

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DL8 (°/100ft)	BR (°/100ft)	TR (°/100ft)	Northing (ft)	Easting (ft)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	7103.00	88.42	143.71	6199.81	5345.79	1007.29	-525.96	903.51	0.71	0.66	-0.26	531613.11	1699402.54	N 39 57 16.70	W 80 34 20.18
	7198.00	86.57	145.04	6203.96	5349.94	1101.12	-603.11	958.79	2.40	-1.05	1.40	531535.97	1699457.82	N 39 57 15.94	W 80 34 18.46
	7293.00	85.43	144.71	6210.58	5356.56	1194.68	-680.81	1013.32	1.25	-1.20	-0.35	531458.47	1699512.34	N 39 57 15.18	W 80 34 18.74
	7387.00	89.52	144.61	6214.72	5360.70	1287.44	-757.20	1067.63	4.35	4.35	-0.11	531381.88	1699566.65	N 39 57 14.43	W 80 34 18.04
	7482.00	88.01	142.10	6218.77	5362.75	1381.56	-833.40	1124.31	3.08	-1.59	-2.64	531305.09	1699623.32	N 39 57 13.69	W 80 34 17.30
	7577.00	89.35	141.97	6218.96	5364.94	1475.96	-906.28	1182.73	1.42	1.41	0.14	531230.82	1699681.75	N 39 57 12.95	W 80 34 16.53
	7672.00	90.24	141.94	6219.30	5365.28	1570.40	-983.09	1241.28	0.94	0.94	-0.03	531156.01	1699740.29	N 39 57 12.22	W 80 34 15.77
	7766.00	88.87	140.94	6220.03	5366.01	1663.93	-1056.59	1299.87	1.80	-1.46	-1.06	531082.51	1699798.88	N 39 57 11.50	W 80 34 15.01
	7861.00	90.17	140.20	6220.83	5366.81	1758.58	-1129.96	1380.20	1.57	1.37	-0.78	531009.14	1699859.21	N 39 57 10.78	W 80 34 14.22
	7956.00	89.83	140.76	6220.83	5366.81	1853.26	-1203.24	1420.65	0.89	-0.38	0.59	530935.96	1699916.96	N 39 57 10.07	W 80 34 13.43
	8051.00	91.82	141.62	6219.46	5365.44	1947.61	-1277.35	1480.18	2.28	2.09	0.91	530861.85	1699979.19	N 39 57 9.34	W 80 34 12.86
	8145.00	88.97	141.11	6218.81	5364.79	2041.35	-1350.68	1538.87	3.08	-3.03	-0.54	530788.44	1700037.87	N 39 57 8.62	W 80 34 11.89
	8240.00	89.72	140.61	6219.90	5365.88	2135.96	-1424.35	1598.83	0.95	0.79	-0.53	530714.76	1700097.82	N 39 57 7.90	W 80 34 11.11
	8334.00	87.94	141.20	6221.82	5367.80	2229.55	-1497.29	1658.09	1.99	-1.89	0.63	530641.83	1700157.08	N 39 57 7.19	W 80 34 10.34
	8430.00	87.97	142.45	6225.24	5371.22	2324.95	-1572.71	1717.39	1.30	0.03	1.30	530568.42	1700216.38	N 39 57 6.45	W 80 34 9.57
	8525.00	89.42	142.47	6227.41	5373.39	2419.27	-1648.01	1775.25	1.53	1.53	0.02	530491.11	1700274.24	N 39 57 5.71	W 80 34 8.81
	8619.00	88.70	141.93	6228.95	5374.93	2512.66	-1722.28	1832.86	0.96	-0.77	-0.57	530416.85	1700331.84	N 39 57 4.98	W 80 34 8.06
	8714.00	89.07	141.60	6230.80	5376.76	2607.11	-1796.88	1891.64	0.52	0.39	-0.35	530342.25	1700390.63	N 39 57 4.25	W 80 34 7.30
	8809.00	89.69	140.48	6231.82	5377.80	2701.70	-1870.75	1951.37	1.35	0.65	-1.18	530268.39	1700450.35	N 39 57 3.53	W 80 34 6.52
	8903.00	90.00	142.17	6232.08	5378.06	2795.25	-1944.13	2010.11	1.83	0.33	1.80	530195.01	1700509.09	N 39 57 2.81	W 80 34 5.75
	8997.00	89.93	144.27	6232.14	5378.12	2888.44	-2019.42	2069.39	2.24	-0.07	2.23	530119.73	1700565.36	N 39 57 2.08	W 80 34 5.02
	9092.00	90.48	143.97	6231.80	5377.78	2982.42	-2096.39	2122.07	0.68	0.56	-0.32	530042.76	1700621.04	N 39 57 1.32	W 80 34 4.29
	9186.00	89.73	142.87	6231.62	5377.60	3075.57	-2171.87	2178.06	1.42	-0.80	-1.17	529967.28	1700677.05	N 39 57 0.58	W 80 34 3.56
	9282.00	91.86	142.80	6230.29	5376.27	3170.82	-2248.38	2236.07	2.22	2.22	-0.07	529890.79	1700735.04	N 39 56 58.83	W 80 34 2.81
	9377.00	89.62	143.10	6229.08	5375.04	3265.06	-2324.17	2293.30	2.38	0.32	529814.99	1700792.27	N 39 56 58.09	W 80 34 2.06	
Final Survey 28Jun12	9410.00	89.79	142.83	6229.23	5375.21	3297.79	-2350.51	2313.18	0.97	0.52	-0.82	529788.64	1700812.14	N 39 56 58.83	W 80 34 1.80
Projection to Bit	9474.00	89.79	142.83	6229.47	5375.45	3361.30	-2401.51	2351.84	0.00	0.00	0.00	529737.85	1700850.81	N 39 56 58.33	W 80 34 1.30

