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WV GEOLOGICAL SURVEY
MORGANTOWN, WV



Weatherford®

Drilling Services

EOW Summary



WELL: MCDOWELL B3H - JOB # 4018772

MARSHALL COUNTY, WV

Prepared by: Joseph Boyd

Submitted: MARCH 26, 2010

Weatherford International Ltd.
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FINAL SURVEYS.....SEC.1

DAYS vs DEPTH.....SEC.2

DAILY ACTIVITY.....SEC.3

BHA REPORTS.....SEC.4

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Drilling Services-Jane Lew, WV



FINAL SURVEYS

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	10194.00	89.69	311.51	7124.14	1783.18	-2203.96	0.00	0.00	2827.27	
2	10236.00	89.40	311.60	7124.14	1823.38	-2234.38	0.72	162.76	2869.25	
3	10614.12	94.61	313.84	7111.26	1847.30	-2511.80	1.50	23.26	3246.90	
4	10914.81	91.60	313.84	7094.96	2275.24	-2728.43	1.00	-179.86	3547.16	PBHL
5	11566.88	91.60	313.84	7076.71	2726.70	-3198.60	0.00	0.00	4198.91	PBHL

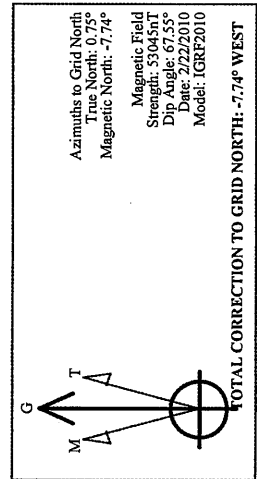
TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	7076.71	2726.70	-3198.60	455468.00	1667554.00	Point
TP 3H	7146.51	-69.30	-200.60	452672.00	1670552.00	Point

EXTRAPOLATED TD: WFT #1 (B 3H/Horizontal)

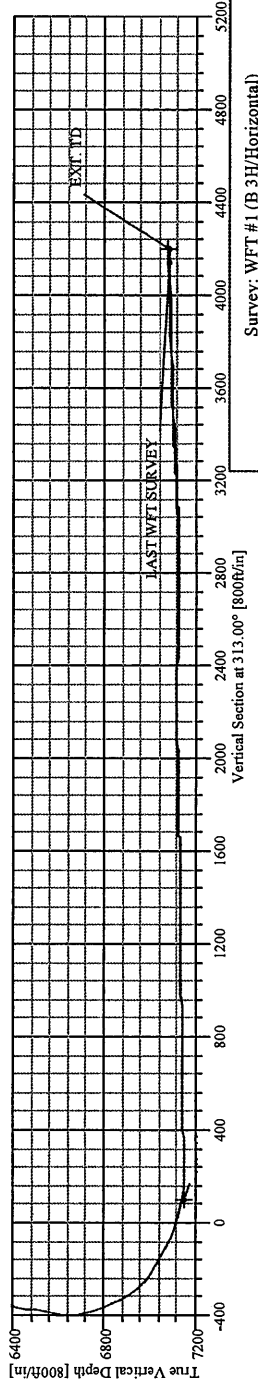
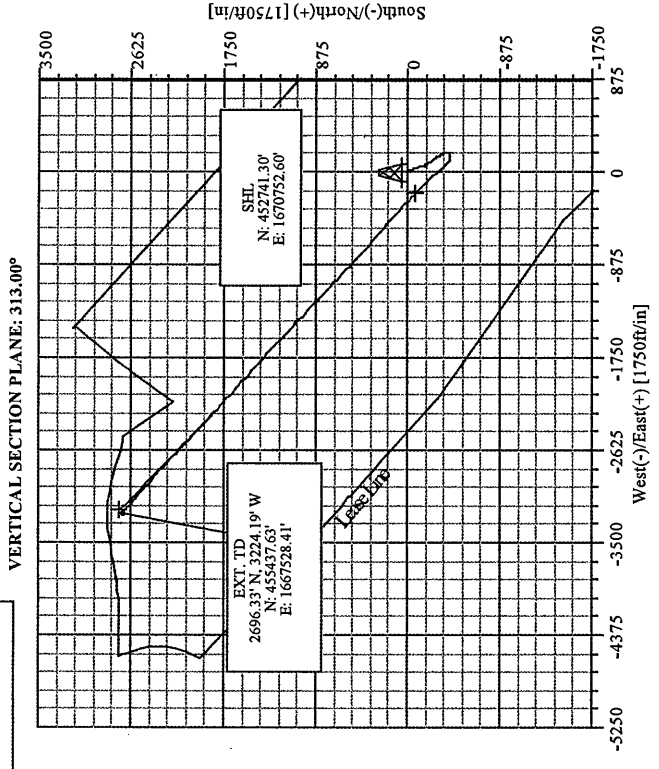
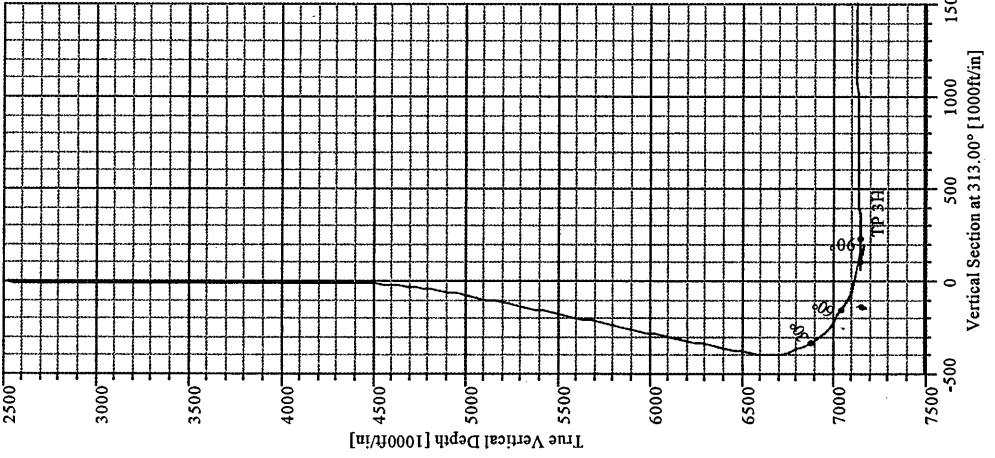
No	MD	Inc	Az	310.04	+N/-S	+E/-W	DLeg	TFace	VSec
230	11565.00	91.91	310.04	7081.69	2696.33	-3224.19	0.00	0.00	4196.91

