

Pirate #1H Lateral

Field Name Lea Co., New Mexico (NAD 83 NME)	Map Units : US ft		Company Name : GMT Exploration Co., LLC	
	Vertical Reference Datum (VRD) : Mean Sea Level			
	Projected Coordinate System : NAD83 / New Mexico East (ftUS)			
	Comment :			
Site Name Pirate #1H	Units : US ft	North Reference : Grid	Convergence Angle : 0.46	
	Position	Northing : 441779.30 US ft	Latitude : 32° 12' 41.73"	
		Easting : 807827.20 US ft	Longitude : -103° 28' 18.07"	
	Elevation above Mean Sea Level: 3527.00 US ft			
Comment :				
Slot Name Pirate #1H	Position (Offsets relative to Site Centre)			
	+N / -S : 0.00 US ft		Northing : 441779.30 US ft	Latitude : 32° 12' 41.73"
	+E / -W : 0.00 US ft		Easting : 807827.20 US ft	Longitude : -103° 28' 18.07"
	Slot TVD Reference : Ground Elevation			
Elevation above Mean Sea Level : 3527.00 US ft				
Comment :				
Well Name Pirate #1H Lateral	Type : Sidetrack		UWI :	
	Parent : Pirate #1H Pilot		Tie Point Method : MD Tie Point : 10352.00 US ft	
	Rig Height Drill Floor : 20.00 US ft		Comment :	
	Relative to Mean Sea Level: 3547.00 US ft			
	Closure Distance : 4472.03 US ft		Closure Azimuth : 359.366°	
	Vertical Section (Position of Origin Relative to Slot)			
+N / -S : 0.00 US ft		+E / -W : 0.00 US ft	Az : 359.43°	

Target Set

Name : Pirate #1H Lateral **Number of Targets :** 1

Comment :

Target Name: PBHL	Position (Relative to Slot centre)			
	+N / -S : 4478.79 US ft		Northing : 446258.09 US ft	Latitude : 32° 13' 26.05"
	+E / -W : -44.51 US ft		Easting : 807782.69 US ft	Longitude : -103° 28' 18.17"
	Shape: TVD (Drill Floor) : 10956.00 US ft			
Shape: Cuboid	Orientation Azimuth : 0.00°		Inclination : 0.00°	
	Dimensions Length : 0.00 US ft		Breadth : 0.00 US ft	Height : 0.00 US ft

Survey Name :Lateral Svy

Date : 18/Aug/2014 **Survey Tool :** MWD **Comment :** **Company :** Wft

Magnetic Model

Model Name: BGGM **Date:** 10/Aug/2014 **Field Strength:** 48294.3 nT **Declination:** 7.31° **Dip:** 60.11°

Tie Point

MD: 10352 **Inclination:** 0.85 **Azimuth:** 305.35 **TVD:** 10351.4 **North Offset:** -20.9008 **East Offset:** -9.58086

5D Survey Report

Well path created using minimum curvature

Survey Points (Relative to Slot centre, TVD relative to Drill Floor)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	VS (US ft)	DLS (%/100 US ft)	Northing (US ft)	Easting (US ft)	Comment
10397.00	0.84	317.31	10396.42	-20.47	-10.08	-20.36	0.00	441758.83	807817.12	First Lat Svy
10510.00	5.95	3.32	10509.19	-14.00	-10.30	-13.90	4.78	441765.30	807816.90	
10541.00	7.24	1.49	10539.99	-10.45	-10.16	-10.35	4.22	441768.85	807817.04	
10573.00	10.85	3.98	10571.58	-5.43	-9.89	-5.33	11.34	441773.87	807817.31	
10605.00	14.21	3.68	10602.82	1.50	-9.43	1.59	10.50	441780.80	807817.77	
10636.00	17.31	4.52	10632.65	9.90	-8.82	9.98	10.03	441789.20	807818.38	
10668.00	20.67	5.43	10662.90	20.27	-7.91	20.35	10.54	441799.57	807819.29	
10700.00	24.07	7.09	10692.49	32.37	-6.57	32.43	10.81	441811.67	807820.63	
10731.00	27.46	6.60	10720.40	45.75	-4.97	45.79	10.96	441825.05	807822.23	
10763.00	31.28	6.28	10748.29	61.34	-3.22	61.37	11.95	441840.64	807823.98	
10794.00	33.98	5.13	10774.39	77.97	-1.56	77.98	8.94	441857.27	807825.64	
10826.00	36.79	5.20	10800.48	96.42	0.11	96.42	8.78	441875.72	807827.31	
10858.00	40.27	4.88	10825.51	116.28	1.86	116.25	10.89	441895.58	807829.06	
10890.00	43.62	4.45	10849.30	137.59	3.59	137.55	10.51	441916.89	807830.79	
10921.00	47.41	6.62	10871.02	159.60	5.74	159.53	13.21	441938.90	807832.94	
10953.00	49.80	8.94	10892.18	183.38	9.00	183.28	9.24	441962.68	807836.20	
10984.00	53.19	9.20	10911.48	207.33	12.82	207.19	10.96	441986.63	807840.02	
11016.00	57.27	8.54	10929.73	233.30	16.87	233.12	12.86	442012.60	807844.07	
11047.00	61.43	7.32	10945.53	259.70	20.54	259.49	13.84	442039.00	807847.74	
11079.00	66.11	6.56	10959.67	288.19	24.01	287.94	14.78	442067.49	807851.21	
11111.00	70.70	5.92	10971.44	317.76	27.24	317.47	14.46	442097.06	807854.44	
11142.00	75.67	4.49	10980.41	347.30	29.92	346.99	16.63	442126.60	807857.12	
11174.00	80.09	2.25	10987.12	378.53	31.76	378.19	15.41	442157.83	807858.96	
11205.00	82.85	0.58	10991.72	409.17	32.51	408.83	10.38	442188.47	807859.71	
11237.00	85.45	359.17	10994.98	441.00	32.44	440.66	9.23	442220.30	807859.64	
11268.00	88.95	358.17	10996.50	471.95	31.72	471.61	11.74	442251.25	807858.92	
11300.00	90.91	357.52	10996.54	503.93	30.52	503.60	6.45	442283.23	807857.72	
11332.00	91.68	357.43	10995.81	535.89	29.11	535.57	2.42	442315.19	807856.31	
11454.00	91.29	357.13	10992.65	657.71	23.32	657.44	0.40	442437.01	807850.52	
11549.00	90.19	357.69	10991.42	752.60	19.03	752.37	1.30	442531.90	807846.23	
11643.00	89.75	357.16	10991.47	846.50	14.81	846.32	0.73	442625.80	807842.01	
11738.00	89.63	356.07	10991.99	941.34	9.20	941.20	1.15	442720.64	807836.40	
11833.00	89.26	356.12	10992.91	1036.11	2.73	1036.03	0.39	442815.41	807829.93	
11928.00	90.25	356.39	10993.31	1130.91	-3.48	1130.88	1.08	442910.21	807823.72	
12022.00	89.82	356.58	10993.26	1224.73	-9.24	1224.76	0.50	443004.03	807817.96	
12117.00	90.06	357.39	10993.36	1319.60	-14.23	1319.67	0.89	443098.90	807812.97	
12212.00	89.69	358.78	10993.56	1414.54	-17.41	1414.64	1.51	443193.84	807809.79	
12306.00	88.27	0.27	10995.24	1508.52	-18.19	1508.62	2.19	443287.82	807809.01	
12401.00	89.01	0.65	10997.49	1603.49	-17.43	1603.58	0.88	443382.79	807809.77	
12496.00	88.70	1.98	10999.39	1698.44	-15.25	1698.51	1.44	443477.74	807811.95	
12589.00	88.59	2.93	11001.59	1791.33	-11.26	1791.35	1.03	443570.63	807815.94	
12682.00	89.74	4.69	11002.94	1884.11	-5.09	1884.06	2.26	443663.41	807822.11	
12777.00	90.37	5.32	11002.85	1978.74	3.20	1978.61	0.94	443758.04	807830.40	
12871.00	90.31	4.71	11002.30	2072.38	11.42	2072.17	0.65	443851.68	807838.62	
12965.00	90.43	3.57	11001.69	2166.13	18.21	2165.85	1.22	443945.43	807845.41	
13060.00	90.49	2.58	11000.93	2260.99	23.30	2260.65	1.04	444040.29	807850.50	
13154.00	90.79	1.17	10999.88	2354.93	26.38	2354.55	1.53	444134.23	807853.58	
13249.00	89.63	359.48	10999.53	2449.93	26.92	2449.54	2.16	444229.23	807854.12	
13344.00	89.44	358.11	11000.30	2544.90	24.92	2544.53	1.46	444324.20	807852.12	
13439.00	89.14	357.25	11001.48	2639.81	21.07	2639.47	0.96	444419.11	807848.27	
13533.00	89.26	356.76	11002.79	2733.68	16.16	2733.38	0.54	444512.98	807843.36	
13626.00	89.14	357.03	11004.09	2826.53	11.12	2826.28	0.32	444605.83	807838.32	
13721.00	89.32	355.67	11005.36	2921.33	5.08	2921.13	1.44	444700.63	807832.28	
13816.00	88.77	354.12	11006.95	3015.93	-3.37	3015.82	1.73	444795.23	807823.83	
13910.00	88.89	355.07	11008.87	3109.50	-12.23	3109.46	1.02	444888.80	807814.97	
14004.00	89.01	357.06	11010.59	3203.25	-18.68	3203.28	2.12	444982.55	807808.52	
14099.00	89.88	0.21	11011.51	3298.21	-20.94	3298.25	3.44	445077.51	807806.26	

5D Survey Report

Survey Points (Relative to Slot centre, TVD relative to Drill Floor)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Northing (US ft)	Easting (US ft)	Comment
14194.00	91.48	1.91	11010.38	3393.18	-19.18	3393.20	2.46	445172.48	807808.02	
14289.00	91.61	1.47	11007.82	3488.10	-16.38	3488.09	0.48	445267.40	807810.82	
14383.00	92.28	359.05	11004.63	3582.04	-15.95	3582.02	2.67	445361.34	807811.25	
14477.00	91.42	358.89	11001.60	3675.98	-17.64	3675.97	0.93	445455.28	807809.56	
14571.00	92.03	359.12	10998.77	3769.92	-19.27	3769.92	0.69	445549.22	807807.93	
14665.00	91.60	359.39	10995.79	3863.86	-20.50	3863.88	0.54	445643.16	807806.70	
14759.00	91.85	358.45	10992.96	3957.80	-22.27	3957.83	1.03	445737.10	807804.93	
14854.00	91.54	357.15	10990.15	4052.69	-25.91	4052.75	1.41	445831.99	807801.29	
14948.00	92.15	356.80	10987.12	4146.51	-30.87	4146.61	0.75	445925.81	807796.33	
15044.00	91.97	355.86	10983.67	4242.25	-37.01	4242.41	1.00	446021.55	807790.19	
15137.00	92.34	356.97	10980.17	4335.00	-42.82	4335.21	1.26	446114.30	807784.38	
15174.00	91.97	357.26	10978.78	4371.93	-44.68	4372.15	1.27	446151.23	807782.52	Last Lat Svy
15274.00	91.97	357.26	10975.35	4471.75	-49.46	4472.02	0.00	446251.05	807777.74	Projection