE	



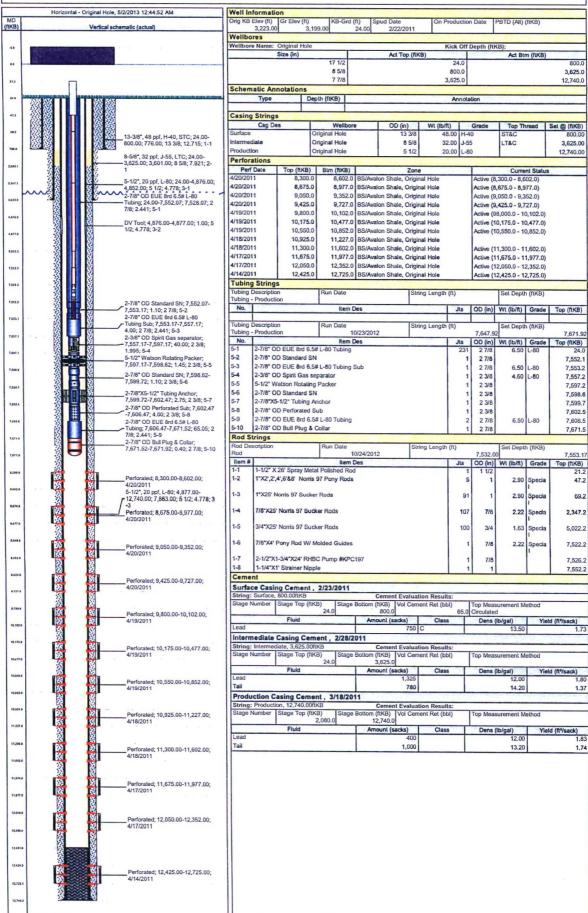
## 010.Downhole Profile - Vertical Wells Well Name: PLU ROSS RANCH 20 FEDERAL #1H

BOPCO, L.P. - West Texas Well ID: 30-015-38357

Field: Corral Canyon

Sect: 20 Town: 25S Rng: 30E County: Eddy State: New Mexico

Surface Location: 100' FNL & 400' FWL

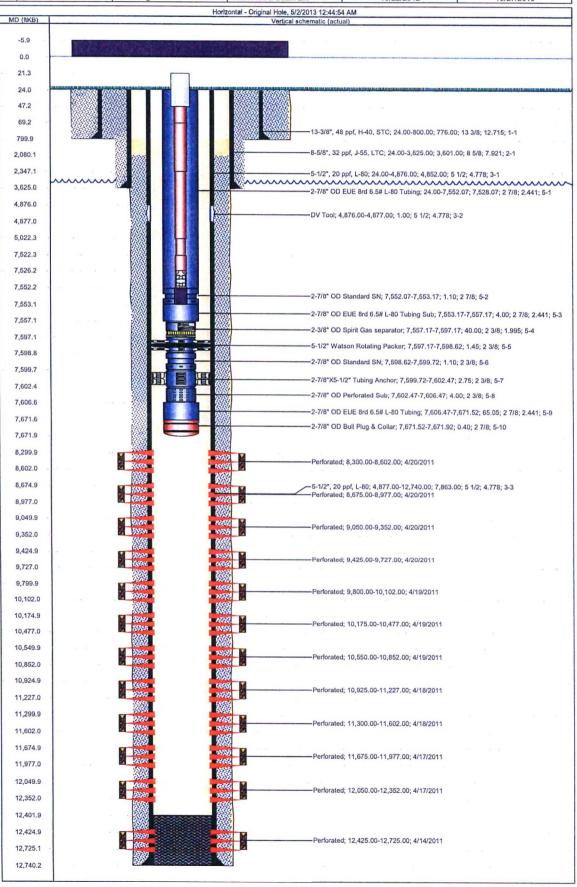


# \*

# 035.Schematic - Vertical Production Well Name: PLU ROSS RANCH 20 FEDERAL #1H Field: Corral Canyon

BOPCO, L.P. - West Texas Well ID: 30-015-38357

Sect: 20 Town: 25S Rng: 30E Eddy Co., State: New Mexico Blk: Survey:

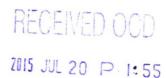


#### BOPCO, L.P.

201 MAIN ST.

FORT WORTH, TEXAS 76102-3131 817/390-8400

July 17, 2015



#### FEDERAL EXPRESS

Bureau of Land Management Carlsbad District Office 620 E. Green St. Carlsbad, New Mexico 88220 Attn: Mr. Ed Fernandez New Mexico State Land Office Commissioner of Public Lands 310 Old Santa Fe Trail Santa Fe, New Mexico 87501 Attention: Mr. Pete Martinez New Mexico Oil Conservation Division 1220 St. Francis Santa Fe, New Mexico 87505 Attention: Mr. William Jones

Re: Commercial Determination

PLU CVX JV BS #011H (PLU Big Sinks 15-25-30 ST #1H)

Bone Spring

Eddy County, New Mexico

#### Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the Bone Spring reservoir. Should you be in agreement that the Bone Spring is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

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.

Very truly yours,

R. Travis Mears

Bureau of Land Management	New Mexico State Land Office	New Mexico Oil Conservation Division
Ву:	By:	Ву:
Its:	Its:	Its:
Date:	Date:	Date:



## INTER-OFFICE MEMORANDUM

TO:

Frank McCreight

FROM:

**Bryce Bezant** 

DATE:

1/20/2014

RE:

Commercial Determination

PLU Big Sinks 15-25-30 ST #1H Poker Lake Unit (Bone Spring) Field

Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Big Sinks 15-25-30 ST #1H was drilled in 2012 to a total depth of 13,575' laterally completed in the Bone Spring reservoir. The well is producing from perforations 8,363'-13,534'. On test 5/23/2012 the well flowed at the rate of 442 BOPD, 1602 MCFD, and 1094 BWPD. This well has an expected recovery of approximately 41 MBOE (13:1 mcf/bbl) from the current completion.

The most recent strip price file was utilized adjusting for current area differentials. Plant yields are 3.2 gpm with a gas sales fraction of 56.7%. Actual operating costs inclusive of water expense were used through December, 2013. Starting January, 2014 operating costs of \$30,000/month plus \$1.25/bbl water expense were used until the economic limit was reached. The Big Sinks 15-25-30 ST #1H will not be a commercial well and should not be incorporated into a participating area.

R.Bryce Bezant

RBB/tah

Cc:

Ross Sutton Andy Morrison

Steve Johnson

### **ECONOMIC PROJECTION**

As Of Date: 01/01/2012

)ate:

Case Type:

crchive Set :

Cum Oil (Mbbl):

Cum Gas (MMcf):

1/21/2014

Lior: 1004610

3:39:56PM

'roject Name: BOPCO, L.P. All cases 'artner:

LEASE CASE

Discount Rate (%): 5.00 1004610/PLU BIG SINKS 15-25-30 USA/ 1-1-2014

Lease Name: 1004610/PLU BIG SINKS 15-25-30 USA/

Reserv Cat.: Proved Producing

Field: WILDCAT BIG SINKS; B.S. 96654

Operator: BOPCO

Reservoir: BONE SPRING Co., State: EDDY, NM

0.00

Risk: 0.000 Inherited/ 0.000 Compounded

Sales

0.00

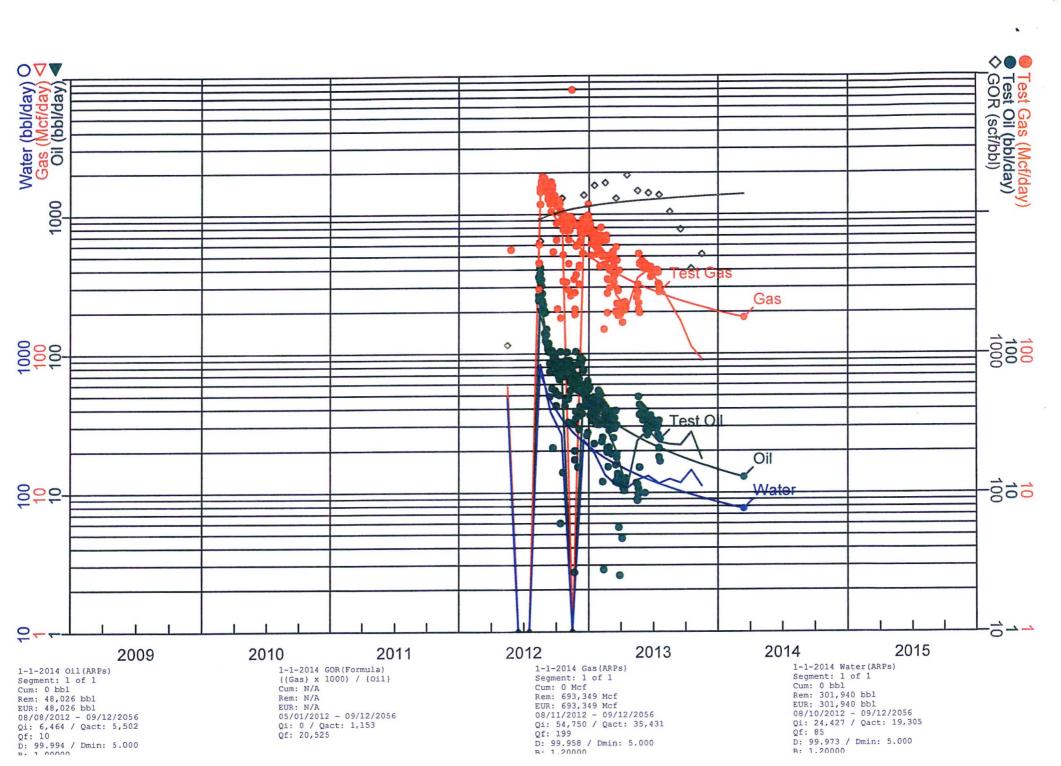
Gross Dry Gas & NGL Gross Wet Production Oil Year Wet Gas Dry Gas Oil Gas NGL (MMcf) (Mbbl) (MMcf) (MMcf) (Mgal) (Mbbl) (Mgal) 2012 13.733 128.577 55.674 336.143 10.643 43.147 260.511 96.224 13.473 259.804 36.378 201.348 28.193 6.125 0.757 2013 7.903 32.290 41.665 2014 0.977 4.521 5.834

tem	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
'otal	22.613	238.274	103.173	632.324	17.525	79.959	490.051		
Jlt.	22.613	238.274							
		Average Price		Net Revenue					
Year	Oil (\$/bbl)	Gas (\$/Mcf)	NGL (\$/gal)	Oil (M\$)	Gas (M\$)	NGL (M\$)	Total (M\$)		
2012 2013 2014	88.28 93.25 90.36	2.89 3.43 3.65	0.73 0.73 0.73	939.61 571.14 68.42	124.63 110.86 16.49	190.17 146.98 20.58	1,254.42 828.99 105.49		

Rem	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		0.00	0.00			0.00	
Total	90.11	3.15	0.73	1,579.18	251.98	357.74	2,188.90

Expenditures					Future Net Revenue					
Year	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)		
2012	103.44	7.43	5,585.35	669.24	-5,111.04	-5,111.04	-5,082.25	-5,082.25		
2013 2014	68.76 8.78	4.90 0.62	417.00 250.00	471.53 89.98	-133.19 -243.89	-5,244.23 -5,488.12	-130.27 -219.74	-5,212.52 -5,432.25		

Rem Fotal	0.00 180.98	0.00 12.94	0.00 6,252.35	0.00 1,230.75	0.00 -5,488.12	0.00 -5,488.12	0.00 -5,432.25	0.00	
Maior Phase : Perfs : nitial Rate : Abandonment : nitial Decline : 3eg Ratio : 3nd Ratio :	Gas  0 0  e: 35,431.00 Mcf/month ment: 5,492.94 Mcf/month cline: 99.96 % year b =  0.16 bbl/Mcf		.200	Working Int: Revenue Int: Disc. Initial Invest. (m\$): Internal ROR (%): ROInvestment (disc/undisc): Years to Payout: Abandonment Date:		1.00000000 0.77500000 6.159.842 >1000.0 0.12 / 0.12 0.00 03/12/2014	1: 1: 1	Present Worth Prof 5.00%: 9.00%: 10.00%: 12.00%: 15.00%: 20.00%:	
Forecast Start : 30PCO Detailed V9.rp	08/01 <i>/</i> .	Working Interest Revenue Interest Rev. Date : Ver: 1/21/2014		1st Rev. 0.00000000 0.00000000	2nd Rev. 0.00000000 0.00000000		3 4 5	0.00% : 0.00% : 0.00% : 0.00% :	-5,275. -5,179. -5,087. -4,999. -4,915. Page 1



# WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

#### **WELL DATA**

WELL PLU Big S	Sinks 15-25-30 ST	FORMATION _	BONE	SPRING
LOCATION B P UNIT,	350 FEET FROM_SC	OUTH_ LINE &	1980 FEET FR	OM <u>EAST</u> LINE
SECTION15 TOWNSHIP25S	, RANGE30E, CO	YTNUC	Eddy	NEW MEXICO
SPUD DATE <u>2/29/2012</u> COMPL	LETION DATE5/9/2012	INITIAL PRO	ODUCTION	5/23/2012
PERFORATIONS 8363-13534				
BHL: 226' FNL & <u>1936' FWL SEC 15 T25S</u>	R30E			
STIMULATION:				
ACID				
FRACTURE See At	ttached			
				· ′
POTENTIAL(5/24/2012): 442 BO	DPD, 1602 MCFPD, 1094 BWPD			
		)		
	bore Sketch of Completed Well.	)		
	bore Sketch of Completed Well.	CALCULATION	SANDS NOT PERFO	DRATED BUT
(Attach Copy of C-105. Attach Copy of Well	VOLUMETRIC C	CALCULATION		DRATED BUT
(Attach Copy of C-105. Attach Copy of Well  Area (A) proration unit size, acres	bore Sketch of Completed Well.	CALCULATION	SANDS NOT PERFO	DRATED BUT
(Attach Copy of C-105. Attach Copy of Well  Area (A) proration unit size, acres	VOLUMETRIC C	CALCULATION	SANDS NOT PERFO	DRATED BUT
(Attach Copy of C-105. Attach Copy of Well Area (A) proration unit size, acres Porosity (Φ), %	VOLUMETRIC C  SANDS PERFORATE  160.5	CALCULATION	SANDS NOT PERFO	DRATED BUT
(Attach Copy of C-105. Attach Copy of Well	VOLUMETRIC C  SANDS PERFORATE  160.5  7%	CALCULATION	SANDS NOT PERFO	DRATED BUT
(Attach Copy of C-105. Attach Copy of Well Area (A) proration unit size, acres Porosity (Φ), % Water saturation (Sw), %	VOLUMETRIC C  SANDS PERFORATE  160.5  7%  22%	CALCULATION	SANDS NOT PERFO	DRATED BUT
(Attach Copy of C-105. Attach Copy of Well Area (A) proration unit size, acres Porosity (Φ), % Water saturation (Sw), % Net Thickness (H), ft.	VOLUMETRIC C  SANDS PERFORATE  160.5  7%  22%  112	CALCULATION	SANDS NOT PERFO	DRATED BUT
Water saturation (Sw), %  Net Thickness (H), ft.  Temperature (T), Fahrenheit	SANDS PERFORATE  160.5  7%  22%  112  136	CALCULATION	SANDS NOT PERFO	DRATED BUT
Area (A) proration unit size, acres Porosity (Φ), % Water saturation (Sw), % Net Thickness (H), ft. Temperature (T), Fahrenheit Bottom Hole pressure (P), psia	SANDS PERFORATE  160.5  7%  22%  112  136  4,313	CALCULATION	SANDS NOT PERFO	DRATED BUT

Continued

#### PERFORMANCE DATA

(If sufficient history exists	a attach plot of oil produ	uction rate v time			
CUMULATIVE PRODUC			BBL Oil218,456 MC	F Gas	i e
INITIAL RATE (qi)			1,505		×
	-		131		
ECONOMIC LIMIT (ql)	- DATE 4.	n = 0 o			
HYPERBOLIC DECLINE		11 – 0, 0	I = 100.2%/yr		
REMAINING MCF (Q) =		-	0		
ULTIMATE RECOVERA	_		38,274		
(Attach plat showing pro	ration unit and participa	ting area.)			
		E	CONOMIC		
				,	
GROSS WELL COST	\$2,234,140 (to the dep	oth of formation comple	eted)		1
COMPLETION COST	\$3,351,210				
GROSS TOTAL COST	\$5,585,350				
YEAR	GROSS MCF MMCF	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW	
ZERO	-				
1	128.577	1254.4	780.1	-5082.3	
2	96.224	829.0	545.2	-130.3	
3	13.473	105.5	99.4	-219.7	_
. 4			0.0		_
5			0.0		_
6			0.0		
7			0.0		
8			0.0		
9			0.0		
10			0.0		
REMAINDER		-			-
TOTAL	238.274	2188.9	1424.7	-5432.3	•

WELL IS NOT COMMERCIAL

Form 3160-4 (August 2007)

#### **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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

WELL COMPLETION OR RECOMP	LETION REPORT AND LOG
---------------------------	-----------------------

	WELL C	OMPLE	ETION O	REC	COM	PLETIC	N RE	PORT	AND L	OG			ase Serial N MLC06387			E
la Type of			☐ Gas W									6. If I	ndian, Allo	ottee or	Tribe Name	
b. Type of	Completion		w Well	□ Work	Over	□ De	epen	Plug	g Back	□ Diff. Re	svr	7. Un	it or CA A 10003032	greeme	ent Name and No	
<ol><li>Name of CHESAF</li></ol>	Operator PEAKE OPE	ERATING	INC E-	Maıl. er		Contact: EF son@chk		RSON					ase Name a LU BIG SI		ell No. 15 25 30 USA 1H	
3 Address	OKLAHOM	IA CITY,	OK 73154-	0496				Phone No. 405-93		area code)		9. AF	l Well No.		15-39693-00-S1	ř.
4 Location	of Well (Repo	ort locatio T25S R3	n clearly and	in acco	ordano	e with Fed	eral requ	urements	ECE	IVEL		10. F	ield and Po	ol, or	Exploratory Sink; Po.S.	96654
At surfac	ce NENW rod interval re	10FNL 1	980FWL Sec	15 T258	S R30	E Mer NN			JUN 1			11. S	ec., T., R.,	M, or	Block and Survey 25S R30E Mer NMF	
	Sec depth NEN	15 T25S	R30E Mer	NMP	JL 13	471-00		NIAA	OCD.	ARTES	ıΔ		County or P	arish	13. State NM	
14 Date Sp 02/29/20	udded 012			te T.D. 1 17/2012		ed		1-6. Date	Complete		-	17. E	Elevations (	DF, KI 39 GL	B, RT, GL)*	•
18. Total De	epth .	MD	13575		19 P	lug Back T	TD.:	MD	9/2012			oth Brid	dge Plug So	et.	MD	-
21 Type El	ectric & Othe	TVD er Mechan	8449 iical Logs Ru	ın (Subr	nit co	py of each)		TVD		22. Was w	vell core	12	⊠ No		TVD s (Submit analysis)	-
3339 GI						,,				Was D	ST run? ional Su	rvey?	NO .	Ti Yes	s (Submit analysis) s (Submit analysis)	
23. Casing an	d Liner Reco	rd (Repor	rt all strings													-
Hole Size	Size/Gr		Wt. (#/ft.)	Top (MD		Bottom (MD)	_	Cemente Depth		f Sks. & f Cement	Slurry (BB		Cement	Top*	Amount Pulled	
17.500		75 J-55	48 0		0	1163				1500				30		_
11.000 7 875		25 J-55 00 L-80	32.0 20.0	3	881	3881 13575	_		-	1999				3381		_
	33	00 L-00	20.0		001	1007	1		<del> </del>	2030				3301	-	-
							:									-
24 Tubing	Paged									'4.						_
	Depth Set (M	(D) Pa	acker Depth	MD) T	Sız	e Den	th Set (	MD)	Packer De		Size	De	pth Set (M	D) [	Packer Depth (MD)	-
5.20	Depth oot (III	,	icker Beptil	(1110)		· Dep	ur bet (	(MD)	r deker De	ptii (IVID)	3120		pui set (ivi	D)	racker Depth (MD)	-
25. Produci	ng Intervals					. 26	Perfor	ation Rec	cord							_
	ormation	2000	Тор		Bot	tom	]	Perforated	Interval	10551	Size	1	No. Holes		Perf. Status	_
A) B)	BONE SPE AVALON S			8363		13534			8363 TC	13534		+		OPE	:N	-
C)	7117120710	7.1110		0000		10004						_				-
D)	racture, Treat	mond Con		Fin												_
	Depth Interva		nent Squeeze	e, etc					Amount and	d Type of M	aterial				1 2	-
		3 TO 135	34 PROPP	ANT- 2,4	09,89	3 LBS, ACI	D- 23,60			ID- 50,141 B			REC	LA	MATION	-
	-												DUE	_/	1-9-12	-
	~		-													
	ion - Interval	A										R A	OFDT	ΓŊ	END BECO	BU
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL		Gas ACF	Water BBL		Gravity API	Gas Gravity			ion Method	LV	TON NEGO	וטור
05/23/2012	05/24/2012	24		442 (		1602 0	1094						FLO	WS FR	OM WELL	_
Choke Size	(m)	Csg Press	24 Hr Rate	Oil BBL	V	Gas MCF	Water BBL	Gas Ratio	0	Well St				HAI	1 7 2012	
40/64 28a. Produc	si ction - Interva	l B		442		1602	109	4	3624	P	ow		J	UN	7	_
Date First	Test	Hours	Test	Oil		Gas	Water	Oil	Gravity	Gas		Product	tion Method	16	no	_
Produced 05/23/2012	Date 05/24/2012	Tested 24	Production	BBL 442.	N	1602 0 ·	BBL 1094	Con	API	Gravity	1		BURFAN	WS FR	AND MANAGEME	NT
Choke Size	Tbg Press Flwg 640	Csg Press	24 Hr Rate	Oil BBL		Gas MCF	Water BBL	Gas Rati		Well S	tatus	1			D FIELD OFFICE.	
40	SI			442		1602	109		-	F	WO	-				

•	<u> </u>											
28b. Prod	uction - Interv	al C										
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	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL '	Gas MCF	Water BBL	Gas Oil Ratio	Well Sta	tus			
28c Prode	uction - Interv	al D										
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	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil . BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Sta	ilus			
29 Dispo	sition of Gas(	Sold, used j	for fuel, ven	ted, etc.)								
	nary of Porous	Zones (Inc	lude Aquife	ers):					31 For	mation (Log) Mar	kers	
tests,	all important including dept ecoveries	zones of po th interval t	rosity and coested, cushi	ontents ther on used, tim	eof: Cored in tool open	ntervals and , flowing and	all drill-stem d shut-ın pressur	res		, 0,		
	Formation		Тор	Bottom		Description	ons, Contents, et	c.		Name		Top Meas Depth
	T SALT NYON CANYON CANYON		1079 1417 3753 3985 4893 6107 7762									
•.												
32 Addi	tional remarks	(include p	lugging pro	cedure):			<del></del>					
LOG	S SENT VIA	UPS OVE	RNIGHT									
	PN 640122											
1 E	e enclosed atta lectrical/Mech undry Notice f	anical Logs		-	n	Geologie     Core An	-		DST Re	eport	4. Direction	nal Survey
34. There	eby certify tha		Elect	ronic Subm For CH	nission #139 ESAPEAK	812 Verifie E OPERAT	d by the BLM	Well Inform	ation S		iched instructi	ons)·
Nam	e (please prini			to AFMSS	for proces	sing by KUI	RT SIMMONS	on 06/14/20	12 (12K	(MS2322SE) PRESENTATIVE		

\*\* DEVICED \*\* DEVICED \*\* DEVICED \*\* DEVICED \*\* DEVICED \*\* DEVICED \*\*

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 fradulent statements or representations as to any matter within its jurisdiction.

