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OCT 27 2011

BOPCO WTD PRODUCTION

30-015-20940

BOPCO

U.S.

Eddy County, NM

Big Eddy Unit #38H

VH - Job #32K0911910

Survey: Actual

SDI Standard Survey Report

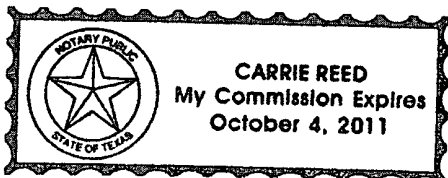
This survey is correct to the best of my knowledge and is supported by actual field data.

K. W. Carter

Notarized this date 4th of October, 2011.

Carrie Reed

Notary Signature
County of Midland
State of Texas



Scientific Drilling
Directional Drilling Operations

Scientific Drilling International, Inc.

SDI Standard Survey Report



Company:	BOPCO	Local Co-ordinate Reference:	Well Big Eddy Unit #38H
Project:	U S	TVD Reference:	WELL @ 0 0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0 0usft (Original Well Elev)
Well:	Big Eddy Unit #38H	North Reference:	Grid
Wellbore:	VH - Job #32K0911910	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0911910	Database:	EDM-Regulatory

Project	U.S.		
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		Eddy County, NM					
Site Position:		Northing:		524,402 59 usft	Latitude:	32° 26' 28 260 N	
From:	Lat/Long	Easting:		610,823 37 usft	Longitude:	103° 58' 26 770 W	
Position Uncertainty:		0 0 usft	Slot Radius:		13-3/16"	Grid Convergence:	0.19 °

Well	Big Eddy Unit #38H, Directional (Unknown)					
Well Position	+N/-S	0.0 usft	Northings:	524,402 59 usft	Latitude:	32° 26' 28 260 N
	+E/-W	0 0 usft	Easting:	610,823 37 usft	Longitude:	103° 58' 26 770 W
Position Uncertainty		0 0 usft	Wellhead Elevation:	usft	Ground Level:	0.0 usft

Wellbore		VH - Job #32K0911910			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/23/2011	7 76	60.31	48,701

Design:	VH - Job #32K0911910				
Audit Notes:					
Version:	1 0	Phase:	ACTUAL	Tie On Depth:	0 0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0 0	0 0	0 0	53 05	

Survey Program		Date 10/23/2011		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
100 0	9,563 0	Actual (VH - Job #32K0911910)	KSRG	Keeper Gyro

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
0 0	0 00	0.00	0 0	0 0	0 0	0 00	0 0	
100 0	0 45	84 67	100 0	0 0	0 4	84 67	0 4	
200 0	0 59	107.83	200 0	-0 1	1 3	93 81	1 3	
300 0	0 26	182.45	300 0	-0 5	1 8	104 98	1 8	
400 0	0 24	111.30	400 0	-0.8	1 9	111 71	2.1	
500 0	0 33	18 64	500 0	-0 6	2 2	104 49	2 3	
600 0	0 91	54 22	600 0	0 2	3 0	86 87	3 0	
700 0	1 29	37 00	700 0	1 5	4 3	70 40	4 5	
800 0	1 49	64 21	799 9	3 0	6 1	64 00	6 8	
900 0	1 56	68 00	899 9	4 1	8 6	64 60	9 5	
1,000 0	1 79	63.30	999 9	5 3	11 2	64 81	12 4	
1,100 0	1 93	60.50	1,099 8	6 8	14 1	64 20	15 6	

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SDI Standard Survey Report



Company:	BOPCO	Local Co-ordinate Reference:	Well Big Eddy Unit #38H
Project:	U.S	TVD Reference:	WELL @ 0 0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0 0usft (Original Well Elev)
Well:	Big Eddy Unit #38H	North Reference:	Grid
Wellbore:	VH - Job #32K0911910	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0911910	Database:	EDM-Regulatory

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
1,200.0	1.91	66.76	1,199.8	8.3	17.1	64.09	19.0	
1,300.0	1.97	67.78	1,299.7	9.6	20.2	64.58	22.4	
1,400.0	1.97	74.90	1,399.6	10.7	23.5	65.47	25.8	
1,500.0	1.81	70.81	1,499.6	11.7	26.6	66.32	29.0	
1,600.0	1.61	74.46	1,599.5	12.6	29.4	66.90	32.0	
1,700.0	1.49	60.32	1,699.5	13.6	31.9	66.96	34.7	
1,800.0	0.79	73.51	1,799.5	14.4	33.7	66.84	36.7	
1,900.0	0.13	53.27	1,899.5	14.7	34.5	66.93	37.5	
2,000.0	0.67	3.41	1,999.5	15.3	34.6	66.09	37.8	
2,100.0	1.14	23.75	2,099.5	16.8	35.0	64.34	38.9	
2,200.0	1.82	24.22	2,199.4	19.2	36.1	62.00	40.9	
2,300.0	2.06	22.17	2,299.4	22.3	37.4	59.20	43.6	
2,400.0	2.28	33.53	2,399.3	25.6	39.2	56.82	46.8	
2,500.0	2.56	15.80	2,499.2	29.4	40.9	54.26	50.4	
2,600.0	2.59	17.07	2,599.1	33.7	42.2	51.34	54.0	
2,700.0	2.35	5.47	2,699.0	37.9	43.0	48.60	57.4	
2,800.0	2.27	15.89	2,798.9	41.9	43.8	46.26	60.6	
2,900.0	2.15	5.10	2,898.9	45.7	44.5	44.25	63.7	
3,000.0	1.06	357.77	2,998.8	48.5	44.6	42.63	65.9	
3,100.0	1.06	2.82	3,098.8	50.3	44.6	41.57	67.2	
3,200.0	1.17	353.08	3,198.8	52.2	44.5	40.45	68.6	
3,300.0	1.43	344.87	3,298.8	54.5	44.1	39.00	70.1	
3,400.0	0.89	351.86	3,398.7	56.4	43.7	37.73	71.3	
3,500.0	0.97	354.21	3,498.7	58.0	43.5	36.82	72.5	
3,600.0	0.94	352.78	3,598.7	59.7	43.3	35.94	73.7	
3,700.0	0.97	340.72	3,698.7	61.3	42.9	34.97	74.8	
3,800.0	1.07	351.44	3,798.7	63.0	42.5	33.97	76.0	
3,900.0	0.97	30.58	3,898.7	64.7	42.8	33.47	77.5	
4,000.0	0.59	357.07	3,998.7	65.9	43.2	33.22	78.8	
4,100.0	0.26	291.44	4,098.7	66.5	42.9	32.83	79.2	
4,200.0	1.07	358.06	4,198.6	67.5	42.7	32.29	79.9	
4,300.0	0.74	341.27	4,298.6	69.1	42.4	31.57	81.1	
4,400.0	0.92	324.27	4,398.6	70.3	41.8	30.70	81.8	
4,500.0	0.50	51.30	4,498.6	71.3	41.6	30.30	82.5	
4,600.0	0.39	57.67	4,598.6	71.7	42.3	30.51	83.3	
4,700.0	0.17	325.68	4,698.6	72.0	42.5	30.53	83.6	
4,800.0	0.42	314.93	4,798.6	72.4	42.1	30.19	83.8	
4,900.0	0.65	8.69	4,898.6	73.2	42.0	29.81	84.4	
5,000.0	0.13	262.57	4,998.6	73.8	41.9	29.61	84.9	
5,100.0	0.54	51.13	5,098.6	74.1	42.2	29.67	85.2	
5,200.0	0.29	294.50	5,198.6	74.5	42.3	29.61	85.6	
5,300.0	0.48	130.04	5,298.6	74.3	42.4	29.72	85.6	
5,400.0	0.27	87.65	5,398.6	74.0	43.0	30.13	85.6	
5,500.0	0.44	109.19	5,498.6	73.9	43.6	30.51	85.8	

