

Permian District

Poker Lake

PLU Big Sinks 26 Fed 1H

PLU Big Sinks 26 Fed 1H

Lateral

Plan: Lateral Design #3

Standard Planning Report

14 October, 2009

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Well PLU Big Sinks 26 Fed 1H
Company:	Permian District	TVD Reference:	WELL @ 0.0ft (Original Well Elev)
Project:	Poker Lake	MD Reference:	WELL @ 0.0ft (Original Well Elev)
Site:	PLU Big Sinks 26 Fed 1H	North Reference:	True
Well:	PLU Big Sinks 26 Fed 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	Lateral Design #3		

Project:	Poker Lake, Eddy County, NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site:	PLU Big Sinks 26 Fed 1H				
Site Position:		Northing:	430,290.76 ft	Latitude:	32° 10' 55.39000000 N
From:	Lat/Long	Easting:	688,288.82 ft	Longitude:	103° 51' 30.04000000 W
Position Uncertainty:	0.0 ft	Slot Radius:	0.000 in	Grid Convergence:	0.25 °

Well	PLU-Big Sinks 26 Fed 1H				
Well Position	+N/-S	0.0 ft	Northing:	430,290.76 ft	Latitude: 32° 10' 55.39000000 N
	+E/-W	0.0 ft	Easting:	688,288.82 ft	Longitude: 103° 51' 30.04000000 W
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft	Ground Level:	0.0 ft

Wellbore		Lateral			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	User Defined	10/10/2009	0.00	0.00	0

Design:	Lateral Design #3			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	7,863.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	358.96

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(ft)	(ft)	Rate	Rate	Rate	(°)	
(ft)			(ft)			(°/100ft)	(°/100ft)	(°/100ft)		
7,863.0	20.00	360.00	7,838.0	200.0	0.0	0.00	0.00	0.00	0.00	
9,172.0	90.00	359.00	8,543.0	1,206.7	-13.1	5.35	5.35	-0.08	-1.06	
11,274.9	90.00	358.74	8,543.0	3,309.2	-54.5	0.01	0.00	-0.01	-90.00	TD Target
12,688.8	90.00	358.74	8,543.0	4,722.8	-85.6	0.00	0.00	0.00	0.00	TD Target

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Site:	PLU Big Sinks 26 Fed 1H	North Reference:	True
Well:	PLU Big Sinks 26 Fed 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	Lateral Design #3		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