DISTRICT I
1025 N. French Dr., Nobbi, PM 80240
Phone (676) 993-8161 Fax: (678) 903-6720
DISTRICT II
B11 S. First St., Artesia, NM 80210
Phone (575) 746-1233 Fax: (575) 745-5720

: ..

State of New Mexico Energy, Minerals and Natural Resources Department Form C-102 Revised August 1, 2011

Submit one copy to appropriate District Office

ISTRICT III

JOD RIO Brazos Rd., Azlec, NM 87410

Phone (505) 554-6176 Faz: (505) 554-6170

DISTRICT IV

1220 S. St. Francis Dr., Santa Pe, NM 8750

Phone (505) 476-5400 Faz: (505) 476-5402

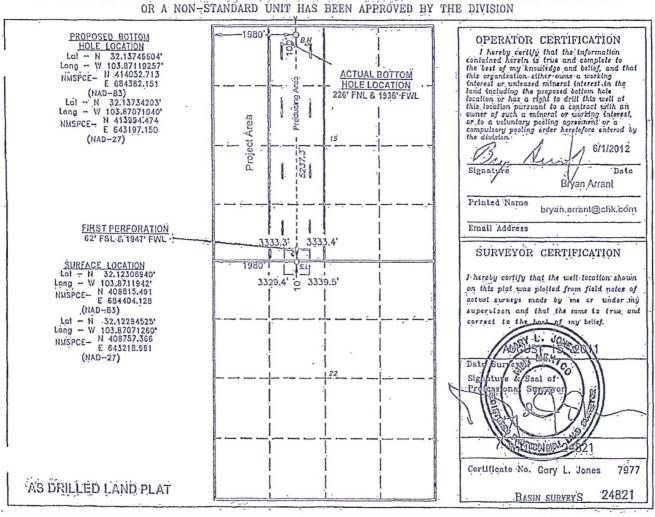
# OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, New Mexico 87505

CL AMENDED REPORT

ione (100) 418-2100 1811 (202) 415-1005	WELL LÓCATION AND A	CREAGE DEDICATION PLAT	LI. AMENDED REPORT
API Number 30-015-39693	Pool 'Code 96403	Pool Name WILDCAT; BONE S	
Property Code 38939	•	rty Name 15 25 30 USA	Well Number
OGRID 110. 147179		tor Name OPERATING CO.	Elevation 3339'

Surface Location UL or lot No. Section Township Range Lot Idn Feet from the North/South line Feet from the East/West line County C 22 25 S 30 E 10 NORTH 1980 WEST EDDY Bottom Hole Location If Different From Surface UL or lot No. Section Township Range Feet from the North/South line Feet from the East/West line County 30 E NORTH 1936 WEST **EDDY** C 15 25 ·S 226 Dedicated Acres Joint or Infill Consolidation Code Order No.

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



010.Downhole Profile - Vertical Wells

Well Name: PLU BIG SINKS 15-25-30 USA #1H Field: Wildcat - Bone Spring

BOPCO, L.P. - West Texas Well ID: 30-015-39693

Sect: 15 Town: 25S Rng: 30E County: Eddy State: New Mexico

Sur	rface Location: 10' FNL & 1980' FWL	
MD (ftiKB)	Horizontal - Original Hole, 5/30/2013 12:33:07 AM	Well Information   Orig KB Elev (ft)   Gr Elev (ft)   KB-Grd (ft)   Spud Date   On Production Date   PBTD (All) (ftKB)
(ftKB)	Vertical schematic (actual)	3,362.00 3,339.00 23.00 2/29/2012 5/10/2013 Wellbores
-106.0		Wellbore Name:         Original Hole         Kick Off Depth (ftKB): 8,020.0           Size (in)         Act Top (ftKB)         Act Blm (ftKB)
		17 1/2 23.0 1,163.0 1,163.0 1,163.0 3,881.0
40.1	Π Π	7 7/8 3,881.0 13,575.0 Schematic Annotations
-76.1		Type Depth (ftKB) Annotation
		Casing Strings  Csg Des Wellbore OD (in) Wt (ib/ft) Grade Top Thread Set @ (ft/KB)
25.8	l H	Surface         Original Hole         13 3/8         48.00         J-55         1,163.00           Intermediate         Original Hole         8 5/8         32.00         J-55         3,881.00
-0.3		Production   Original Hole   5 1/2   20.00   P-110   13,575.00
23.8	THE RESIDENCE OF THE PARTY OF T	Perf Date
238	13-3/8*, 48 ppf, J-55, STC; 23.00- 1,163.00; 1,140.00; 13 3/8; 12.615; 1-1	9,683.0 10,293.0 Lower Avalon Shale, Original Hole 10,343.0 10,953.0 Lower Avalon Shale, Original Hole
1,163.1	8-5/8*, 32 ppf, J-55, LTC; 23.00- 3,881.00; 3,858.00; 8 5/8; 7.921; 2-	11,003.0 11,554.0 Lower Avalon Shale, Original Hole 11,663.0 12,214.0 Lower Avalon Shale, Original Hole
3,800 a	2-7/8* EUE 8rd 6.5 ppf L-80 Tbg; - 0.40-7,965.93; 7,966.33; 2 7/8;	12,323.0 12,874.0 Lower Avalon Shale, Original Hole 12,983.0 13,534.0 Lower Avalon Shale, Original Hole
	2.441; 4-1 5-1/2*, 20 ppf, P-110, LTC; 23.00- -13,575.00; 13,552.00; 5 1/2; 4,778;	Tubing Strings Tubing Description   Run Date   String Length (ft)   Set Depth (ft/KB)
7,809.1	3-1	No.         Item Des         Jts         OD (in)         Wt (tb/ft)         Grade         Top (ftKB)
7,871.1		Tubing Description Run Date String Length (ft) Set Depth (ft/KB)
		Tubing   4/24/2013   8,063.59   8,063.19   No.
7,850		4-1   2-7/8" EUE 8rd 6.5 ppf L-80 Tbg   242   2 7/8   6.50   L-80   -0.4
7,053		4-3 2-7/8* 7.9 ppf L-80 8RD Tubing 2 2 7/8 7.90 L-80 7,968.9 4-4 Pump Sealing Nipple 1 2 7/8 N-80 8,032.2
	Anchor 5 1/2; 7,965.93-7,968.93; 3.00; 1.05; 0.824; 4-2	4-5   2-7/8* 7.9 ppf L-80 BRD Tubing   1   2 7/8   7.90   N-80   8,033.2   4-6   slotted joint   1   3 1/2   8,037.2
7248.8		4-7   Bull Plug   1   2 7/8   8,062.2
7,843.1	2-7/8* 7.9 ppf L-80 8RD Tubing; -7,968.93-8,032.19; 63.26; 2.7/8;	Rod Description Run Date String Length (ft) Set Depth (ftKB)
	2.323; 4-3	
8,0322	Pump Seating Nipple; 8,032.19-	Rod Description         Run Date         String Length (it)         Set Depth (ftKB)           Corods D73 Tapered String         5/8/2013         8,001.00         7,895.00
8,633.1	8,033.19; 1.00; 2 7/8; 4-4	
	2-7/8* 7.9 ppt L-80 8RD Tubing; 	2-2   Pony Rod   1   7/8   2.04   D   -80.0
8,037.4	slotted joint; 8,037.19-8,062.19;	2-4   Continuous Sucker Rod   1   7/8   2.04   Specia   -26.0
6,0023	25.00; 3 1/2; 4-6  Bull Plug; 8,062.19-8,063.19; 1.00;	2-6 2.5-1.50-RHBC-24-5 Pump 1 2 7,871.0
	27/8, 4-7	Cement Surface Casing Cement , 4/1/2012
8,063.3		String: Surface, 1,163.00ftkB Cement Evaluation Results: Stage Number   Stage Top (ftkB)   Stage Bottom (ftkB)   Vol Cement Rot (bbi)   Top Measurement Method   1,163.0   65.0   Circulated   1,163.0   1,163
8,023.0	B B	Fluid Amount (sacks) Class Dens (lb/gal) Yield (ft*/sack)
8,632.8	Perforated; 9,023.00-9,633.00	Intermediate Casing Cement , 4/1/2012
	8 8	String: Intermediate, 3,881.00ft/8B Cement Evaluation Results:  Stage Number   Stage Top (ft/KB)   Stage Bottom (ft/KB)   Vol Cement Ret (bbl)   Top Measurement Method   1   23.0   3.881.0   80.0   Circulated
8,683,1	8	Fluid Amount (sacks) Class Dens (lb/gal) Yield (ft²/sack)
10,213.0	Perforated; 9,683.00-10,293.00	Production Casing Cement , 4/1/2012
		String: Production, 13,575.00ft/8 Cement Evaluation Results:  Stage Number Stage Top (ft/KB) Stage Bottom (ft/KB) Vol Cement Ret (bbl) Top Measurement Method  1,7,993.0 13,575.0 Top Measurement Method
10,3423	N N	Fluid   Amount (sacks)   Class   Dens (tb/gal)   Yield (ft*/sack)   Lead   2,050   C   1.32
10,853.1	Perforated; 10,343.00-10,953.00	1106
11.033.0	Perforated; 11,003.00-11,554.00	
11,554.1	8	
11,863.1	Perforated; 11,663.00-12,214.00	
12,213.0	8	
12,323.2	Perforated; 12,323.00-12,874.00	
12,874.0	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
12.682.9	Perforated; 12,983.00-13,534.00	
12534.1	Periorated, 12,363.00-13,334.00	
13,575.1		

# \*

010.Downhole Profile - Vertical Wells Well Name: PLU BIG SINKS 15-25-30 USA #1H

Field: Wildcat - Bone Spring

BOPCO, L.P. - West Texas Well ID: 30-015-39693

Sect: 15 Town: 25S Rng: 30E County: Eddy State: New Mexico

Sur	face Location: 10' FNL & 1980' FWL												
MD		Well Info		Gr Elev (ft)	KB-Grd (	(ft) Isr	pud Date	I On Pro	duction	Date	PBTD (All)	(fiKB)	
(ftKB)	Vertical schematic (actual)		3,362.00		339.00	23.00	2/29/2012		5/10/20	13	. 515 (141)	(1010)	
			Name: (	Original Hole			Act Top (I		ck Off I	Depth (ftl	KB): 8,020	.0 m (ftKB)	
-106.0	П			320 (H1)	17 1/2		Act Top (I		23.0		ALI BI	m (IIVD)	1,163.0
40.1	H II				7 7/8				63.0 81.0				<b>3,881.0</b> <b>13,575.0</b>
		Schema	Type	otations	epth (ftKB)				Annola	lion			
-76.1		Casing											
-25.0		Surface	Csg Des		Wellbore	е	OD (in)	Wt (lb/ft)		Grade	Top Ti	nread	Sel @ (ftKB)
		Intermedia		- 1	Original Hole Original Hole		13 3/1 8 5/1	B 32.0		5			1,163.00 3,881.00
-0.3		Perforal			Original Hole		5 1/.	2 20.0	00 P-1	10	_		13,575.00
	MANAGEMENT CONTRACTOR OF THE PROPERTY OF THE P	Perf [	Date	Top (ftKB) 9,023.0		Lower A	Zo Avalon Shale, 0		_		Curre	ent Status	
23.0	13-3/8*, 48 ppf, J-55, STC; 23.00- 1,163.00; 1,140.00; 13 3/8; 12.615;		- 1	9,683.0 10,343.0			Avalon Shale, ( Avalon Shale, (						
1,163.1	8-5/8", 32 ppf, J-55, LTC; 23.00- 3,881.00; 3,858.00; 8 5/8; 7.921; 2-			11,003.0	11,554.0	Lower A	Avalon Shale, (	Original Hole					
	2-7/8" EUE 8rd 6.5 ppf L-80 Tbg; -			12,323.0	12,874.0	Lower A	Avalon Shale,	Original Hole					
3,860.8	0.40-7,965,93; 7,966,33; 2 7/8; 2.441; 4-1 5-1/2", 20 ppf, P-110, LTC; 23.00-	Tubing			13,534.0	Lower A	Avalon Shale,	Original Hole					
7,869.1	13,575.00; 13,552.00; 5 1/2; 4.778; 3-1	Tubing D	escription	1	Run Date		S	tring Length (f	t)		Set Dept	h (ftKB)	
		No.			llem C	Des			Jls	OD (in)	Wt (lb/ft)	Grade	Top (ftKB)
7,871.1		Tubing D Tubing	escription	1		1/24/2013	S	tring Length (f	t)	8,063.5	Set Depti	h (ftKB)	8,063.19
7,8950		No. 4-1	2-7/8" EU	E 8rd 6.5 pp	Item C f L-80 Tbg	Des			Jts 242	OD (in) 2 7/8	Wt (lb/ft) 6.50	Grade L-80	Top (ftKB) -0.4
-		4-2	Anchor 5						1 2	1.05 2 7/8	1.20 7.90	C-90 L-80	7,965.9 7,968.9
7,645.8		4-4	Pump Se	ating Nipple	_				1	2 7/8		N-80	8,032.2
	Anchor 5 1/2; 7,965.93-7,968.93; 3.00; 1.05; 0.824; 4-2	4-6	slotted joi	int	o rubing				1	2 7/8 3 1/2	7.90	N-80	8,033.2 8,037.2
7,568.0		Rod Str	Bull Plug		2112				1	2 7/8		_	8,062.2
7,893.1	2-7/8* 7.9 ppf L-80 8RD Tubing;	Rod Desc	cription		Run Date		S	String Length (f	t)	0.0	Set Dept	h (ftKB)	
	7,968.93-8,032.19; 63.26; 2 7/8; 2.323; 4-3	Item #			Item (	Des			Jls	OD (in)	Wt (lb/ft)	Grade	Top (ftKB)
0,032.2		Rod Desc Corods D	cription 73 Taper	ed String	Run Date	5/8/2013	15	String Length (f	1)	8,001.0	Set Dept	h (ftKB)	7,895.00
6,033.1	Pump Seating Nipple; 8,032.19- 8,033.19; 1.00; 2 7/8; 4-4	Ilem # 2-1	Polished	Rod	Item (	Des			Jls 1	OD (in)	Wt (Ib/ft)	Grade	Top (ftKB) -106.0
8,033,1	2-7/8* 7.9 ppf L-80 8RD Tubing; 	2-2	Pony Roc Sucker R	i					1 2	7/8 7/8	2.04 2.22		-80.0
8,037,1	2.323; 4-5			us Sucker Re	od			1	1	7/8	2.04		-76.0 -26.0
	slotted joint; 8,037.19-8,062.19; 25.00; 3 1/2; 4-6		Pony Roc					1	1	7/8		ľ	7,869.0
65023	Bull Plug; 8,062.19-8,063.19; 1.00;	2-6 Cemen		RHBC-24-5 F	ump	7			1	2		1	7,871.0
10633	2.323; 4-3  Pump Sealing Nipple; 8,032,19-8,033,19; 1.00; 2 7/8; 4-4  2-7/8* 7-9 ppf L-80 BRD Tubing; 8,033,19-8,037,19; 4.00; 2 7/8; 2.323; 4-5  slotted joint; 8,037,19-8,062,19; 25.00; 3 1/2; 4-6  Bull Plug; 8,062,19-8,063,19; 1.00; 2 7/8; 4-7			Cement,	4/1/2012		Cement Evalu	ation Results:					
		Stage Nu		Stage Top (ft)	(B) Stage	Bottom (f		ment Ret (bbl)		Top Meas Circulate	surement M	ethod	
8,023.6		Lead		Fluid			unt (sacks)	Class	T		lb/gal)	Yiel	d (ft³/sack)
9,632.9	Perforated; 9,023.00-9,633.00	Interme	ediate C	asing Cen	nent , 4/1/20					27 127		100	1.32
*****		String: I	umber S	ate, 3,881.00 Stage Top (fti	(B) Stage	Bottom (f	tKB) Vol Ce	ation Results: ment Ret (bbl)			surement M	ethod	
9,683.1	<mark>8</mark> ⋅		1	Fluid	23.0		,881.0 ount (sacks)	Class	80.0	Circulate Dens	(lb/gal)	Yiel	d (ft³/sack)
	Perforated; 9,683.00-10,293.00	Produc	tion Ca	sing Ceme	ont , 4/1/2012	2	1,999	olc			1 200 2		1.32
10,283.0				n, 13,575.00f Stage Top (ft	KB) Stage	Bottom (f	ftKB) Vol Ce	ation Results: ment Ret (bbl)		Top Mean	surement M	lethod	
10,342.8	Perforated; 9,683,00-10,293,00  Perforated; 10,343,00-10,953,00  Perforated; 11,003,00-11,554,00  Perforated; 11,663,00-12,214,00  Perforated; 12,323,00-12,874,00  Perforated; 12,323,00-13,534,00		1	Fluid	7,993.0	13	3,575.0 ount (sacks)	Class			(lb/gal)		d (ft³/sack)
	Perforated; 10,343.00-10,953.00	Lead					2,050						1.32
10,953.1													
11.003.0													
	Perforated; 11,003.00-11,554.00												
11,554.1	at f												
11,663.1													
11,863.1	Perforaled; 11,663.00-12,214.00												
12,213.8	<b>A</b>												
12.323.2	Parfeetal 40 000 00 40 000 00												
12,874.6	Perforated; 12,323.00-12,874.00												
12,862,8													
	Perforated; 12,983.00-13,534.00												
13,534,1													
13,575.1													
						*:							



# State of New Mexico Commissioner of Public Lands

310 OLD SANTA FE TRAIL P.O. BOX 1148 SANTA FE, NEW MEXICO 87504-1148 **COMMISSIONER'S OFFICE** 

Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org

August 20, 2015

BOPCO, L.P. 201 Main Street, Suite 2900 Fort Worth, Texas 76102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV BS Well No. 010H (30-015-39846)

Commercial Well Determinations

Bone Spring Formation Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the commercial determination data for the PLU CVX JV BS Well No. 010H located in Section 24-24S-30E...

The Bureau of Land Management's letter of July 21, 2015 concurred with your determination that the above mentioned well is capable of producing unitized substances in paying quantities from the Bone Spring formation.

Please be advised that the Commissioner of Public Lands concurs with BOPCO's determination that the PLU CVXJV BS Well No. 010H (30-015-39846-00-S1) is a commercial well in the Bone Spring formation and is entitled to participate in the Bone Spring Participating Area. This concurrence is subject to like approval by the Bureau of Land Management.

Please submit an application for the appropriate expansion of the Bone Spring Participating Area to this office and the BLM for approval.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

AUBRITY DUNN

COMMISSIONER OF PUBLIC LANDS

AD/pm

cc:

Reader File,

NMOCD Attention: Mr. Daniel Sanchez TRD-Attention: Ms. Billie Luther RMD-Attn: Mr. Danny Martinez

BLM Carlsbad - Attn: Mr. Ed Fernandez



### State of New Mexico Commissioner of Public Lands

310 OLD SANTA FE TRAIL P.O. BOX 1148 SANTA FE, NEW MEXICO 87504-1148 COMMISSIONER'S OFFICE

Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org

August 19, 2015

BOPCO, LP 201 Main St., Suite 2900 Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re:

PLU CVX JV Big Sinks #015H (14-24-30)

Commercial Well Determinations

Poker Lake Unit 1st Bone Spring Formation

Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management, by their letter of July 21, 2015 advised this office that they concur with your determination that the PLU CVX JV Big Sinks #015H is not capable of producing unitized substances in paying quantities from the 1st Bone Spring formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV Big Sinks #015H is a non-commercial 1st Bone Spring formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

AUBREYDUNN

COMMISSIONER OF PUBLIC LANDS

AD/sk

cc: Reader File,



# State of New Mexico Commissioner of Public Lands

310 OLD SANTA FE TRAIL P.O. BOX 1148 SANTA FE, NEW MEXICO 87504-1148 COMMISSIONER'S OFFICE

Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org

August 19, 2015

BOPCO, LP 201 Main St., Suite 2900 Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re:

PLU CVX JV Big Sinks #017H (7-25-31)

Commercial Well Determinations

Poker Lake Unit 1st Bone Spring Shale Formation

Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of July 10, 2015 together with the non-commercial determination data for the above referenced well.

Please be advised that the Commissioner of Public Lands concurs with your determination that the PLU CVX JV Big Sinks #017H is a non-commercial 1st Bone Spring Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

ER OF PUBLIC LANDS

AD/sk

cc: Reader File.



# State of New Mexico Commissioner of Public Lands

P.O. BOX 1148 SANTA FE, NEW MEXICO 87504-1148

Phone (505) 827-5760 310 OLD SANTA FE TRAIL

Fax (505) 827-5766 www.nmstatelands.org

COMMISSIONER'S OFFICE

August 19, 2015

BOPCO, LP 201 Main St., Suite 2900 Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV Ross Ranch #006H (21-25-30)

Commercial Well Determinations

Poker Lake Unit Lower Avalon Shale Formation

Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of July 10, 2015 together with the non-commercial determination data for the above referenced well.

Please be advised that the Commissioner of Public Lands concurs with your determination that the PLU CVX JV Ross Ranch #006H is a non-commercial Lower Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

ONER OF PUBLIC LANDS

AD/sk

cc: Reader File,



# State of New Mexico Commissioner of Public Lands

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Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org

August 19, 2015

BOPCO, LP 201 Main St., Suite 2900 Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV Remuda Basin #002H (32-23-30)

Commercial Well Determinations

Poker Lake Unit Lower Avalon Shale Formation

Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of July 10, 2015 together with the non-commercial determination data for the above referenced well.