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Site:	Eddy County, NM	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	Big Eddy Unit #38H	North Reference:	Grid
Wellbore:	VH - Job #32K0911910	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0911910	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
5,600.0	0.13	333.96	5,598.6	73.9	43.9	30.70	85.9
5,700.0	0.25	84.74	5,698.6	74.0	44.0	30.76	86.1
5,800.0	0.28	34.03	5,798.6	74.2	44.4	30.88	86.5
5,900.0	0.11	118.92	5,898.6	74.4	44.6	30.95	86.8
6,000.0	0.21	79.80	5,998.6	74.4	44.9	31.11	86.9
6,100.0	0.28	191.43	6,098.6	74.2	45.0	31.25	86.8
6,200.0	0.38	171.15	6,198.6	73.6	45.0	31.45	86.3
6,300.0	0.30	160.82	6,298.6	73.0	45.2	31.73	85.9
6,400.0	0.54	161.61	6,398.6	72.3	45.4	32.11	85.4
6,500.0	0.59	179.06	6,498.6	71.4	45.5	32.54	84.7
6,600.0	0.57	169.62	6,598.6	70.4	45.6	32.97	83.9
6,700.0	0.44	179.78	6,698.6	69.5	45.7	33.35	83.2
6,800.0	0.50	183.95	6,798.6	68.7	45.7	33.65	82.5
6,900.0	0.71	184.27	6,898.6	67.6	45.6	34.01	81.6
7,000.0	0.67	189.28	6,998.6	66.4	45.5	34.40	80.5
7,100.0	0.62	133.60	7,098.6	65.5	45.8	34.96	79.9
7,200.0	0.48	134.49	7,198.6	64.8	46.5	35.65	79.8
7,300.0	0.42	122.47	7,298.5	64.3	47.1	36.21	79.7
7,400.0	0.51	134.13	7,398.5	63.8	47.7	36.79	79.7
7,500.0	0.43	176.23	7,498.5	63.1	48.1	37.28	79.3
7,600.0	0.30	198.22	7,598.5	62.5	48.0	37.52	78.8
7,700.0	0.18	123.72	7,698.5	62.2	48.1	37.70	78.6
7,800.0	0.41	90.65	7,798.5	62.1	48.5	38.02	78.8
7,900.0	0.45	58.31	7,898.5	62.3	49.2	38.32	79.4
8,000.0	0.53	38.29	7,998.5	62.9	49.9	38.42	80.2
8,100.0	0.67	37.63	8,098.5	63.7	50.5	38.41	81.3
8,200.0	0.72	40.51	8,198.5	64.6	51.3	38.42	82.5
8,300.0	0.76	51.47	8,298.5	65.5	52.2	38.54	83.8
8,400.0	0.75	72.63	8,398.5	66.1	53.3	38.89	85.0
8,500.0	0.83	91.61	8,498.5	66.3	54.7	39.52	85.9
8,600.0	0.91	105.65	8,598.5	66.1	56.2	40.37	86.7
8,700.0	0.87	134.07	8,698.5	65.3	57.5	41.35	87.0
8,800.0	0.87	134.88	8,798.5	64.3	58.6	42.35	86.9
8,900.0	0.78	137.81	8,898.4	63.2	59.6	43.29	86.9
9,000.0	1.04	128.92	8,998.4	62.1	60.7	44.34	86.9
9,100.0	1.13	131.79	9,098.4	60.9	62.2	45.58	87.0
9,200.0	1.28	117.02	9,198.4	59.8	63.9	46.92	87.5
9,300.0	1.71	104.92	9,298.4	58.9	66.3	48.42	88.7
9,400.0	1.80	103.63	9,398.3	58.1	69.3	50.02	90.4
9,500.0	2.29	104.96	9,498.3	57.2	72.8	51.82	92.6
9,563.0	2.47	100.40	9,561.2	56.6	75.3	53.05	94.2



Project: U.S.
Eddy County, NM
Well: Big Eddy Unit #38H
Wellbore: VH - Job #32K0911910
Design: VH - Job #32K0911910