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey	
	0.000	15.000		Act Stns	30.000	30.000	SLB_NSG+MSHOT-Depth Only	Original Borehole / Noble Energy SHL-6J-HS Gyro 0' to 5950' MD (Projected-Up)
	15.000	23.000		Act Stns	30.000	30.000	SLB_NSG+MSHOT-Depth Only	Original Borehole / Noble Energy SHL-6J-HS Gyro 0' to 5950' MD
	23.000	4715.000		Act Stns	30.000	30.000	SLB_NSG+MSHOT	Original Borehole / Noble Energy SHL-6J-HS Gyro 0' to 5950' MD
	4715.000	9410.000		Act Stns	30.000	30.000	SLB_MWD-STD	ST01 / Noble Energy SHL-6J-HS ST01 Gyro+MWD 0' MD to 9474'
	9410.000	9474.000		Act Stns	30.000	30.000	SLB_BLIND+TREND	ST01 / Noble Energy SHL-6J-HS ST01 Gyro+MWD 0' MD to 9474'

WELL: SHL-6J-HS ST01	FIELD: WV Marshall County (NAD 27)	STRUCTURE: Nabors M59
Magnetic Parameters Model: BGM2011 Dip: 67.55° Mag. Dec: -4.73°	Date: November 14, 2011 ES: 52893.967	Surface Location Loc: N 30 57 21.78E Northing: 13210205.8028 Easting: 1096499.27.8113 Loc: W 80.34 31.840 Grid Cont: -6.88995337 Scale Fact: 0.9999730
		Measurements Site: SHL-6J-HS TYD Ref: K2854-028 above MSL Flac: Rev 1 SV 24/12/12 Srv Date: November 14, 2011