Please be advised that the Commissioner of Public Lands concurs with your determination that the PLU CVX JV Remuda Basin #002H is a non-commercial Lower Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

AD/sk

cc: Reader File,

OCD-Attn: Mr. Daniel Sanchez TRD-Santa Fe, Attn: Ms. Judy Vigil BLM Carlsbad – Attn: Mr. Ed Fernandez

ER OF PUBLIC LANDS



# State of New Mexico Commissioner of Public Lands

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Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org

August 19, 2015

BOPCO, LP 201 Main St., Suite 2900 Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re:

PLU CVX JV Pierce Canyon #010H (20-24-30)

Commercial Well Determinations

Poker Lake Unit Upper Avalon Shale Formation

Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of July 10, 2015 together with the non-commercial determination data for the above referenced well.

Please be advised that the Commissioner of Public Lands concurs with your determination that the PLU CVX JV Pierce Canyon #010H is a non-commercial Upper Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours

AUBREY DUNN

COMMISSIONER OF PUBLIC LANDS

AD/sk

cc: Reader File,



# State of New Mexico Commissioner of Public Lands

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Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org

August 19, 2015

BOPCO, LP 201 Main St., Suite 2900 Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re:

PLU CVX JV Big Sinks #016H (3-25-30) Commercial Well Determinations

Poker Lake 1st Bone Spring Formation Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management, by their letter of July 21, 2015 advised this office that they concur with your determination that the PLU CVX JV Big Sinks #016H is not capable of producing unitized substances in paying quantities from the 1st Bone Spring formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV Big Sinks #016H is a non-commercial 1st Bone Spring formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

STONER OF PUBLIC LANDS

AD/sk

cc: Reader File,



# State of New Mexico Commissioner of Public Lands

310 OLD SANTA FE TRAIL P.O. BOX 1148 SANTA FE. NEW MEXICO 87504-1148 COMMISSIONER'S OFFICE

Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org

August 19, 2015

BOPCO, LP 201 Main St., Suite 2900 Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re:

PLU CVX JV Big Sinks #012H (34-24-30)

Commercial Well Determinations

Poker Lake Unit 1st Bone Spring Shale Formation

Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management, by their letter of July 21, 2015 advised this office that they concur with your determination that the PLU CVX JV Big Sinks #012H is not capable of producing unitized substances in paying quantities from the 1st Bone Spring formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV Big Sinks #016H is a non-commercial 1st Bone Spring formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

COMMISSIONER OF PUBLIC LANDS

AD/sk

cc: Reader File,



# State of New Mexico Commissioner of Public Lands

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COMMISSIONER'S OFFICE

www.nmstatelands.org

310 OLD SANTA FE TRAIL P.O. BOX 1148 SANTA FE, NEW MEXICO 87504-1148

August 19, 2015

BOPCO, LP 201 Main St., Suite 2900 Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re:

PLU CVX JV Pierce Canyon 011H (21-24-30)

Commercial Well Determinations

Poker Lake Unit Upper Avalon Shale Formation

Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management, by their letter of July 21, 2015 advised this office that they concur with your determination that the PLU CVX JV Pierce Canyon 011H is not capable of producing unitized substances in paying quantities from the Upper Avalon Shale formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV Pierce Canyon #011H is a non-commercial Upper Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

AD/sk

cc: Reader File,

OCD-Attn: Mr. Daniel Sanchez TRD-Santa Fe, Attn: Ms. Judy Vigil BLM Carlsbad – Attn: Mr. Ed Fernandez

VER OF PUBLIC LANDS



# State of New Mexico Commissioner of Public Lands

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Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org

August 19, 2015

BOPCO, LP 201 Main St., Suite 2900 Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re:

PLU CVX JV Big Sinks #014H (19-24-31)

Commercial Well Determinations

Poker Lake Unit 1st Bone Spring Formation

Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management, by their letter of July 21, 2015 advised this office that they concur with your determination that the PLU CVX JV Big Sinks #014H is not capable of producing unitized substances in paying quantities from the 1st Bone Spring formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV Big Sinks #014H is a non-commercial 1st Bone Spring formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

AD/sk

cc: Reader File,

OCD-Attn: Mr. Daniel Sanchez TRD-Santa Fe, Attn: Ms. Judy Vigil BLM Carlsbad – Attn: Mr. Ed Fernandez

SSIONER OF PUBLIC LANDS



# State of New Mexico Commissioner of Public Lands

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Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org

August 19, 2015

BOPCO, LP 201 Main St., Suite 2900 Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re:

PLU CVX JV Phantom Banks 002H (3-26-30)

Commercial Well Determinations

Poker Lake Unit Upper Avalon Shale Formation

Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management, by their letter of July 21, 2015 advised this office that they concur with your determination that the PLU CVX Phantom Banks 002H is not capable of producing unitized substances in paying quantities from the Upper Avalon Shale formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX Phantom Banks 002H is a non-commercial Upper Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

AUBREY DUNN

COMMISSIONER OF PUBLIC LANDS

AD/sk

cc: Reader File,



### State of New Mexico Commissioner of Public Lands

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Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org

August 19, 2015

BOPCO, LP 201 Main St., Suite 2900 Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re:

PLU CVX JV Phantom Banks #003H (4-26-31)

Commercial Well Determinations

Poker Lake Unit Lower Avalon Shale Formation

Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management, by their letter of July 21, 2015 advised this office that they concur with your determination that the PLU CVX JV Phantom Banks #003H is not capable of producing unitized substances in paying quantities from the Lower Avalon Shale formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV Phantom Banks #003H is a non-commercial Lower Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

COMMISSI

COMMISSIONER OF PUBLIC LANDS

AD/sk

cc: Reader File,



# State of New Mexico Commissioner of Public Lands

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Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org

August 19, 2015

BOPCO, LP 201 Main St., Suite 2900 Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV Pierce Canyon #008H (7-24-30)

Commercial Well Determinations

Poker Lake Unit Lower Avalon Shale Formation

Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management, by their letter of July 21, 2015 advised this office that they concur with your determination that the PLU CVX JV Pierce Canyon #008H is not capable of producing unitized substances in paying quantities from the Lower Avalon Shale formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV Pierce Canyon #008H is a non-commercial Lower Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

vary dury yours

AUBREY DUNN

COMMISSIONER OF PUBLIC LANDS

AD/sk

cc: Reader File,



### State of New Mexico Commissioner of Public Lands

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Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org

August 19, 2015

BOPCO, LP 201 Main St., Suite 2900 Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV Remuda Basin #001H (4-24-30)

Commercial Well Determinations

Poker Lake Unit 1st Bone Spring Shale Formation

Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of July 14, 2015 together with the non-commercial determination data for the above referenced well.

Please be advised that the Commissioner of Public Lands concurs with your determination that the PLU CVX JV Remuda Basin #001H is a non-commercial 1st Bone Spring Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

AUBITA DUNN

COMMISSIONER OF PUBLIC LANDS

AD/sk

cc: Reader File,



# State of New Mexico Commissioner of Public Lands

310 OLD SANTA FE TRAIL P.O. BOX 1148 SANTA FE, NEW MEXICO 87504-1148 COMMISSIONER'S OFFICE

Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org

August 19, 2015

BOPCO, LP 201 Main St., Suite 2900 Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re:

PLU CVX JV Pierce Canyon #012H (16-24-30)

Commercial Well Determinations

Poker Lake Unit Upper Avalon Shale Formation

Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the non-commercial determination data for the above referenced well.

Please be advised that the Commissioner of Public Lands concurs with your determination that the PLU CVX JV Pierce Canyon #012H is a non-commercial Upper Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours

COMMISSIONER OF PUBLIC LANDS

AD/sk

cc: Reader File,



# State of New Mexico Commissioner of Public Lands

310 OLD SANTA FE TRAIL P.O. BOX 1148 SANTA FE, NEW MEXICO 87504-1148 **COMMISSIONER'S OFFICE** 

Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org

August 20, 2015

BOPCO, L.P. 201 Main Street, Suite 2900 Fort Worth, Texas 76102-3131

Attention: Mr. R. Travis Mears

PLU CVX JV BS Well No. 013H (30-015-40155) Re:

Commercial Well Determinations

Bone Spring Formation Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the commercial determination data for the PLU CVX JV BS Well No. 013H located in Section 35-24S-30E.

The Bureau of Land Management's letter of July 21, 2015 concurred with your determination that the above mentioned well is capable of producing unitized substances in paying quantities from the Bone Spring formation.

Please be advised that the Commissioner of Public Lands concurs with BOPCO's determinations that the PLU CVX JV BS Well No. 013H (30-015-40155) is a commercial well in the Bone Spring formation and is entitled to participate in the Bone Spring Participating Area. This concurrence is subject to like approval by the Bureau of Land Management.

Please submit an application for the appropriate expansion of the Bone Spring Participating Area to this office and the BLM for approval.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

SSIONER OF PUBLIC LANDS

AD/pm

cc: Reader File.

NMOCD Attention: Mr. Daniel Sanchez TRD-Attention: Ms. Billie Luther RMD-Attn: Mr. Danny Martinez

BLM Carlsbad - Attn: Mr. Ed Fernandez

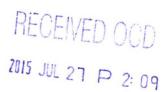
366

#### BOPCO, L.P.

201 MAIN ST.

FORT WORTH, TEXAS 76102-3131 817/390-8400

July 24, 2015



#### **FEDERAL EXPRESS**

Bureau of Land Management Carlsbad District Office 620 E. Green St. Carlsbad, New Mexico 88220 Attn: Mr. Ed Fernandez New Mexico State Land Office Commissioner of Public Lands 310 Old Santa Fe Trail Santa Fe, New Mexico 87501 Attention: Mr. Pete Martinez New Mexico Oil Conservation Division 1220 St. Francis Santa Fe, New Mexico 87505 Attention: Mr. William Jones

Re: Commercial Determination PLU CVX JV Phantom Banks #004H (25-25-30) 1<sup>st</sup> Bone Spring Shale Eddy County, New Mexico

#### Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the 1<sup>st</sup> Bone Spring Shale. Should you be in agreement that the 1<sup>st</sup> Bone Spring Shale is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

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.

Very truly yours,

R. Travis Mears

Bureau of Land Management	New Mexico State Land Office	New Mexico Oil Conservation Division
Ву:	By:	By:
Its:	lts:	Its:
Date:	Date:	Date:



#### INTER-OFFICE MEMORANDUM

TO:

**Ross Sutton** 

FROM:

**Bryce Bezant** 

DATE:

7/15/2015

RE:

Commercial Determination

PLU CVX JV Phantom Banks #004H (25-25-30)

Poker Lake Unit (1st Bone Spring Shale)

Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Phantom Banks #004H was drilled in 2012 to a total depth of 14,160' laterally completed in the 1<sup>st</sup> Bone Spring Shale reservoir. The well is producing from perforations 9,126'-14,160'. On test 4/1/2013 the well flowed at the rate of 456 BOPD, 977 MCFD, and 2335 BWPD. This well has an expected recovery of approximately 90 MBOE (13:1 mcf/bbl) from the current completion.

The capital investment was taken from the AFE report and operating costs from the LIOR statement which included water hauling charges. The most recent strip price file was utilized adjusting for current area differentials. The Phantom Banks #004H will not be a commercial well and should not be incorporated into a participating area.

RBB/tah

Cc:

Travis Mears

Tom McCarthy Steve Johnson

#### **ECONOMIC PROJECTION**

Date: 7/21/2015

Lior: 1004705

3:54:03PM

Project Name : Partner:

1-1-2015 NSAI Review For BOPCO, LP

As Of Date: 10/01/2012 Discount Rate (%):5.00

All cases

Lease Name: 1004705/PLU CVX JV PB/004H/1ST Reserv Cat.: Proved Producing

LEASE CASE Case Type: Archive Set: NS0115

1004705/PLU CVX JV PB/004H/1ST

Field: WILDCAT G-05 S2630110;BONE SPRING Operator: BOPCO

-5,989.69

60.00%:

Cum Oil (mbbls): 0.00 Risk: 0.000 Inherited/ 0.000 Compounded

Reservoir: BONE SPRING

Cum Gil (mbbls Cum Gas (mmcl	,			Risk: 0.000	Inherited/ 0.000 Co	ompounded	Reservoir: BONI Co., State: EDD		
	Gross '	Wet Production	1	Gross Dry Gas	& NGL		Sales		
Year	Oil (Mbbl)		t Gas MCF)	Dry Gas (MMCF)	NGL (MGal)	Oil (Mbbl)	Gas (MMCF)	NGL (MGal)	_
2012 2013 2014 2015 2016 2017 2018 2019	31. 10. 6. 4. 3. 2.	000 614 542 035 434 531 960 553	0.000 203.819 107.082 24.402 13.731 9.565 7.360 5.969	0.000 90.088 47.330 10.786 6.069 4.228 3.253 2.639	0.000 786.741 365.478 94.191 53.002 36.920 28.411 23.042	0.000 26.477 8.829 5.055 3.714 2.957 2.479 2.138	0.000 75.449 39.639 9.033 5.083 3.541 2.725 2.210	0.000 658.896 306.088 78.885 44.389 30.920 23.794 19.298	
Rem Total Ult.	0. 61.	000 669	0.000 371.929	0.000 164.392	0.000 1,387.786	0.000 51.648	0.000 137.679	0.000 1,162.270	_
Oit.	61.		371.929 werage Price			Not Dover			
Year	-	Oil /BBL	Gas	NGL S/G-1	Oil	Net Reveni Gas	NGL	Total	_
			\$/MCF	\$/Gal	(M\$)	(M\$)	(M\$)	(M\$)	_
2012 2013 2014 2015 2016 2017 2018 2019	8 8 5 5 5 5 5	0.00 6.60 5.28 0.53 5.69 7.03 8.44 9.72	0.00 3.50 4.11 2.57 2.89 3.06 3.14 3.20	0.00 0.75 0.88 0.44 0.46 0.46 0.46	0.000 2,292.876 752.869 255.399 206.804 168.646 144.868 127.683	0.000 263.840 163.048 23.239 14.704 10.843 8.543 7.062	0.000 494.172 270.350 34.567 20.573 14.331 11.028 8.944	0.000 3,050.888 1,186.267 313.205 242.081 193.819 164.439 143.689	
Rem Total		0.00 6.46	0.00 3.57	0.00 0.73	0.000 3,949.145	0.000 491.279	0.000 853.964	0.000 5,294.388	_
		Expenditures				Futura N	let Revenue		
Year	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investment (M\$)	Total Ses Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)	-
2012 2013 2014 2015 2016 2017 2018 2019	0.000 227.379 96.780 25.553 19.750 15.813 13.416 11.723	0.000 6.021 2.328 0.621 0.481 0.385 0.327 0.286	6,675.8 0.0 0.0 250.0 0.0 0.0 0.0	00 1,780.89 00 1,066.50 00 628.69 00 143.38 00 136.28 00 132.53	0 1,036.598 0 20.658 2 -591.660 4 78.466 9 41.333 5 18.162	-5,639,242 -5,618.584 -6,210.244 -6,131.778 -6,090.446 -6,072.284	-6,675.840 1,005.492 25.879 -512.097 65.501 32.864 13.768 1.354	-6.675.840 -5.670.348 -5.644.469 -6.156.565 -6.091.064 -6.058.200 -6.044.432 -6.043.078	3 9 5 4 9 2
Rem Total	0.000 410.412	0.000 10.449	0.0 6,925.8				0.000 -6,043.078	0.000 -6,043.078	
Major Phase : Perfs : Initial Rate : Abandonment : Initial Decline : Beg Ratio : End Ratio :	ç	0.46 mmc 99.50 % yea 0.08 bbl/n 0.44 Workin Reven	nmcf	Internal ROInve: Years to Abando:  Initial00000000 0.		0000	Pre	9.00%: 10.00%: 12.00%: 15.00%: 20.00%: 30.00%: 40.00%: 50.00%:	6,043.0 -6,026.0 -6,025.3 -6,015.6 -6,016.9 -5,995.8 -5,983.5 -5,983.3

BEPCO Detailed WTD V9

Ver: 7/21/2015

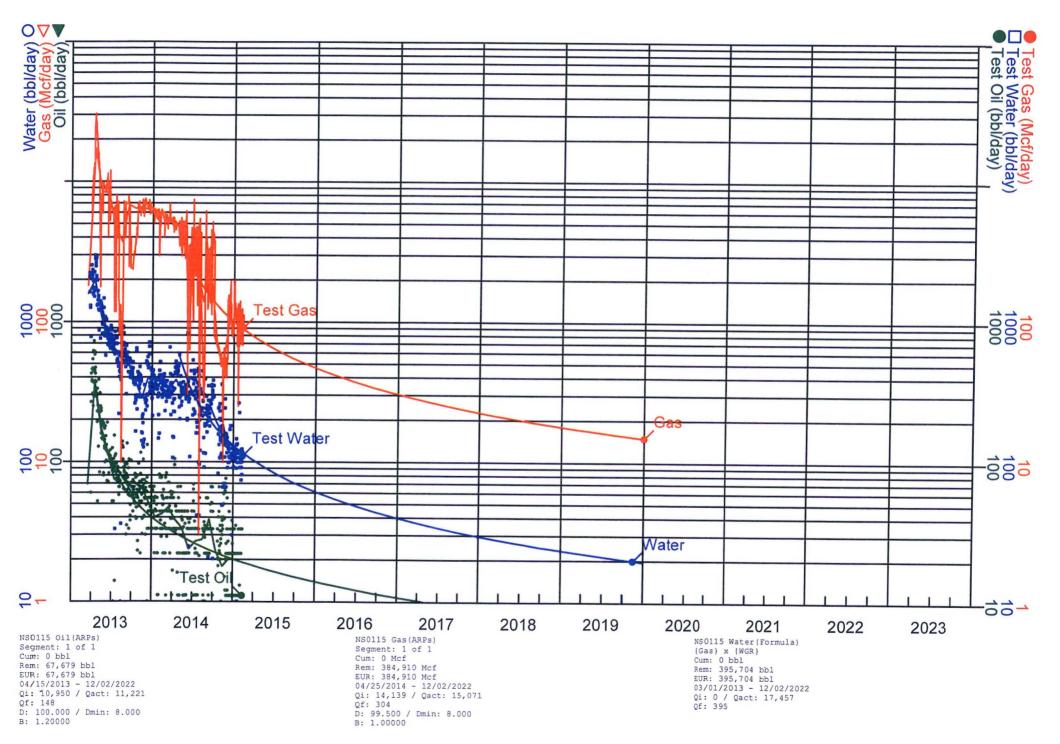
1004705/PLU CVX JV PB/004H/1ST

Oper: BOPCO

Major Phase: Gas

Field: WILDCAT G-05 S2630110; BONE SPRING

ECL Date: 12/30/2019



# WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

#### WELL DATA

VELL PLU CVX JV PHANTOM BANKS #004H (25-25-30) FORMATION BONE SPRING  OCATION UNIT, 150 FEET FROM SOUTH LINE & 2280 FEET FROM WEST LINE EECTION 25 TOWNSHIP 25S RANGE 30E COUNTY Eddy NEW MEXICO SPUD DATE 5/17/2012 COMPLETION DATE 7/24/2012 INITIAL PRODUCTION 5/23/2012  ERFORATIONS 9126-14160  HL: 150' FNL & 2034' FWL SEC 35 T25S R30E  TIMULATION:  FRACTURE See Attached  OTENTIAL (4/1/2013): 456 BOPD, 977 MCFPD, 2335 BWPD
SECTION   25   TOWNSHIP   25S   RANGE   30E   COUNTY   Eddy   NEW MEXICO
PUD DATE COMPLETION DATE
#HL: 150' FNL & 2034' FWL SEC 35 T25S R30E  TIMULATION:    ACID
HL: 150' FNL & 2034' FWL SEC 35 T25S R30E  TIMULATION:  ACID
ACID
### ACID
FRACTURE See Attached  OTENTIAL (4/1/2013): 456 BOPD, 977 MCFPD, 2335 BWPD
OTENTIAL(4/1/2013): 456 BOPD, 977 MCFPD, 2335 BWPD
OTENTIAL(4/1/2013): 456 BOPD, 977 MCFPD, 2335 BWPD
Attach Copy of C-105. Attach Copy of Wellbore Sketch of Completed Well.)
VOLUMETRIC CALCULATION
rea (A) proration unit size, acres  SANDS PERFORATED  POTENTIALLY PRODUCTIVE
orosity (Φ), %
Vater saturation (Sw), %
et Thickness (H), ft65
et Thickness (H), ft
emperature (T), Fahrenheit 140
emperature (T), Fahrenheit  140  ottom Hole pressure (P), psia  4,370
emperature (T), Fahrenheit  140  ottom Hole pressure (P), psia  4,370  ecovery factor (RF), %  12%
emperature (T), Fahrenheit  140  ottom Hole pressure (P), psia  4,370  ecovery factor (RF), %  12%

#### PERFORMANCE DATA

(If sufficient history exists, attach plot of	oii production rate v ti	me.)			
CUMULATIVE PRODUCTION TO _	5/31/2015	44,914	_BBL Oil	322,785	MCF Ga
INITIAL RATE (qi)		360	BOPD		_
ECONOMIC LIMIT (qI)		4.8	BOPD		_
HYPERBOLIC DECLINE RATE, dy		n =1.2,	d = 99%/yr		_
REMAINING MBO (Q) =			17		_
ULTIMATE RECOVERABLE MBO			62		
(Attach plat showing proration unit and p	articipating area.)				