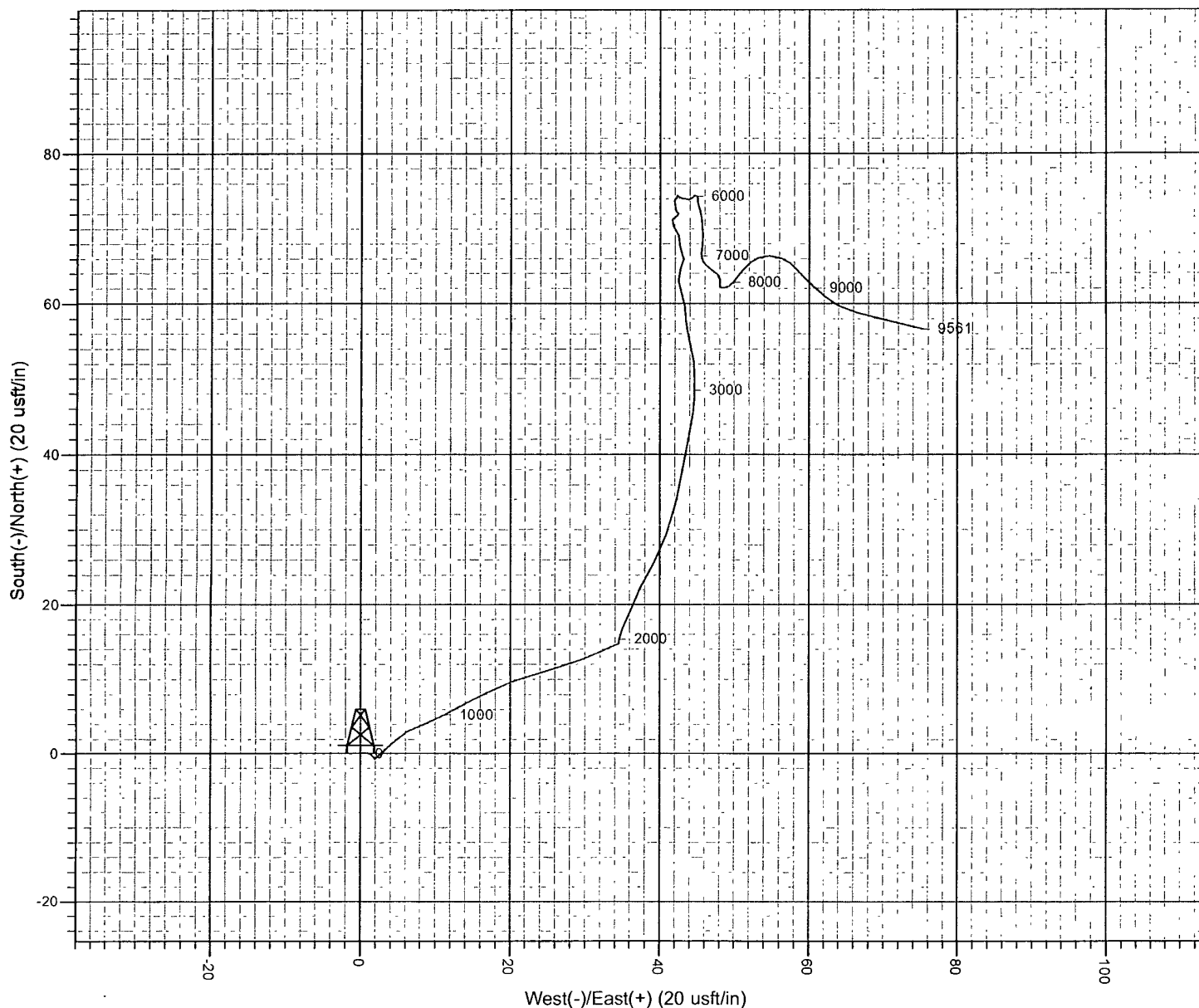


Azimuths to Grid North
True North -0 19°
Magnetic North 7 56°

Magnetic Field
Strength 48700 9snT
Dip Angle 60 31°
Date 9/23/2011
Model IGRF2010

WELL DETAILS: Big Eddy Unit #38H
WELL @ 0.0usft (Original Well Elev)
Ground Level: 0.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	524402.59	610823.37	32° 26' 28.260 N	103° 58' 26.770 W	



PROJECT DETAILS: U.S.
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

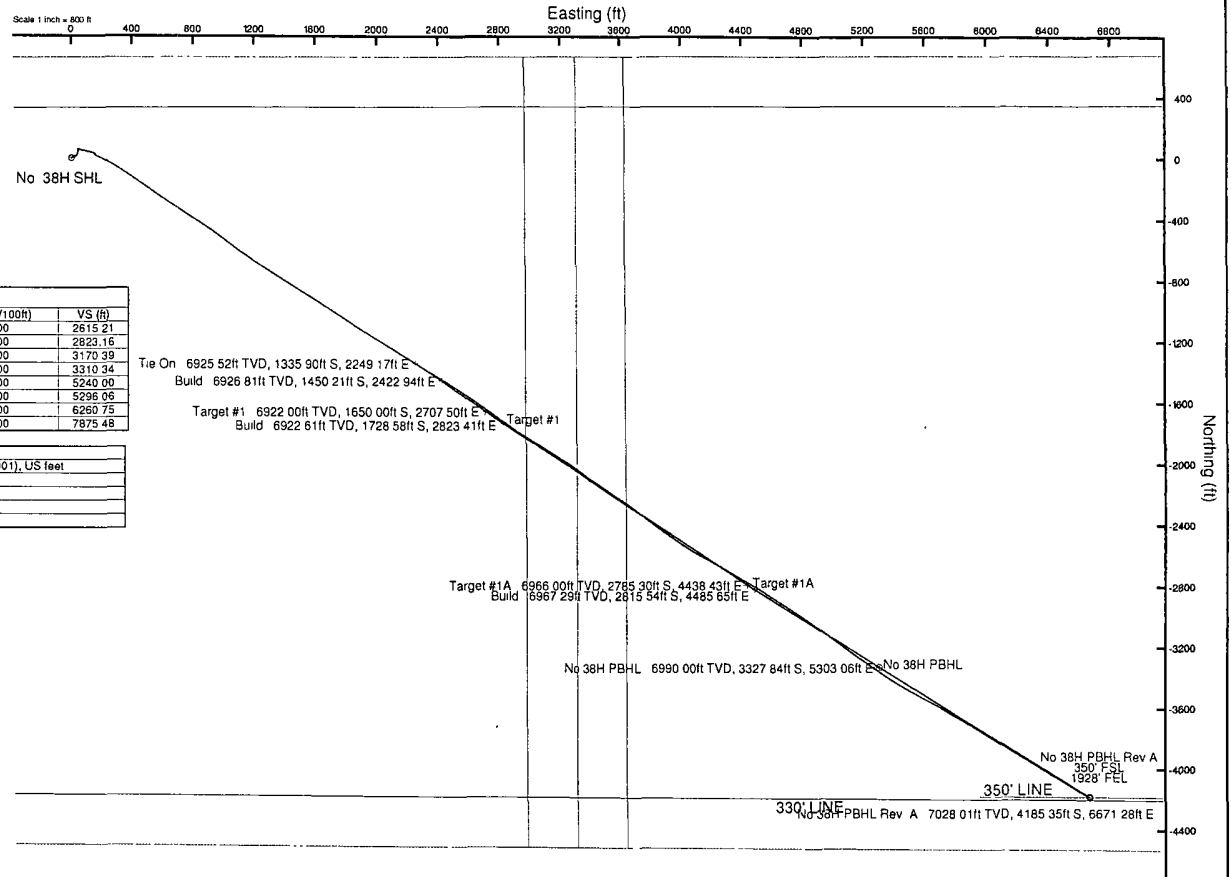
SITE DETAILS: Eddy County, NM
Site Centre Latitude: 32° 26' 28.260 N
Longitude: 103° 58' 26.770 W
Positional Uncertainty: 0.0
Convergence: 0.19
Local North: Grid



BOPCO, L.P.

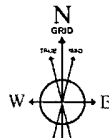
Location: Eddy County, NM
Field: (Big Eddy) Sec 34, T21S, R29E
Facility: Big Eddy Unit No 38H

Slot: No. 38H SHL
Well: No. 38H
Wellbore: No. 38H PWB

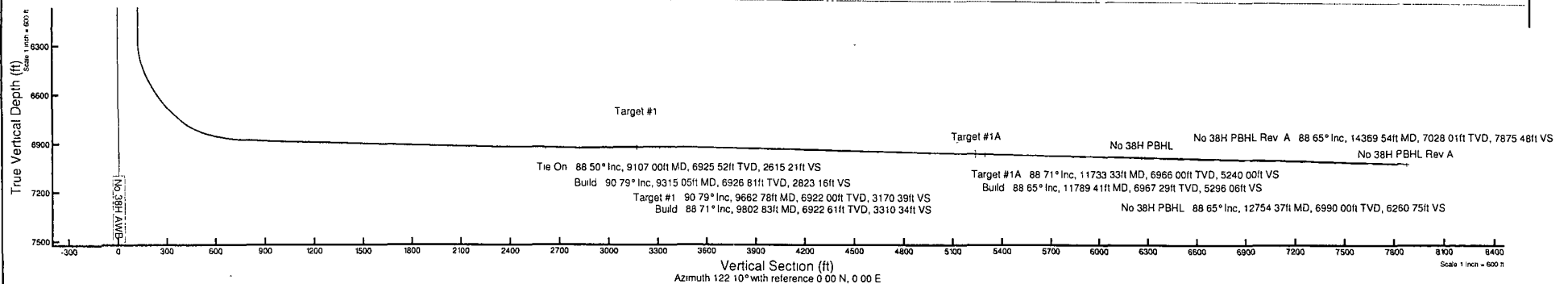


Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	9107.00	88.500	121.600	6925.52	-1335.90	2249.17	0.00	2615.21
Build	9315.05	90.792	125.073	6926.81	-1450.21	2422.94	2.00	2823.16
Target #1	9662.78	90.792	125.073	6922.00	-1650.00	2707.50	0.00	3170.39
Build	9902.83	88.712	123.197	6922.61	-1728.58	2823.41	2.00	3310.34
Target #1A	11733.33	88.712	123.197	6966.00	-2765.30	4438.43	0.00	5240.00
Build	11789.41	88.651	122.077	6967.29	-2815.54	4485.65	2.00	5296.06
No 38H PBHL	12754.37	88.651	122.077	6990.00	-3327.84	5303.06	0.00	6260.75
No 38H PBHL Rev A	14369.54	88.651	122.077	7028.01	-4185.35	6671.28	0.00	7875.48