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Well:	PLU Big Sinks 26 Fed 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	Lateral Design #3		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,783.4	0.00	0.00	6,783.4	0.0	0.0	0.0	0.00	0.00	0.00	
6,800.0	0.33	360.00	6,800.0	0.0	0.0	0.0	2.00	2.00	0.00	
6,900.0	2.33	360.00	6,900.0	2.4	0.0	2.4	2.00	2.00	0.00	
7,000.0	4.33	360.00	6,999.8	8.2	0.0	8.2	2.00	2.00	0.00	
7,100.0	6.33	360.00	7,099.4	17.5	0.0	17.5	2.00	2.00	0.00	
7,200.0	8.33	360.00	7,198.5	30.2	0.0	30.2	2.00	2.00	0.00	
7,300.0	10.33	360.00	7,297.2	46.5	0.0	46.5	2.00	2.00	0.00	
7,400.0	12.33	360.00	7,395.2	66.1	0.0	66.1	2.00	2.00	0.00	
7,500.0	14.33	360.00	7,492.5	89.2	0.0	89.2	2.00	2.00	0.00	
7,600.0	16.33	360.00	7,589.0	115.6	0.0	115.6	2.00	2.00	0.00	
7,700.0	18.33	360.00	7,684.4	145.4	0.0	145.4	2.00	2.00	0.00	
7,783.4	20.00	360.00	7,763.2	172.8	0.0	172.7	2.00	2.00	0.00	
7,800.0	20.00	360.00	7,778.8	178.5	0.0	178.4	0.00	0.00	0.00	
7,863.0	20.00	360.00	7,838.0	200.0	0.0	200.0	0.00	0.00	0.00	
7,900.0	21.98	359.90	7,872.6	213.3	0.0	213.2	5.35	5.35	-0.27	
8,000.0	27.33	359.70	7,963.4	255.0	-0.2	254.9	5.35	5.35	-0.20	
8,100.0	32.67	359.57	8,050.0	304.9	-0.5	304.9	5.35	5.35	-0.14	
8,200.0	38.02	359.47	8,131.5	362.8	-1.0	362.7	5.35	5.35	-0.10	
8,300.0	43.37	359.39	8,207.3	427.9	-1.6	427.9	5.35	5.35	-0.08	
8,400.0	48.72	359.32	8,276.7	499.9	-2.4	499.9	5.35	5.35	-0.07	
8,500.0	54.06	359.26	8,339.1	578.0	-3.4	578.0	5.35	5.35	-0.06	
8,600.0	59.41	359.22	8,393.9	661.6	-4.5	661.5	5.35	5.35	-0.05	
8,700.0	64.76	359.17	8,440.7	749.9	-5.8	749.9	5.35	5.35	-0.04	
8,800.0	70.11	359.13	8,479.1	842.2	-7.1	842.2	5.35	5.35	-0.04	
8,900.0	75.45	359.09	8,508.7	937.7	-8.6	937.7	5.35	5.35	-0.04	
9,000.0	80.80	359.06	8,529.2	1,035.5	-10.2	1,035.5	5.35	5.35	-0.04	
9,100.0	86.15	359.02	8,540.6	1,134.8	-11.9	1,134.8	5.35	5.35	-0.03	
9,172.0	90.00	359.00	8,543.0	1,206.7	-13.1	1,206.8	5.35	5.35	-0.03	
9,200.0	90.00	359.00	8,543.0	1,234.7	-13.6	1,234.8	0.01	0.00	-0.01	
9,300.0	90.00	358.98	8,543.0	1,334.7	-15.3	1,334.8	0.01	0.00	-0.01	
9,400.0	90.00	358.97	8,543.0	1,434.7	-17.1	1,434.8	0.01	0.00	-0.01	
9,500.0	90.00	358.96	8,543.0	1,534.7	-18.9	1,534.8	0.01	0.00	-0.01	
9,600.0	90.00	358.95	8,543.0	1,634.7	-20.8	1,634.8	0.01	0.00	-0.01	
9,700.0	90.00	358.94	8,543.0	1,734.6	-22.6	1,734.8	0.01	0.00	-0.01	
9,800.0	90.00	358.92	8,543.0	1,834.6	-24.5	1,834.8	0.01	0.00	-0.01	
9,900.0	90.00	358.91	8,543.0	1,934.6	-26.4	1,934.8	0.01	0.00	-0.01	
10,000.0	90.00	358.90	8,543.0	2,034.6	-28.3	2,034.8	0.01	0.00	-0.01	
10,100.0	90.00	358.89	8,543.0	2,134.6	-30.2	2,134.8	0.01	0.00	-0.01	
10,200.0	90.00	358.87	8,543.0	2,234.5	-32.2	2,234.8	0.01	0.00	-0.01	

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Planned Survey										
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10,300.0	90.00	358.86	8,543.0	2,334.5	-34.1	2,334.8	0.01	0.00	-0.01	
10,400.0	90.00	358.85	8,543.0	2,434.5	-36.1	2,434.8	0.01	0.00	-0.01	
10,500.0	90.00	358.84	8,543.0	2,534.5	-38.2	2,534.8	0.01	0.00	-0.01	
10,600.0	90.00	358.83	8,543.0	2,634.5	-40.2	2,634.8	0.01	0.00	-0.01	
10,700.0	90.00	358.81	8,543.0	2,734.4	-42.3	2,734.8	0.01	0.00	-0.01	
10,800.0	90.00	358.80	8,543.0	2,834.4	-44.3	2,834.8	0.01	0.00	-0.01	
10,900.0	90.00	358.79	8,543.0	2,934.4	-46.4	2,934.8	0.01	0.00	-0.01	
11,000.0	90.00	358.78	8,543.0	3,034.4	-48.6	3,034.8	0.01	0.00	-0.01	
11,100.0	90.00	358.76	8,543.0	3,134.4	-50.7	3,134.8	0.01	0.00	-0.01	
11,200.0	90.00	358.75	8,543.0	3,234.3	-52.9	3,234.8	0.01	0.00	-0.01	
11,274.9	90.00	358.74	8,543.0	3,309.2	-54.5	3,309.7	0.01	0.00	-0.01	
11,300.0	90.00	358.74	8,543.0	3,334.3	-55.1	3,334.8	0.00	0.00	0.00	
11,400.0	90.00	358.74	8,543.0	3,434.3	-57.3	3,434.8	0.00	0.00	0.00	
11,500.0	90.00	358.74	8,543.0	3,534.3	-59.5	3,534.8	0.00	0.00	0.00	
11,600.0	90.00	358.74	8,543.0	3,634.2	-61.7	3,634.8	0.00	0.00	0.00	
11,700.0	90.00	358.74	8,543.0	3,734.2	-63.8	3,734.8	0.00	0.00	0.00	
11,800.0	90.00	358.74	8,543.0	3,834.2	-66.0	3,834.8	0.00	0.00	0.00	
11,900.0	90.00	358.74	8,543.0	3,934.2	-68.2	3,934.8	0.00	0.00	0.00	
12,000.0	90.00	358.74	8,543.0	4,034.1	-70.4	4,034.8	0.00	0.00	0.00	
12,100.0	90.00	358.74	8,543.0	4,134.1	-72.6	4,134.7	0.00	0.00	0.00	
12,200.0	90.00	358.74	8,543.0	4,234.1	-74.8	4,234.7	0.00	0.00	0.00	
12,300.0	90.00	358.74	8,543.0	4,334.1	-77.0	4,334.7	0.00	0.00	0.00	
12,400.0	90.00	358.74	8,543.0	4,434.0	-79.2	4,434.7	0.00	0.00	0.00	
12,500.0	90.00	358.74	8,543.0	4,534.0	-81.4	4,534.7	0.00	0.00	0.00	
12,600.0	90.00	358.74	8,543.0	4,634.0	-83.6	4,634.7	0.00	0.00	0.00	
12,688.8	90.00	358.74	8,543.0	4,722.8	-85.6	4,723.6	0.00	0.00	0.00	

Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
TD Target	0.00	0.00	8,543.0	4,722.8	-85.6	435,013.12	688,182.42	2° 11' 42.12600000 N	3° 51' 31.03560000 W	
- plan hits target center										
- Point										
Bone Spring Top	0.00	0.00	7,838.0	200.0	0.0	430,490.76	688,287.94	2° 10' 57.36917714 N	3° 51' 30.04000074 W	
- plan hits target center										
- Point										
Lateral Design #2 TD	0.00	0.25	8,543.0	4,722.8	-85.6	435,013.12	688,182.42	2° 11' 42.12600000 N	3° 51' 31.03560000 W	
- plan hits target center										
- Point										



Chesapeake Operating, Inc.

Field: Eddy Co, NM NAD 83
Site: PLU Big Sinks 26 Federal 1H
Well: PLU Big Sinks 26 Federal 1H
Wellpath: 26 Fed 1H ST1
Plan: Plan #2



Azimuths to Grid North
True North: -0.25°
Magnetic North: 7.65°

Magnetic Field
Strength: 48761nT
Dip Angle: 60.16°
Date: 10/14/2009
Model: igr2005

SITE DETAILS

PLU Big Sinks 26 Federal 1H
Reeves Co. NM
Site Centre Northing: 430289.47
Easting: 688289.42
Ground Level: 3338.00
Positional Uncertainty: 0.00
Convergence: 0.25

FIELD DETAILS

Eddy Co, NM NAD 83
USA
Geodetic System: US State Plane Coordinate System 1983
Ellipsoid: GRS 1980
Zone: New Mexico, Eastern Zone
Magnetic Model: igr2005
System Datum: Mean Sea Level
Local North: Gnd North