#### **ECONOMIC**

GROSS WELL COST \$2,670,436 (to the depth of formation completed)

COMPLETION COST \$4,005,504

GROSS TOTAL COST \$6,675,840

YEAR	GROSS OIL MBO	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	0.000	0.0	0.0	-6675.8
2	31.614	3050.9	2014.3	1005.5
3	10.542	1186.3	1165.6	25.9
4	6.035	313.2	654.9	-512.1
5	4.434	242.1	163.6	65.5
6	3.531	193.8	152.5	32.9
7	2.960	164.4	146.3	13.8
8	2.553	143.7	141.9	1.4
9			0.0	
10			0.0	
REMAINDER			0.0	
TOTAL	61.669	5294.4	4439.0	-6043.1

WELL IS NOT COMMERCIAL

Form 3160-4 (August 2007)

D

#### **UNITED STATES** DEPARTMENT OF THE INTERIOR

(See Instructions and spaces for additional data on reverse side)
ELECTRONIC SUBMISSION #209030 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

RECEIVED JUN 18 2013

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

BUREAU OF LAND MANAGEMENT WELL COMPLETION OR RECOMPLETION REPORT AND LOGARTES Lease Serial No. NMLC063079A Oil Well la. Type of Well ☐ Gas Well ☐ Dry □ Other 6. If Indian, Allottee or Tribe Name Diff. Resvr. b. Type of Completion New Well ■ Work Over ☐ Deepen ☐ Plug Back Unit or CA Agreement Name and No. 891000303X Other Contact: TRACIE CHERRY 2. Name of Operator Lease Name and Well No. PLU PHANTOM BANKS 25 25 30 USA 1H BOPCO LP E-Mail: tjcherry@basspet.com 3a. Phone No. (include area code) Ph: 432-221-7379 9. API Well No. 3. Address MIDLAND, TX 79702 30-015-40756-00-S1 4. Location of Well (Report location clearly and in accordance with Federal requirements)\* Field and Pool, or Exploratory WC G-05 S26 30010 At surface SESW 150FSL 2280FWL 32.094179 N Lat, 103.835506 W Lon 11. Sec., T., R., M., or Block and Survey or Area Sec 25 T25S R30E Mer NMP At top prod interval reported below SESW 446FSL 2210FWL 32.094179 N Lat, 103.835506 W Lon 12. County or Parish At total depth NENW 150FNL 2034FWL EDDY NM 14. Date Spudded 15. Date T.D. Reached 16. Date Completed D & A ⊠ Ready to Prod. 03/27/2013 17. Elevations (DF, KB, RT, GL)\* 11/29/2012 12/21/2012 □ D& A 3340 GL 18. Total Depth: MD 14160 19. Plug Back T.D. MD 14140 20. Depth Bridge Plug Set: MD TVD 9294 TVD 9294 TVD Type Electric & Other Mechanical Logs Run (Submit copy of each)
 CBL CNL BOREHOLEPROF SGR PHOTODENS CN SGR AI GR 22. Was well cored? Ø No ☐ Yes (Submit analysis) ⊠ No □ No Was DST run? Yes (Submit analysis) Directional Survey? Yes (Submit analysis) 23. Casing and Liner Record (Report all strings set in well) Bottom Stage Cementer No. of Sks. & Slurry Vol. Top Hole Size Size/Grade Wt. (#/ft.) Cement Top\* Amount Pulled (MD) (MD) Depth Type of Cement (BBL) 17,500 13.375 H-40 48.0 1320 11.000 8.625 J-55 32.0 0 4015 2400 7.875 5.500 P-110 17.0 0 14160 2030 4600 24. Tubing Record Depth Set (MD) Packer Depth (MD) Size Depth Set (MD) Packer Depth (MD) Size Depth Set (MD) Packer Depth (MD) 2.875 25. Producing Intervals 26. Perforation Record Size No. Holes Perf. Status Formation Top Bottom Perforated Interval A) 1ST BONE SPRING 9126 14160 9853 TO 14143 216 open B) C) 27. Acid, Fracture, Treatment, Cement Squeeze, Etc Amount and Type of Material 9853 TO 14143 49864 bbls fluid, 2653287# Propant, 9 stages RECLAMATION 28. Production - Interval A Date First Gas MCF Production Method BBL BBL Gravity Produced Date Tested Produ Corr. API 03/30/2013 04/01/2013 24 456.0 977.0 2335.0 45.0 ELECTRIC PUMP SUB-SURFACE Choke Tbg. Press. Csg. Press 24 Hr. Oil Gas Water Gas:Oil Flwg. BBL MCF BBL Ratio SI 977 456 2335 2143 28a. Production - Interval B Date First Oil Gravity Corr. API Test Hours Test Oil Gas Water Production Method Gas Produced BBL Gravity 16 2013 JUN Choke Tbg. Press. Csg. 24 Hr. Oil Gas:Oil Gas Water Well Stat Size Flwg. BBI MCF BBI. SI BUREAU OF LAND MANAGEMENT

UBMISSION #209030 VERIFIED BY THE BLM WELL INFORMATION SYSTEM ARLSBAD FIELD OFFICE
\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*

28b. Produ	action - Interv	val C										
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF		Oil Gravity Corr. API	Gas Gravi	у	Production Method		
hoke	Tbg. Press.	Csg.	24 Hr.	Oil	Gas		Gas:Oil	Well S	Status			
Size	Flwg. SI	Press.	Rate	BBL	MCF	BBL	Ratio					
28c. Produ	uction - Interv	val D										
Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF		Oil Gravity Corr. API	Gas Gravi	ıy	Production Method		
Choke Size	Tbg Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF		Gas:Oil Ratio	Well	Status			
29. Dispos CAPT	sition of Gas(	Sold, used	for fuel, veni	ted, etc.)								
30. Summ	ary of Porous	Zones (In	clude Aquife	ers):					31. For	mation (Log) Ma	rkers	
tests, i	all important including dep coveries.	zones of po th interval	orosity and c tested, cushi	ontents there on used, tim	eof: Cored e tool oper	intervals and all n, flowing and sh	drill-stem ut-in pressure	es				
	Formation		Тор	Bottom		Descriptions,	Contents, etc.	).		Name		Top Meas, Depth
32. Addit	ional remarks EASE HOLI	s (include p	lugging proc	edure): NFIDÉNTI <i>A</i>	\L***				BA BE CH BR	ISTLER SE OF SALT LIC CANYON IERRY CANYON USHY CANYON INE SPRING		909 4000 4234 4960 6581 7924
33. Circle	enclosed atta	achments:										4 - 2 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3
<ol> <li>Electrical/Mechanical Logs (1 full set req'd.)</li> <li>Sundry Notice for plugging and cement verification</li> </ol>				<ol> <li>Geologic Re</li> <li>Core Analysis</li> </ol>	•				4. Directio	nal Survey		
J. Ju		o. prubbing	o and comen	, or meation	•	o. Core Analy:	JIJ	/	Other.			
		С	Elect	ronic Subm	nission #20 For B	mplete and correct 9030 Verified b OPCO LP, sen ng by JOHNNY	y the BLM V	Vell Inform	nation Sy		ched instruction	ons):
Name	(please print	TRACIE	CHERRY				Title F	REGULAT	ORY AN	ALYST		
Signa	ture	(Flectror	nic Submiss	sion)			Date (	05/30/2013	3			
Signa		Licotion						0,00,201	,			

, r . . . '**t**'

<sup>\*\*</sup> REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\*

District I
1625 N, French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone; (505) 476-3460 Fax: (505) 476-3462

12 Dedicated Acres

160

API Number

Joint or Infill

14 Consolidation Code

# State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

AMENDED F	REPOR	T
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Hective outoutly

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>2</sup> Pool Code

15 Order No.

30-	-015-4075	56		97814	97814 WC G-05 S263001O; Bone Spring					
4 Property (	Code	5 Property Name							. 6 Well Number	
3/33	363	Poker Lake Unit CVX JV PB							4H	
. 'OGRID			Operator Name						9 Elevation	
26073	7 .		BOPCO, LP						3340	
					» Surface 1	Location				
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	· Feet from the	East/West line	County	
Ν .	· 25	258	30E		150	South	2280	Wes	Eddy	
			" Bot	tom Hole	e Location If	Different From	n Surface			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
C	35	28	30E		150	North	2034	Wes	Eddy	

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.

		· · · · · · · · · · · · · · · · · · ·		
<u>.</u>	130'	,		"OPERATOR CERTIFICATION
2034	BHL			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
	1			working interest or unleased mineral interest in the land including the proposed
	1			bottom hole location or has a right to drill this well at this location pursuant to
	1			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.
	1		. (	Sanistonery 01/04/14
	!			Signature Date
				Tracie J Cherry
	1			Printed Name
	1			ticherry@basspet.com
			*	E-mail Address
				,
				*SURVEYOR CERTIFICATION
	. 1 .			I hereby certify that the well location shown on this plat was
				plotted from field notes of actual surveys made by me or under
	1			my supervision, and that the same is true and correct to the
\$ ·				best of my belief.
	1	2		
	ì			
				Date of Survey
	1 .			Signature and Seal of Professional Surveyor:
	1			
	700	perf		
22/01	· 404 41.	per /		
2285/	JHL	1		Certificate Number
2.280/	W W 150			

# \*

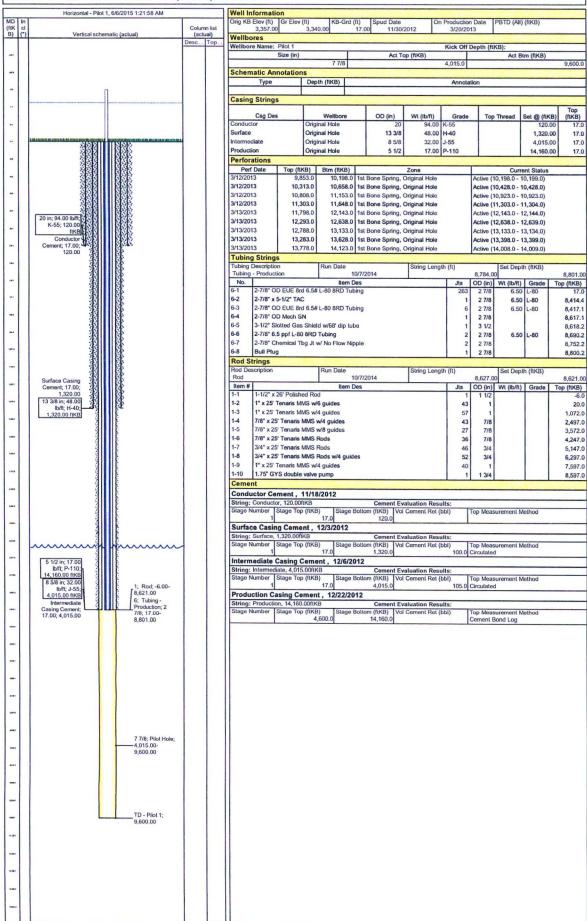
#### **Downhole Profile - Vertical Wells**

Well Name: POKER LAKE UNIT CVX JV PB #004H (25-25-30)

BOPCO, L.P. - West Texas

H (25-25-30) Well ID: 30-015-40756 Sect: 25 Town: 25S Rng: 30E County: Eddy State: New Mexico

Field: Wildcat - Bone Spring
Surface Location: 150' FSL & 2280' FWL, Sec 25, T25S-R30E



# Field: Wildcat - Bone Spring

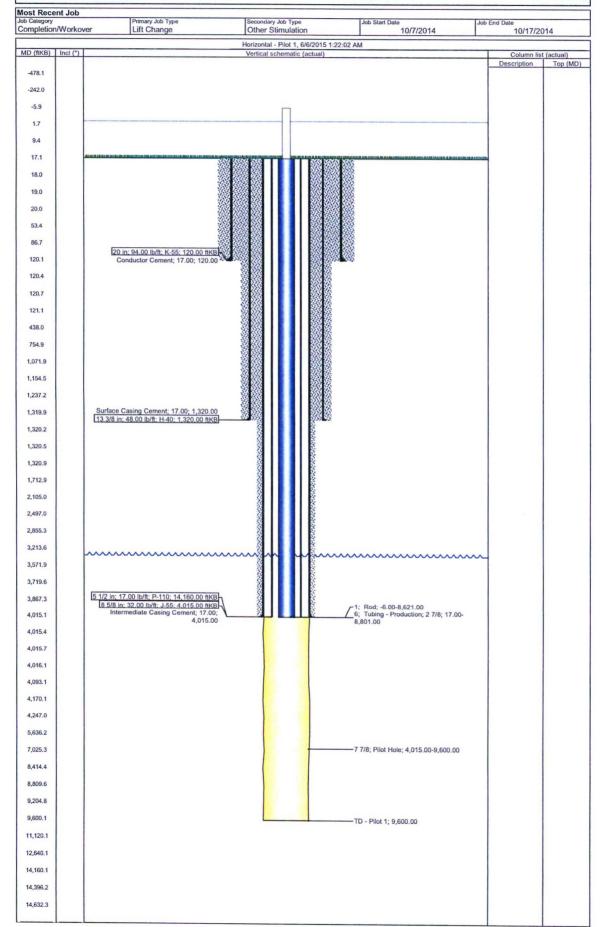
**Schematic - Vertical Production** 

Well Name: POKER LAKE UNIT CVX JV PB #004H (25-25-30)

BOPCO, L.P. - West Texas Well ID: 30-015-40756

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

Blk: Survey:



366

#### BOPCO, L.P.

201 MAIN ST.

FORT WORTH, TEXAS 76102-3131 817/390-8400

July 24, 2015

RECEIVED OCD
2015 JUL 27 P 2: 09

#### FEDERAL EXPRESS

Bureau of Land Management Carlsbad District Office 620 E. Green St. Carlsbad, New Mexico 88220 Attn: Mr. Ed Fernandez New Mexico State Land Office Commissioner of Public Lands 310 Old Santa Fe Trail Santa Fe, New Mexico 87501 Attention: Mr. Pete Martinez New Mexico Oil Conservation Division 1220 St. Francis Santa Fe, New Mexico 87505 Attention: Mr. William Jones

Re: Commercial Determination PLU CVX JV Ross Ranch #007H (33-25-30) 1<sup>st</sup> Bone Spring Shale Eddy County, New Mexico

#### Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the 1<sup>st</sup> Bone Spring Shale. Should you be in agreement that the 1<sup>st</sup> Bone Spring Shale is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

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.

Very truly yours,

R. Travis Mears

Bureau of Land Management	New Mexico State Land Office	New Mexico Oil Conservation Division
Ву:	Ву:	Ву:
Its:	Its:	Its:
Date:	Date:	Date:



#### INTER-OFFICE MEMORANDUM

TO:

**Ross Sutton** 

FROM:

**Bryce Bezant** 

DATE:

7/16/2015

RE:

Commercial Determination

PLU CVX JV Ross Ranch #007H (33-25-30) Poker Lake Unit (1<sup>st</sup> Bone Spring Shale)

Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Ross Ranch Banks #007H was drilled in 2013 to a total depth of 13,448' laterally completed in the 1<sup>st</sup> Bone Spring Shale reservoir. The well is producing from perforations 8,451'-13,448'. On test 4/20/2013 the well flowed at the rate of 456 BOPD, 3603 MCFD, and 2858 BWPD. This well has an expected recovery of approximately 116 MBOE (13:1 mcf/bbl) from the current completion.

The capital investment was taken from the AFE report and operating costs from the LIOR statement which included water hauling charges. The most recent strip price file was utilized adjusting for current area differentials. The Ross Ranch #007H will not be a commercial well and should not be incorporated into a participating area.

R Bryce Bezant, P.E.

RBB/tah

Cc:

Travis Mears
Tom McCarthy
Steve Johnson

#### **ECONOMIC PROJECTION**

Date: 7/21/2015 1004508

Project Name : 1-1-2015 NSAI Review For BOPCO, LP Partner : All cases

0.00

Case Type: LEASE CASE Archive Set: NS0115

Cum Oil (mbbls):

As Of Date: 01/01/2013 Discount Rate (%):5.00

1004508/PLU CVX JV RR/007H/1ST

Risk: 0,000 Inherited/ 0,000 Compounded

Lease Name: 1004508/PLU CVX JV RR/007H/1ST

40.00%

50.00%

60.00%:

-4,516.26

-4.538.42

-4,555.31

Reserv Cat.: Proved Producing

Field: CORRAL CANYON; BONE SPRING

8:42:19AM

Operator: BOPCO

Reservoir: BONE SPRING Co., State: EDDY. NM

Cum Gas (mmcf): 0.00 Gross Wet Production Gross Dry Gas & NGL Sales Year Wet Gas Dry Gas Oil Gas NGL (Mbbl) (MMCF) (MMCF) (MGal) (Mbbl) (MMCF) (MGal) 2013 24.711 181.907 80.403 696,704 20.510 66.734 578.264 2014 116.339 16.379 51 422 392.045 13.594 42.680 325.397 2015 73.833 15.588 32.634 282.782 12.938 27.086 234.709 2016 8 601 33.658 14.877 128.911 7.138 12.348 106.996 2017 6.121 22.891 10.118 87.673 5.081 8 398 72.769 2018 4.825 17.667 7.809 67 665 4.005 6.481 56.162 2019 4.013 14.511 6.414 55.578 3.331 5.324 46.130 Rem 0.000 0.000 0.000 0.000 169.052 0.000 0.000 0.000 Total 80.238 460.807 203.677 66.597 1,420,428 1.711.359 IIIt. 80.238 460.807 Average Price Net Revenue Year Oil NGI Oil NGL Gas Total \$/BBL \$/MCF \$/Gal (M\$) (M\$) (M\$) (M\$) 2013 87.83 3.52 0.75 1,801.385 235.125 433.698 2,470.208 2014 80.18 3.93 0.80 1,089.974 167.800 261.118 1.518.891 2015 49.95 2.57 0 44 646.214 69.668 102.865 818.746 2016 55 67 2.89 0.46 397.396 35.719 49.590 482.704 2017 57.02 3.06 0.46 289,688 25.719 33.726 349.133 2018 58.43 3.14 0.46 234.034 20.323 26.030 280.386 2019 59.72 3.20 0.46 198 900 17.015 21.380 237.294 Rem 0.00 0.00 0.00 0.000 0.000 0.000 0.000 Total 69.94 3.38 0.65 4,657.590 571.368 928,406 6,157.364 Expenditures Future Net Revenue Total Total Net Total Disc. Ann. CF Cum. Disc. CF Year Sev Taxes Adv Taxes Investments Net Opcosts Annual Cumulative 5.00 % 5.00 % (M\$)(M\$) (M\$) (M\$) (M\$) (M\$) (M\$) (M\$) 2013 182,058 8.009 5,799.545 1,112,958 -4,632.361 -4.632.361 -4,638.535 -4,638.535 2014 112.095 4.924 0.000 1,226,400 175.473 -4,456.888 164.175 -4,474.360 2015 59.925 2.656 250.000 687.842 -181.676 -4,638.565 -154.168 -4,628.528 2016 35.190 1.566 0.000 240.892 205.055 173.411 -4,433.509 -4,455.117 2017 25.433 1.133 0.000 226.787 95.780 -4,337.730 77.129 -4,377.988 2018 20.414 0.910 0.000 219.944 39.119 -4,298,611 30.036 -4,347.953 2019 17.269 0.770 0.000 215.810 3.445 -4,295.166 2.583 -4,345.370 Rem 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 Total 452.384 19.967 6.049.545 3,930.633 -4,295.166 -4,295.166 -4,345.370-4,345.370 Major Phase: Gas Working Int: 1.00000000 Present Worth Profile (M\$) Perfs 0 0 Revenue Int: 0.83000000 Initial Rate: 18.61 mmcf/month Disc. Initial Invest. (m\$): 5.996.220 5.00%: Abandonment: 1.11 mmcf/month Internal ROR (%) -4,378.20 >1000.0 9.00% Initial Decline: 99.00 % year b = 1.200ROInvestment (disc/undisc): 0.28 / 0.29 10.00% -4.385.57 Beg Ratio bbl/mmcf 0.14 Years to Payout 0.00 12.00% -4.399.43 End Ratio 0.28 Abandonment Date: 12/31/2019 15.00% -4,418.25 20.00% Initial -4,445.16 1st Rev. 2nd Rev. 30.00% -4,486.46 Working Interest: 1.00000000 0.00000000 0.00000000

BEPCO Detailed WTD V9

Ver: 7/21/2015

0.83000000

0.00000000

0.00000000

Revenue Interest:

Rev Date

1004508/PLU CVX JV RR/007H/1ST

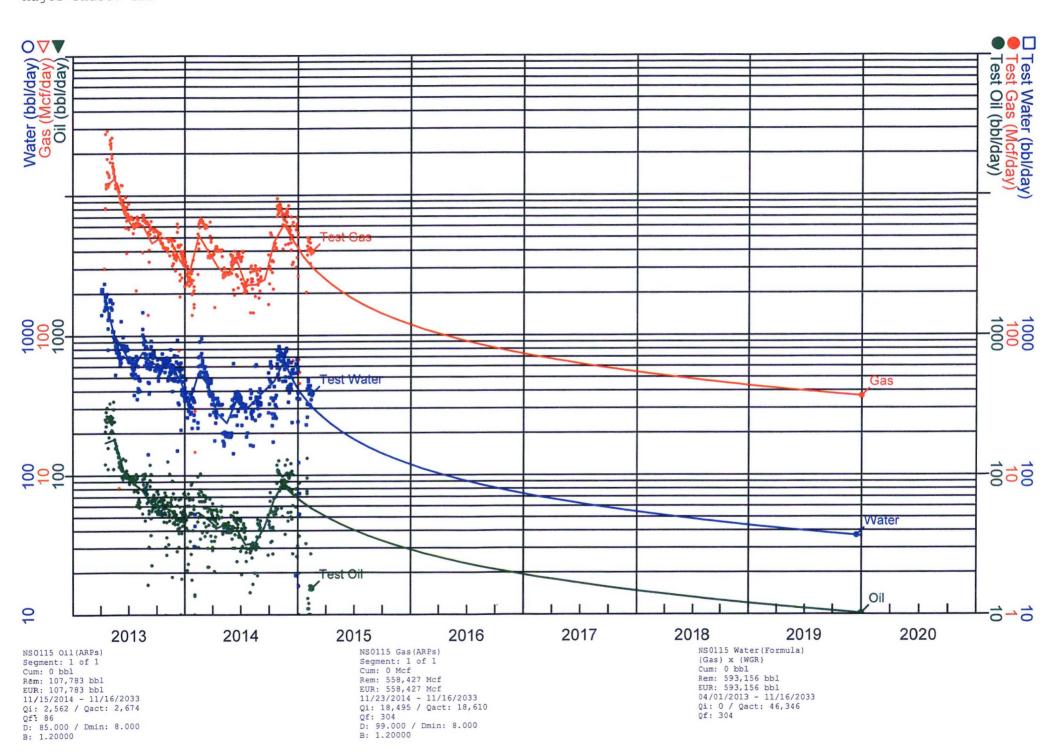
Oper: BOPCO

Major Phase: Gas

Field: CORRAL CANYON; BONE SPRING

EDDY, NM

ECL Date: 12/31/2019



# WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

#### **WELL DATA**

WELL PLU CVX JV ROSS RANCH #007H (33-25-30) FORMATION BONE SPRING
LOCATIONUNIT,150 FEET FROM NORTH LINE &660 FEET FROM WEST LINE
SECTION 33 TOWNSHIP 25S RANGE 30E COUNTY Eddy NEW MEXICO
SPUD DATE _1/26/2013         COMPLETION DATE _4/10/2013         INITIAL PRODUCTION
PERFORATIONS8451-13448
BHL: 312' FSL & 647'-FWL-SEC-33 T25S-R30E
STIMULATION:
ACID
FRACTURE See Attached
POTENTIAL (4/20/2013): 456 BOPD, 3603 MCFPD, 2858 BWPD
(Attach Copy of C-105. Attach Copy of Wellbore Sketch of Completed Well.)
VOLUMETRIC CALCULATION
Area (A) proration unit size, acres  SANDS PERFORATED  POTENTIALLY PRODUCTIVE  160
Porosity (Φ), % 8.8%
Water saturation (Sw), % 23%
Net Thickness (H), ft65
Temperature (T), Fahrenheit 140
Bottom Hole pressure (P), psia 4,370
Recovery factor (RF), %
Recoverable oil, MBO *(See eq. below) 305.1
*Sometimes unable to match performance due to volumetric uncertainty or low recovery efficiency of shale gas wells.