Plot reference wellpath is Plan #3	
True vertical depths are referenced to Rig on No. 38H SHL (KB)	Grid System NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No. 38H SHL (KB)	North Reference Grid north
Rig on No. 38H SHL (KB) to Mean Sea Level 3450 feet	Scale True distance
Mean Sea Level to Mud line (At Slot No. 38H SHL) 3428 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by gantbry on 11/18/2011



BGGM (1945 0 to 2012 0) Dip 60.32° Field 48735 1 nT
Magnetic North is 7.84 degrees East of True North (at 6/2/2011)
Grid North is 0.19 degrees East of True North
To correct azimuth from True to Grid subtract 0.19 degrees
To correct azimuth from Magnetic to Grid add 7.65 degrees
For example if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.65 = 97.65





Actual Wellpath Report

No.38H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No. 38H SHL
Area	Eddy County, NM	Well	No.38H
Field	(Big Eddy) Sec 34, T21S, R29E	Wellbore	No.38H AWB
Facility	Big Eddy Unit No. 38H		

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 3.0.0
North Reference	Grid	User	Calhphik
Scale	0.999923	Report Generated	11/28/2011 at 9:04:37 AM
Convergence at slot	0.19° East	Database/Source file	WA_Midland/No.38H_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	610823.03	524402.80	32°26'28.262"N	103°58'26.774"W
Facility Reference Pt			610823.03	524402.80	32°26'28.262"N	103°58'26.774"W
Field Reference Pt			610823.03	524402.80	32°26'28.262"N	103°58'26.774"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 38H SHL (KB) to Facility Vertical Datum	22.00ft
Horizontal Reference Pt	Slot	Rig on No. 38H SHL (KB) to Mean Sea Level	3450.00ft
Vertical Reference Pt	Rig on No. 38H SHL (KB)	Rig on No. 38H SHL (KB) to Mud Line at Slot (No. 38H SHL)	22.00ft
MD Reference Pt	Rig on No. 38H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	122.10°



Actual Wellpath Report

No.38H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No. 38H SHL
Area	Eddy County, NM	Well	No.38H
Field	(Big Eddy) Sec 34, T21S, R29E	Wellbore	No.38H AWB
Facility	Big Eddy Unit No. 38H		

WELLPATH DATA (184 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	84.670	0.00	0.00	0.00	0.00	610823.03	524402.80	32°26'28.262"N	103°58'26.774"W	0.00	
22.00	0.000	84.670	22.00	0.00	0.00	0.00	610823.03	524402.80	32°26'28.262"N	103°58'26.774"W	0.00	
100.00	0.450	84.670	100.00	0.24	0.03	0.30	610823.34	524402.83	32°26'28.262"N	103°58'26.770"W	0.58	
200.00	0.590	107.830	200.00	1.05	-0.09	1.19	610824.22	524402.71	32°26'28.261"N	103°58'26.760"W	0.25	
300.00	0.260	182.450	299.99	1.67	-0.48	1.67	610824.70	524402.33	32°26'28.257"N	103°58'26.755"W	0.58	
400.00	0.240	111.300	399.99	1.98	-0.78	1.85	610824.88	524402.02	32°26'28.254"N	103°58'26.752"W	0.29	
500.00	0.330	18.640	499.99	2.12	-0.58	2.14	610825.17	524402.22	32°26'28.256"N	103°58'26.749"W	0.42	
600.00	0.910	54.220	599.99	2.35	0.15	2.88	610825.91	524402.96	32°26'28.264"N	103°58'26.740"W	0.67	
700.00	1.290	37.000	699.97	2.75	1.52	4.20	610827.23	524404.32	32°26'28.277"N	103°58'26.725"W	0.50	
800.00	1.490	64.210	799.94	3.54	2.98	6.05	610829.08	524405.78	32°26'28.291"N	103°58'26.703"W	0.68	
900.00	1.560	68.000	899.90	5.03	4.06	8.48	610831.51	524406.86	32°26'28.302"N	103°58'26.675"W	0.12	
1000.00	1.790	63.300	999.86	6.63	5.27	11.14	610834.17	524408.07	32°26'28.314"N	103°58'26.644"W	0.27	
1100.00	1.930	60.500	1099.81	8.24	6.80	14.00	610837.03	524409.60	32°26'28.329"N	103°58'26.610"W	0.17	
1200.00	1.910	66.760	1199.75	9.99	8.29	16.99	610840.02	524411.09	32°26'28.344"N	103°58'26.575"W	0.21	
1300.00	1.970	67.780	1299.69	11.94	9.59	20.12	610843.15	524412.40	32°26'28.356"N	103°58'26.539"W	0.07	
1400.00	1.970	74.900	1399.64	14.11	10.69	23.37	610846.40	524413.49	32°26'28.367"N	103°58'26.501"W	0.24	
1500.00	1.810	70.810	1499.58	16.27	11.66	26.52	610849.55	524414.46	32°26'28.377"N	103°58'26.464"W	0.21	
1600.00	1.610	74.460	1599.54	18.20	12.55	29.36	610852.39	524415.36	32°26'28.385"N	103°58'26.431"W	0.23	
1700.00	1.490	60.320	1699.50	19.76	13.57	31.85	610854.87	524416.38	32°26'28.395"N	103°58'26.402"W	0.40	
1800.00	0.790	73.510	1799.48	20.83	14.41	33.64	610856.66	524417.22	32°26'28.404"N	103°58'26.381"W	0.74	
1900.00	0.130	53.270	1899.48	21.33	14.68	34.39	610857.42	524417.48	32°26'28.406"N	103°58'26.372"W	0.67	
2000.00	0.670	3.410	1999.47	21.09	15.33	34.51	610857.54	524418.13	32°26'28.413"N	103°58'26.371"W	0.59	
2100.00	1.140	23.750	2099.46	20.66	16.82	34.95	610857.98	524419.63	32°26'28.427"N	103°58'26.366"W	0.56	
2200.00	1.820	24.220	2199.43	20.30	19.18	36.00	610859.03	524421.98	32°26'28.451"N	103°58'26.353"W	0.68	
2300.00	2.060	22.170	2299.37	19.77	22.29	37.33	610860.36	524425.10	32°26'28.481"N	103°58'26.338"W	0.25	
2400.00	2.280	33.530	2399.30	19.51	25.62	39.11	610862.14	524428.42	32°26'28.514"N	103°58'26.317"W	0.48	
2500.00	2.560	15.800	2499.21	18.94	29.42	40.81	610863.84	524432.23	32°26'28.552"N	103°58'26.297"W	0.80	
2600.00	2.590	17.070	2599.11	17.72	33.73	42.09	610865.11	524436.53	32°26'28.595"N	103°58'26.282"W	0.06	
2700.00	2.350	5.470	2699.02	16.22	37.93	42.94	610865.97	524440.73	32°26'28.636"N	103°58'26.271"W	0.55	
2800.00	2.270	15.890	2798.94	14.75	41.88	43.68	610866.71	524444.68	32°26'28.675"N	103°58'26.263"W	0.43	
2900.00	2.150	5.100	2898.86	13.34	45.65	44.39	610867.42	524448.45	32°26'28.712"N	103°58'26.254"W	0.43	
3000.00	1.060	357.770	2998.82	11.97	48.45	44.52	610867.55	524451.24	32°26'28.740"N	103°58'26.253"W	1.11	
3100.00	1.060	2.820	3098.80	10.99	50.29	44.53	610867.56	524453.09	32°26'28.758"N	103°58'26.252"W	0.09	
3200.00	1.170	353.080	3198.79	9.90	52.23	44.45	610867.48	524455.03	32°26'28.777"N	103°58'26.253"W	0.22	
3300.00	1.430	344.870	3298.76	8.34	54.45	44.01	610867.03	524457.25	32°26'28.799"N	103°58'26.258"W	0.32	
3400.00	0.890	351.860	3398.74	6.92	56.42	43.57	610866.60	524459.22	32°26'28.819"N	103°58'26.263"W	0.56	
3480.00	2.100	77.000	3478.72	7.56	57.37	44.91	610867.94	524460.17	32°26'28.828"N	103°58'26.248"W	2.76	
3512.00	4.000	95.300	3510.67	8.97	57.40	46.59	610869.62	524460.19	32°26'28.829"N	103°58'26.228"W	6.60	
3544.00	5.500	102.100	3542.56	11.40	56.97	49.20	610872.23	524459.77	32°26'28.824"N	103°58'26.198"W	5.00	
3576.00	5.900	102.500	3574.40	14.39	56.29	52.31	610875.34	524459.09	32°26'28.817"N	103°58'26.161"W	1.26	
3607.00	6.200	100.400	3605.23	17.45	55.65	55.51	610878.54	524458.45	32°26'28.811"N	103°58'26.124"W	1.20	
3639.00	6.300	102.200	3637.04	20.71	54.96	58.93	610881.95	524457.76	32°26'28.804"N	103°58'26.084"W	0.69	
3671.00	5.500	112.100	3668.87	23.87	54.02	62.06	610885.09	524456.81	32°26'28.795"N	103°58'26.048"W	4.04	
3702.00	5.600	120.600	3699.73	26.84	52.69	64.74	610887.77	524455.49	32°26'28.781"N	103°58'26.016"W	2.67	
3734.00	5.400	118.800	3731.58	29.91	51.17	67.41	610890.43	524453.97	32°26'28.766"N	103°58'25.985"W	0.83	



Actual Wellpath Report

No.38H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No. 38H SHL
Area	Eddy County, NM	Well	No.38H
Field	(Big Eddy) Sec 34, T21S, R29E	Wellbore	No.38H AWB
Facility	Big Eddy Unit No. 38H		

WELLPATH DATA (184 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3766.00	5.700	105.700	3763.43	32.93	50.01	70.25	610893.28	524452.81	32°26'28.755"N	103°58'25.952"W	4.06	
3798.00	5.800	100.600	3795.27	35.96	49.28	73.37	610896.40	524452.08	32°26'28.747"N	103°58'25.916"W	1.63	
3829.00	5.800	97.800	3826.11	38.85	48.78	76.47	610899.49	524451.58	32°26'28.742"N	103°58'25.880"W	0.91	
3861.00	5.700	96.500	3857.95	41.75	48.38	79.65	610902.67	524451.18	32°26'28.738"N	103°58'25.843"W	0.51	
3893.00	5.400	96.800	3889.80	44.55	48.03	82.72	610905.75	524450.83	32°26'28.735"N	103°58'25.807"W	0.94	
3956.00	5.900	102.500	3952.49	50.28	46.97	88.83	610911.85	524449.77	32°26'28.724"N	103°58'25.736"W	1.19	
3988.00	6.100	106.900	3984.32	53.47	46.12	92.06	610915.08	524448.92	32°26'28.715"N	103°58'25.698"W	1.57	
4052.00	5.400	108.300	4048.00	59.68	44.19	98.17	610921.19	524446.99	32°26'28.696"N	103°58'25.627"W	1.12	
4147.00	6.300	98.800	4142.50	68.80	41.99	107.57	610930.59	524444.79	32°26'28.674"N	103°58'25.517"W	1.39	
4242.00	6.300	101.700	4236.93	78.48	40.13	117.82	610940.84	524442.93	32°26'28.655"N	103°58'25.398"W	0.33	
4337.00	5.800	104.100	4331.40	87.93	37.91	127.58	610950.60	524440.71	32°26'28.633"N	103°58'25.284"W	0.59	
4432.00	5.100	103.000	4425.97	96.48	35.79	136.35	610959.37	524438.59	32°26'28.612"N	103°58'25.182"W	0.74	
4527.00	3.700	113.500	4520.69	103.50	33.62	143.28	610966.30	524436.42	32°26'28.590"N	103°58'25.101"W	1.69	
4622.00	2.500	124.100	4615.55	108.61	31.23	147.80	610970.82	524434.03	32°26'28.566"N	103°58'25.048"W	1.39	
4718.00	1.100	124.400	4711.50	111.62	29.54	150.30	610973.32	524432.34	32°26'28.549"N	103°58'25.019"W	1.46	
4814.00	1.400	128.500	4807.48	113.71	28.29	151.98	610975.00	524431.09	32°26'28.537"N	103°58'25.000"W	0.33	
4909.00	0.500	157.000	4902.46	115.20	27.18	153.05	610976.07	524429.98	32°26'28.526"N	103°58'24.987"W	1.04	
5004.00	0.600	144.700	4997.46	116.00	26.40	153.50	610976.52	524429.20	32°26'28.518"N	103°58'24.982"W	0.16	
5099.00	0.500	139.900	5092.45	116.85	25.67	154.05	610977.07	524428.47	32°26'28.511"N	103°58'24.975"W	0.12	
5194.00	0.500	140.200	5187.45	117.64	25.04	154.58	610977.60	524427.84	32°26'28.505"N	103°58'24.969"W	0.00	
5290.00	0.500	137.400	5283.45	118.44	24.41	155.13	610978.15	524427.21	32°26'28.498"N	103°58'24.963"W	0.03	
5385.00	0.400	158.600	5378.44	119.11	23.79	155.54	610978.56	524426.59	32°26'28.492"N	103°58'24.958"W	0.20	
5480.00	0.500	174.400	5473.44	119.63	23.07	155.70	610978.72	524425.87	32°26'28.485"N	103°58'24.956"W	0.17	
5575.00	0.400	152.900	5568.44	120.17	22.36	155.89	610978.91	524425.17	32°26'28.478"N	103°58'24.954"W	0.20	
5671.00	0.300	152.100	5664.44	120.67	21.84	156.16	610979.18	524424.64	32°26'28.473"N	103°58'24.951"W	0.10	
5766.00	0.300	130.300	5759.44	121.13	21.46	156.46	610979.48	524424.26	32°26'28.469"N	103°58'24.947"W	0.12	
5861.00	0.300	140.600	5854.43	121.62	21.11	156.81	610979.83	524423.91	32°26'28.466"N	103°58'24.943"W	0.06	
5956.00	0.400	170.200	5949.43	122.07	20.59	157.03	610980.05	524423.39	32°26'28.461"N	103°58'24.941"W	0.21	
6052.00	0.300	149.200	6045.43	122.52	20.04	157.21	610980.23	524422.85	32°26'28.455"N	103°58'24.939"W	0.17	
6147.00	0.400	191.100	6140.43	122.86	19.51	157.28	610980.30	524422.31	32°26'28.450"N	103°58'24.938"W	0.28	
6242.00	0.500	196.300	6235.43	123.09	18.78	157.10	610980.12	524421.58	32°26'28.443"N	103°58'24.940"W	0.11	
6274.00	0.300	200.000	6267.42	123.15	18.57	157.03	610980.05	524421.37	32°26'28.441"N	103°58'24.941"W	0.63	
6306.00	3.300	128.000	6299.41	124.08	17.92	157.73	610980.74	524420.73	32°26'28.434"N	103°58'24.933"W	10.06	
6338.00	7.100	121.200	6331.27	126.98	16.33	160.14	610983.16	524419.13	32°26'28.418"N	103°58'24.905"W	12.01	
6370.00	11.300	115.700	6362.85	132.07	13.95	164.66	610987.68	524416.75	32°26'28.395"N	103°58'24.852"W	13.39	
6401.00	15.200	113.800	6393.02	139.11	10.99	171.12	610994.14	524413.79	32°26'28.365"N	103°58'24.777"W	12.66	
6433.00	18.500	112.600	6423.64	148.28	7.34	179.65	611002.67	524410.15	32°26'28.329"N	103°58'24.678"W	10.37	
6465.00	21.500	114.900	6453.71	159.10	2.92	189.66	611012.67	524405.73	32°26'28.285"N	103°58'24.561"W	9.69	
6497.00	24.100	118.200	6483.21	171.44	-2.64	200.73	611023.75	524400.17	32°26'28.229"N	103°58'24.432"W	9.05	
6528.00	27.000	119.400	6511.17	184.79	-9.08	212.45	611035.46	524393.72	32°26'28.165"N	103°58'24.295"W	9.50	
6560.00	30.400	120.100	6539.24	200.14	-16.71	225.78	611048.80	524386.09	32°26'28.089"N	103°58'24.140"W	10.68	
6592.00	31.700	120.800	6566.65	216.64	-25.08	240.01	611063.02	524377.73	32°26'28.006"N	103°58'23.974"W	4.22	
6623.00	32.800	119.100	6592.87	233.17	-33.33	254.34	611077.36	524369.47	32°26'27.924"N	103°58'23.808"W	4.60	
6655.00	35.400	119.700	6619.37	251.09	-42.14	269.97	611092.98	524360.67	32°26'27.836"N	103°58'23.626"W	8.19	
6687.00	38.300	120.500	6644.97	270.26	-51.77	286.57	611109.58	524351.04	32°26'27.740"N	103°58'23.432"W	9.19	



Actual Wellpath Report

No.38H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 38H SHL
Area	Eddy County, NM	Well	No.38H
Field	(Big Eddy) Sec 34, T21S, R29E	Wellbore	No.38H AWP
Facility	Big Eddy Unit No. 38H		

WELLPATH DATA (184 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
6719.00	41.000	120.500	6669.61	290.67	-62.13	304.16	611127.17	524340.68	32°26'27.637"N	103°58'23.227"W	8.44	
6750.00	43.700	121.800	6692.52	311.55	-72.94	322.03	611145.03	524329.87	32°26'27.530"N	103°58'23.019"W	9.16	
6782.00	45.500	121.900	6715.30	334.02	-84.79	341.11	611164.12	524318.02	32°26'27.412"N	103°58'22.797"W	5.63	
6814.00	47.900	122.600	6737.24	357.30	-97.22	360.81	611183.81	524305.59	32°26'27.288"N	103°58'22.568"W	7.67	
6846.00	51.000	123.200	6758.04	381.61	-110.43	381.22	611204.22	524292.38	32°26'27.157"N	103°58'22.330"W	9.79	
6877.00	55.100	124.200	6776.68	406.37	-124.18	401.82	611224.82	524278.64	32°26'27.020"N	103°58'22.090"W	13.47	
6909.00	58.600	123.600	6794.17	433.15	-139.11	424.05	611247.05	524263.70	32°26'26.871"N	103°58'21.832"W	11.05	
6941.00	63.200	123.600	6809.73	461.09	-154.58	447.34	611270.33	524248.23	32°26'26.718"N	103°58'21.560"W	14.38	
6972.00	67.000	123.600	6822.78	489.19	-170.14	470.75	611293.75	524232.68	32°26'26.563"N	103°58'21.288"W	12.26	
7004.00	70.300	124.500	6834.43	518.98	-186.83	495.44	611318.44	524215.99	32°26'26.397"N	103°58'21.000"W	10.64	
7036.00	73.400	124.500	6844.40	549.35	-204.05	520.50	611343.49	524198.77	32°26'26.226"N	103°58'20.709"W	9.69	
7068.00	76.300	125.300	6852.76	580.20	-221.72	545.83	611368.82	524181.10	32°26'26.050"N	103°58'20.414"W	9.38	
7100.00	79.000	124.700	6859.60	611.42	-239.65	571.43	611394.42	524163.17	32°26'25.872"N	103°58'20.116"W	8.63	
7131.00	79.800	123.700	6865.30	641.87	-256.77	596.63	611419.62	524146.05	32°26'25.701"N	103°58'19.822"W	4.09	
7163.00	81.300	123.200	6870.56	673.42	-274.17	622.97	611445.95	524128.65	32°26'25.528"N	103°58'19.516"W	4.93	
7195.00	83.700	123.500	6874.73	705.14	-291.61	649.47	611472.45	524111.21	32°26'25.355"N	103°58'19.207"W	7.56	
7226.00	86.500	122.500	6877.38	736.02	-308.43	675.37	611498.35	524094.39	32°26'25.188"N	103°58'18.906"W	9.59	
7258.00	87.100	123.400	6879.17	767.96	-325.81	702.18	611525.16	524077.02	32°26'25.015"N	103°58'18.594"W	3.38	
7290.00	86.800	123.000	6880.87	799.91	-343.31	728.92	611551.90	524059.52	32°26'24.841"N	103°58'18.282"W	1.56	
7393.00	87.600	122.600	6885.90	902.78	-399.04	815.39	611638.36	524003.80	32°26'24.286"N	103°58'17.276"W	0.87	
7488.00	87.500	123.300	6889.96	997.68	-450.66	895.04	611718.00	523952.18	32°26'23.773"N	103°58'16.348"W	0.74	
7583.00	88.400	127.100	6893.36	1092.47	-505.38	972.60	611795.56	523897.47	32°26'23.229"N	103°58'15.445"W	4.11	
7678.00	88.400	127.400	6896.02	1187.05	-562.86	1048.19	611871.14	523839.99	32°26'22.658"N	103°58'14.566"W	0.32	
7774.00	88.500	124.200	6898.61	1282.80	-618.99	1126.02	611948.96	523783.87	32°26'22.100"N	103°58'13.660"W	3.33	
7869.00	88.300	124.600	6901.27	1377.68	-672.64	1204.37	612027.31	523730.22	32°26'21.566"N	103°58'12.748"W	0.47	
7964.00	88.600	122.800	6903.84	1472.61	-725.32	1283.38	612106.31	523677.54	32°26'21.042"N	103°58'11.828"W	1.92	
8059.00	88.600	121.800	6906.16	1567.58	-776.07	1363.65	612186.58	523626.79	32°26'20.537"N	103°58'10.893"W	1.05	
8154.00	88.400	121.900	6908.64	1662.55	-826.19	1444.32	612267.24	523576.68	32°26'20.039"N	103°58'09.954"W	0.24	
8249.00	87.900	122.200	6911.71	1757.50	-876.57	1524.80	612347.71	523526.30	32°26'19.537"N	103°58'09.017"W	0.61	
8344.00	89.900	123.100	6913.53	1852.47	-927.81	1604.77	612427.67	523475.06	32°26'19.028"N	103°58'08.086"W	2.31	
8440.00	88.600	123.400	6914.79	1948.44	-980.44	1685.04	612507.94	523422.44	32°26'18.504"N	103°58'07.152"W	1.39	
8535.00	88.300	122.900	6917.36	2043.39	-1032.37	1764.55	612587.44	523370.51	32°26'17.988"N	103°58'06.226"W	0.61	
8631.00	88.600	124.400	6919.96	2139.31	-1085.55	1844.43	612667.32	523317.34	32°26'17.459"N	103°58'05.296"W	1.59	
8726.00	89.500	122.100	6921.53	2234.27	-1137.62	1923.86	612746.74	523265.27	32°26'16.941"N	103°58'04.371"W	2.60	
8821.00	89.500	120.900	6922.36	2329.26	-1187.26	2004.86	612827.73	523215.64	32°26'16.447"N	103°58'03.428"W	1.26	
8916.00	90.000	121.300	6922.78	2424.25	-1236.33	2086.20	612909.07	523166.57	32°26'15.959"N	103°58'02.481"W	0.67	
9012.00	89.100	121.400	6923.53	2520.24	-1286.27	2168.18	612991.04	523116.63	32°26'15.462"N	103°58'01.527"W	0.94	
9107.00	88.500	121.600	6925.52	2615.21	-1335.90	2249.17	613072.02	523067.01	32°26'14.968"N	103°58'00.584"W	0.67	
9202.00	88.600	121.100	6927.92	2710.17	-1385.31	2330.27	613153.12	523017.60	32°26'14.476"N	103°57'59.639"W	0.54	
9298.00	88.600	120.900	6930.27	2806.12	-1434.74	2412.53	613235.38	522968.18	32°26'13.984"N	103°57'58.682"W	0.21	
9393.00	91.000	122.500	6930.60	2901.11	-1484.65	2493.35	613316.19	522918.27	32°26'13.488"N	103°57'57.741"W	3.04	
9488.00	91.100	125.400	6928.86	2996.04	-1537.69	2572.14	613394.96	522865.23	32°26'12.960"N	103°57'56.824"W	3.05	
9583.00	91.000	125.000	6927.12	3090.88	-1592.44	2649.75	613472.57	522810.49	32°26'12.416"N	103°57'55.920"W	0.43	
9679.00	91.000	125.300	6925.44	3186.73	-1647.70	2728.23	613551.05	522755.23	32°26'11.866"N	103°57'55.007"W	0.31	
9774.00	90.100	125.200	6924.53	3281.58	-1702.53	2805.81	613628.62	522700.41	32°26'11.321"N	103°57'54.104"W	0.95	



Actual Wellpath Report

No.38H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No. 38H SHL
Area	Eddy County, NM	Well	No.38H
Field	(Big Eddy) Sec 34, T21S, R29E	Wellbore	No.38H AWP
Facility	Big Eddy Unit No. 38H		

WELLPATH DATA (184 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
9869.00	89.500	124.600	6924.86	3376.47	-1756.88	2883.72	613706.53	522646.06	32°26'10.780"N	103°57'53.197"W	0.89	
9965.00	88.600	122.400	6926.46	3472.42	-1809.86	2963.76	613786.56	522593.09	32°26'10.254"N	103°57'52.265"W	2.48	
10060.00	88.700	122.700	6928.69	3567.39	-1860.96	3043.81	613866.61	522541.99	32°26'09.745"N	103°57'51.333"W	0.33	
10155.00	89.200	122.900	6930.43	3662.37	-1912.41	3123.65	613946.44	522490.54	32°26'09.233"N	103°57'50.404"W	0.57	
10250.00	89.100	122.700	6931.84	3757.35	-1963.87	3203.50	614026.28	522439.09	32°26'08.721"N	103°57'49.474"W	0.24	
10345.00	89.000	124.200	6933.42	3852.31	-2016.22	3282.75	614105.52	522386.74	32°26'08.201"N	103°57'48.552"W	1.58	
10440.00	89.000	124.500	6935.08	3947.22	-2069.82	3361.17	614183.94	522333.15	32°26'07.668"N	103°57'47.639"W	0.32	
10536.00	89.100	122.600	6936.67	4043.17	-2122.86	3441.16	614263.92	522280.11	32°26'07.140"N	103°57'46.708"W	1.98	
10631.00	88.500	124.900	6938.66	4138.10	-2175.63	3520.13	614342.89	522227.35	32°26'06.615"N	103°57'45.789"W	2.50	
10726.00	88.600	121.500	6941.06	4233.04	-2227.62	3599.59	614422.33	522175.36	32°26'06.098"N	103°57'44.864"W	3.58	
10821.00	88.600	127.000	6943.39	4327.91	-2281.05	3678.06	614500.80	522121.93	32°26'05.567"N	103°57'43.950"W	5.79	
10916.00	88.600	129.700	6945.71	4422.31	-2339.97	3752.53	614575.27	522063.02	32°26'04.981"N	103°57'43.084"W	2.84	
11011.00	88.500	126.100	6948.11	4516.78	-2398.30	3827.46	614650.19	522004.69	32°26'04.401"N	103°57'42.212"W	3.79	
11106.00	88.600	124.500	6950.52	4611.60	-2453.18	3904.96	614727.69	521949.82	32°26'03.856"N	103°57'41.310"W	1.69	
11201.00	88.500	124.800	6952.92	4706.47	-2507.17	3983.09	614805.81	521895.83	32°26'03.319"N	103°57'40.401"W	0.33	
11297.00	88.600	121.600	6955.35	4802.41	-2559.72	4063.38	614886.09	521843.29	32°26'02.796"N	103°57'39.466"W	3.33	
11392.00	88.500	117.600	6957.75	4897.27	-2606.62	4145.94	614968.65	521796.39	32°26'02.329"N	103°57'38.505"W	4.21	
11487.00	88.600	118.500	6960.16	4992.00	-2651.27	4229.76	615052.45	521751.74	32°26'01.884"N	103°57'37.529"W	0.95	
11582.00	88.600	120.100	6962.48	5086.86	-2697.75	4312.57	615135.27	521705.27	32°26'01.421"N	103°57'36.564"W	1.68	
11677.00	88.500	119.400	6964.88	5181.75	-2744.88	4395.03	615217.71	521658.14	32°26'00.952"N	103°57'35.604"W	0.74	
11772.00	88.600	119.700	6967.29	5276.62	-2791.71	4477.64	615300.32	521611.31	32°26'00.486"N	103°57'34.642"W	0.33	
11868.00	88.600	123.700	6969.63	5372.57	-2842.13	4559.28	615381.95	521560.89	32°25'59.984"N	103°57'33.692"W	4.17	
11963.00	88.600	122.400	6971.96	5467.53	-2893.93	4638.88	615461.55	521509.10	32°25'59.469"N	103°57'32.765"W	1.37	
12057.00	88.800	122.300	6974.09	5561.50	-2944.21	4718.27	615540.93	521458.82	32°25'58.969"N	103°57'31.841"W	0.24	
12152.00	88.800	124.000	6976.08	5656.46	-2996.15	4797.79	615620.44	521406.89	32°25'58.452"N	103°57'30.915"W	1.79	
12247.00	88.900	124.900	6977.98	5751.36	-3049.88	4876.11	615698.76	521353.17	32°25'57.918"N	103°57'30.004"W	0.95	
12342.00	88.900	126.400	6979.81	5846.16	-3105.23	4953.29	615775.93	521297.81	32°25'57.367"N	103°57'29.105"W	1.58	
12437.00	88.700	127.100	6981.80	5940.83	-3162.06	5029.39	615852.03	521240.99	32°25'56.802"N	103°57'28.202"W	0.77	
12532.00	88.900	126.000	6983.79	6035.52	-3218.62	5105.69	615928.32	521184.43	32°25'56.240"N	103°57'27.332"W	1.18	
12627.00	88.900	125.500	6985.61	6130.31	-3274.12	5182.78	616005.40	521128.94	32°25'55.688"N	103°57'26.435"W	0.53	
12722.00	88.800	124.400	6987.52	6225.17	-3328.53	5260.63	616083.25	521074.54	32°25'55.147"N	103°57'25.529"W	1.16	
12818.00	88.700	124.400	6989.61	6321.07	-3382.75	5339.82	616162.43	521020.32	32°25'54.608"N	103°57'24.607"W	0.10	
12913.00	88.700	122.300	6991.77	6416.02	-3434.96	5419.15	616241.76	520968.11	32°25'54.088"N	103°57'23.684"W	2.21	
13008.00	89.000	119.000	6993.67	6510.95	-3483.37	5500.85	616323.45	520919.70	32°25'53.606"N	103°57'22.733"W	3.49	
13104.00	88.800	119.200	6995.52	6606.80	-3530.05	5584.72	616407.31	520873.03	32°25'53.142"N	103°57'21.756"W	0.29	
13199.00	88.600	117.100	6997.67	6701.55	-3574.86	5668.46	616491.04	520828.23	32°25'52.695"N	103°57'20.781"W	2.22	
13294.00	88.700	122.700	6999.91	6796.41	-3622.18	5750.76	616573.33	520780.91	32°25'52.224"N	103°57'19.823"W	5.89	
13390.00	89.400	120.100	7001.51	6892.39	-3672.19	5832.68	616655.25	520730.90	32°25'51.726"N	103°57'18.869"W	2.80	
13485.00	88.400	121.600	7003.33	6987.34	-3720.89	5914.22	616736.78	520682.20	32°25'51.242"N	103°57'17.920"W	1.90	
13580.00	88.600	122.800	7005.82	7082.31	-3771.50	5994.58	616817.14	520631.60	32°25'50.738"N	103°57'16.984"W	1.28	
13675.00	88.400	122.000	7008.30	7177.27	-3822.38	6074.76	616897.31	520580.72	32°25'50.232"N	103°57'16.051"W	0.87	
13771.00	88.500	121.600	7010.90	7273.24	-3872.95	6156.32	616978.87	520530.16	32°25'49.728"N	103°57'15.101"W	0.43	
13866.00	88.600	122.000	7013.30	7368.20	-3923.00	6237.03	617059.57	520480.11	32°25'49.230"N	103°57'14.162"W	0.43	
13961.00	88.500	122.300	7015.71	7463.17	-3973.53	6317.44	617139.97	520429.58	32°25'48.728"N	103°57'13.226"W	0.33	
14056.00	88.500	121.600	7018.19	7558.14	-4023.79	6398.02	617220.55	520379.33	32°25'48.227"N	103°57'12.288"W	0.74	



Actual Wellpath Report

No.38H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No. 38H SHL
Area	Eddy County, NM	Well	No.38H
Field	(Big Eddy) Sec 34, T21S, R29E	Wellbore	No.38H AWP
Facility	Big Eddy Unit No. 38H		

WELLPATH DATA (184 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14151.00	88.500	120.600	7020.68	7653.09	-4072.84	6479.34	617301.86	520330.28	32°25'47.739"N	103°57'11.341"W	1.05	
14247.00	88.600	122.600	7023.11	7749.05	-4123.13	6561.07	617383.59	520280.00	32°25'47.239"N	103°57'10.390"W	2.09	
14278.00	88.300	121.100	7023.95	7780.04	-4139.48	6587.39	617409.91	520263.65	32°25'47.076"N	103°57'10.083"W	4.93	
14351.00	88.300	121.100	7026.11	7853.00	-4177.17	6649.87	617472.38	520225.96	32°25'46.701"N	103°57'09.356"W	0.00	Project to Bit

HOLE & CASING SECTIONS - Ref Wellbore: No.38H AWP Ref Wellpath: No.38H AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
5.5in Casing	3700.00	9563.00	5863.00	3697.74	6927.47	52.79	64.57	-1580.96	2633.38

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Target #1		6922.00	-1650.00	2707.50	613530.32	522752.93	32°26'11.844"N	103°57'55.249"W	point
Target #1A		6966.00	-2785.30	4438.43	615261.11	521617.72	32°26'00.551"N	103°57'35.099"W	point
No.38H PBHL		6990.00	-3327.84	5303.06	616125.68	521075.22	32°25'55.152"N	103°57'25.034"W	point

WELLPATH COMPOSITION - Ref Wellbore: No.38H AWP Ref Wellpath: No.38H AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
22.00	3400.00	Generic gyro - northseeking (Standard)	Scientific Drilling Gyro <100-9563>	No.38H AWP
3400.00	14351.00	NaviTrak (Standard)	MWD NaviTrak <3480-14351>	No.38H AWP