Legend

- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 2448' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 1920' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 660' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 1000' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 1124' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 1200' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 1280' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 1360' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 1440' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 1520' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 1600' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 1680' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 1760' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 1840' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 1920' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 2000' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 2080' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 2160' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 2240' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 2320' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 2400' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 2480' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 2560' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 2640' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 2720' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 2800' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 2880' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 2960' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 3040' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 3120' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 3200' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 3280' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 3360' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 3440' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 3520' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 3600' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 3680' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 3760' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 3840' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 3920' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 4000' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 4080' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 4160' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 4240' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 4320' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 4400' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 4480' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 4560' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 4640' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 4720' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 4800' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 4880' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 4960' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 5040' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 5120' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 5200' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 5280' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 5360' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 5440' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 5520' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 5600' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 5680' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 5760' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 5840' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 5920' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 6000' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 6080' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 6160' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 6240' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 6320' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 6400' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 6480' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 6560' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 6640' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 6720' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 6800' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 6880' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 6960' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 7040' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 7120' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 7200' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 7280' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 7360' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 7440' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 7520' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 7600' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 7680' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 7760' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 7840' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 7920' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 8000' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 8080' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 8160' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 8240' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 8320' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 8400' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 8480' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 8560' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 8640' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 8720' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 8800' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 8880' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 8960' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 9040' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 9120' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 9200' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 9280' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 9360' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 9440' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 9520' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 9600' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 9680' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 9760' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 9840' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 9920' MD)
- Noble Energy Borehole SHL-6J-HS ST01 (MWD to 10000' MD)