#### PERFORMANCE DATA

(If sufficient history exists	s, attach plot of oil produc	tion rate v time.)			
CUMULATIVE PRODUC	TION TO4/30	0/2015 42,761	BBL Oil323,488 M	CF Gas	
INITIAL RATE (qi)	_	8	84 BOPD		
ECONOMIC LIMIT (qI)	_		2 BOPD		
HYPERBOLIC DECLINE	RATE, dy	n =1.:	2, d = 85%/yr		
REMAINING MBO (Q) =	_		37		
ULTIMATE RECOVERA	BLE MBO		80		
(Attach plat showing pro	ration unit and participatin	g area.)			
		E	CONOMIC		
GROSS WELL COST	\$2,319,818 (to the dep	th of formation complete	ed)		
COMPLETION COST	\$3,479,727				
GROSS TOTAL COST	\$5,799,545				
YEAR	GROSS OIL MBO	BFIT NET INCOME (\$M)	OPERATING COST (\$M) _INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW	
ZERO					
1	24.711	2470.2	1303.0	-4638.5	
2	16.379	1518.9	1343.4	164.2	
3	15.588	818.7	750.4	-154.2	
4	8.601	482.7	277.6	173.4	
5	6.121	349.1	253.4	77.1	
6	4.825	280.4	241.3	30.0	
7	4.013	237.3	233.8	2.6	
8			0.0		
9			0.0		
10			0.0		
REMAINDER			0.0		

WELL IS NOT COMMERCIAL

80.238

6157.4

TOTAL

4403.0

-4345.4

OCO Artesia

Form 3160-4 (August 2007)

# UNITED STATES DEPARTMENT OF THE INTERIOR

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

			BUREA	UOFL	AND	MANAG	EMEN	T					Expir	res: July	31, 2010	
	WELL C	OMPL	ETION C	R RE	CON	MPLETIC	ON RE	EPORT	AND LOG	i			ase Serial N MNM0503			
la. Type of	Well 🛛	Oil Well	☐ Gas	Well	<b>D</b> D	ry 🛮 🗘	Other					6. If	Indian, Allo	ottee or	Tribe Name	
b. Type of	Completion	⊠ N	ew Well	□ Wo	rk Ove	er 🔲 D	ecpen	☐ Plug	Back 🔲 I	Diff. R	esvr.					
		Othe	г				-					7. Ur	11t or CA A 91000303)	greemei (	nt Name and N	0.
2. Name of 0 BOPCO			F	-Mail: t		Contact: T		J CHERF	RY			8. Le	ase Name a	nd Wel	I No. H 33 25 30 U	SΔ 1H
3. Address		TV 707		. IVICII. (	jerieri	ушьизэрс	3a.		o. (include area	code)		-	PI Well No.			
4. Location	of Wall (Res	*		ad in acc	ordan	co with Foo		: 432-221				10 1	Sold and Do		5-40762-00-S	<u> </u>
									,			10. F	ield and Po ORRAL C	ANYON	N	
At top pro			660FWL						103.892629	WIor	1				Block and Surv 5S R30E Mer	
At total d			SL 647FW			0.00.000	2.0001	00 14 201,	100.002020	VV LOI	'		County or Pa	arish	13. State	
14. Date Spi	<u> </u>	0110121		ate T.D	Reac	hed		16 Date	Completed					DF KR	, RT, GL)*	
01/26/20				2/11/20				□ D&		dy to P	rod.		319	97 GL	, ((1, 02)	
18. Total De	epth:	MD TVD	1344 8866		19.	Plug Back	Γ.D.:	MD TVD			20. De	pth Brid	dge Plug Se		ND VD	
21. Type Ele CALIPE	ectric & Oth	er Mechai	nical Logs R	un (Sub	mit co	py of each)			22.		vell core		⊠ No	Yes	(Submit analys	sis)
CALIPE	IN.										OST run' tional Su	rvey?			(Submit analys (Submit analys	
3. Casing and	d Liner Reco	ord (Repo	rt all strings	s set in v	vell)											
Hole Size	Size/G	rade	Wt. (#/ft.)	To		Bottom	_	Cementer			Slurry		Cement 7	Con*	Amount Pul	led
17.500	10.0	75 11 40		(M		(MD)	_	Depth	Type of Ce		(BE	BL)	Comenc		7tillount 1 ui	
11.000		75 H-40 325 J-55	48.0 32.0		0	369				1125 1550				0	***************************************	
7.875		ICP-110	17.0		0	1344		5022		1900				2620		
										1000				2020		
24. Tubing I	Pagard														- Contract of the Contract of	
	Depth Set (N	1D) P	acker Depth	(MD)	Siz	ze Den	th Set (	MD) P	acker Depth (1	MD)	Size	Do	pth Set (M)	0)	acker Depth (I	VD.O
2.875		8226	action Deptili	(1.12)	012	Se Dep	in ser j	IMD) I	acker Depth ()	VID)	SIZE	De	pili Sei (ivi	) 1	O =	m
25. Producin	g Intervals					26	. Perfor	ration Reco	ord						OZ	0
	rmation		Тор		Bot	ttom		Perforated	Interval		Size	1	lo. Holes		Perf. Status	m
A) 1ST B)	BONE SP	RING		8451		13448			9050 TO 134	409			216	open	AA	602
C)							-			+		-		-	<del>1</del> 20 3	111
D)										+		_			(1)	
27. Acid, Fra	acture, Treat	ment, Cer	nent Squeez	e, Etc.												
	Depth Interva							Aı	mount and Typ	pe of M	laterial					
	905	0 10 134	109 FRAC	JSING 4	9121	BBLS FLUID	24544	61# PROP	ANT			ED !	De la A	18/1 A	VIE BER	
												H. J. J.		TIVE	0 17	
												N	U Til	1-/	0-/	
28. Production	on - Interval		T	Tair												
	Date	Hours Tested	Test Production	Oil BBL		Gas MCF	Water BBL	Oil Gr Corr.		Gas Gravity		Producti	on Method			
Produced	04/20/2013	Csg.		456		3603.0	2858		42.6	_	).81 A	20	ELECTRIC	PUMP'S	NB-SURFACE	JUL
04/14/2013	Thu Deans	USK.	24 Hr. Rate	Oil BBL		Gas MCF	Water BBL	Gas:O Ratio	il	Well Si	atus	00		UII	OH HE	
04/14/2013 hoke ize	Tbg. Press. Flwg.	Press.	_		6	3603	285	8	7901	P	ow					7
Produced 04/14/2013 Choke	Flwg. SI	Press.		45							1					_
Produced 04/14/2013 Choke Size 28a. Product	Flwg. SI ion - Interva	Press.				Gas	Water	010	anibi	C	-	D.		. 4	) page	
Produced 04/14/2013 Choke Size 28a. Product Date First	Flwg. SI	Press.	Test Production	Oil BBL	10	Gas MCF	Water BBL	Oil Gr Corr.		Gas Gravity		Producti	on Method	1 1	9 2013	
Produced 04/14/2013 Choke Size 28a. Product Date First Produced	Flwg. SI tion - Interva Test Date	Press.  I B  Hours Tested	Test Production	Oil BBL		MCF	BBL .	Corr.	API	Gravity		Producti	on Methol	119	9 2013	
Produced 04/14/2013 Choke dize  28a. Product Date First Produced	Flwg. SI ion - Interva Test	Press.	Test	Oil		MCF Gas			API				101	111	9 <b>2013</b> 	

28h Proc	duction - Interva	al C										
Date First	Test	Hours	Test	Oil	Gas	Water	Oil Gravity	Gas		Production Method		
Produced	Date	Tested	Production	BBL	MCF	BBL	Corr. API		s avity	Production Method		
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	We	ell Status			
28c. Prod	luction - Interva	al D			-		•					
Date First Produced	Test Date	Hours Tested	Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Ga Gr	avity	Production Method		
Choke Size	Tby. Press. Flwy. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	We	ell Status	,		
29. Dispo	osition of Gas(S TURED	Sold. used	for fuel, vent	ed. etc.)							to the same to the	
30. Sumr	nary of Porous	Zones (Inc	clude Aquife	rs):					31. For	mation (Log) Markers		
tests,	all important z including deptl ecoveries.	zones of po h interval t	orosity and co tested, cushic	ontents there on used, time	eof: Cored in e tool open,	ntervals and flowing and	all drill-stem shut-in pressures	S				
	Formation		Тор	Bottom		Description	ons, Contents, etc.			Name	Top Meas. Depth	
32. Addi	tional remarks (	(include p		dure):					RUSTLER BELL CANYON CHERRY CANYON BRUSHY CANYON BONE SPRING 1ST BONE SPRING			
	tional remarks ( LEASE HOLD			edure).								
No e	e of 1st Bone S electric logs rui e pad.			oss Rand 2	8 25 30 #1	H were use	ed; wells share	the				
1. EI	e enclosed attac lectrical/Mecha undry Notice fo	nical Logs				Geologic     Core An			3. DST Rep 7 Other:	port 4. Directi	onal Survey	
			Electi Committed	ronic Subm to AFMSS	ission #2104 For BO	488 Verifie	d by the BLM Went to the Carls RT SIMMONS o	ell Info bad n 06/18/	rmation Sy /2013 (13K)	MS6477SE)	tions):	
Name	c (please print)	TRACIE	J CHERRY				Title R	EGULA	ATORY AN	ALYST		
Signa	ature	(Electron	ic Submissi	on)			Date 0	6/12/20	113			
Title 18 U	J.S.C. Section	1001 and	Title 43 U.S.	C. Section 1	212 makei	t a crime for	r any nerson know	vinaly a	nd willfully	to make to any department or		

of the United States any false, fictitious or fradulent statements or representations as to any matter within its jurisdiction.

District 1 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 District III 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

#### State of New Mexico

#### Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

	PI Number			<sup>2</sup> Pool Code		ACREAGE DEDICATION PLAT effective Old 01/1						
30-	015-4076	62 .		1333	54	Co	rral Canyon; Bor	ne Spring, South				
Property C					<sup>5</sup> Property Nar	me	*	<sup>6</sup> Well N	umber			
3/33	72			Po	ker Lake Unit C'	VX JV RR		71	H			
OGRID N	No.				8,Operator Na	me		<sup>9</sup> Elev	ation			
260737	7.	_			BOPCO, L	P		319	97 .			
					" Surface Lo	cation						
L or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County			
)	33	25S	30E		150	North	660	West	Eddy			
			" Bo	ttom Hole	Location If I	Different From	Surface					
L or lot no.	Section	Township		Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County			
1	33	· 25S	30E		312	South	647	West	Eddy			
Dedicated Acres	13 Joint o	r Infill 14.C	onsolidation	Code 15 Ord	er No.							

division.

16	150'			
( ) ( ) ( ) ( ) ( ) ( )	130		,	17 OPERATOR CERTIFICATION
460'	1			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
	Topper			owns a working interest or unleased mineral interest in the land including
il)	1 199 ENI		1	the proposed bottom hole location or has a right to drill this well at this
	LZZ FNL			
	1			location pursuant to a contract with an owner of such a mineral or working
	I			interest, or to a voluntary pooling agreement or a compulsory pooling
	1			order heretofore entered by the division.
	t		(	Micheller 1 Melloulis
	1			Signature Date
	i			
	i			Tracie J Cherry
				Printed Name
		,		tjcherry@basspet.com
	1			E-mail Address
	L			
	1			"SURVEYOR CERTIFICATION
M .	t i			I have by contifut the state of
	1			I hereby certify that the well location shown on this
	1 .			plat was plotted from field notes of actual surveys
	i			made by me or under my supervision, and that the
				same is true and correct to the best of my belief.
				best of my beneg.
				Date of Survey
				Signature and Seal of Professional Surveyor:
	·			,
ll .				
<del></del>				
447	312'			Certificate Number
	<u> </u>			

# · Wi

#### **Schematic - Vertical Production**

Field: Corral Canyon

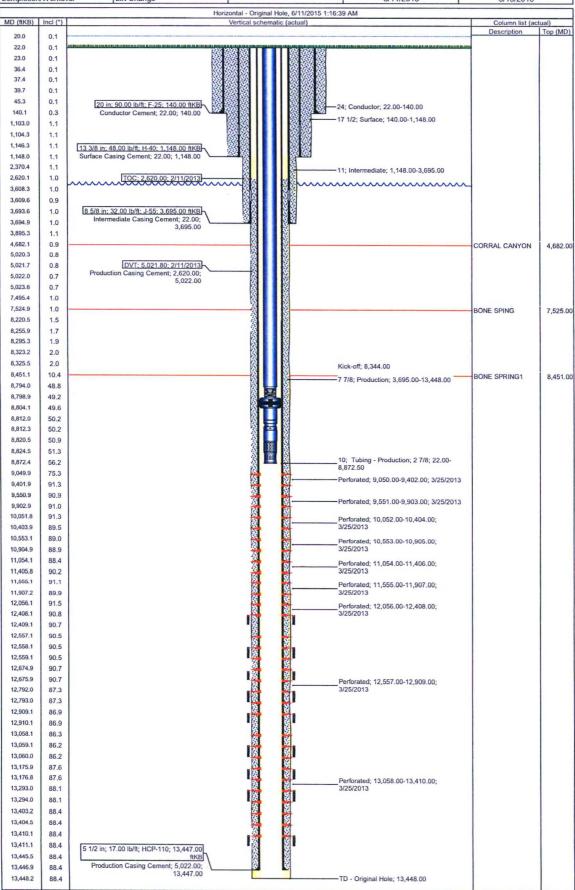
Well Name: POKER LAKE UNIT CVX JV RR #007H (33-25-30)

Sect: 33 Town: 25S Rng: 30E Eddy Co., State: New Mexico

BOPCO, L.P. - West Texas Well ID: 30-015-40762

Blk: Survey:

| Most Recent Job | | Job Category | Primary Job Type | Secondary Job Type | Job Start Date | Job End Date | Completion/Workover | Lift Change | 5/11/2015 | 5/15/2015 |



#### **Downhole Profile - Vertical Wells**

BOPCO, L.P. - West Texas Well Name: POKER LAKE UNIT CVX JV RR #007H (33-25-30) Well ID: 30-015-40762
Field: Corral Canyon Sect: 33 Town: 25S Rng: 30E County: Eddy State: New Mexico

Surface Location: 150' FNL & 660' FWL, Sec 33, T25S-R30E

Surfa	ce Location: 150' FNL & 660' FWL, S	ec 33,	125										
MD In (ftK ci B) (*)	Horizontal - Original Hole, 6/11/2015 1:16:35 AM	Column	list	Well Informati Orig KB Elev (ft) 3,219.00	Gr Elev	(ft) 3,197.0	KB-Grd (ft)	Spud Date 2.00 1/26/2		n Production 4/2/201		II) (ftKB)	
B) (*)	Vertical schematic (actual)	(actua Descri	1)	Wellbores Wellbore Name:							Pepth (ftKB): 8,3	44.0	
m a. 4	ALLINADARIA MARIA				Size (in)		24	Act To	op (flKB)	22.0		Blm (ftKB)	140.0
84 £1							17 1/2 11			140.0 1,148.0			1,148.0 3,695.0
20 E.1				Cahamatia An	natalian		7 7/8			3,695.0			13,448.0
ar   6.1	20 in; 90.00 lb/ft; F-25; 140.00 ftKB			Schematic An Type	notation	Depth	(fiKB)			Annotal	ion		
MI 13	Conductor 22.00; 22.00-140.00 22.00-140.00			Casing String	s								
CHINA (C)	140.00 140.00-1,148.00 140.00-1,148.00			Csg De	5	Origina	Wellbore	OD (in)	Wt (Ib/ft)	Grade	Top Thread	Sel @ (ftKB)	Top (ftKB)
	Ib/ft; H-40; 1,148.00 flKB Surface Casing			Surface		Origina	Hole	20 13 3/8		H-40	ST&C	140.00 1,148.00	22.0
	Cernent; 22.00; 1,148.00 11; Intermediate;			Intermediate Production		Origina Origina		8 5/8 5 1/2		J-55 HCP-110	LT&C Buttress	3,695.00 13,447.00	22.0 22.0
10	TOC; 2,620.00; 3,695.00			Perforations Perf Date	Top (fi		Blm (ftKB)		Zone			rrent Status	
1001 12 CONT.	8 5/8 in; 32.00			3/25/2013 3/25/2013	9,5	050.0 551.0	9,903.0 1	st Bone Spring, ( st Bone Spring, (	Original Hole		Active (9,050.0 - Active (9,551.0 -	9,552.0)	
100 to	1b/ft; J-55; 3,695.00 ft/KB Intermediate			3/25/2013 3/25/2013		052.0 553.0		st Bone Spring, ( st Bone Spring, (			Active (10,052.0 - Active (10,553.0 -		
3044 1.0 3863 1.1	Casing Cement; 22.00; 3,695.00			3/25/2013 3/25/2013		054.0 555.0		st Bone Spring, ( st Bone Spring, (			Active (11,054.0 - Active (11,555.0 -		
		CORR	4,6	3/25/2013 3/25/2013		056.0 5 <b>57.0</b>		st Bone Spring, Ist Bone Spring,			Active (12,056.0 - Active (12,557.0 -		
Men 2.4	DVT; 5,021.80; 2/11/2013 Production			3/25/2013 Tubing String		058.0	13,410.0 1	Ist Bone Spring,	Original Hole		Active (13,058.0 -	- 13,059.0)	
AME 27	Casing Cement; 2,620.00;			Tubing Description Tubing - Product	วท	R	un Date 5/14	4/2015	String Leng	gth (ft)	8,850.50 Set De	pth (ftKB)	8,872.50
ASSA 0.7	5,022.00			No.	.5 ppf L-8	0 8RD Tu	Item Des	S		Jts 272	OD (in) Wt (lb/f	1) Grade 7 50 L-80	Top (ftKB) 22.0
1,0		BONE	7,5	10-2 Jet Purm 10-3 Weather	-	el "R" 5-1	/2" Packer			1 1	2 1/2 4 5/8		8,794.0 8,799.0
LINE 1,2				10-4 2-7/8" 6	5 ppf L-8	0 8RD Tu		le		1 1		50 L-80	8,804.0 8,812.0
CHL 1.5					.5 ppf L-8					1		50 L-80	8,812.5 8,820.5
4333 2 g	Kick-off; 8,344.00				Chemical		v/scal inhibitor	r		1	2 7/8		8,824.5
Amri 16 4	7 7/8; ————————————————————————————————————	BONE	8,4	Run Date	1/4 SS Ca		Des			OD (in)	Top (ftKB)		(ftKB)
ran 413	13,448.00			Rod Strings	114 33 02				To: .	1/4		0.00	8,323.00
CB/1 45.5	10; Tubing -			Rod Description Rod		F	tun Date 5/1 Item Des	1/2014	String Len	gth (ft)	8,303.30 Set De 8,303.30 Wt (lb/l	pth (ftKB)	8,325.30
4801 50 7	Production; 2 7/8; 22.00-			1-1 1 1/2" X	26' polis					1	1 1/2		22.0
**** 521	8,872.50 Perforated; 9,050.00-			1-3 7/8" x 2		MMS Ste	el rod w/4 guid eel rod w/4 g			93 61	1 2.9 7/8 2.3 7/8		45.3 2,370.3
un 113	9,402.00; 3/25/2013			1-5 3/4" x 2	5' Tenaris	MMS Ste	el rod	· · · · · · · · · · · · · · · · · · ·		45 99	3/4 1.0		3,895.3 5,020.3
1001 753 AMIN 913	Perforated; 9,551.00- 9,903.00;			1-7 250-175	RHBM-3		el rod w/ 4 gui nacea	ides/rod		32 1	1 1/2	90	7,495.3 8,295.3
	3/25/2013 Perforated; 10,052.00-			Cement Conductor Ce			012						
1001 11.3 1001 11.3	10,404.00; 3/25/2013			String: Conduct Stage Number	or, 140.00 Stage To	p (flKB)		ottom (ftKB) Vol	raluation Res Cement Ret		Top Measurement	Method	
	Perforated; 10,553.00- 10,905.00;			Surface Casin		ent , 1/2	27/2013	140.0					
1001 110	3/25/2013 Perforated;			String: Surface, Stage Number	1,148.00f Stage To	p (ftKB)	Stage Bo	ottom (ftKB) Vol	raluation Res Cement Ret	(ppl)	Top Measurement	Method	
1001 664	11,054.00- 11,406.00; 3/25/2013			1	Fluid		22.0	1,148.0 Amount (sacks		110.0 c	Dens (lb/gal)		t³/sack)
1081 80.2 1081 81.1	Perforated; 11,555.00-			Lead Tail					800 C 325 C		13. 14.		1.65 1.37
H.MP3 89,9	11,907.00; 3/25/2013 Perforated;			Intermediate String: Intermed	liate, 3,69	5.00ftKB		Cement Ev	aluation Res				
1281 11.5 1281 12.5	12,056,00- 12,408,00; 3/25/2013			Stage Number	Stage To	p (ftKB)	Stage Bo	3,695.0 Vol		85.0	Top Measurement Circulated		
1248 42.7 1248 12.7	3/25/2013			Lead Tail	Fluid			Amount (sacks	,350 C 200 c	ass	Dens (lb/gal) 12. 14.	30	1.81
12.00 HE S	A B			Production C			2/11/2013				14.	20]	1.37
UM1 163	Perforated; 11,555.00. 31,557.00. 31,557.00. 12,468.00. 12,468.00. 12,468.00. 12,257.01. 12,257.00. 12,257.00. 12,257.00. 12,257.00. 12,290.00. 325/22013			String: Producti Stage Number				ottom (ftKB) Vol 13,447.0	valuation Res I Cement Ret	(ppl)	Top Measurement Temperature Log	Method	
QAN 10 /	Perforated; 12,557.00-			Lead	Fluid	3,02	2.0	Amount (sacks	s) C	lass	Dens (lb/gal)		(1³/sack) 2.19
UMA 87.3	12,909.00; 3/25/2013			Tail Stage Number	Stage To	n (fikB)	Stage Br		,050 H	(bbl) 1:	14. Top Measurement	50	1.27
	d d			2	Fluid	2,62		5,022.0 Amount (sacks			Circulated  Dens (lb/gal)		(t³/sack)
10001 00.0 10001 00.0				Lead Tail				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	300 H 100 H		12.	40	2.09
U.M. 1 68.2													1.20
10,000 0E 2	<b>3 1</b>												
WAS 11.8	Perforated; 13,058.00-												
1341 11.1	13,410.00; 3/25/2013												
11,463 89.4													
1,013 ES 4	Perforated; 13,058,00- 13,410,00; 3/25/2013												
15011 28.4													
10m1 864	Production Casing Cement;												
Name 2	5,022.00; TD - Original 13,447.00 Hole; 13,448.00												
		_		J L									

#### BOPCO, L.P.

201 MAIN ST.

FORT WORTH, TEXAS 76102-3131 817/390-8400

July 24, 2015

RECEIVED OCD
2015 JUL 27 P 2: 09

#### FEDERAL EXPRESS

Bureau of Land Management Carlsbad District Office 620 E. Green St. Carlsbad, New Mexico 88220 Attn: Mr. Ed Fernandez New Mexico State Land Office Commissioner of Public Lands 310 Old Santa Fe Trail Santa Fe, New Mexico 87501 Attention: Mr. Pete Martinez New Mexico Oil Conservation Division 1220 St. Francis Santa Fe, New Mexico 87505 Attention: Mr. William Jones

Re: Commercial Determination
PLU CVX JV Phantom Banks #005H (22-25-30)

1<sup>st</sup> Bone Spring Shale Eddy County, New Mexico

#### Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the 1<sup>st</sup> Bone Spring Shale. Should you be in agreement that the 1<sup>st</sup> Bone Spring Shale is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

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.

Very truly yours,

R. Travis Mears

Bureau of Land Management	New Mexico State Land Office	New Mexico Oil Conservation Division
Ву:	Ву:	By:
Its:	Its:	Its:
Date:	Date:	Date:



#### INTER-OFFICE MEMORANDUM

TO:

**Ross Sutton** 

FROM:

**Bryce Bezant** 

DATE:

7/15/2015

RE:

Commercial Determination

PLU CVX JV Phantom Banks #005H (22-25-30)

Poker Lake Unit (1st Bone Spring Shale)

Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Phantom Banks #005H was drilled in 2013 to a total depth of 13,482' laterally completed in the 1<sup>st</sup> Bone Spring Shale reservoir. The well is producing from perforations 8,451'-13,482'. On test 3/24/2013 the well flowed at the rate of 134 BOPD, 342 MCFD, and 2626 BWPD. This well has an expected recovery of approximately 156 MBOE (13:1 mcf/bbl) from the current completion.

The capital investment was taken from the AFE report and operating costs from the LIOR statement which included water hauling charges. The most recent strip price file was utilized adjusting for current area differentials. The Phantom Banks #005H will not be a commercial well and should not be incorporated into a participating area.

RBB/tah

Cc:

Travis Mears
Tom McCarthy

Steve Johnson

#### **ECONOMIC PROJECTION**

Date:

Partner:

Project Name :

Cum Gas (mmcf):

7/21/2015

Lior: 1004704

1-1-2015 NSAI Review For BOPCO, LP

All cases

0.00

Case Type : LEASE CASE Archive Set: NS0115

Cum Oil (mbbls): 0.00 As Of Date: 10/01/2012

Discount Rate (%):5.00

1004704/PLU CVX JV PB/005H/1ST

Risk: 0.000 Inherited/ 0.000 Compounded

Lease Name: 1004704/PLU CVX JV PB/005H/1ST

Reserv Cat.: Proved Producing

Field: CORRAL DRAW; BONE SPRING

11:04:06AM

Operator: BOPCO

Reservoir: BONE SPRING Co., State: EDDY, NM

Gross Wet Production Gross Dry Gas & NGI

	Gross Wet Pro	duction	Gross Dry Gas	& NGL		Sales	
Year	Oil (Mbbl)	Wet Gas (MMCF)	Dry Gas (MMCF)	NGL (MGal)	Oil (Mbbl)	Gas (MMCF)	NGL (MGal)
2012	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2013	40.427	209.698	92.687	847.180	33.593	77.017	703.956
2014	23.376	68.732	30.380	277.677	19.424	25.244	230.733
2015	11.127	25.547	11.292	103.210	9.246	9.383	85.761
2016	8.268	17.038	7.531	68.833	6.870	6.258	57.196
2017	6.623	12.966	5.731	52.383	5.503	4.762	43.527
2018	5.572	10.585	4.679	42.763	4.630	3.888	35.533
2019	4.830	8.994	3.976	36.338	4.013	3.303	30.194
2020	4.287	7.871	3.479	31.798	3.562	2.891	26.422
2021	3.843	6.983	3.086	28.210	3.194	2.565	23.441
Rem	18.297	32.902	14.543	110.438	15.203	12.084	110.438
Total	126.650	401.316	177.382	1,621.298	105.239	147.393	1,347.202
Ult.	126.650	401.316		1,021.296			1,517.202
		Average Price			Net Reve	nue	
Year	Oil	Gas	NGL	Oil	Gas	NGL	Total
	\$/BBL	\$/MCF	\$/Gal	(M\$)	(M\$)	(M\$)	(M\$)
2012	0.00	0.00	0.00	0.000	0.000	0.000	0.000
2013	87.15	3.50	0.75	2,927.735	269.401	527.967	3,725.103
2014	86.80	4.10	0.87	1,686.046	103.539	200.782	1,990.367
2015	50.55	2.57	0.44	467.349	24.158	37.584	529.091
2016	55.69	2.89	0.46	382.596	18.105	26.509	427.209
2017	57.03	3.06	0.46	313.844	14.581	20.174	348.599
2018	58.44	3.13	0.46	270.573	12.187	16.469	299.229
2019	59.72	3.20	0.46	239.686	10.557	13.994	264.237
2020	60.79	3.29	0.46	216.527	9.518	12.246	238.291
2021	61.46	3.40	0.46	196.292	8.711	10.864	215.868
Rem	62.06	3.81	0.46	943.512	46.072	51.185	1,040.768
Total	72.64	3.51	0.68	7,644.159	516.830	917.774	9,078.762

		Expenditures				Future Ne	t Revenue	
Year	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)
2012	0.000	0.000	6,010.320	0.000	-6,010.320	-6,010.320	-6,010.320	-6,010.320
2013	9.332	0.411	0.000	1,482.070	2,233.291	-3,777.029	2,157.685	-3,852.635
2014	144.699	6.460	250.000	621.600	967.608	-2,809.421	898.714	-2,953.921
2015	38.302	1.718	0.000	173.899	315.173	-2,494.248	275.744	-2,678,177
2016	30.882	1.387	0.000	159.408	235.533	-2,258.716	196.427	-2,481.750
2017	25.185	1.132	0.000	152.473	169.809	-2,088.907	134.831	-2,346,919
2018	21.609	0.972	0.000	148.418	128.230	-1,960.676	96.959	-2,249,960
2019	19.075	0.858	0.000	145.710	98.594	-1,862.082	70.998	-2,178,962
2020	17.199	0.774	0.000	143.796	76.522	-1,785,560	52,482	-2,126,479
2021	15.579	0.701	0.000	142.283	57.304	-1,728.256	37.428	-2,089.051
Rem Total	75.138 396.999	3.380 17.792	0.000 6,260.320	917.979 4,087.636	44.271 -1,683.985	44.271 -1,683.985	31.582 -2,057.470	31.582 -2,057.470

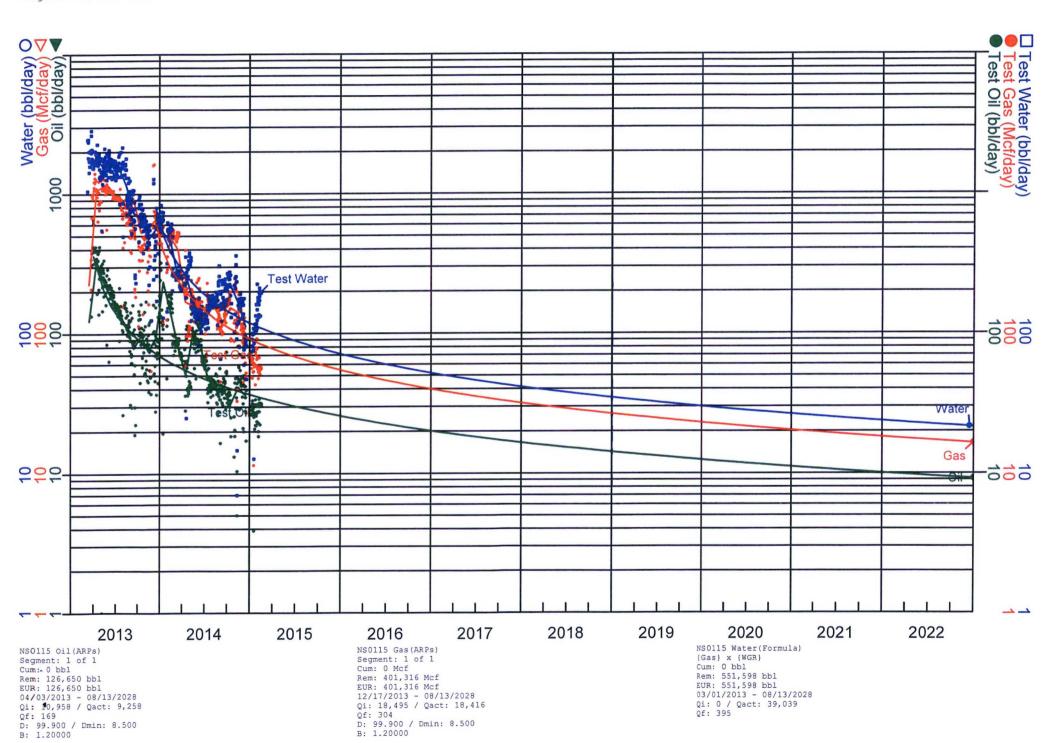
Major Phase : Perfs : Initial Rate : Abandonment : Initial Decline : Beg Ratio :	0.30 mmcf/ 99.90 % year	0 mmcf/month mmcf/month % year b = bbl/mmcf	1.200	Working Int: Revenue Int: Disc. Initial Invest. (n Internal ROR (%): ROInvestment (disc/t Years to Payout:		1.00000000 0.83094000 6.242.704 >1000.0 0.67 / 0.73	Present Worth I 5.00%; 9.00%: 10.00%;	-2,057.47 -2,303.18 -2,358.61
End Ratio :	0.56	bol/illiner		Abandonment Date :		08/13/2028	12.00% : 15.00% :	-2,463.24 -2,606.25
		Working Interest: Revenue Interest: Rev. Date:	Initial 1.00000000 0.83094000		2nd Rev. 0.00000000 0.00000000		20.00%: 30.00%: 40.00%: 50.00%: 60.00%:	-2,813.72 -3,143.24 -3,395.32 -3,596.19 -3,761.19

BEPCO Detailed WTD V9 Ver: 7/21/2015 1004704/PLU CVX JV PB/005H/1ST

Oper: BOPCO Major Phase: Gas Field: CORRAL DRAW; BONE SPRING

EDDY, NM

ECL Date: 08/13/2028



# WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

#### **WELL DATA**

WELL _	PLU CVX JV F	PHANTOM BANKS #	‡005H (22-25-30)	FORMATION	BONE SE	PRING
LOCATION _	U	NIT,325_	FEET FROM NORTH	LINE &	1980 FEET FROM	WESTLINE
SECTION _	22 TOWNSHIP	25S RANGE	30E, COUNTY		Eddy	_ NEW MEXICO
SPUD DATE_	12/1/2013	COMPLETION DAT	E_3/20/2013	INITIAL PRO	DUCTION	3/24/2013
PERFORATIO	NS <u>8451-13482</u>					
BHL: 333' FSL	. & <u>1974' FWL SEC 22 T25</u>	S R30E				
STIMULATION	:					
A	ACID					
_						
F	RACTURE Se	ee Attached				
_						
_						
_						
POTENTIAL _	(3/24/2013): 134	4 BOPD, 342 MCFP	D, 2626 BWPD			
(Attach Copy o	f C-105. Attach Copy of W	ellbore Sketch of Co	ompleted Well.)			
		1	OLUMETRIC CALCUL	ATION		
		`	OLUMETRIC CALCUL	ATION		
		SA	NDS PERFORATED		POTENTIALLY PRODU	ICTIVE
Area (A) prorat	ion unit size, acres	160	-			
Porosity (Φ), %		8.8%			-	
Water saturation	on (Sw), %	23%	_			
Net Thickness	(H), ft.	65	_			
Temperature (	Γ), Fahrenheit	140				
Bottom Hole pr	essure (P), psia	4,370	_			
Recovery facto	r (RF), %	12%				
Recoverable oi	I, MBO *(See eq. below)	305.1		_		
*Sometimes un	able to match performance	due to volumetric u	ncertainty or low recovery ef	ficiency of shale ga	s wells.	
Formula =	((7758 rb/ac-ft) (por)	(1-Sw)/(Boi rbo/stb)	(RF)(A) (h))/1000 bo/Mbo	Boi =	2.15 rb/stb	

#### PERFORMANCE DATA

(If sufficient history exists, attach plot of oil p	roduction rate v	time.)		
CUMULATIVE PRODUCTION TO	5/31/2015	44,914 BBL Oil	322,785	_MCF Gas
INITIAL RATE (qi)		360 BOPD		_
ECONOMIC LIMIT (qI)		4.8 BOPD		-
HYPERBOLIC DECLINE RATE, dy		n =1.2, d = 99%/yr		-
REMAINING MBO (Q) =		17		_
ULTIMATE RECOVERABLE MBO		62		<b>-</b> :
(Attach plat showing proration unit and partic	cipating area.)			

#### **ECONOMIC**

GROSS WELL COST \$2,670,436 (to the depth of formation completed)

COMPLETION COST \$4,005,504

GROSS TOTAL COST \$6,675,840

YEAR	GROSS OIL MBO	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	0.000	0.0	0.0	-6010.3
2	40.427	3725.1	1491.8	2157.7
3	23.376	1990.4	772.8	898.7
4	11.127	529.1	213.9	275.7
5	8.268	427.2	191.7	196.4
6	6.623	348.6	178.8	134.8
7	5.572	299.2	171.0	97.0
8	4.830	264.2	165.6	71.0
9	4.287	238.3	161.8	52.5
10	3.843	215.9	158.6	37.4
REMAINDER	18.297	1040.8	996.5	31.6
TOTAL	126.650	9078.8	4502.4	-2057.5

WELL IS NOT COMMERCIAL

· Form 3160-4 (August 2007)

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

AUG 2 0 2013

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

WELL	COMPLETION	OR RECOMPLETIO	N REPORTAND	GOB ARTE	SIA	Lease Serial No.

										MIAIC	OH A	111	11/13	IMLC0638	75A	
la. Type of		Oil Well	☐ Gas \				Oth						6. If	Indian, All	ottee o	r Tribe Name
b. Type of	f Completion	Othe	ew Well	□ Wo	rk Ov	er [	] Dee	pen [	☐ Plug	Back	☐ Diff.	Resvr.		nit or CA A 91000303		ent Name and No.
2. Name of BOPCO	O L'P		Е	-Mail: tj	jcherr	Contac y@bas	t: TR/	ACIE J C	CHERR	Υ				ease Name PLU PHAN		ell No. BANKS 22 25 30 USA
3. Address	MIDLAND	, TX 797	02						one No 32-221		area code	:)	9. A	Pl Well No		15-40763-00-S1
4. Location	of Well (Re			d in acc	ordan	ce with	Fcder							Field and Po	ool, or	Exploratory
At surfa	ice NENV	/ 325FNL	1980FWL	32.122	077 N	Lat, 1	03.87	0708 W	Lon				11. 3	Scc., T., R.,	M., or	Block and Survey
	orod interval				FNL	1995FV	NL 32	.122077	N Lat	103.870	0708 W L	on		County or P		25S R30E Mer NMP
At total		SW 333F	SL 1974FW		Dana	h and		1,7	. D.	0 1	. 1		_	DDY	0.0.11	NM
12/01/2				ate T.D. /19/721		nea			] D&	Complete A 🔯 0/2013	Ready to	Prod.	17.	Elevations ( 32	DF, KI 41 GL	B, RT, GL)*
18. Total D	Depth:	MD 13482 19. Plug Back T.D.: MD 7VD 20. D						20. D	epth Bri	dge Plug S		MD TVD				
CBL G	lectric & Oth R CCL CNL	GR CCL				py of e	ach)					well cor DST rui ctional S	1?	⊠ No ⊠ No □ No	Yes	s (Submit analysis) s (Submit analysis) s (Submit analysis)
23. Casing a	nd Liner Rec	ord (Repo	ort all strings													
Hole Size	Size/G	irade	Wt. (#/ft.)	To (MI		Botto (MI		Stage Ce Dep			f Sks. & of Cement		ry Vol. BL)	Cement	Top*	Amount Pulled
17.500		375 J-55	54.5		0		1312				160	0			0	
7.875		625 J-55 HCP-110	32.0 17.0		0		3958 2471		5038		145				0	
7.070	3.5001	101-110	17.0			- 1,	2471		5038		215	0			2850	
							-									
24. Tubing	Record															
Size	Depth Set (N		acker Depth	(MD)	Si	ze	Depth	Set (MD	) P	acker De	oth (MD)	Size	De	epth Set (M	D)	Packer Depth (MD)
2.875 25. Produci	ing Intervals	8666					26. I	Perforation	on Reco	rd						
F	ormation		Тор		Во	ttom		Peri	forated	Interval		Size		No. Holes		Perf. Status
A)	AVALON S	SAND		8451		13482				9274 TC	13445	342	.000		OPE	
B)							-				-		_		-	
D) .													-		-	
27. Acid, F	racture, Treat	ıment, Cei	nent Squeeze	e, Etc.												
	Depth Interv		1.15 ED.10.1	101110	15000						Type of					
	927	4 10 13	445 FRAC L	ISING 2	45099	0# SAN	ID, 479	18 BBLS	FLUID	ACROSS	9 STAGE	S				
28. Product	ion - Interval	IA										TA	MI	OILI	1 1	TR RECORD
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL		Gas MCF		ater	Oil Gr		Gas	111	Produc	ion Method	1	311 11111111
03/24/2013	03/24/2013	24		134.		342.0		3L 2626.0	Corr.	42.0	Grav	ly	1	ELECTRIC	PUMP	SUB-SURFACE
Choke Size	Tbg. Press. Flwg. S1	Csg. Press.	24 Hr. Rate	Oil BBL	- 1	Gas MCF	BE		Gas:O Ratio			Status		AUG	11	8 2013
28a. Produc	ction - Interva	al B		134		342		2626		2552		POW		1	2	
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL		Gas MCF	W	ater BL	Oil Gr.		Gas Grav	ty	Produce	ion Method	IANI	MANAGEMENT
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL		Gas MCF	W	uter 3L	Gas:O	il	Well	Status	1001	CARLOD	ADTI	LID VEEIVE
	SI					1,0070.7		and all					/			

(See Instructions and spaces for additional data on reverse side)
ELECTRONIC SUBMISSION #215149 VERIFIED BY THE BLM WELL INFORMATION SYSTEM
\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*

RECLAMATION DUE 9. 20-13



28h Produ	ction - Interva	ıl C										
Date First	Test	Hours	Test	Oil	Gas	Water	Oil Gravity	Gas		Production Method		
Produced	Date	Tested	Production	BBL	MCF	BBL	Corr. API	Gra	vity			
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Wei	l Status			
28c. Produ	ction - Interva	ıl D										
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gra		Production Method y		
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Wel	ell Status			
29. Dispos	ition of Gas(S	Sold, used fe	or fuel, vent	ed, etc.)								
	ary of Porous	Zones (Inc	lude Aquife	ers):					31. For	mation (Log) Markers		
tests, in	all important a neluding depti coveries.						ll drill-stem shut-in pressur	es				
	Formation		Тор	Bottom		Description	s, Contents, et	c.		Name	Top Meas. Depth	
	onal remarks not logged. I				ig Sinks 15	5-25-30 USA	<b>#</b> 1		SA RA BE CH BR	ISTLER LADO MSEY LL CANYON IERRY CANYON USHY CANYON INE SPRING	1204 1502 3754 3972 4906 5919 7755	
33. Circle	enclosed atta	chments:										
	ctrical/Mecha		(1 full set re	eq'd.)		2. Geologic	Report		3. DST Re	port 4. Direct	onal Survey	
5. Sur	ndry Notice fo	r plugging	and cement	verification		6. Core Anal	lysis		7 Other:	•	,	
34. I herel	by certify that		Elect	ronic Subm	ission #215 For BC	149 Verified PCO LP, se	rect as determined by the BLM and to the Carl	Well Info	rmation Sy		tions):	
Name	(please print)								TORY AN	•		
Signat	ure	(Electroni	c Submiss	ion)	-		Date	07/29/20	13			
Title 18 U	.S.C. Section	1001 and T	itle 43 U.S.	C. Section 1	212. make	it a crime for		owingly ar	nd willfully	to make to any department or	agency	

District 1
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

Phone: (505) 476-3460 Fax: (505) 476-3462

# State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr.

220 South St. Francis D. Santa Fe, NM 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

Effective oif 0/14

### WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	<sup>2</sup> Pool Code	<sup>3</sup> Pool Name		
30-015-40763	96238	Corral Canyon; Bone Spring		
<sup>4</sup> Property Code	5 Property	6 Well Number		
313363	Poker Lake Unit	5H		
· ¹OGRID No.	8 Operator	<sup>9</sup> Elevation		
260737	ВОРСО	3241		
	" Surface	Location		

UL or lot no. Section Township Range Lot Idn Feet from the North/South line Feet from the East/West line County C 22 **25S** 30E 325 North 1980 West Eddy " Bottom Hole Location If Different From Surface UL or lot no. Range Lot Idn Feet from the North/South line Section Township East/West line County 22 **25S** 30E 333 South 1974 West Eddy 12 Dedicated Acres 13 Joint or Infill 14 Consolidation Code 15 Order No. 160

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

		*		
16	325'			" OPERATOR CERTIFICATION
(- 1980'				I hereby certify that the information contained herein is true and complete to the
	SHL			best of my knowledge and belief, and that this organization either owns a
;				working interest or unleased mineral interest in the land including the proposed
	· o Top perf			bottom hole location or has a right to drill this well at this location pursuant to
	189' FAL 1945' FAL			a contract with an owner of such a mineral or working interest, or to a
	1793 200			voluntary pooling agreement or a compulsory pooling order heretofore entered
				by the division.
	1			Signature May 14
	l l		,	Tracie J Cherry Printed Name
	1			tjcherry@basspet.com
.,				E-mail Address
,				
	* I			*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
	1			my supervision, and that the same is true and correct to the
	1			
				best of my belief.
				Date of Survey
	1 1			Signature and Seal of Professional Surveyor:
	1			
	1			
	1			
	. , "			
( 1974'	BHL			
	338			Certificate Number
	<u></u>	L .		

# \*

#### Downhole Profile - Vertical Wells

Well Name: POKER LAKE UNIT CVX JV PB #005H (22-25-30)
Field: Corral Canyon Sect: 22 Town

BOPCO, L.P. - West Texas 05H (22-25-30) Well ID: 30-015-40763 Sect: 22 Town: 25S Rng: 30E County: Eddy State: New Mexico

Surface Location: 325' FNL & 1980' FWL, Sec 22, T25S-R30E

Surfa	ce Location: 325' FNL &	1980' FWL,	Sec 22, T2	5S-R30E								
MD In	Horizontal - Original Hole, 6/9/2	2015 1:22:49 AM		Well Informat Orig KB Elev (ft)	Gr Elev	(ft) KB-Grd (	(ft) Spud Date	lo	n Production	n Date PBTD (A	II) (ftKB)	
(ftK cl B) (°)	Vertical schematic (actu	ual)	Column list (actual)	3,352.0 Wellbores			21.00 12/1/		3/22/20			
		1: Red: 0.00	Desc Top	Wellbore Name:		Hole			Kick Off	Depth (ftKB):		
		-1; Rod; 0.00			Size (in)	24	Act T	op (ftKB)	21.0	Act	Btm (ftKB)	138.0
	KARI HAR	HALLICURA BERLEVILLE	1			17 1/2			138.0 1,313.0			1,313.0 3,970.0
37 63	30011880					7 7/8			3,970.0			13,482.0
	20 in; 90.00 lb/ft; F-25; 137.00 4.4.7.7 ft/KB			Schematic Ar Type	notation	Depth (ftKB)			Annota	ation		
"   "	Conductor Cernent; 21.00;	_24; Conductor; 21.00-138.00										
- 11	137.00	17 1/2; Surface;		Casing String						_		Тор
	M W	17 1/2; Surface; 138.00-1,313.00		Csg De Conductor	s	Wellbore Original Hole	OD (in)	Wt (lb/ft) 90.00	Grade F-25	Top Thread	Sel @ (ftKE	3) (ftKB)
Uma 1.0	Surface Casing Cement; 21.00;			Surface Intermediate		Original Hole	13 3/8 8 5/8	54.50 32.00		ST&C LT&C	1,313.0	0 21.0
sanz ta	1,313.00 13 3/8 in; 54.50			Production		Original Hole Original Hole	5 1/2		HCP-110	Buttress	3,970.0 13,482.0	
UH4 1.8	1,313.00 ftKB	11; Intermediate;		Perforations Perf Date	Top (ft	KB) Blm (ftKB)		Zone		0	rrent Status	
	Intermediate	-1,313.00- 3,970.00		3/4/2013	9,2	274.0 9,605.0	1st Bone Spring,	Original Hole		Active (9,274.0 -	9,605.0)	
	Casing Cement; 21.00; 3,970.00		1	3/4/2013 3/4/2013		234.0 10,565.0	1st Bone Spring, 1st Bone Spring,	Original Hole		Active (9,754.0 - Active (10,234.0		1
AM03 1.8	8 5/8 in; 32.00 A. B. B. B. B. B. B. B. B. B. B. B. B. B.			3/4/2013 3/4/2013			1st Bone Spring, 1st Bone Spring,			Active (10,714.0 Active (11,194.0		1
	3,970.00 fIKB Production			3/4/2013	11,0	12,005.0	1st Bone Spring,	Original Hole		Active (11,674.0	- 12,005.0)	
AME 1.5	Casing Cement; 2,958.00;			3/4/2013 3/4/2013			1st Bone Spring, 1st Bone Spring,			Active (12,154.0 Active (12,634.0		
tem   0.3	5,039.00 DVT @;			3/4/2013	_	114.0 13,445.0	1st Bone Spring,	Original Hole		Active (13,114.0	- 13,445.0)	
 	5,039.70; 12/19/2012			Tubing String Tubing Descripti		Run Date	4101004-	String Leng	gth (ft)	Set De	epth (ftKB)	
A301 6.2				No.		Item [	1/6/2015 Des		Jts	8,561.70 OD (in) Wt (lb/	ft) Grade	8,582.70 Top (ftKB)
991 14			U 7,3			5 ppf L-80 Tbg C 40,000# shear			260		50 L-80	21.0 8,441.0
um: 1,2	ă n ă			8-3 2-7/8"	8 rd 6.5 pp	of L-80			2	2 7/8 6.	50 J-55	8,443.7
1381 74	2000	3; Rod; -6.00-			Mech. Sea 3-1/2' x 1	ing nipple 7' Cavins GA/Desand	der		1	2 7/8		8,475.7 8,476.8
;;	§ 1 8	8,425.00			-80 Mud j	oint ical screen odessa s	enerator		2	2 7/8 2 7/8 6.	50 L-80	8,494.3 8,558.3
4401 24				8-8 2-7/8"	Bull plug &		ерагато		1	27/8	50 L-80	8,582.3
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N. A. A. A. A. A. A. A. A. A. A. A. A. A.			Rod Strings Rod Description		Run Date		String Len	oth (ft)	I Set De	epth (ftKB)	
1447 1g		8; Tubing; 2 7/8;		Rod Item #		item (	Dos		Jts	0.00 OD (in) Wt (lb/		Top (ftKB)
tm. 13		21.00-8,582.70 7 7/8;					Des					TOP (TIKE)
,,		Production; 3,970.00- 13,482.00		Rod Description Rod			1/6/2015	String Len	- 11.00	8,431.00	epth (ftKB)	8,425.00
ME 17		Perforated; 9,274.00-		3-1 1 1/2" 2	C 26' polis	hed rod	Des		Jls 1	OD (in) Wt (lb/	ft) Grade	Top (ftKB) -6.0
um 23.3		9,605.00; 3/4/2013				MMS Steel rod MMS Steel rod			103 108		90 22 D 97	20.0 2,595.0
uma 31.5	3	Perforated; 9,754.00-		3-4 3/4" x 2	5' Tenaris	MMS Steel rod			112	3/4 1.	63	5,295.0
1981 1811	d d	10,085.00; 3/4/2013			PIC Sinker 5-RHBM-3	bars 0-6-10 Panacea			12	1 1/2 6.	00	8,095.0 8,395.0
**** ***	3 8	Perforated; 10,234.00-		Cement								
N.M. 10.4	i i i i i i i i i i i i i i i i i i i	10,565.00; 3/4/2013		Conductor C String: Conduc			Cement E	valuation Res	sults:			
6701 BL3		Perforated; 10,714.00- [ 11,045.00;		Stage Number	Stage To		Bottom (ftKB) Vo 137.0			Top Measuremen	t Method	
11,000 95.4		3/4/2013 Perforated;				ent , 12/3/2012						
7,981 86.3	_	11,194.00- √ 11,525.00;		String: Surface Stage Number		p (ftKB) Stage	Bottom (ftKB) Vo	valuation Res	(bbl)	Top Measuremen	t Method	
1584 81.7	3	3/4/2013 Perforated;		1	Fluid	21.0	1,313.0 Amount (sack	s) Ci	235.0 ass	Circulated Dens (lb/gal)	Yield	(ft³/sack)
1001 014	1 1	11,674.00- 12,005.00;		Lead Tail				1,275 C 325 C			.70	1.65
10m1 st/		3/4/2013 Perforated;		Intermediate		Cement , 12/7/2				14.	.00	1.33
um 11.3		12,154.00- 12,485.00; 3/4/2013		String: Interme Stage Number	diate, 3,97 Stage To	p (ftKB) Stage	Bottom (ftKB) Vo	valuation Res	(bbl)	Top Measuremen	t Method	
		3/4/2013			Fluid	21.0	3,970.0 Amount (sack		96.0 lass			(ft³/sack)
****	3 1			Lead Tail	. 10.0			1,250 C		12	.30	1.81
55,000 B1.2								200 50/50 C C:Poz	AdSS	14	.20	1.37
1280 H.J	N I			Production ( String: Produc		ement , 12/20/2 2.00ftKB		valuation Res	sults:			
u	1 2 2	Perforated; 12,634.00-		Stage Number			Bottom (ftKB) Vo		(bbl)	Top Measuremen Circulated	t Method	
		12,965.00; 3/4/2013		Load	Fluid		Amount (sack		lass	Dens (lb/gal)		(ft³/sack)
	1 1			Lead Tail				500 H 1,300 H			.40 .50	2.19 1.28
GM1 953	<del> </del>			Stage Number	Stage To	op (ftKB) Stage 2,958.0	Bottom (ftKB) Vo 5,039.0			Top Measuremen Volume Calculation		
(m) 103				Lead	Fluid		Amount (sack		lass	Dens (lb/gal)	Yield	(ft³/sack)
Briss \$1.2	i i			Tail				200 C 150 H			.50	2.07 1.28
1041 113	<b>3 3</b>											
	4											
		Perforated; 13,114.00-										
12.000 er s	11	13,445.00; 3/4/2013										
13,000 07.0	4											
11.00 or 5	4											
4.M. 47.4	1 1											
U.mes 27.5	Production											
	Casing Cement; 21.00; 13,482.00			11								
	5 1/2 in; 17.00 lb/ft; HCP-110; 13,482.00 ftKB	TD - Original Hole; 13,482.00										
	10,702.30 IIKB	, , , , , , , , , , , , , , , , , ,										

# \*

#### **Schematic - Vertical Production**

Well Name: POKER LAKE UNIT CVX JV PB #005H (22-25-30)

Well Name: POKER LAKE UNIT CVX JV PB #005H (22-25-30) Well ID: 30-015-40763
Field: Corral Canyon Sect: 22 Town: 25S Rng: 30E Eddy Co., State: New Mexico

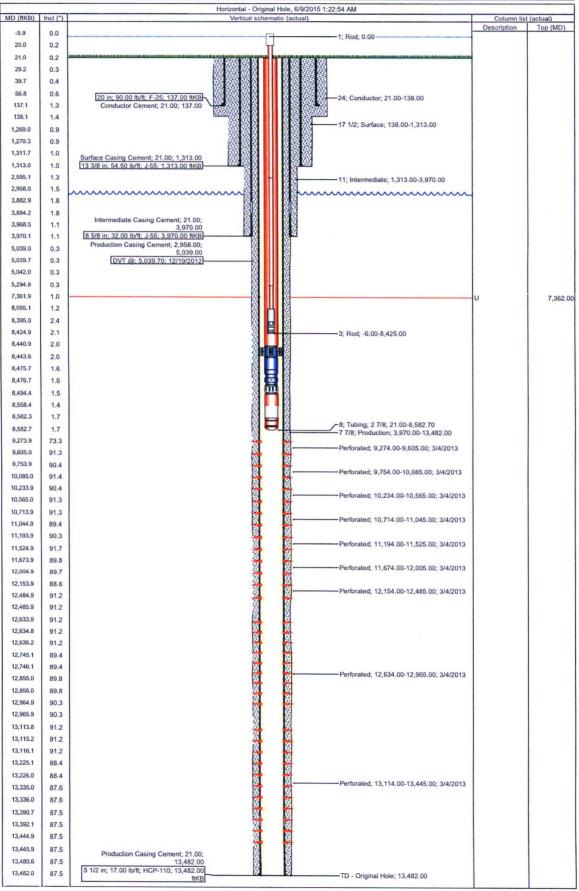
BOPCO, L.P. - West Texas Well ID: 30-015-40763

Blk: Survey:

 Most Recent Job

 Job Category
 Primary Job Type
 Secondary Job Type
 Job Start Date
 Job End Date

 Maintenance
 Tubing
 12/30/2014
 1/7/2015





### State of New Mexico Commissioner of Public Lands

310 OLD SANTA FE TRAIL P.O. BOX 1148

August 21, 2015

SANTA FE, NEW MEXICO 87504-1148

Conoco Phillips Company P. O. Box 4289

Farmington, New Mexico 87499-4289

Attention: Ms. Valerie Wells

Re: San Juan 28-7 Unit #152E

> San Juan 28-7 Unit #155G Commercial Determination Mesaverde Formation

San Juan County, New Mexico

Dear Ms. Wells:

Thank you for your letter of April 23, 2015 with data that supports your commercial determination regarding the following San Juan 28-7 Unit Wells:

Well Name and Number	Dedication	Completion Date	Determination	
San Juan 28-7 Unit # 152E	W/2 Sec. 21-27N-7W	03/06/2013	Commercial	
San Juan 28-7 Unit #155G	W/2 Sec. 21-27N-7W	03/06/2015	Commercial	

On August 07, 2015 the Bureau of Land Management (BLM) advised this office that they concurred with your determination of the commerciality for the above-mentioned Mesaverde wells.

The Commissioner of Public Lands concurs with the BLM and your determination that the above mentioned well is a commercial wells in the Mesaverde formation and should be included in the Mesaverde participating area.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

COMMISSIONER OF PUBLIC LANDS

AD/sk

cc: Reader File,

> OCD-Attention: Mr. Daniel Sanchez BLM Farmington-Attn.: Mr. Hewitt

TRD-Attn.: Ms. Judy Vigil

**RMD** 

COMMISSIONER'S OFFICE

Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org



### State of New Mexico Commissioner of Public Lands

310 OLD SANTA FE TRAIL P.O. BOX 1148

August 21, 2015

SANTA FE, NEW MEXICO 87504-1148

Conoco Phillips Company 3401 E. 30th St.

Farmington, New Mexico 87402

Attention: Ms. Valerie Wells

Re:

San Juan 28-7 Unit #217N Commercial Determination

Mesaverde Formation

San Juan County, New Mexico

Dear Ms. Wells:

Thank you for your letter of April 23, 2015 with data that supports your commercial determination regarding the following San Juan 28-7 Unit #217NWell:

Well Name		Completion	on		
and Number	Dedication	Date	Determination		
San Juan 28-7 Unit #217N	N/2 Sec. 28-27N-07W	12/12/2012	Non-Commercial		

On May 04, 2015 the Bureau of Land Management (BLM) advised this office that they concurred with your determination of the commerciality for the above-mentioned Mesaverde Formation well.

The Commissioner of Public Lands concurs with the BLM and your determination that the above mentioned well is a non-commercial well in the Mesaverde formation.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

COMMISSIONER OF PUBLIC LANDS

AD/sk

cc:

Reader File,

OCD-Attention: Mr. Daniel Sanchez BLM Farmington-Attn.: Mr. Hewitt

TRD-Attn.: Ms. Judy Vigil

**RMD** 

COMMISSIONER'S OFFICE

Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org

366

#### BOPCO, L.P.

201 MAIN ST. FORT WORTH, TEXAS 76102-3131 817/390-8400

July 17, 2015

RECEIVED OCD

#### FEDERAL EXPRESS

Bureau of Land Management Carlsbad District Office 620 E. Green St. Carlsbad, New Mexico 88220 Attn: Mr. Ed Fernandez New Mexico State Land Office Commissioner of Public Lands 310 Old Santa Fe Trail Santa Fe, New Mexico 87501 Attention: Mr. Pete Martinez New Mexico Oil Conservation Division 1220 St. Francis Santa Fe, New Mexico 87505 Attention: Mr. William Jones

Re: Commercial Determination

PLU CVX JV BS #007H (PLU Big Sinks 2-25-30 ST #1H)

**Bone Spring** 

Eddy County, New Mexico

#### Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is a commercial well in the Bone Spring reservoir. Should you be in agreement that the Bone Spring is commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

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.

Very truly yours,

R. Travis Mears

Bureau of Land Management	New Mexico State Land Office	New Mexico Oil Conservation Division
Ву:	By:	By:
Its:	Its:	Its:
Date:	Date:	Date:



#### INTER-OFFICE MEMORANDUM

TO:

Frank McCreight

FROM:

**Bryce Bezant** 

DATE:

1/20/2014

RE:

Commercial Determination

PLU Big Sinks 2-25-30 ST #1H

Poker Lake Unit (Bone Spring) Field

Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Big Sinks 2-25-30 ST #1H was drilled in 2011 to a total depth of 13,811' laterally completed in the Bone Spring reservoir. The well is producing from perforations 9,400'-13,811'. On test 12/28/2011 the well flowed at the rate of 499 BOPD, 1183 MCFD, and 1430 BWPD. This well has an expected recovery of approximately 185 MBOE (13:1 mcf/bbl) from the current completion.

The most recent strip price file was utilized adjusting for current area differentials. Plant yields are 3.2 gpm with a gas sales fraction of 56.7%. Actual operating costs inclusive of water expense were used through December, 2013. Starting January, 2014 operating costs of \$30,000/month plus \$1.25/bbl water expense were used until the economic limit was reached. The Big Sinks 2-25-30 ST #1H will be a commercial well and should be incorporated into a participating area.

R.Bryce Bezant

RBB/tah

Cc:

Ross Sutton Andy Morrison Steve Johnson

#### **ECONOMIC PROJECTION**

lase Type:

1/20/2014

Lior: 1004607

3:10:01PM

roject Name: BOPCO, L.P. artner: All cases

LEASE CASE rchive Set: 1-1-2014

As Of Date: 03/01/2011 Discount Rate (%): 5.00

Lease Name: 1004607/PLU BIG SINKS 02-25-30 ST/00

Reserv Cat.: Proved Producing

Field: WILDCAT G-05 S263010;BONE SPRING

1004607/PLU BIG SINKS 02-25-30 ST/0 Operator: BOPCO

Reservoir: BONE SPRING Co., State: EDDY, NM

Risk: 0.000 Inherited/ 0.000 Compounded

Sales

Cum Oil (Mbbl): 0.00 Cum Gas (MMcf): 0.00

Gross Wet Production Gross Dry Gas & NGL Year Oil Wet Gas Dry Gas Oil Gas NGL (Mbbl) (MMcf) (Mbbl) (MMcf) (MMcf) (Mgal) (Mgal) 2011 0.000 0.000 0.000 0.000 0.000 0.000 0.000 2012 101.252 464.761 263.519 1,254.855 78.470 204.228 972.512 2013 27.426 262.672 148.935 709.214 21.255 115.425 549.641

tem	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cotal	128.678	727.433	412.455	1,964.069	99.725	319.652	1,522.154
Jlt.	128.678	727.433					
		Average Price			Net Reve	enue	
Year	Oil	Gas	NGL	Oil	Gas	NGL	Total
	(\$/bbl)	(\$/Mcf)	(\$/gal)	(M\$)	(M\$)	(M\$)	(M\$)
2011	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	92.11	2.64	0.73	7,227.53	539.48	706.04	8,473.05
2013	91.03	3.47	0.73	1,934.78	400.77	399.04	2,734.59

Rem	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	91.88	2.94	0.73	9,162.31	940.25	1,105.08	11,207.64

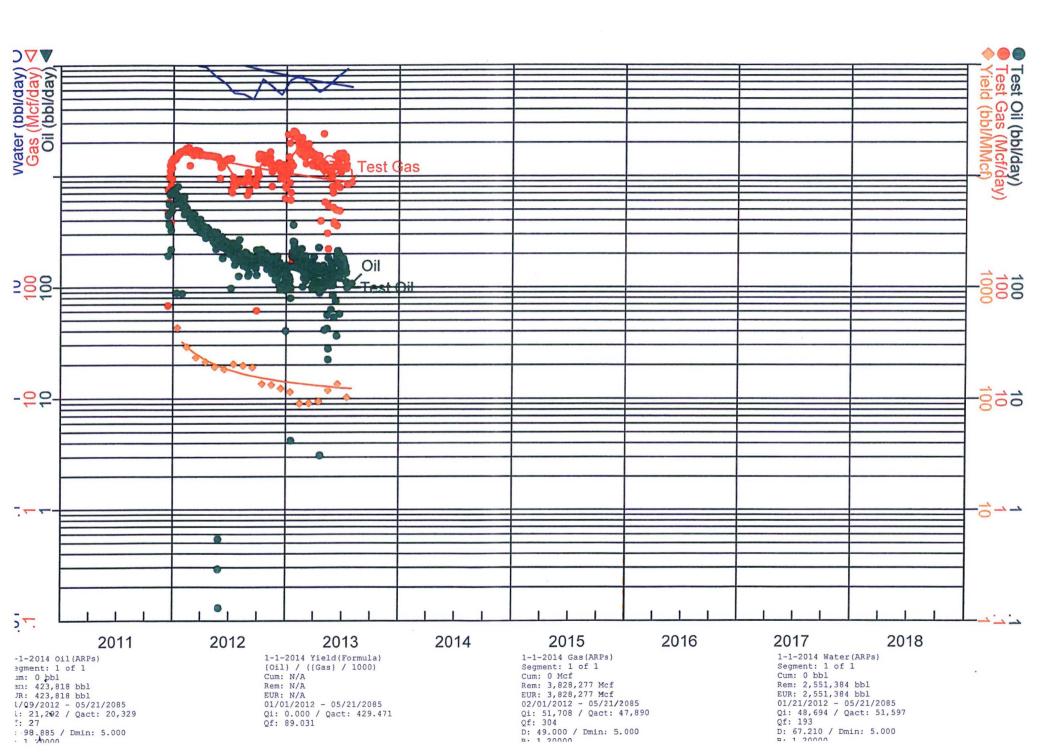
		Expenditures		Future Net Revenue					
Year	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)	
2011	0.00	0.00	6,334.00	0.00	-6,334.00	-6,334.00	-6,144.44	-6,144.44	
2012	558.54	40.66	0.00	1,476.98	6,396.87	62.87	6,026.01	-118.43	
2013	226.40	16.20	0.00	911.72	1,580.27	1,643.14	1,421.34	1,302.91	

Rem Total	0.00 784.94	0.00 56.85	0.00 6,334.00	0.00 2,388.70	0.00 1,643.14	0.00 1,643.14	0.00 1,302.91	0.00 1,302.91	
Maior Phase : Perfs : Initial Rate : Abandonment : Initial Decline : Beg Ratio : End Ratio :	47,89 33,50	as 0 0 0.000 Mcf/month 07.00 Mcf/month 19.00 % year b = 1 0.29 bbl/Mcf 0.10 bbl/Mcf	.200	Working Int: Revenue Int: Disc. Initial Ir Internal ROR ROInvestmen Years to Payo Abandonment	(%) : t (disc/undisc) : ut :	1.00000000 0.77500000 6.144.441 31.10 1.21 / 1.26 1.82 07/31/2013	5 9 10 12 15	Present Worth Profile ( 5.00%: 1, 9.00%: 1, 10.00%: 12.00%:	
Forecast Start:	02/01/	Working Interest Revenue Interest Rev. Date:		1st Rev. 0.00000000 0.00000000	2nd Rev. 0.00000000 0.00000000		30 40 50	.00% : .00% : .00% : .00% :	468.54 41.60 -302.06 -576.45 -793.25

BOPCO Detailed V9.rpt

Ver: 1/20/2014

Page 1



# WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

#### **WELL DATA**

WELL PLU Big	Sinks 2-25-30 ST FORM	MATIONBONE SPRING
LOCATION B P UNIT	350_ FEET FROM SOUTH LINE	&1980FEET FROM <u>EAST</u> LII
SECTION2TOWNSHIP25	RANGE 30E COUNTY	Eddy , NEW MEXIC
SPUD DATE <u>9/24/2011</u> COMF	PLETION DATE11/30/2011 IN	IITIAL PRODUCTION 12/20/2
PERFORATIONS 9400-13785		
BHL: 380' FNL & <u>427' FEL SEC 27 T24S F</u>	R30E	
STIMULATION:		
ACID		
FRACTURE See A	Attached	
-		
POTENTIAL(12/28/2011): 499 I	BOPD, 1183 MCFPD, 1430 BWPD	
POTENTIAL (12/28/2011): 499 I		
		ON
POTENTIAL (12/28/2011): 499 (Attach Copy of C-105. Attach Copy of We	llbore Sketch of Completed Well.)	ON
	llbore Sketch of Completed Well.)  VOLUMETRIC CALCULATI	SANDS NOT PERFORATED BUT
(Attach Copy of C-105. Attach Copy of We	VOLUMETRIC CALCULATI  SANDS PERFORATED	
Attach Copy of C-105. Attach Copy of We	VOLUMETRIC CALCULATI  SANDS PERFORATED  160.5	SANDS NOT PERFORATED BUT
Attach Copy of C-105. Attach Copy of We  Area (A) proration unit size, acres  Porosity (Φ), %	VOLUMETRIC CALCULATI  SANDS PERFORATED  160.5  7%	SANDS NOT PERFORATED BUT
(Attach Copy of C-105. Attach Copy of We Area (A) proration unit size, acres Porosity (Φ), % Water saturation (Sw), %	VOLUMETRIC CALCULATI  SANDS PERFORATED  160.5  7%  22%	SANDS NOT PERFORATED BUT
Artach Copy of C-105. Attach Copy of We  Area (A) proration unit size, acres  Porosity (Φ), %  Water saturation (Sw), %  Net Thickness (H), ft.	SANDS PERFORATED  160.5  7%  22%  112	SANDS NOT PERFORATED BUT
(Attach Copy of C-105. Attach Copy of We Area (A) proration unit size, acres Porosity (Φ), % Water saturation (Sw), % Net Thickness (H), ft. Temperature (T), Fahrenheit	VOLUMETRIC CALCULATI   SANDS PERFORATED	SANDS NOT PERFORATED BUT
Area (A) proration unit size, acres Porosity (Φ), % Water saturation (Sw), % Net Thickness (H), ft. Temperature (T), Fahrenheit Bottom Hole pressure (P), psia	VOLUMETRIC CALCULATI   SANDS PERFORATED	SANDS NOT PERFORATED BUT
	VOLUMETRIC CALCULATI   SANDS PERFORATED	SANDS NOT PERFORATED BUT

#### PERFORMANCE DATA

(If sufficient history exist	s, attach plot of oil produ	uction rate v time.)			
CUMULATIVE PRODU	CTION TO6/30/	2012 69,826	BBL Oil269,239 MC	F Gas	
INITIAL RATE (qi)	_		1,505		
ECONOMIC LIMIT (qI)	_		131		
HYPERBOLIC DECLIN	E RATE, dy	n = 0, c	d = 100.2%/yr		
REMAINING MCF (Q) =	_		0		
ULTIMATE RECOVERA	ABLE MCF _		27,433		
(Attach plat showing pro	oration unit and participat	ting area.)			
		E	CONOMIC		
GROSS WELL COST_	\$2,533,600 (to the dep	oth of formation comple	eted)		
COMPLETION COST	\$3,800,400				
GROSS TOTAL COST					
				5% NET BFIT	
YEAR	GROSS MCF MMCF	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	DISCOUNTED CASH FLOW	
ZERO					
1	0.000	0.0	0.0	-6144.1	
2	101.252	8473.1	2076.2	6026.0	
3	27.426	2734.6	1154.3	1421.3	
4			0.0		
5			0.0		
6			0.0		
7			0.0		
8			0.0		
9			0.0		
10			0.0		
REMAINDER					
TOTAL	128.678	11207.6	3230.5	1303.2	

WELL IS COMMERCIAL

A wo Copies		et Office				State of Ne											orm C-105
District I 1625 N French Dr	. Hobbs. N	VM 88540		Ene	ergy, N	Minerals and	d Na	tural	Re	sources	-	1. WELLA	DIN	1()	Rev	rised A	ugust 1, 201
District II 811 S First St. Art					0.1			D				1. WI.LL /	VI I IV		-015-3	39344	
District III			1			Conservat						2 Type of Le					
1000 Rio Brazos Re District IV						20 South St				г.	-	X STAT		FEE:		מאועני	IAN
1220 S St Francis						Santa Fe, N				100					· Beef Collectur	17. 1 1 WEST	A. Maria A. Maria and
4. Reason for fili		LETIO	NORF	RECC	MPL	ETION RE	101	RIA	NL	LOG		5. Lease Name					是一种在
												PLU BIG	SINK	(S 2 25	30 S	T.	
COMPLET	ION RE	PORT (Fil	l in boxes	#1 throu	gh #31	for State and Fee	e well	s only)				6 Well Numb	er.				
C-144 CLOS #33; attach this a	nd the pl										)]	1H					
7. Type of Comp		□ WORK	OVER 🗆	DEEPT	NING	□PLUGBACE	<b>с</b> П	DHEE	REN	NT RESERVO	OIR	OTHER					
Name of Opera	nt mu	nesapea				BOP						9. OGRID	1471	70			
0. Address of O		lesapea	ke Ope	aurig,	mc.	13019	UC	)			+	11. Pool name		The same of the sa			
P.O. Box 184	496 OF		City, O									WILDCAT;			RING		
2.Location	Unit Lt		ion	Towns	hip	Range	Lot			reet from the		N/S Line		from the	E/W I.	.mc	County
Surface:	0	2		25S		30E				350'		3	198		E		EDDY
BII:	2 /	_		25S		30E	2			100'		1	197	1'	E		EDDY
3. Date Spudded 09/24/2011	10/	Date T.D R 17/2011	eached	10/	19/20				11	/30/2011		(Ready to Prod		RT	r, GR. e	ic.) 35	and RKB, 53' GR
18. Total Measur 13811'				138	111'	ck Measured Dep	oth		20 Ye		onal	Survey Made?		21 Type Latero	log/In	ductio	ther Logs Rur on log
22. Producing Int 9400'-13785	terval(s), $OA$	of this con	pletion - 7	Γορ, Bot	tom, Na	nne											
23					CAS	ING REC	OR	D (R	epo	ort all stri	ing	s set in we	ell)				
CASING SI	ZE		GHT LB./I	T.		DEPTH SET		45.4		LE SIZE		CEMENTING	GREC	CORD	AN	MOUNT	PULLED
3 3/8" 5/8"		48#			756'	"1		17 1/	2"			850 sxs					
1/2"		32# 20#			3995 1381			11" 7 7/8	)11			1550 sxs 1148 sxs					
1/2		20#			1301	1		1 110	)		_	1140 SXS					
											-						
24.	*************				LIN	ER RECORD					25.	T	UBIN	NG RECO	ORD		
SIZE	TOP		ВОТ	ГГОМ		SACKS CEM	CNT	SCR	EEN		SIZI	7		PTH SET		РАСК	ER SET
								-		2	27/	8"	864	42'		8631	
6 Perforation	Lecord (	interval ei	o and nur	nali (ap)		CIV (CT	=	1 07	10	ID CHOT F	70.4	OTUDE CE	1 (5)	m 00111	2020		
400'-13811'	(OA)	meer var, siz	c, and min	"	i E C	EIVEL	)	DEP	TH	INTERVAL	. K/	AMOUNT A	NDK	IND MA	TERIAL	USED	
					EED	<b>15</b> 2012				13811'		4,019,257			· isivii (ii	1 (7)51.77	
					FED	19 2012						3,609,732	bbs	fresh w	vater		
				NIA	400	D ARTES	AL					25,000 gal				CL Aci	d
8				-			111	-		LION							
Date First Product 12/20/2011			Product	ion Mei	hod (Fla	owing, gas lift, p.	umpn	ng - Sizi	e an	d type pump)		Well Status Prod.	Prod	or Shut-	m)		
Date of Test		s Tested		oke Size		Prod'n For		Oil -		1		- MCF	W'a	iter - Bbl.		Gas -	Oil Ratio
12/28/2011	24			/63		Test Period		499		1	118	33	14	30			
Flow Tubing Press. 650	Casi	ng Pressure	200.000	culated :	24-	Oil - Bbl.		1		- MCF	1	Vater - Bbl.		Oil Grav	vity - Al	PI - (Co.	rr)
29 Disposition o	1 Gae C	del marte				499			118	33	1.	430					
Flared	1 One (1)(	na, mea jo	juet, vent	ea, elc.)									30. 1	est Witne	ssed By		
List Attachme	ents C	-104															
2 If a temporary	y pit was	used at the	well attac	ch a plat	with the	e location of the	lone	CAPTARA! IN	ii.				-				
3 If an on-site b									111								
is an one-suc t	zarrar Wil	a uacu al in	e wen, rep	or the (	MICI 100		site bi	ural.									
I hereby certi,	fy that	the inform	nation s	holyn	in hoth	Latitude a sides of this	form	n ie tr	110	and comple	1111	Longitude	f noon	lesa	les e	N/	(I) 1927 198:
Signature /		//	ens/	7	l	Printed Name Bryan			iic (			o me best of Regulatory S					<i>f</i> 02/13/20
2 mail A 1-1-1	/			/		,						J	_  - 00			Date	02/10/20
E-mail Addre	ss brya	n.arrant(c	ychk.com	n													

#### INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

#### INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

S	outheaster	rn New Mexico	Northw	restern New Mexico
T. Anhy	975'	T. Canyon	T. Ojo Alamo	T. Penn A"
T. Salt	1046'	T. Strawn	T. Kirtland	T. Penn. "B"
B. Salt	4027'	T. Atoka	T. Fruitland	T. Penn. "C"
T. Yates		T. Miss	T. Pictured Cliffs	T. Penn. "D"
T. 7 Rivers		T. Devonian	T. Cliff House	T. Leadville
T. Queen		T. Silurian	T. Menefee	T. Madison
T. Grayburg		T. Montoya	T. Point Lookout	T. Elbert
T. San Andres		T. Simpson	T. Mancos	T. McCracken
T. Gloricta		T. McKee	T. Gallup	T. Ignacio Otzte
T. Paddock		T. Ellenburger	Base Greenhorn	T.Granite
T. Blinebry		T. Gr. Wash	T. Dakota	
T.Tubb		T. Delaware Sand	T. Morrison	
T. Drinkard		T. Bone Springs 7850	T.Todilto	
T. Abo_		T. B Canyon	T. Entrada	No. of the last of
T. Wolfcamp		T. C Canyon	T. Wingate	
T. Penn		T. By Canyon	T. Chinle	
T. Cisco (Bough C)		T	T. Permian	
No. 1 from		10	N- 2 f	OIL OR GAS SANDS OR ZONES
No. 1, Holli		10		to
No. 2, Iroili	• • • • • • • • • • • • • • • • • • • •	10		to
			WATER SANDS	
		nflow and elevation to which water		
No. 1, from		to	feet	
No. 2, from		to	feet	
No. 3, from	• • • • • • • • • • • • • • • • • • • •	toto	feet	
	LI	THOLOGY RECORD	(Attach additional sheet i	f necessary)

From	То	Thickness In Feet	Lithology	From	To	Thickness In Feet	Lithology

DISTRICT I 1625 N. French Dr., Hobbs, NM 88240 DISTRICT II 1301 W. Grand Avenue, Artesia, NM 88210

State of New Mexico Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Form C-102 Revised July 16, 2010

Submit one copy to appropriate District Office

#### DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

### Santa Fe, New Mexico 87505

☐ AMENDED REPORT

	WELL LOCATION AND ACREAGE DEDICATION PLAT	□ AMENDED REPORT
API Number 30-015-393	Pool Code Pool Na Wildcat; Bor	
Property Code 38740	Property Name PLU BIG SINKS 2 25 30 STATE	Well Number 1H
0GRID No. 147179	Operator Name CHESAPEAKE OPERATING CO.	Elevation 3353'

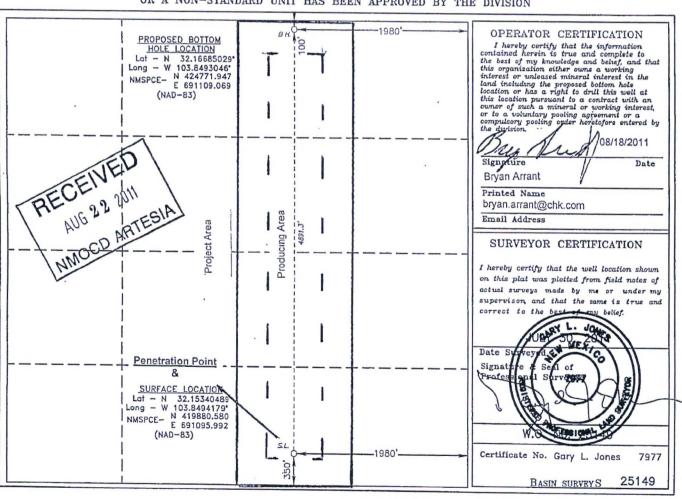
#### Surface Location

0 2 25 S 30 E 350 SOUTH 1980 EAST ED	UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	0	2		30 E		350	SOUTH	1980	EAST	EDDY,

#### Bottom Hole Location If Different From Surface

B-2	Section 2	Township 25 S	Range 30 E	Lot Idn	Feet from the	North/South line	Feet from the	East/West line EAST	County
Dedicated Acre	s Joint o	r Infill Co	nsolidation	Code Or	der No.	1	1000	2.01	2001

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





Drilling Engineer: Chris Gray

Superintendent:

Rolando Davila

Well Name:

PLU Big Sinks 2-25-30 State 1H First Bone Spring Shale

Target:

County, State: Eddy, NM

Surface Location: 350' FSL 1980' FEL, Section 2, Township 25S, Range 30 E

BH Location:

100' FNL 1980' FEL, Section 2, Township 25S, Range 30 E

SHL Latitude: SHL Longitude: BHL Latitude:

32.153405 -103 849418 32 16685029 SHL North: SHL East: BHL North: BHL East:

419881 691096 424772 691109 Coordinates: **NMSPCE** 

Drilling Rig: Directional-Surface: Directional-Curve:

Patterson 62 Ryan Ryan

**Drilling Mud:** 

Nova

Cement:

Schlumberger

Wellhead:

Sunbelt

Property Number:

641196

AFE Number: 157879

Geologist:	Chris Persellin	BHL Longitude: Coordinates:	-103 8493046 NAD 83
		Elevation: 3,378' Elevation: 3,353'	KB: 25'
Conductor OD 20 Wt  Surface Casing OD 13 3/8" Wt 48.# Grd H-40	Hole Size 17 1/2"  778' Hole Size, 11"	678'	Rustler
Con STC		2,528'	Top of Salt
Shallow Int Casing OD 8 5/8" Wt 32# Grd J-55 Con LTC	4,100° Hole Size 7 7/8"	4,091	Lamar Bell Canyon

DV tool Depth

	Wellhead Equipment
A Section	13-3/8" x 13-5/8" 5K SOW
B Section	13-5/8" 5K X 11" 5K
C Section	11" 5K X 7-1/16" 10K
D Section	N/A
Required BOP Stack	13-5/8" 5K- Double, Annular, Rot Head, W/Orbit Val

			Mu	d			
	Dept		Туре	Weight	F. Vis	FL	
60'	-	778'	Spud Mud	84-87	32 - 34	NC - NC	
778'	-	4,100'	Brine	98-101	28 - 29	NC - NC	
4,100'	_	8,726	Cut Brine	84-9	28 - 30	NC - NC	
	_	-					
8,726	-	9,475	Cut Brine	84-9	28 - 30	NC - NC	
9,475	-	14,197'	Cut Brine	8.4 - 9	28 - 30	NC - NC	
			•				

		Cemer	t				
Slurry	Тор	Btm	Wt	Yld	%Exc	Bbl	Sx
Surface							
	- 1						
Single Slurry	25'	778'	135	1 73	150	237	768
Shallow Int							
Lead	25'	3,600'	120	18	150	383	1196
Tail	3,600'	4,100'	142	1 37	150	59	243
-				·			
							_
				· ·			
				_			
Production							
1st Lead	4,850'	8,700'	124	2 09	75	208	559
1st Tail	8,700'	14,197'	145	1 24	75	299	1353
2nd Lead	3,600'	4,600'	124	2 19	200	62	159
2nd Tail	4,600'	4,850'	148	1 33	200	23	98

	100 PM	7,812'	Bone Sp	oring		,			,	
•		8,053'	Avalon			Production	1st Lead	4,850'	8,700'	12
			in the second				1st Tail 2nd Lead 2nd Tail	8,700' 3,600' 4,600'	14,197' 4,600' 4,850'	14 12 14
Hole Size 7	7/8"	8,774'	13	Bone Spring	Hole Size	7 7/8"				4.
			9,105'	First Bone S	Spring Shale	No. of the Contract of the Con	of all ap	三世间 居住所	MARINE	
			The state of the s			19217	कर् <sub>य</sub> सर	7 D (80	图明的第三人	

, 14,19	
Produ	ction Casing
QD	5 1/2"
VVt	20.#
Grd	L-80
Con	LTC

	Type	Logs	Interval	Vendor
L	Mudlog	2 man unit	Int Csg to EOC	Suttles
0	ОН	Triple Combo (Dual Induction)	Curve to Int Csg	TBD
G				
_				
S	LWD	MWD/Gamma	Curve/Lateral	Ryan

		Dire	ctional Plan	1					
Target Li		02' TVD w/	89 8 deg ind	dination					
Target Wind		10' above and 10' below							
	MD	INC	AZM	TVD	VS	DLS			
KOP	8,726	0 00	0 00	8,726	0'	0.0			
EOB	9,475	89 80	0 15	9,204	476'	12.00			
TD	13,890'	0' 89 80 0 15 9.219'	9,219	4,891	0.00				
Hardlines:	Lateral- A	ateral- Actual lease lines							
Vertical- Actual Lease Lines									
Notes: Please note SHL and BHL distance from lease lines									



### State of New Mexico Commissioner of Public Lands 310 OLD SANTA FE TRAIL

P.O. BOX 1148 SANTA FE, NEW MEXICO 87504-1148 COMMISSIONER'S OFFICE

Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org

October 21, 2015

BOPCO, LP 201 Main St., Suite 2900 Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re:

PLU CVX JV RR #004H

Commercial Well Determinations Lower Avalon Shale Formation Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of July 17, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management advised this office that they concur with your determination that the PLU CVX JV RR #004H is not capable of producing unitized substances in paying quantities from the Lower Avalon Shale formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV RR #004H is a non-commercial Lower Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

AD/sk

cc: Reader File,

OCD-Attn: Mr. Daniel Sanchez TRD-Santa Fe, Attn: Ms. Judy Vigil BLM Carlsbad - Attn: Mr. Ed Fernandez

ISSONER OF PUBLIC LANDS



# State of New Mexico Commissioner of Public Lands

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October 21, 2015

BOPCO, LP 201 Main St., Suite 2900 Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re:

PLU CVX JV BS #008H

Commercial Well Determinations 1st Bone Spring Formation Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of July 17, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management advised this office that they concur with your determination that the PLU CVX JV BS #008H is not capable of producing unitized substances in paying quantities from the 1<sup>st</sup> Bone Spring formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV BS #008H is a non-commercial 1st Bone Spring formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

1 /1/

COMMISSIONER OF PUBLIC LANDS

AD/sk

cc: Reader File,

OCD-Attn: Mr. Daniel Sanchez TRD-Santa Fe, Attn: Ms. Judy Vigil BLM Carlsbad – Attn: Mr. Ed Fernandez



# State of New Mexico Commissioner of Public Lands

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October 21, 2015

BOPCO, LP 201 Main St., Suite 2900 Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re:

PLU CVX JV BS #009H

Commercial Well Determinations Upper Avalon Shale Formation Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of July 17, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management advised this office that they concur with your determination that the PLU CVX JV BS #009H is not capable of producing unitized substances in paying quantities from the Upper Avalon Shale formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV BS #009H is a non-commercial Upper Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

WXX

COMMISSIONER OF PUBLIC LANDS

AD/sk

cc: Reader File,

OCD-Attn: Mr. Daniel Sanchez TRD-Santa Fe, Attn: Ms. Judy Vigil BLM Carlsbad – Attn: Mr. Ed Fernandez



# State of New Mexico Commissioner of Public Lands

310 OLD SANTA FE TRAIL P.O. BOX 1148 SANTA FE, NEW MEXICO 87504-1148 COMMISSIONER'S OFFICE

Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org

October 21, 2015

BOPCO, LP 201 Main St., Suite 2900 Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re:

PLU CVX JV PC #009H

Commercial Well Determinations Lower Avalon Shale Formation Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of July 17, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management advised this office that they concur with your determination that the PLU CVX JV PC #009H is not capable of producing unitized substances in paying quantities from the Lower Avalon Shale formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV PC #009H is a non-commercial Lower Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

AD/sk

cc: Reader File,

OCD-Attn: Mr. Daniel Sanchez TRD-Santa Fe, Attn: Ms. Judy Vigil BLM Carlsbad – Attn: Mr. Ed Fernandez

MISSIONER OF PUBLIC LANDS



# State of New Mexico Commissioner of Public Lands

310 OLD SANTA FE TRAIL
P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE

Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org

October 20, 2015

BOPCO, L.P. 201 Main Street, Suite 2900 Fort Worth, Texas 76102-3131

Attention: Mr. Andy Morrison

Re: PLU CVX JV BS #007H (PLU Big Sinks 2-25-30 ST #1H)

API (30-015-39344)

Commercial Well Determinations

Bone Spring Formation Eddy County, New Mexico

Dear Mr. Morrison:

We are in receipt of your letter of July 17, 2015 together with the commercial determination data for the PLU CVX JV BS #007H (PLU Big Sinks 2-25-30 ST #1H) located in Section 02-25S-30E.

The Bureau of Land Management, advised this office that the PLU Big Sinks 2-25-30 ST#H was determined to be capable of producing in paying quantities from the Bone Spring formation

Please be advised that the Commissioner of Public Lands concurs with the Bureau of Land Management's determinations that the PLU Big Sinks 2-25-30 ST #1H a commercial well in the Bone Spring formation and is entitled to participate in the Bone Spring Participating Area

Please submit an application for the appropriate expansion of the Bone Spring Participating Area to this office for approval.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours

AUBREYDUNN

COMMISSIONER OF PUBLIC LANDS

AD/sk

cc: Reader File,

OCD-Attention: Mr. Daniel Sanchez

BLM Carlsbad, Attention: Mr. Ed Fernandez TRD-Santa Fe, Attention: Ms. Judy Vigil