WELLPATH DETAILS

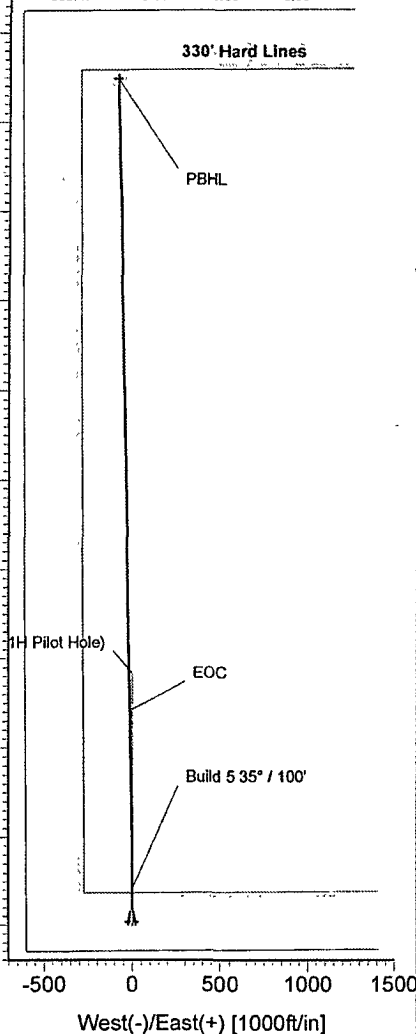
26 Fed 1H ST1
Parent Wellpath: 26 Fed 1H Pilot Hole
Tie on MD: 0.00
Rig: Latchshaw # 6
Ref. Datum: SITE 3360.00ft
V. Section Angle: 358.47°
Origin +N/-S: 0.00
Origin +E/-W: 0.00
Starting From TVD: 0.00

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	7863.00	20.00	360.00	7838.02	199.99	0.00	0.00	0.00	199.92	
2	9171.98	90.00	359.00	8543.00	1206.70	-13.04	5.35	-1.06	1206.61	
3	12003.65	90.00	358.69	8543.00	4038.09	-69.97	0.01	-90.02	4038.52	
4	12710.88	90.00	358.69	8543.00	4744.84	-86.10	0.00	0.00	4745.44	PBHL

True Vertical Depth [750ft/in]

South(-)/North(+) [1000ft/in]



TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	8543.00	4744.84	-86.10	435034.31	688203.32	32°11'42.335N	103°51'30.791W	Point

26 Fed 1H Pilot Hole) Geologic Target Line: 8543' TVD @ 0° VS w/ 0° Dip

Vertical Section at 358.47° [750ft/in]

Ryan Energy Technologies
19510 Oil Center Blvd
Houston, TX 77073
Ph 281-443-1414
Fx 281-443-1676



Plan: Plan #2 (PLU Big Sinks 26 Federal 1H ST1)
Created By: Michael A. Lawson Date: 10/14/2009
Checked: _____ Date: _____
Reviewed: _____ Date: _____
Approved: _____ Date: _____



Ryan Energy Technologies Planning Report



Company: Chesapeake Operating, Inc.
Field: Eddy Co, NM NAD 83
Site: PLU Big Sinks 26 Federal 1H
Well: PLU Big Sinks 26 Federal 1H
Wellpath: 26 Fed 1H ST1

Date: 10/14/2009
Time: 16:15:07
Page: 1
Co-ordinate(NE) Reference: PLU Big Sinks 26 Federal 1H
Vertical (TVD) Reference: SITE 3360.0
Section (VS) Reference: Well (0.00N,0.00E,358.47Azi)
Plan: Plan #2

Field: Eddy Co, NM NAD 83

USA
Map System: US State Plane Coordinate System 1983
Geo Datum: GRS 1980
Sys Datum: Mean Sea Level

Map Zone: New Mexico, Eastern Zone
Coordinate System: Site Centre
Geomagnetic Model: igrf2005

Site: PLU Big Sinks 26 Federal 1H

Reeves Co. NM

Site Position: Northing: 430289.47 ft Latitude: 32 10 55.377 N
From: Map Easting: 688289.42 ft Longitude: 103 51 30.033 W
Position Uncertainty: 0.00 ft North Reference: Grid
Ground Level: 3338.00 ft Grid Convergence: 0.25 deg

Well: PLU Big Sinks 26 Federal 1H

Slot Name:

Well Position: +N/-S 0.00 ft Northing: 430289.47 ft Latitude: 32 10 55.377 N
 +E/-W 0.00 ft Easting: 688289.42 ft Longitude: 103 51 30.033 W
Position Uncertainty: 0.00 ft

Wellpath: 26 Fed 1H ST1

Current Datum: SITE Height 3360.00 ft
Magnetic Data: 10/14/2009
Field Strength: 48781 nT
Vertical Section: Depth From (TVD) +N/-S ft
 0.00 0.00 0.00 358.47

Drilled From: 26 Fed 1H Pilot Hole
Tie-on Depth: 0.00 ft
Above System Datum: Mean Sea Level
Declination: 7.90 deg
Mag Dip Angle: 60.16 deg
+E/-W Direction deg

Plan: Plan #2

Date Composed: 10/14/2009
Version: 1
Tied-to: User Defined

Principal: Yes

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
7863.00	20.00	360.00	7838.02	199.99	0.00	0.00	0.00	0.00	0.00	
9171.98	90.00	359.00	8543.00	1206.70	-13.04	5.35	5.35	-0.08	-1.06	
12003.95	90.00	358.69	8543.00	4038.09	-69.97	0.01	0.00	-0.01	-90.02	
12710.88	90.00	358.69	8543.00	4744.84	-86.10	0.00	0.00	0.00	0.00	PBHL

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
7863.00	20.00	360.00	7838.02	199.99	0.00	199.92	0.00	0.00	0.00	Build 5.35° / 100'
7900.00	21.98	359.90	7872.56	213.25	-0.01	213.17	5.35	5.35	-0.26	
8000.00	27.33	359.71	7963.41	254.94	-0.16	254.85	5.35	5.35	-0.20	
8100.00	32.67	359.57	8049.98	304.92	-0.48	304.82	5.35	5.35	-0.14	
8200.00	38.02	359.47	8131.52	362.75	-0.97	362.65	5.35	5.35	-0.10	
8300.00	43.37	359.39	8207.31	427.93	-1.63	427.82	5.35	5.35	-0.08	EOC
8400.00	48.72	359.32	8276.70	499.88	-2.44	499.77	5.35	5.35	-0.07	
8500.00	54.06	359.27	8339.08	577.99	-3.40	577.87	5.35	5.35	-0.06	
8600.00	59.41	359.22	8393.91	661.57	-4.51	661.45	5.35	5.35	-0.05	
8700.00	64.76	359.17	8440.70	749.89	-5.75	749.78	5.35	5.35	-0.04	
8800.00	70.11	359.14	8479.07	842.19	-7.11	842.08	5.35	5.35	-0.04	
8900.00	75.45	359.10	8508.66	937.66	-8.58	937.56	5.35	5.35	-0.04	
9000.00	80.80	359.06	8529.22	1035.47	-10.15	1035.38	5.35	5.35	-0.04	
9100.00	86.15	359.03	8540.58	1134.78	-11.81	1134.69	5.35	5.35	-0.03	
9171.98	90.00	359.00	8543.00	1206.70	-13.04	1206.61	5.35	5.35	-0.03	
9200.00	90.00	359.00	8543.00	1234.71	-13.53	1234.63	0.01	0.00	-0.01	
9300.00	90.00	358.99	8543.00	1334.69	-15.28	1334.63	0.01	0.00	-0.01	



Ryan Energy Technologies Planning Report



Company: Chesapeake Operating, Inc.
Field: Eddy Co, NM NAD 83
Site: PLU Big Sinks 26 Federal 1H
Well: PLU Big Sinks 26 Federal 1H
Wellpath: 26 Fed 1H ST1

Date: 10/14/2009 Time: 16:15:07 Page: 2
Co-ordinate(NE) Reference: PLU Big Sinks 26 Federal 1H
Vertical (TVD) Reference: SITE 3360.0
Section (VS) Reference: Well (0.00N,0.00E,358.47Azi)
Plan: Plan #2

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
9400.00	90.00	358.98	8543.00	1434.68	-17.06	1434.62	0.01	0.00	-0.01	
9500.00	90.00	358.97	8543.00	1534.66	-18.85	1534.62	0.01	0.00	-0.01	
9600.00	90.00	358.96	8543.00	1634.64	-20.66	1634.61	0.01	0.00	-0.01	
9700.00	90.00	358.95	8543.00	1734.63	-22.49	1734.61	0.01	0.00	-0.01	
9800.00	90.00	358.93	8543.00	1834.61	-24.34	1834.61	0.01	0.00	-0.01	
9900.00	90.00	358.92	8543.00	1934.59	-26.21	1934.60	0.01	0.00	-0.01	
10000.00	90.00	358.91	8543.00	2034.58	-28.09	2034.60	0.01	0.00	-0.01	
10100.00	90.00	358.90	8543.00	2134.56	-30.00	2134.60	0.01	0.00	-0.01	
10200.00	90.00	358.89	8543.00	2234.54	-31.93	2234.59	0.01	0.00	-0.01	
10300.00	90.00	358.88	8543.00	2334.52	-33.87	2334.59	0.01	0.00	-0.01	
10400.00	90.00	358.87	8543.00	2434.50	-35.84	2434.59	0.01	0.00	-0.01	
10500.00	90.00	358.86	8543.00	2534.48	-37.82	2534.59	0.01	0.00	-0.01	
10600.00	90.00	358.85	8543.00	2634.46	-39.82	2634.59	0.01	0.00	-0.01	
10700.00	90.00	358.84	8543.00	2734.44	-41.85	2734.58	0.01	0.00	-0.01	
10800.00	90.00	358.82	8543.00	2834.42	-43.89	2834.58	0.01	0.00	-0.01	
10900.00	90.00	358.81	8543.00	2934.40	-45.95	2934.58	0.01	0.00	-0.01	
11000.00	90.00	358.80	8543.00	3034.38	-48.03	3034.58	0.01	0.00	-0.01	
11100.00	90.00	358.79	8543.00	3134.35	-50.13	3134.58	0.01	0.00	-0.01	
11200.00	90.00	358.78	8543.00	3234.33	-52.24	3234.57	0.01	0.00	-0.01	
11300.00	90.00	358.77	8543.00	3334.31	-54.38	3334.57	0.01	0.00	-0.01	
11400.00	90.00	358.76	8543.00	3434.29	-56.54	3434.57	0.01	0.00	-0.01	
11500.00	90.00	358.75	8543.00	3534.26	-58.71	3534.57	0.01	0.00	-0.01	
11600.00	90.00	358.74	8543.00	3634.24	-60.91	3634.57	0.01	0.00	-0.01	
11700.00	90.00	358.73	8543.00	3734.21	-63.12	3734.57	0.01	0.00	-0.01	
11800.00	90.00	358.71	8543.00	3834.19	-65.36	3834.57	0.01	0.00	-0.01	
11900.00	90.00	358.70	8543.00	3934.16	-67.61	3934.57	0.01	0.00	-0.01	
12003.95	90.00	358.69	8543.00	4038.09	-69.97	4038.52	0.01	0.00	-0.01	
12100.00	90.00	358.69	8543.00	4134.11	-72.16	4134.56	0.00	0.00	0.00	
12200.00	90.00	358.69	8543.00	4234.09	-74.44	4234.56	0.00	0.00	0.00	
12300.00	90.00	358.69	8543.00	4334.06	-76.73	4334.56	0.00	0.00	0.00	
12400.00	90.00	358.69	8543.00	4434.03	-79.01	4434.56	0.00	0.00	0.00	
12500.00	90.00	358.69	8543.00	4534.01	-81.29	4534.56	0.00	0.00	0.00	
12600.00	90.00	358.69	8543.00	4633.98	-83.57	4634.56	0.00	0.00	0.00	
12700.00	90.00	358.69	8543.00	4733.96	-85.85	4734.56	0.00	0.00	0.00	Target Line
12710.88	90.00	358.69	8543.00	4744.84	-86.10	4745.44	0.00	0.00	0.00	PBHL

Targets

Name	Description Dip. Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude --->			<--- Longitude --->		
PBHL		8543.00	4744.84	-86.10	435034.31	688203.32	32	11	42.335 N	103	51	30.791 W

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
12700.00	8543.00	Target Line		0.00	358.47

Annotation

MD ft	TVD ft	
7863.00	7838.02	Build 5.35° / 100'
9171.98	8543.00	EOC