Well Location

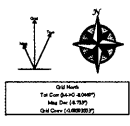
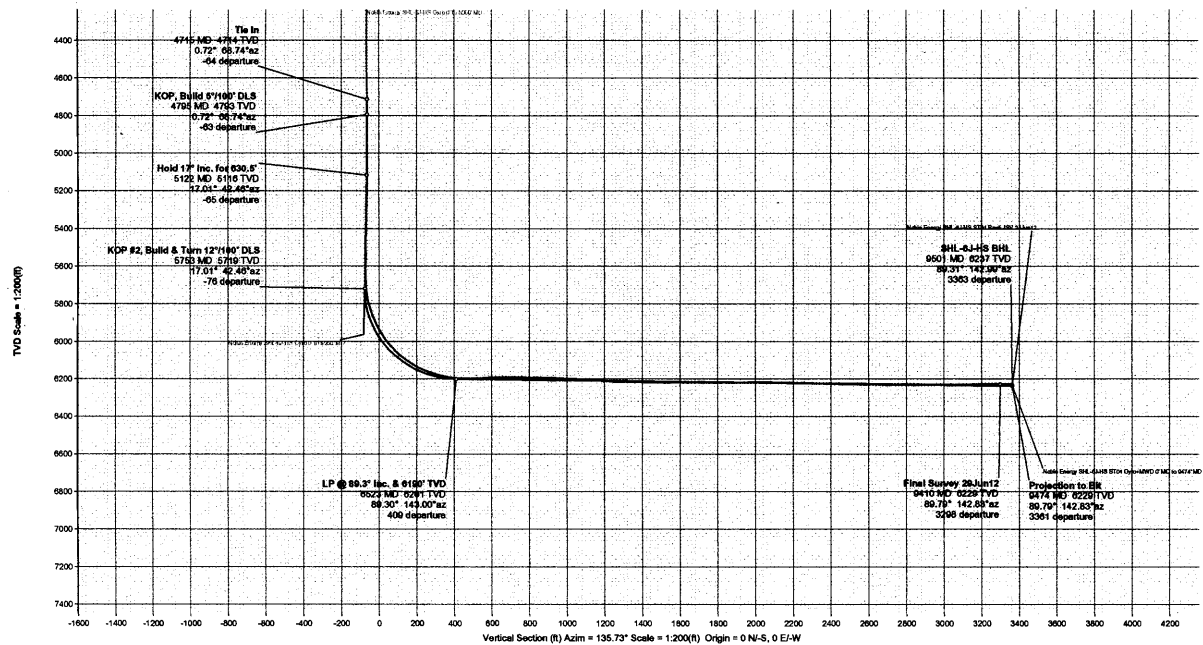
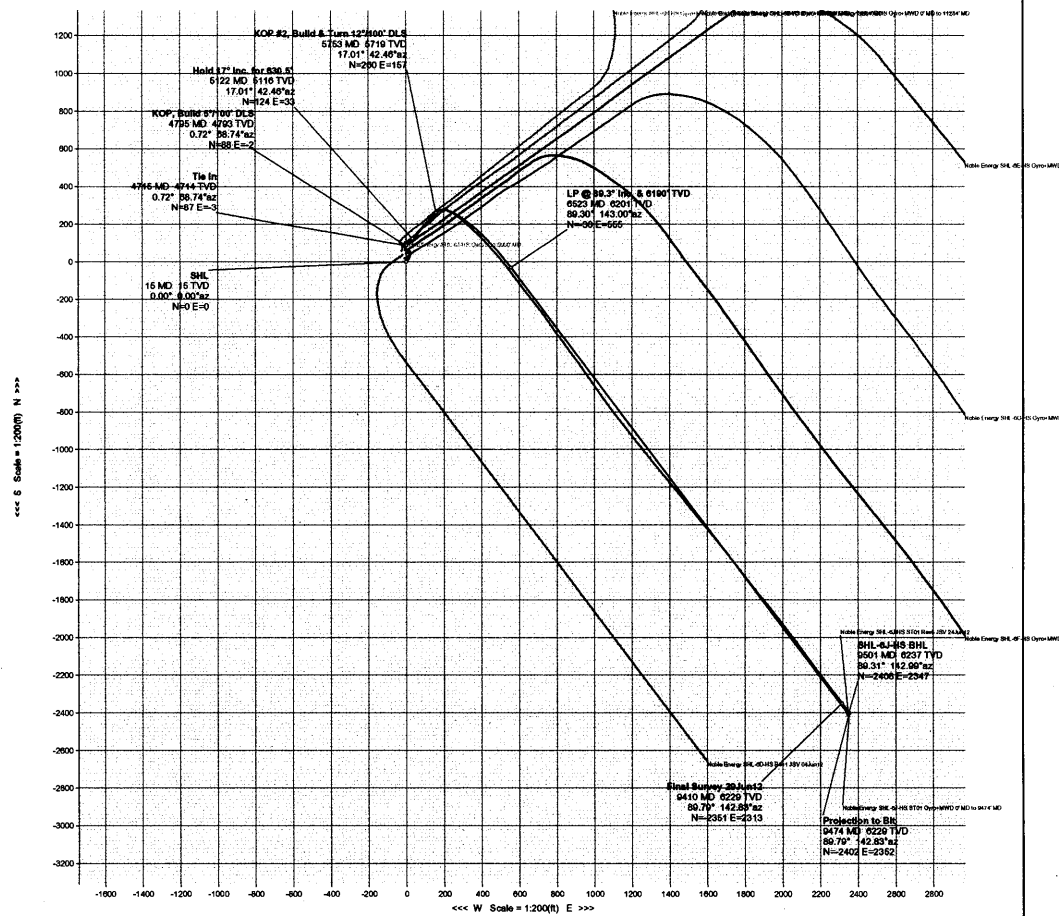
Well Name	Well ID	Well Type	Well Status	Well Depth (MD)	Well Azim	Well Incl	Well Comp
SHL-6J-HS ST01	SHL-6J-HS ST01	MWD	Open	1000	135.73	0.0	0.0

Well Data

Well Name	Well ID	Well Type	Well Status	Well Depth (MD)	Well Azim	Well Incl	Well Comp
SHL-6J-HS ST01	SHL-6J-HS ST01	MWD	Open	1000	135.73	0.0	0.0

Well Data

Well Name	Well ID	Well Type	Well Status	Well Depth (MD)	Well Azim	Well Incl	Well Comp
SHL-6J-HS ST01	SHL-6J-HS ST01	MWD	Open	1000	135.73	0.0	0.0



Drawn By: J Vercos
Date Created: June 26, 2012 08:06:29 AM
Checked By:
Approved By:
Approved Date: