

Weatherford International Ltd.



Weatherford

WFT Survey Report X & Y's

30-015-39691

Company: BOPCO, L.P.		Date: 4/30/2012		Time: 06:54:28		Page: 1	
Field: Eddy County, NM (Nad 27)		Co-ordinate(NE) Reference: Well PLU 337H, Grid North					
Site: Poker Lake Unit 337H		Vertical (TVD) Reference: SITE 3460.0					
Well: PLU 337H		Section (VS) Reference: Well (0 00N,0 00E,314.58Azi)					
Wellpath: 1		Survey Calculation Method: Minimum Curvature		Db: Sybase			

Survey: Wft Svy		Start Date: 4/9/2012	
Company: Weatherford International Ltd.		Engineer: Russell W. Joyner	
Tool: MWD;MWD - Standard		Tied-to: User Defined	

Field: Eddy County, NM (Nad 27)	
Map System: US State Plane Coordinate System 1927	Map Zone: New Mexico, Eastern Zone
Geo Datum: NAD27 (Clarke 1866)	Coordinate System: Well Centre
Sys Datum: Mean Sea Level	Geomagnetic Model: IGRF2010

Site: Poker Lake Unit 337H	
Site Position:	Northing: 440545.55 ft
From: Map	Easting: 650728.47 ft
Position Uncertainty: 0.00 ft	Latitude: 32 12 36.855 N
Ground Level: 3438.00 ft	Longitude: 103 50 45.569 W
	North Reference: Grid
	Grid Convergence: 0.26 deg

Well: PLU 337H		Slot Name:	
Well Position:	Northing: 440545.55 ft	Latitude: 32 12 36.855 N	
+N/-S 0.00 ft	Easting: 650728.47 ft	Longitude: 103 50 45.569 W	
+E/-W 0.00 ft			
Position Uncertainty: 0.00 ft			

Wellpath: 1		Drilled From: Surface	
Current Datum: SITE	Height 3460.00 ft	Tie-on Depth: 0.00 ft	
Magnetic Data: 3/30/2012		Above System Datum: Mean Sea Level	
Field Strength: 48524 nT		Declination: 7.62 deg	
Vertical Section: Depth From (TVD)	+N/-S	Mag Dip Angle: 60.11 deg	
ft	ft	+E/-W	Direction
		ft	deg
0.00	0.00	0.00	314.58

Survey										
MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
3231.00	0.71	61.56	3230.70	19.58	21.14	0.00	-1.31	440565.13	650749.61	Csg
4087.00	0.61	92.89	4086.65	20.51	29.60	0.04	-6.69	440566.06	650758.07	Csg
7321.71	0.82	174.33	7321.14	30.51	35.10	0.03	-3.59	440576.06	650763.57	Tie On
7330.00	1.18	152.55	7329.43	30.38	35.15	6.24	-3.71	440575.93	650763.62	First Wft Svy
7362.00	0.40	198.62	7361.43	29.98	35.26	2.96	-4.07	440575.53	650763.73	
7393.00	3.21	312.27	7392.41	30.46	34.58	10.94	-3.25	440576.01	650763.05	
7425.00	7.87	318.28	7424.25	32.70	32.46	14.66	-0.17	440578.25	650760.93	
7456.00	12.98	320.33	7454.73	36.96	28.83	16.52	5.41	440582.51	650757.30	
7488.00	17.89	319.71	7485.57	43.48	23.35	15.35	13.89	440589.03	650751.82	
7519.00	22.24	317.09	7514.68	51.42	16.27	14.33	24.50	440596.97	650744.74	
7551.00	25.62	314.86	7543.92	60.73	7.24	10.93	37.47	440606.28	650735.71	
7582.00	29.35	314.23	7571.42	70.77	-2.96	12.07	51.78	440616.32	650725.51	
7614.00	32.65	315.27	7598.85	82.37	-14.65	10.45	68.25	440627.92	650713.82	
7645.00	35.53	315.49	7624.52	94.74	-26.86	9.30	85.63	440640.29	650701.61	
7677.00	38.51	314.93	7650.06	108.41	-40.43	9.37	104.89	440653.96	650688.04	
7708.00	41.41	313.89	7673.82	122.33	-54.65	9.60	124.80	440667.88	650673.82	
7740.00	45.40	313.55	7697.07	137.53	-70.54	12.49	146.78	440683.08	650657.93	
7772.00	49.95	313.43	7718.61	153.80	-87.71	14.22	170.43	440699.35	650640.76	
7803.00	53.66	313.41	7737.77	170.55	-105.40	11.97	194.78	440716.10	650623.07	
7835.00	57.00	313.59	7755.97	188.66	-124.49	10.45	221.09	440734.21	650603.98	
7867.00	60.09	313.89	7772.67	207.53	-144.20	9.69	248.38	440753.08	650584.27	
7898.00	63.35	312.83	7787.36	226.27	-164.05	10.94	275.67	440771.82	650564.42	
7930.00	66.90	312.64	7800.81	245.97	-185.37	11.11	304.68	440791.52	650543.10	
7962.00	70.02	312.00	7812.56	266.00	-207.38	9.93	334.42	440811.55	650521.09	

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Company: BOPCO, L.P Field: Eddy County, NM (Nad 27) Site: Poker Lake Unit 337H Well: PLU 337H Wellpath: 1	Date: 4/30/2012 Co-ordinate(NE) Reference: Vertical (TVD) Reference: Section (VS) Reference: Survey Calculation Method:	Time: 06 54:28 Well: PLU 337H, Grid North SITE 3460.0 Well (0.00N,0.00E,314 58Azi) Minimum Curvature Db: Sybase
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Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
7993.00	74.77	312 15	7821.93	285 80	-229 31	15.33	363 93	440831 35	650499 16	
8025 00	77 71	312 84	7829 55	306.79	-252.22	9 42	394 99	440852 34	650476.25	
8056.00	81.83	312 90	7835 05	327 55	-274.57	13.29	425 48	440873.10	650453 90	
8088 00	84.36	313 20	7838.90	349.23	-297 79	7 96	457.23	440894 78	650430.68	
8120 00	89.83	314.14	7840.52	371 29	-320 89	17 34	489 17	440916.84	650407 58	
8151 00	93.04	314 48	7839 74	392 93	-343.07	10.41	520 16	440938 48	650385 40	
8171 00	93.40	314 68	7838 62	406.95	-357.29	2.06	540 13	440952 50	650371 18	
8257 00	92 48	313 19	7834 21	466.54	-419 14	2.03	626 00	441012 09	650309 33	
8352 00	91 71	315.75	7830.73	533 04	-486 88	2 81	720.93	441078 59	650241 59	
8448 00	90.73	315.79	7828.69	601 81	-553 83	1.02	816.89	441147 36	650174 64	
8511 00	89 13	314 96	7828 77	646 65	-598.08	2.86	879.88	441192 20	650130.39	
8606 00	90 52	316 35	7829.06	714.58	-664 48	2 07	974 86	441260 13	650063 99	
8702 00	88 98	316 16	7829 48	783.93	-730 86	1 62	1070.81	441329.48	649997 61	
8797.00	90.17	314 51	7830 18	851 49	-797.63	2 14	1165 80	441397 04	649930 84	
8892.00	90 80	313 56	7829 38	917.53	-865.92	1.20	1260 79	441463 08	649862.55	
8988 00	90.66	313.96	7828.15	983 92	-935 25	0 44	1356.77	441529.47	649793 22	
9083 00	91.64	314.30	7826.25	1050 05	-1003 43	1 09	1451.75	441595.60	649725 04	
9179.00	91.57	314 41	7823 56	1117 14	-1072.04	0.14	1547.71	441662 69	649656 43	
9274 00	89 34	314.49	7822.80	1183.66	-1139 85	2.35	1642 70	441729.21	649588 62	
9369 00	88.08	311 86	7824.94	1248.64	-1209.11	3 07	1737.64	441794 19	649519 36	
9465 00	89.97	311.08	7826.58	1312.20	-1281.03	2 13	1833.48	441857 75	649447 44	
9560 00	91.71	310.71	7825.18	1374.38	-1352 83	1 87	1928 27	441919 93	649375 64	
9655 00	91 01	310 53	7822 93	1436.21	-1424 92	0 76	2023 01	441981 76	649303 55	
9750 00	92 76	312 85	7819 80	1499.36	-1495 81	3 06	2117 83	442044 91	649232 66	
9846 00	91.78	313 59	7816.00	1565.05	-1565 71	1 28	2213 73	442110 60	649162 76	
9941.00	91 43	314 55	7813.34	1631.10	-1633 94	1 08	2308 68	442176 65	649094.53	
10036 00	90 52	315 00	7811 72	1698 00	-1701.37	1.07	2403.67	442243.55	649027 10	
10131.00	91.64	314.81	7809.93	1765.05	-1768 64	1.20	2498 65	442310 60	648959 83	
10226 00	90 10	316 32	7808 49	1832 87	-1835.14	2.27	2593.62	442378 42	648893 33	
10321.00	89.13	318.40	7809.13	1902.75	-1899 49	2.42	2688 50	442448 30	648828 98	
10403 00	91 22	318 28	7808 88	1964 01	-1953.99	2.55	2770.32	442509 56	648774 48	
10498 00	90.10	318.35	7807.78	2034.95	-2017.16	1 18	2865 11	442580 50	648711 31	
10593 00	89 20	318 71	7808 36	2106 13	-2080.07	1 02	2959.88	442651 68	648648 40	
10688 00	87 37	315.11	7811 21	2175.46	-2144 93	4 25	3054 74	442721.01	648583 54	
10783 00	86 54	315 13	7816 25	2242 68	-2211.87	0.87	3149.60	442788.23	648516 60	
10879 00	88.85	314.72	7820.12	2310.41	-2279 78	2 44	3245 51	442855 96	648448.69	
10974.00	91.36	314.58	7819.94	2377 17	-2347 36	2 65	3340 50	442922.72	648381.11	
11069 00	89 62	311 65	7819 13	2442 09	-2416 69	3 59	3435 45	442987.64	648311.78	
11164 00	91.01	311 65	7818 61	2505 22	-2487 68	1 46	3530 33	443050.77	648240.79	
11259 00	91.01	308 47	7816 93	2566 35	-2560.37	3 35	3625 00	443111 90	648168 10	
11354.00	90.38	307 78	7815 78	2624 99	-2635 09	0 98	3719 39	443170.54	648093 38	
11449 00	91 30	313 07	7814 39	2686 56	-2707.38	5.65	3814 10	443232.11	648021.09	
11544.00	90.94	311 90	7812 53	2750 71	-2777 42	1 29	3909.02	443296.26	647951.05	
11639 00	90 52	311 10	7811.32	2813 66	-2848 57	0 95	4003.87	443359 21	647879.90	
11734 00	91 36	311 51	7809.76	2876.35	-2919 92	0 98	4098 70	443421 90	647808.55	
11828.00	90 24	308 93	7808.45	2937.04	-2991.68	2 99	4192 41	443482 59	647736 79	
11922 00	91 15	307.08	7807.31	2994.91	-3065.74	2 19	4285 78	443540 46	647662 73	
12016.00	92.13	309 54	7804.62	3053 15	-3139 46	2.82	4379 17	443598 70	647589 01	
12110 00	92 27	314 01	7801.01	3115 72	-3209 50	4.75	4472.97	443661 27	647518.97	
12204 00	91 71	317.42	7797 74	3182 96	-3275.08	3.67	4566 88	443728.51	647453 39	
12298 00	91 01	319.89	7795.51	3253.50	-3337.15	2 73	4660 60	443799 05	647391.32	
12396.00	89.83	317.89	7794 79	3327.33	-3401.58	2.37	4758.32	443872 88	647326 89	

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Weatherford

Company: BOPCO, L P Field: Eddy County, NM (Nad 27) Site: Poker Lake Unit 337H Well: PLU 337H Wellpath: 1	Date: 4/30/2012 Co-ordinate(NE) Reference: Vertical (TVD) Reference: Section (VS) Reference: Survey Calculation Method:	Time: 06.54.28 Well: PLU 337H, Grnd North SITE 3460 0 Well (0 00N,0.00E,314 58Azi) Minimum Curvature	Page: 3 Db: Sybase
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Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
12491.00	89 90	315.51	7795.01	3396.47	-3466.73	2.51	4853.25	443942.02	647261.74	
12587.00	90 94	311.70	7794.31	3462.66	-3536.23	4.11	4949.21	444008.21	647192.24	
12682.00	90.94	312.34	7792.75	3526.24	-3606.80	0.67	5044.10	444071.79	647121.67	
12777.00	88 78	312.78	7792.98	3590.49	-3676.76	2.32	5139.04	444136.04	647051.71	
12873.00	91 71	313.18	7792.57	3655.93	-3746.99	3.08	5234.99	444201.48	646981.48	
12968.00	90 31	312.96	7790.90	3720.80	-3816.38	1.49	5329.94	444266.35	646912.09	
13064.00	90 17	315.24	7790.50	3787.60	-3885.31	2.38	5425.93	444333.15	646843.16	
13159.00	94 17	321.18	7786.90	3858.33	-3948.54	7.53	5520.61	444403.88	646779.93	
13254.00	93 53	319.45	7780.52	3931.27	-4009.06	1.94	5614.91	444476.82	646719.41	
13350.00	92 97	319.04	7775.08	4003.87	-4071.63	0.72	5710.44	444549.42	646656.84	
13443.00	92 76	319.30	7770.43	4074.15	-4132.36	0.36	5803.03	444619.70	646596.11	
13537.00	91 99	318.24	7766.53	4144.79	-4194.26	1.39	5896.69	444690.34	646534.21	
13631.00	90.03	316.83	7764.87	4214.11	-4257.71	2.57	5990.55	444759.66	646470.76	
13724.00	88 50	316.07	7766.07	4281.51	-4321.78	1.84	6083.49	444827.06	646406.69	
13819.00	89 69	314.54	7767.57	4349.03	-4388.58	2.04	6178.46	444894.58	646339.89	
13914.00	91 15	315.51	7766.87	4416.23	-4455.72	1.85	6273.45	444961.78	646272.75	
14009.00	90 31	313.51	7765.66	4482.82	-4523.46	2.28	6368.44	445028.37	646205.01	
14104.00	90 38	312.25	7765.09	4547.46	-4593.07	1.33	6463.39	445093.01	646135.40	
14199.00	91 43	314.43	7763.59	4612.65	-4662.15	2.55	6558.35	445158.20	646066.32	
14295.00	90 31	312.65	7762.13	4678.77	-4731.73	2.19	6654.32	445224.32	645996.74	
14389.00	90 10	313.72	7761.79	4743.09	-4800.27	1.16	6748.29	445288.64	645928.20	
14482.00	88.85	311.66	7762.65	4806.14	-4868.62	2.59	6841.23	445351.69	645859.85	
14586.00	89 90	311.45	7763.78	4875.13	-4946.44	1.03	6945.08	445420.68	645782.03	
14681.00	92 06	312.23	7762.16	4938.48	-5017.20	2.42	7039.95	445484.03	645711.27	
14776.00	94 52	311.38	7756.71	5001.70	-5087.89	2.74	7134.67	445547.25	645640.58	
14871.00	94 52	311.08	7749.22	5064.12	-5159.12	0.31	7229.22	445609.67	645569.35	
14967.00	92 90	312.41	7743.01	5127.90	-5230.59	2.18	7324.89	445673.45	645497.88	
15062.00	91 50	313.35	7739.36	5192.49	-5300.15	1.77	7419.78	445738.04	645428.32	
15157.00	91 02	314.28	7737.27	5258.25	-5368.68	1.10	7514.74	445803.80	645359.79	
15252.00	89.69	314.32	7736.68	5324.59	-5436.67	1.40	7609.74	445870.14	645291.80	
15348.00	89 62	316.09	7737.26	5392.72	-5504.30	1.85	7705.73	445938.27	645224.17	
15442.00	92.06	315.79	7735.88	5460.25	-5569.66	2.62	7799.68	446005.80	645158.81	
15537.00	90 31	315.71	7733.92	5528.28	-5635.93	1.84	7894.64	446073.83	645092.54	
15633.00	89 13	315.66	7734.39	5596.97	-5703.00	1.23	7990.62	446142.52	645025.47	
15728.00	92.06	315.80	7733.40	5664.99	-5769.30	3.09	8085.58	446210.54	644959.17	
15823.00	90 73	315.39	7731.09	5732.83	-5835.75	1.46	8180.54	446278.38	644892.72	
15919.00	88 71	315.18	7731.56	5801.05	-5903.29	2.12	8276.53	446346.60	644825.18	
16014.00	90 59	314.53	7732.14	5868.05	-5970.63	2.09	8371.52	446413.60	644757.84	
16109.00	90 95	314.64	7730.86	5934.73	-6038.29	0.40	8466.51	446480.28	644690.18	
16204.00	90 10	314.60	7729.99	6001.45	-6105.90	0.90	8561.50	446547.00	644622.57	
16300.00	92.34	313.18	7727.95	6067.99	-6175.06	2.76	8657.47	446613.54	644553.41	
16395.00	94 24	310.70	7722.49	6131.37	-6245.60	3.29	8752.20	446676.92	644482.87	
16442.00	95.43	310.52	7718.53	6161.85	-6281.16	2.56	8798.92	446707.40	644447.31	Last Wft Svy
16499.00	95.43	310.52	7713.14	6198.72	-6324.29	0.00	8855.52	446744.27	644404.18	Proj. To Bit

