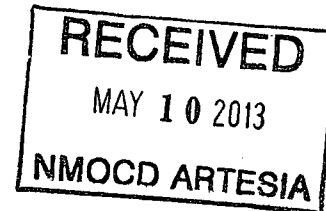




PHOENIX
TECHNOLOGY SERVICES

May 2, 2013

Oil Conservation Division
State of New Mexico
811 S. First St.
Artesia, New Mexico 88210



Dear District 2 – Artesia

Re: Bopco, LP
PLU Phantom Banks 20-25-31 USA #1H
Eddy Co., NM
API #30-015-40764
Job No. 1310221

RDade 5/14/2013
Accepted for record
NMOCD

Enclosed please find the Survey Data Certification, and the original Plat and one copy of the Survey Report performed on the above referenced Well by Phoenix Technology Services, Inc. (P-5 No. 606018). Other information required by your office is as follows:

Name & Title of Surveyor	Drainhole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Spencer Brown	1H	1,165	10,953	04/10/13	04/17/13	MWD

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Best Regards,

Kelly Jo Walter

Kelly Jo Walter
Operations Administrator

Certified mail receipt number: 7011 1570 0001 9667

Pilot Hole

PHOENIX TECHNOLOGY SERVICES INC. SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER 1310221

OPERATOR BOPCO LP

WELL NAME PLU Phantom Banks 20-25-31 USA 1H COUNTY & STATE

Eddy Co. NM

API WELL NUMBER	30-015-40764
-----------------	--------------

PROPOSED DIRECTION	180.15
--------------------	--------

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
1,064 ft	1,063.89 ft	0.93	352.1	3.60 N	6.10 W	GYRO

FIRST	FIRST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
10-Apr-13	1,165 ft	1.4	353.6

SURVEY INSTRUMENT
TYPE
Phoenix MWD

LAST	LAST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
17-Apr-13	10,953 ft	0.7	162.6

TO THE BEST OF MY KNOWLEDGE I
CERTIFY THIS SURVEY DATA TO BE
TRUE AND CORRECT.

PROJECTED	PROJECTED		
TD SURVEY	TD SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
17-Apr-13	11,000 ft	0.7	162.6

Spencer Brown

PRINT YOUR NAME ABOVE

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	7.18
DECLINATION OR GRID	Grid

29-Apr

TODAY'S DATE

MWD SUPERVISOR 1 Spencer Brown

DIRECTIONAL DRILLER 1

Will Solomon

MWD SUPERVISOR 2 Brent Shaw

DIRECTIONAL DRILLER 2

Brady Welch

1805 Brittmore Road

Houston, Texas 77043

(713)3370609 (Voice), (713)337-0599 (Fax)



Bopco L P

**Eddy County, NM (NAD27 NME)
PLU Phantom Banks 20-25-31 USA
1H (CVX)
OH / Job #1310221**

Survey: Phoenix MWD Pilot Hole Survey

Phoenix Final Survey Report

30 April, 2013





Phoenix Technology Services
Phoenix Final Survey Report



Company:	Bopco L P	Local Co-ordinate Reference:	Well 1H (CVX)
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	RF @ 3403.00usft (Latshaw 14)
Site:	PLU Phantom Banks 20-25-31 USA	MD Reference:	RF @ 3403.00usft (Latshaw 14)
Well:	1H (CVX)	North Reference:	Grid
Wellbore:	OH / Job #1310221	Survey Calculation Method:	Minimum Curvature
Design:	OH Survey (Latshaw 14)	Database:	GCR DB

Project	Eddy County, NM (NAD27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	PLU Phantom Banks 20-25-31 USA		
Site Position:		Northing:	408,732.00 usft
From:	Map	Easting:	663,226.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"
		Latitude:	32° 7' 21.442444 N
		Longitude:	103° 48' 21.921111 W
		Grid Convergence:	0.28 °

Well	1H (CVX)		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 7' 21.442444 N
		Longitude:	103° 48' 21.921111 W
		Ground Level:	3,383.00 usft

Wellbore	OH / Job #1310221		
----------	-------------------	--	--

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	04/23/13	7.46	60.01	48,344

Design	OH Survey (Latshaw 14)				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.00	0.00	0.00	180.15	

Survey Program	Date 04/30/13		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
116.10	1,064.00	VES Gyro (OH / Job #1310221)	ISCWSA-GYRO-3
1,064.00	11,000.00	Phoenix MWD Pilot Hole Survey (OH / Job	MWD
			Description
			Biaxial Semi-Cont. Gyro
			MWD - Standard

Survey							
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
1,064.00	0.93	352.10	1,063.89	3.60	-6.10	-3.58	0.00
Tie-on to VES Gyro							
1,165.00	1.40	353.60	1,164.87	5.64	-6.35	-5.62	0.47
Phoenix First Pilot Hole Survey							
1,355.00	0.20	115.20	1,354.85	7.80	-6.30	-7.79	0.80
1,544.00	0.70	161.00	1,543.84	6.57	-5.63	-6.56	0.31
1,735.00	1.10	166.00	1,734.82	3.69	-4.81	-3.68	0.21
1,925.00	1.30	182.50	1,924.78	-0.24	-4.46	0.25	0.21
2,115.00	1.60	182.50	2,114.72	-5.04	-4.67	5.05	0.16
2,305.00	0.80	246.00	2,304.68	-8.23	-6.00	8.24	0.75
2,495.00	1.20	253.00	2,494.65	-9.35	-9.11	9.37	0.22



Phoenix Technology Services
Phoenix Final Survey Report



Company: Bopco L.P.
Project: Eddy County, NM (NAD27 NME)
Site: PLU Phantom Banks 20-25-31 USA
Well: 1H (CVX)
Wellbore: OH / Job #1310221
Design: OH Survey (Latshaw 14)

Local Co-ordinate Reference: Well 1H (CVX)
TVD Reference: RF @ 3403.00usft (Latshaw 14)
MD Reference: RF @ 3403.00usft (Latshaw 14)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: GCR-DB

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
2,685.00	1.70	256.50	2,684.59	-10.59	-13.75	10.62	0.27
2,875.00	0.80	76.90	2,874.57	-10.95	-15.20	10.99	1.32
3,064.00	0.80	101.90	3,063.55	-10.92	-12.63	10.95	0.18
3,254.00	1.00	96.40	3,253.53	-11.38	-9.68	11.40	0.11
3,445.00	1.00	104.10	3,444.50	-11.97	-6.41	11.99	0.07
3,635.00	1.90	121.30	3,634.44	-14.01	-2.11	14.02	0.52
3,826.00	1.10	159.00	3,825.37	-17.37	1.25	17.36	0.64
4,016.00	1.20	161.60	4,015.34	-20.96	2.54	20.95	0.06
4,127.00	0.50	161.40	4,126.32	-22.52	3.06	22.51	0.63
4,209.00	0.30	123.40	4,208.32	-22.98	3.35	22.97	0.39
4,399.00	0.50	30.30	4,398.32	-22.53	4.18	22.52	0.31
4,589.00	0.50	20.30	4,588.31	-21.04	4.89	21.03	0.05
4,779.00	0.50	53.80	4,778.30	-19.77	5.85	19.76	0.15
4,969.00	0.60	40.70	4,968.30	-18.53	7.16	18.51	0.08
5,159.00	0.40	36.60	5,158.29	-17.24	8.21	17.22	0.11
5,349.00	0.30	1.30	5,348.28	-16.21	8.61	16.19	0.12
5,539.00	0.40	359.40	5,538.28	-15.05	8.62	15.03	0.05
5,730.00	0.20	273.60	5,729.28	-14.37	8.28	14.34	0.23
5,920.00	0.40	273.80	5,919.28	-14.30	7.29	14.28	0.11
6,110.00	0.40	237.30	6,109.27	-14.61	6.07	14.60	0.13
6,300.00	0.40	240.40	6,299.27	-15.30	4.93	15.29	0.01
6,489.00	0.20	259.40	6,488.26	-15.69	4.03	15.68	0.12
6,680.00	0.50	355.50	6,679.26	-14.92	3.64	14.91	0.29
6,870.00	0.20	102.50	6,869.26	-14.16	3.90	14.15	0.31
7,061.00	0.60	130.40	7,060.25	-14.88	4.99	14.87	0.23
7,251.00	0.80	143.70	7,250.24	-16.60	6.53	16.58	0.13
7,441.00	0.90	171.70	7,440.22	-19.14	7.53	19.12	0.22
7,630.00	1.00	176.00	7,629.19	-22.26	7.86	22.24	0.06
7,821.00	1.10	176.70	7,820.16	-25.75	8.08	25.73	0.05
8,010.00	1.10	185.30	8,009.13	-29.37	8.02	29.35	0.09
8,200.00	0.80	212.10	8,199.10	-32.31	7.15	32.29	0.28
8,390.00	1.50	223.00	8,389.06	-35.25	4.74	35.24	0.38
8,580.00	1.30	224.70	8,579.01	-38.60	1.53	38.60	0.11
8,771.00	1.50	220.00	8,769.95	-42.06	-1.60	42.06	0.12
8,961.00	0.90	201.30	8,959.91	-45.35	-3.74	45.36	0.37
9,151.00	1.00	199.70	9,149.88	-48.30	-4.84	48.31	0.05
9,341.00	1.30	187.30	9,339.84	-52.00	-5.67	52.02	0.20
9,531.00	1.00	201.70	9,529.80	-55.68	-6.56	55.70	0.22
9,721.00	1.50	180.60	9,719.76	-59.71	-7.20	59.72	0.35
9,911.00	1.20	156.50	9,909.71	-64.02	-6.43	64.03	0.33
10,101.00	0.70	211.70	10,099.69	-66.83	-6.25	66.85	0.52
10,291.00	0.60	243.10	10,289.67	-68.27	-7.75	68.29	0.19
10,481.00	1.50	250.30	10,479.64	-69.56	-10.97	69.58	0.48
10,671.00	0.90	248.00	10,669.60	-70.95	-14.70	70.99	0.32



Phoenix Technology Services
Phoenix Final Survey Report



Company: Bopco L.P.
Project: Eddy County, NM (NAD27 NME)
Site: PLU Phantom Banks 20-25-31 USA
Well: 1H (CVX)
Wellbore: OH / Job #1310221
Design: OH Survey (Latshaw 14)

Local Co-ordinate Reference: Well 1H (CVX)
TVD Reference: RF @ 3403.00usft (Latshaw 14)
MD Reference: RF @ 3403.00usft (Latshaw 14)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: GCR DB

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
10,861.00	0.50	147.00	10,859.59	-72.21	-15.63	72.25	0.58
10,953.00	0.70	162.60	10,951.58	-73.08	-15.24	73.12	0.28
11,000.00	0.70	162.60	10,998.58	-73.63	-15.07	73.67	0.00
Pilot Hole							

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,064.00	1,063.89	3.60	-6.10	Tie-on to VES Gyro
1,165.00	1,164.87	5.64	-6.35	Phoenix First Pilot Hole Survey
11,000.00	10,998.58	-73.63	-15.07	Pilot Hole

Checked By: _____ Approved By: _____ Date: _____