Annotation

MD ft	TVD ft	
7321.71	7321.14	Tie On
7330.00	7329.43	First Wft Svy
16442.00	7718.53	Last Wft Svy
16499.00	7713.14	Proj To Bit

BOPCO, L.P.

**Poker Lake Unit 337H
Eddy Co, NM**

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	15119.00	90.66	313.91	7738.29	5231.82	-5341.40	0.00	0.00	7476.76	
2	15178.90	89.93	315.55	7737.98	5273.97	-5383.95	3.00	114.08	7536.65	
3	16758.10	89.93	315.55	7740.00	6401.31	-6489.83	0.00	0.00	9115.63	Pbhl

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
PLU 337H	0.00	0.00	440545.55	650728.47	32°12'36.855N	103°50'45.569W	N/A

TARGET DETAILS

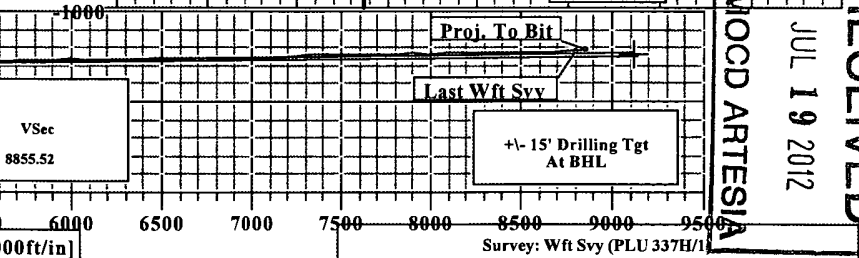
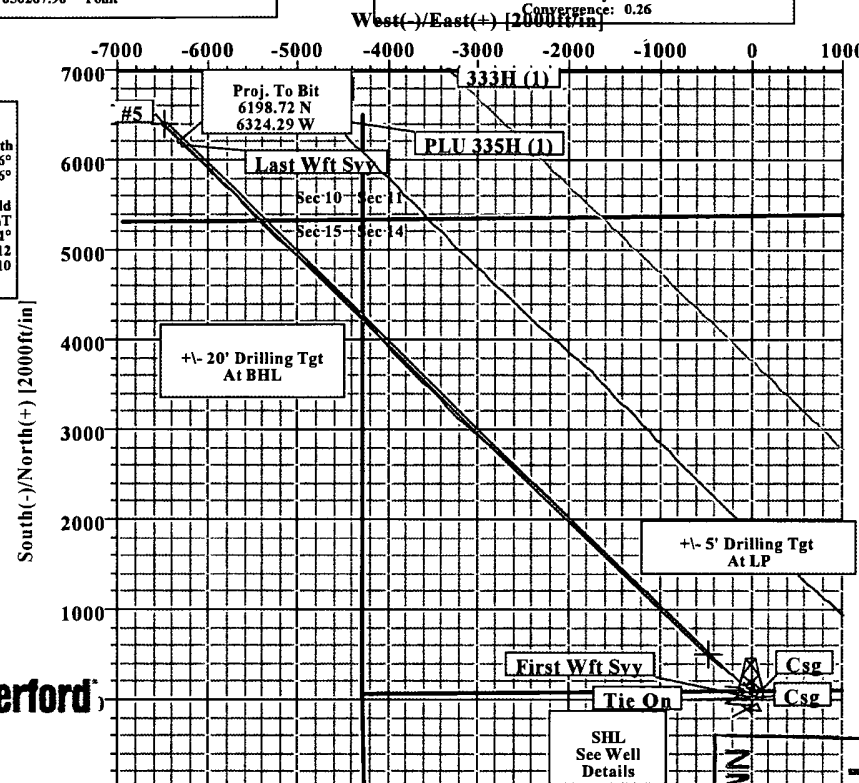
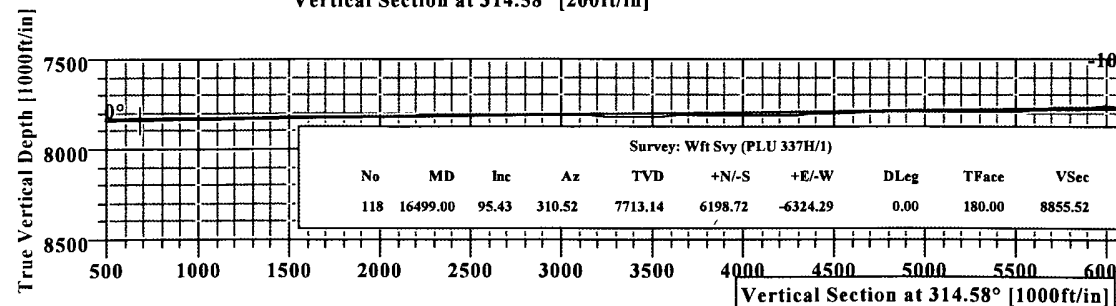
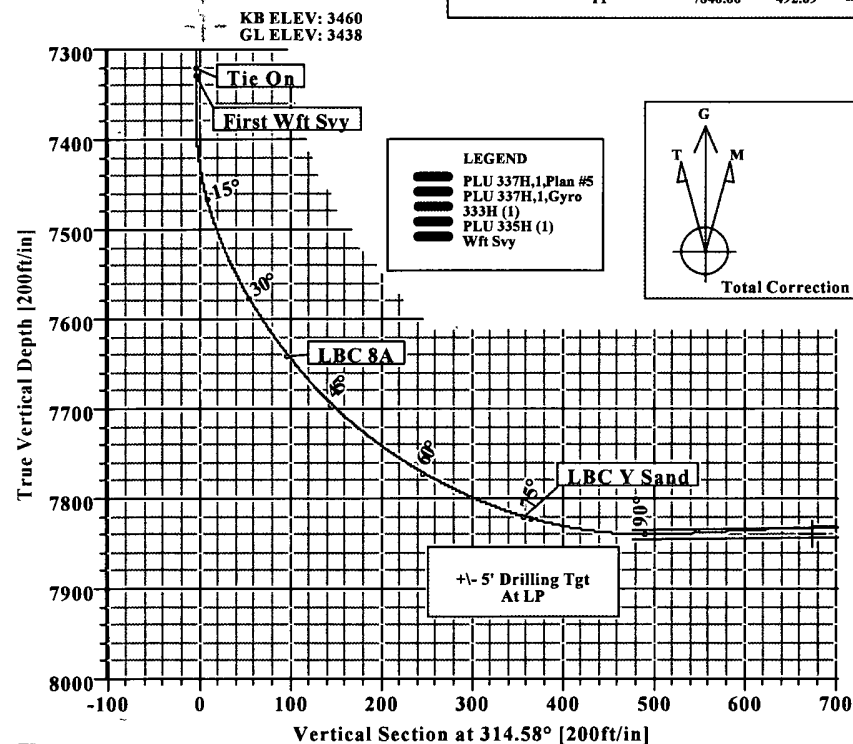
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Pbhl	7740.00	6401.31	-6489.83	446946.86	644238.64	Point
TI	7840.00	492.69	-460.51	441038.24	650267.96	Point

FIELD DETAILS

Eddy County, NM (Nad 27)
Geodetic System: US State Plane Coordinate System 1927
Ellipsoid: NAD27 (Clarke 1866)
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010
System Datum: Mean Sea Level
Local North: Grid North

SITE DETAILS

Poker Lake Unit 337H
Site Centre Northing: 440545.55
Easting: 650728.47
Ground Level: 3438.00
Positional Uncertainty: 0.00
Convergence: 0.26



RECEIVED
JUL 19 2012

INNOVARTESIA

Created By: Russell W. Joyner

Date: 4/30/2012