FIELD DETAILS
 MARSHALL COUNTY, WV
 Geodetic System: US State Plane Coordinate System 1927
 Ellipsoid: NAD27 (Clarke 1866)
 Zone: West Virginia, Northern Zone
 Magnetic Model: IGRF2010
 System Datum: Mean Sea Level
 Local North: Grid North



SITE DETAILS
 McDowell B 3H
 Site Centre Northing: 452741.30
 Easting: 1670752.60
 Ground Level: 1356.00
 Positional Uncertainty: 0.00
 Convergence: -0.75

LEGEND
 B 3H/Horizontal/Plan #3
 WFT #1



Weatherford International Ltd.

SURVEY REPORT



Company: CHESAPEAKE	Date: 3/26/2010	Time: 08:31:46	Page: 1
Field: MARSHALL COUNTY, WV	Co-ordinate(NE) Reference:	Site: McDowell B 3H, Grid North	
Site: McDowell B 3H	Vertical (TVD) Reference:	SITE 1375.0	
Well: B 3H	Section (VS) Reference:	User (0.00N,0.00E,313.00Azi)	
Wellpath: Horizontal	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: WFT #1	Start Date: 2/26/2010
Company: Weatherford International Ltd.	Engineer: Joseph Boyd
Tool: MWD;MWD - Standard	Tied-to: From Surface

Field: MARSHALL COUNTY, WV	
Map System: US State Plane Coordinate System 1927	Map Zone: West Virginia, Northern Zone
Geo Datum: NAD27 (Clarke 1866)	Coordinate System: Site Centre
Sys Datum: Mean Sea Level	Geomagnetic Model: IGRF2010

Site: McDowell B 3H		
Site Position:	Northing: 452741.30 ft	Latitude: 39 44 13.710 N
From: Map	Easting: 1670752.60 ft	Longitude: 80 40 14.853 W
Position Uncertainty: 0.00 ft		North Reference: Grid
Ground Level: 1356.00 ft		Grid Convergence: -0.75 deg

Well: B 3H	Slot Name:	
Well Position:	Northing: 452741.30 ft	Latitude: 39 44 13.710 N
Position Uncertainty: 0.00 ft	Easting: 1670752.60 ft	Longitude: 80 40 14.853 W

Wellpath: Horizontal	Drilled From: Surface		
Current Datum: SITE	Tie-on Depth: 0.00 ft		
Magnetic Data: 2/22/2010	Above System Datum: Mean Sea Level		
Field Strength: 53045 nT	Declination: -8.49 deg		
Vertical Section: Depth From (TVD) ft	Mag Dip Angle: 67.55 deg		
	+N/-S ft		
	+E/-W ft		
	Direction deg		
0.00	0.00	0.00	313.00

Survey										
MD	Incl	Azim	TVD	N/S	E/W	VS	DLS	Build	Turn	Comment
ft	deg	deg	ft	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
92.00	0.43	60.83	92.00	0.17	0.30	-0.11	0.47	0.47	0.00	
187.00	0.20	79.64	187.00	0.37	0.78	-0.31	0.26	-0.24	19.80	
281.00	0.03	29.74	281.00	0.42	0.95	-0.41	0.19	-0.18	-53.09	
375.00	0.38	98.23	375.00	0.40	1.27	-0.66	0.39	0.37	72.86	
467.00	0.21	91.01	467.00	0.35	1.74	-1.03	0.19	-0.18	-7.85	
561.00	0.15	103.23	561.00	0.32	2.03	-1.27	0.08	-0.06	13.00	
654.00	0.02	329.64	653.99	0.31	2.14	-1.36	0.18	-0.14	-143.65	
744.00	0.34	65.11	743.99	0.43	2.38	-1.44	0.38	0.36	106.08	
831.00	0.28	64.02	830.99	0.64	2.80	-1.62	0.07	-0.07	-1.25	
921.00	0.12	77.20	920.99	0.75	3.09	-1.75	0.18	-0.18	14.64	
1011.00	0.05	11.51	1010.99	0.81	3.19	-1.78	0.12	-0.08	-72.99	
1101.00	0.15	66.84	1100.99	0.90	3.31	-1.81	0.14	0.11	61.48	
1191.00	0.34	55.91	1190.99	1.09	3.64	-1.91	0.22	0.21	-12.14	
1249.00	0.29	94.62	1248.99	1.18	3.93	-2.07	0.37	-0.09	66.74	
1294.00	0.19	146.89	1293.99	1.11	4.08	-2.23	0.51	-0.22	116.16	
1337.00	0.19	135.64	1336.99	1.00	4.17	-2.37	0.09	0.00	-26.16	
1380.00	0.06	216.39	1379.99	0.93	4.21	-2.44	0.44	-0.30	187.79	
1422.00	0.19	146.41	1421.99	0.85	4.23	-2.51	0.43	0.31	-166.62	
1464.00	0.19	8.89	1463.99	0.86	4.28	-2.54	0.84	0.00	-327.43	
1509.00	0.27	13.37	1508.99	1.04	4.32	-2.45	0.18	0.18	9.96	
1552.00	0.19	336.60	1551.99	1.20	4.31	-2.33	0.38	-0.19	-85.51	
1595.00	0.23	299.13	1594.99	1.31	4.21	-2.18	0.33	0.09	-87.14	
1637.00	0.58	325.09	1636.99	1.52	4.01	-1.89	0.92	0.83	61.81	

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SURVEY REPORT



Weatherford®

Company: CHESAPEAKE	Date: 3/26/2010	Time: 08:31:46	Page: 2
Field: MARSHALL COUNTY, WV	Co-ordinate(NE) Reference:	Site: McDowell B 3H, Grid North	
Site: McDowell B 3H	Vertical (TVD) Reference:	SITE 1375.0	
Well: B 3H	Section (VS) Reference:	User (0.00N,0.00E,313.00Azi)	
Wellpath: Horizontal	Survey Calculation Method:	Minimum Curvature	Db: Sybase

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	Comment
1682.00	0.35	352.57	1681.99	1.85	3.86	-1.57	0.70	-0.51	61.07	
1725.00	0.31	310.89	1724.99	2.05	3.76	-1.35	0.55	-0.09	-96.93	
1767.00	0.50	342.01	1766.98	2.30	3.62	-1.07	0.68	0.45	74.10	
1812.00	0.50	10.01	1811.98	2.68	3.59	-0.80	0.54	0.00	62.22	
1857.00	0.24	338.01	1856.98	2.96	3.59	-0.60	0.72	-0.58	-71.11	
1902.00	0.13	207.39	1901.98	3.01	3.53	-0.53	0.75	-0.24	-290.27	
1945.00	0.25	183.64	1944.98	2.87	3.50	-0.60	0.33	0.28	-55.23	
1987.00	0.46	163.26	1986.98	2.62	3.55	-0.81	0.58	0.50	-48.52	
2029.00	0.63	158.51	2028.98	2.24	3.68	-1.16	0.42	0.40	-11.31	
2071.00	0.19	159.01	2070.98	1.96	3.79	-1.43	1.05	-1.05	1.19	
2116.00	0.47	194.14	2115.98	1.71	3.77	-1.59	0.74	0.62	78.07	
2158.00	0.69	188.14	2157.97	1.29	3.69	-1.82	0.54	0.52	-14.29	
2203.00	0.88	203.89	2202.97	0.71	3.51	-2.09	0.64	0.42	35.00	
2248.00	0.56	189.89	2247.97	0.18	3.34	-2.32	0.81	-0.71	-31.11	
2291.00	0.69	176.01	2290.96	-0.29	3.32	-2.62	0.46	0.30	-32.28	
2336.00	0.69	174.26	2335.96	-0.83	3.36	-3.02	0.05	0.00	-3.89	
2380.00	0.55	165.48	2379.96	-1.30	3.44	-3.40	0.38	-0.32	-19.95	
2422.00	0.88	137.26	2421.96	-1.73	3.71	-3.89	1.13	0.79	-67.19	
2467.00	0.81	128.51	2466.95	-2.18	4.20	-4.56	0.33	-0.16	-19.44	
2512.00	0.63	143.89	2511.95	-2.58	4.59	-5.12	0.58	-0.40	34.18	
2557.00	0.75	133.64	2556.94	-2.98	4.95	-5.65	0.38	0.27	-22.78	
2600.00	0.56	103.76	2599.94	-3.23	5.36	-6.12	0.89	-0.44	-69.49	
2623.00	0.56	106.26	2622.94	-3.28	5.57	-6.32	0.11	0.00	10.87	
2715.00	0.19	174.14	2714.94	-3.56	6.02	-6.83	0.56	-0.40	73.78	
2760.00	0.25	71.51	2759.94	-3.60	6.12	-6.94	0.77	0.13	-228.07	
2805.00	0.38	128.13	2804.94	-3.67	6.33	-7.13	0.71	0.29	125.82	
2850.00	0.06	122.89	2849.94	-3.77	6.47	-7.30	0.71	-0.71	-11.64	
2893.00	0.44	97.76	2892.94	-3.80	6.65	-7.46	0.90	0.88	-58.44	
2938.00	0.38	134.01	2937.94	-3.93	6.93	-7.75	0.58	-0.13	80.56	
2983.00	0.06	70.89	2982.94	-4.03	7.06	-7.91	0.79	-0.71	-140.27	
3025.00	0.18	159.30	3024.93	-4.08	7.10	-7.98	0.45	0.29	210.50	
3068.00	0.25	162.39	3067.93	-4.23	7.16	-8.12	0.16	0.16	7.19	
3111.00	0.31	146.14	3110.93	-4.42	7.25	-8.32	0.23	0.14	-37.79	
3155.00	0.38	100.14	3154.93	-4.55	7.46	-8.56	0.63	0.16	-104.55	
3198.00	0.31	131.26	3197.93	-4.65	7.69	-8.79	0.46	-0.16	72.37	
3240.00	0.13	199.64	3239.93	-4.77	7.76	-8.92	0.69	-0.43	162.81	
3283.00	0.25	129.64	3282.93	-4.87	7.81	-9.04	0.56	0.28	-162.79	
3326.00	0.24	185.85	3325.93	-5.02	7.88	-9.19	0.54	-0.02	130.72	
3371.00	0.19	213.39	3370.93	-5.18	7.83	-9.25	0.25	-0.11	61.20	
3413.00	0.13	9.51	3412.93	-5.19	7.79	-9.24	0.75	-0.14	371.71	
3456.00	0.19	216.14	3455.93	-5.20	7.76	-9.22	0.72	0.14	-356.67	
3501.00	0.13	73.89	3500.93	-5.24	7.77	-9.26	0.67	-0.13	-316.11	
3543.00	0.13	95.26	3542.93	-5.24	7.86	-9.32	0.11	0.00	50.88	
3672.00	0.00	209.39	3671.93	-5.25	8.00	-9.43	0.10	-0.10	0.00	
3805.00	0.44	36.26	3804.93	-4.84	8.31	-9.37	0.33	0.33	0.00	
3940.00	0.44	51.39	3939.93	-4.10	9.02	-9.39	0.09	0.00	11.21	
4073.00	0.38	104.39	4072.92	-3.89	9.84	-9.85	0.28	-0.05	39.85	
4203.00	0.50	71.01	4202.92	-3.81	10.80	-10.50	0.21	0.09	-25.68	
4337.00	0.38	127.64	4336.92	-3.89	11.70	-11.21	0.32	-0.09	42.26	
4422.00	0.75	79.14	4421.91	-3.96	12.47	-11.82	0.68	0.44	-57.06	
4467.00	1.63	131.89	4466.90	-4.33	13.24	-12.64	2.93	1.96	117.22	
4511.00	2.75	146.51	4510.87	-5.63	14.29	-14.29	2.82	2.55	33.23	

Weatherford International Ltd.

SURVEY REPORT



Weatherford[®]

Company: CHESAPEAKE Field: MARSHALL COUNTY, WV Site: McDowell B 3H Well: B 3H Wellpath: Horizontal	Date: 3/26/2010 Time: 08:31:46 Page: 3 Co-ordinate(NE) Reference: Site: McDowell B 3H, Grid North Vertical (TVD) Reference: SITE 1375.0 Section (VS) Reference: User (0.00N,0.00E,313.00Az) Survey Calculation Method: Minimum Curvature Db: Sybase
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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	Comment
4556.00	4.13	154.64	4555.79	-7.99	15.58	-16.84	3.25	3.07	18.07	
4599.00	5.38	160.89	4598.64	-11.30	16.90	-20.06	3.14	2.91	14.53	
4644.00	6.24	163.01	4643.41	-15.63	18.31	-24.05	1.97	1.91	4.71	
4689.00	7.31	165.01	4688.09	-20.73	19.76	-28.59	2.43	2.38	4.44	
4734.00	8.31	167.01	4732.68	-26.67	21.23	-33.72	2.30	2.22	4.44	
4779.00	8.81	168.14	4777.17	-33.21	22.67	-39.23	1.17	1.11	2.51	
4824.00	9.44	165.76	4821.60	-40.16	24.29	-45.15	1.63	1.40	-5.29	
4866.00	10.69	165.63	4862.96	-47.27	26.10	-51.33	2.98	2.98	-0.31	
4911.00	11.56	165.63	4907.11	-55.68	28.26	-58.64	1.93	1.93	0.00	
4956.00	12.38	165.14	4951.13	-64.71	30.61	-66.52	1.84	1.82	-1.09	
4998.00	12.63	163.01	4992.14	-73.46	33.11	-74.31	1.25	0.60	-5.07	
5042.00	13.06	162.14	5035.04	-82.79	36.04	-82.82	1.07	0.98	-1.98	
5087.00	11.19	158.76	5079.03	-91.70	39.18	-91.19	4.44	-4.16	-7.51	
5130.00	12.81	160.51	5121.09	-100.08	42.28	-99.18	3.86	3.77	4.07	
5175.00	13.06	160.51	5164.95	-109.58	45.64	-108.11	0.56	0.56	0.00	
5220.00	13.44	161.64	5208.75	-119.33	48.99	-117.21	1.02	0.84	2.51	
5265.00	13.31	160.76	5252.53	-129.19	52.34	-126.39	0.54	-0.29	-1.96	
5307.00	13.06	158.26	5293.42	-138.16	55.69	-134.96	1.48	-0.60	-5.95	
5351.00	12.63	157.89	5336.32	-147.23	59.34	-143.82	0.99	-0.98	-0.84	
5396.00	12.30	158.66	5380.26	-156.26	62.94	-152.60	0.82	-0.73	1.71	
5441.00	11.63	153.14	5424.28	-164.77	66.73	-161.18	2.95	-1.49	-12.27	
5483.00	11.63	153.26	5465.42	-172.33	70.55	-169.12	0.06	0.00	0.29	
5526.00	12.00	153.51	5507.51	-180.20	74.50	-177.38	0.87	0.86	0.58	
5569.00	11.94	152.26	5549.58	-188.14	78.56	-185.76	0.62	-0.14	-2.91	
5614.00	12.31	149.01	5593.57	-196.37	83.20	-194.77	1.73	0.82	-7.22	
5657.00	12.89	149.92	5635.54	-204.45	87.96	-203.76	1.43	1.35	2.12	
5702.00	13.19	148.26	5679.38	-213.16	93.18	-213.52	1.07	0.67	-3.69	
5746.00	13.13	145.14	5722.22	-221.53	98.67	-223.25	1.62	-0.14	-7.09	
5790.00	13.13	145.76	5765.07	-229.76	104.34	-233.01	0.32	0.00	1.41	
5834.00	12.00	147.01	5808.02	-237.73	109.65	-242.32	2.64	-2.57	2.84	
5879.00	12.25	148.64	5852.01	-245.73	114.68	-251.46	0.94	0.56	3.62	
5924.00	11.81	148.51	5896.02	-253.73	119.57	-260.49	0.98	-0.98	-0.29	
5969.00	10.75	146.26	5940.15	-261.15	124.30	-269.01	2.55	-2.36	-5.00	
6014.00	10.56	146.89	5984.38	-268.09	128.89	-277.10	0.50	-0.42	1.40	
6058.00	10.56	147.39	6027.63	-274.87	133.26	-284.92	0.21	0.00	1.14	
6101.00	10.88	147.64	6069.88	-281.61	137.56	-292.66	0.75	0.74	0.58	
6146.00	11.56	147.01	6114.02	-288.98	142.29	-301.15	1.54	1.51	-1.40	
6191.00	11.75	146.39	6158.09	-296.58	147.28	-309.98	0.51	0.42	-1.38	
6236.00	12.44	149.76	6202.10	-304.58	152.25	-319.08	2.19	1.53	7.49	
6281.00	12.38	149.14	6246.04	-312.91	157.17	-328.35	0.32	-0.13	-1.38	
6323.00	11.94	145.01	6287.10	-320.34	161.97	-336.93	2.32	-1.05	-9.83	
6412.00	11.56	147.14	6374.24	-335.37	172.09	-354.58	0.65	-0.43	2.39	
6453.00	11.56	148.26	6414.41	-342.31	176.48	-362.53	0.55	0.00	2.73	
6498.00	11.38	148.64	6458.51	-349.94	181.16	-371.15	0.43	-0.40	0.84	
6538.00	11.25	147.64	6497.73	-356.61	185.30	-378.73	0.59	-0.32	-2.50	
6583.00	12.19	168.64	6541.81	-364.97	188.59	-386.84	9.65	2.09	46.67	
6628.00	15.13	191.83	6585.57	-375.39	188.32	-393.75	13.68	6.53	51.53	
6673.00	18.50	211.76	6628.67	-387.22	183.35	-398.18	14.74	7.49	44.29	
6718.00	19.88	231.64	6671.22	-398.05	173.59	-398.42	14.77	3.07	44.18	
6762.00	21.56	249.76	6712.41	-405.50	160.12	-393.66	15.00	3.82	41.18	
6807.00	23.38	266.89	6754.04	-408.85	143.43	-383.73	15.05	4.04	38.07	
6853.00	24.53	283.26	6796.12	-407.15	125.00	-369.10	14.62	2.50	35.59	
6898.00	25.50	298.76	6836.95	-400.34	107.39	-351.58	14.69	2.16	34.44	

Weatherford International Ltd.

SURVEY REPORT



Weatherford

Company: CHESAPEAKE Field: MARSHALL COUNTY, WV Site: McDowell B 3H Well: B 3H Wellpath: Horizontal	Date: 3/26/2010 Time: 08:31:46 Page: 4 Co-ordinate(N/E) Reference: Site: McDowell B 3H, Grid North Vertical (TVD) Reference: SITE 1375.0 Section (VS) Reference: User (0.00N,0.00E,313.00Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
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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	Comment
6943.00	29.25	309.51	6876.92	-388.68	90.40	-331.19	13.76	8.33	23.89	
6987.00	34.86	315.82	6914.21	-372.80	73.33	-307.88	14.83	12.75	14.34	
7030.00	40.94	318.89	6948.13	-353.35	55.48	-281.56	14.80	14.14	7.14	
7075.00	48.13	320.26	6980.19	-329.33	35.05	-250.24	16.12	15.98	3.04	
7118.00	55.19	319.76	7006.84	-303.51	13.38	-216.78	16.44	16.42	-1.16	
7163.00	59.50	319.14	7031.12	-274.73	-11.24	-179.14	9.65	9.58	-1.38	
7208.00	60.25	318.64	7053.70	-245.41	-36.84	-140.43	1.92	1.67	-1.11	
7250.00	61.19	318.51	7074.24	-217.94	-61.07	-103.97	2.25	2.24	-0.31	
7295.00	66.50	317.26	7094.07	-187.99	-88.16	-63.74	12.06	11.80	-2.78	
7340.00	71.94	315.64	7110.03	-157.52	-117.14	-21.76	12.55	12.09	-3.60	
7385.00	75.13	313.39	7122.79	-127.28	-147.91	21.37	8.56	7.09	-5.00	
7428.00	78.05	314.07	7132.76	-98.37	-178.13	63.19	6.96	6.79	1.58	
7473.00	82.44	314.01	7140.38	-67.54	-210.01	107.52	9.76	9.76	-0.13	
7517.00	83.31	313.89	7145.84	-37.24	-241.44	151.18	2.00	1.98	-0.27	
7550.00	86.60	312.75	7148.74	-14.69	-265.35	184.05	10.55	9.97	-3.45	
7595.00	89.91	313.37	7150.11	16.01	-298.21	229.02	7.48	7.36	1.38	
7640.00	91.86	312.98	7149.42	46.80	-331.02	274.01	4.42	4.33	-0.87	
7685.00	91.86	313.15	7147.96	77.51	-363.88	318.99	0.38	0.00	0.38	
7729.00	92.03	312.00	7146.46	107.26	-396.26	362.96	2.64	0.39	-2.61	
7774.00	91.17	311.59	7145.21	137.24	-429.80	407.93	2.12	-1.91	-0.91	
7819.00	90.09	311.75	7144.71	167.15	-463.41	452.92	2.43	-2.40	0.36	
7864.00	89.97	311.22	7144.69	196.96	-497.12	497.90	1.21	-0.27	-1.18	
7908.00	90.54	312.28	7144.49	226.26	-529.95	541.89	2.74	1.30	2.41	
7953.00	90.20	311.56	7144.20	256.32	-563.43	586.88	1.77	-0.76	-1.60	
7995.00	89.91	311.70	7144.16	284.23	-594.82	628.87	0.77	-0.69	0.33	
8038.00	90.88	311.55	7143.86	312.79	-626.96	671.85	2.28	2.26	-0.35	
8081.00	91.11	312.12	7143.12	341.46	-659.00	714.84	1.43	0.53	1.33	
8126.00	91.17	311.84	7142.22	371.56	-692.44	759.82	0.64	0.13	-0.62	
8171.00	91.17	312.44	7141.30	401.74	-725.80	804.81	1.33	0.00	1.33	
8214.00	91.40	312.91	7140.34	430.88	-757.41	847.79	1.22	0.53	1.09	
8259.00	91.06	313.22	7139.37	461.60	-790.28	892.78	1.02	-0.76	0.69	
8302.00	91.34	312.79	7138.47	490.92	-821.72	935.77	1.19	0.65	-1.00	
8347.00	91.45	312.94	7137.38	521.53	-854.69	980.76	0.41	0.24	0.33	
8390.00	91.51	313.44	7136.27	550.95	-886.03	1023.75	1.17	0.14	1.16	
8434.00	91.45	313.57	7135.13	581.23	-917.93	1067.73	0.33	-0.14	0.30	
8479.00	91.63	313.37	7133.92	612.18	-950.58	1112.71	0.60	0.40	-0.44	
8566.00	90.20	313.63	7132.53	672.05	-1013.68	1199.70	1.67	-1.64	0.30	
8611.00	90.14	314.33	7132.40	703.30	-1046.06	1244.69	1.56	-0.13	1.56	
8656.00	89.69	314.28	7132.46	734.73	-1078.26	1289.68	1.01	-1.00	-0.11	
8699.00	89.74	314.90	7132.68	764.92	-1108.88	1332.66	1.45	0.12	1.44	
8744.00	89.69	314.47	7132.90	796.56	-1140.88	1377.64	0.96	-0.11	-0.96	
8786.00	89.69	314.01	7133.13	825.87	-1170.97	1419.63	1.10	0.00	-1.10	
8830.00	90.49	314.19	7133.06	856.48	-1202.56	1463.62	1.86	1.82	0.41	
8872.00	91.11	313.94	7132.47	885.69	-1232.74	1505.61	1.59	1.48	-0.60	
8915.00	91.34	314.10	7131.55	915.57	-1263.65	1548.59	0.65	0.53	0.37	
8960.00	91.28	314.24	7130.53	946.91	-1295.92	1593.57	0.34	-0.13	0.31	
9047.00	91.06	313.20	7128.75	1007.03	-1358.78	1680.54	1.22	-0.25	-1.20	
9092.00	91.11	313.00	7127.90	1037.77	-1391.64	1725.54	0.46	0.11	-0.44	
9135.00	91.28	312.98	7127.00	1067.08	-1423.08	1768.53	0.40	0.40	-0.05	
9177.00	91.74	312.93	7125.89	1095.69	-1453.81	1810.51	1.10	1.10	-0.12	
9222.00	91.86	313.09	7124.48	1126.37	-1486.70	1855.49	0.44	0.27	0.36	
9265.00	91.46	313.05	7123.23	1155.73	-1518.10	1898.47	0.93	-0.93	-0.09	

Weatherford International Ltd.

SURVEY REPORT



Weatherford

Company: CHESAPEAKE	Date: 3/26/2010	Time: 08:31:46	Page: 5
Field: MARSHALL COUNTY, WV	Co-ordinate(NE) Reference:	Site: McDowell B 3H, Grid North	
Site: McDowell B 3H	Vertical (TVD) Reference:	SITE 1375.0	
Well: B 3H	Section (VS) Reference:	User (0.00N,0.00E,313.00Azi)	
Wellpath: Horizontal	Survey Calculation Method:	Minimum Curvature	Db: Sybase

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	Comment
9310.00	91.57	313.22	7122.05	1186.48	-1550.93	1943.46	0.45	0.24	0.38	
9355.00	90.37	314.11	7121.28	1217.55	-1583.47	1988.44	3.32	-2.67	1.98	
9400.00	90.43	313.77	7120.97	1248.77	-1615.88	2033.44	0.77	0.13	-0.76	
9445.00	90.31	313.68	7120.68	1279.88	-1648.40	2078.43	0.33	-0.27	-0.20	
9490.00	90.09	313.77	7120.52	1310.98	-1680.91	2123.43	0.53	-0.49	0.20	
9534.00	90.14	312.82	7120.43	1341.15	-1712.94	2167.43	2.16	0.11	-2.16	
9577.00	89.86	313.16	7120.43	1370.47	-1744.39	2210.43	1.02	-0.65	0.79	
9622.00	89.97	312.64	7120.50	1401.11	-1777.36	2255.43	1.18	0.24	-1.16	
9665.00	91.05	312.56	7120.12	1430.21	-1809.01	2298.42	2.52	2.51	-0.19	
9708.00	90.26	311.67	7119.63	1459.04	-1840.90	2341.42	2.77	-1.84	-2.07	
9753.00	88.95	311.48	7119.94	1488.90	-1874.56	2386.40	2.94	-2.91	-0.42	
9798.00	88.72	311.28	7120.85	1518.65	-1908.32	2431.37	0.68	-0.51	-0.44	
9843.00	88.66	311.29	7121.88	1548.33	-1942.13	2476.34	0.14	-0.13	0.02	
9888.00	88.89	311.55	7122.84	1578.09	-1975.87	2521.31	0.77	0.51	0.58	
9933.00	89.80	312.23	7123.36	1608.14	-2009.36	2566.30	2.52	2.02	1.51	
9978.00	89.74	312.11	7123.54	1638.35	-2042.71	2611.30	0.30	-0.13	-0.27	
10022.00	89.97	312.33	7123.65	1667.91	-2075.30	2655.29	0.72	0.52	0.50	
10065.00	89.91	312.27	7123.69	1696.85	-2107.10	2698.29	0.20	-0.14	-0.14	
10108.00	89.86	312.31	7123.78	1725.79	-2138.91	2741.28	0.15	-0.12	0.09	
10151.00	89.74	311.82	7123.93	1754.60	-2170.83	2784.28	1.17	-0.28	-1.14	
10194.00	89.69	311.51	7124.14	1783.18	-2202.96	2827.27	0.73	-0.12	-0.72	
10236.00	89.40	311.60	7124.48	1811.04	-2234.38	2869.25	0.72	-0.69	0.21	
10279.00	89.12	310.75	7125.03	1839.35	-2266.75	2912.23	2.08	-0.65	-1.98	
10322.00	90.26	311.77	7125.26	1867.70	-2299.07	2955.20	3.56	2.65	2.37	
10367.00	92.08	312.29	7124.35	1897.82	-2332.49	3000.19	4.21	4.04	1.16	
10410.00	92.60	312.70	7122.59	1926.85	-2364.17	3043.15	1.54	1.21	0.95	
10453.00	92.65	312.67	7120.62	1955.97	-2395.74	3086.10	0.14	0.12	-0.07	
10540.00	92.19	312.37	7116.95	2014.71	-2459.81	3173.02	0.63	-0.53	-0.34	
10630.00	92.31	312.73	7113.41	2075.53	-2526.06	3262.95	0.42	0.13	0.40	
10718.00	92.54	312.94	7109.69	2135.31	-2590.53	3350.87	0.35	0.26	0.24	
10763.00	92.71	312.93	7107.63	2165.93	-2623.44	3395.82	0.38	0.38	-0.02	
10806.00	92.72	312.97	7105.59	2195.19	-2654.88	3438.77	0.10	0.02	0.09	
10851.00	92.65	313.21	7103.48	2225.90	-2687.71	3483.73	0.55	-0.16	0.53	
10893.00	91.68	313.20	7101.90	2254.63	-2718.30	3525.69	2.31	-2.31	-0.02	
10936.00	91.74	312.81	7100.62	2283.95	-2749.73	3568.68	0.92	0.14	-0.91	
10981.00	91.96	312.33	7099.16	2314.37	-2782.85	3613.65	1.17	0.49	-1.07	
11026.00	91.97	312.52	7097.62	2344.71	-2816.05	3658.62	0.42	0.02	0.42	
11069.00	91.57	311.75	7096.29	2373.55	-2847.92	3701.60	2.02	-0.93	-1.79	
11113.00	91.28	311.82	7095.20	2402.86	-2880.72	3745.57	0.68	-0.66	0.16	
11158.00	90.83	310.65	7094.37	2432.51	-2914.56	3790.54	2.79	-1.00	-2.60	
11201.00	90.77	310.37	7093.77	2460.44	-2947.25	3833.50	0.67	-0.14	-0.65	
11246.00	91.85	310.25	7092.74	2489.55	-2981.55	3878.44	2.41	2.40	-0.27	
11288.00	91.63	310.16	7091.46	2516.65	-3013.61	3920.37	0.57	-0.52	-0.21	
11333.00	91.51	310.53	7090.23	2545.77	-3047.90	3965.30	0.86	-0.27	0.82	
11376.00	92.19	311.10	7088.84	2573.86	-3080.42	4008.25	2.06	1.58	1.33	
11421.00	92.65	311.06	7086.94	2603.40	-3114.31	4053.18	1.03	1.02	-0.09	
11466.00	92.13	310.12	7085.07	2632.65	-3148.46	4098.10	2.39	-1.16	-2.09	
11507.00	91.91	310.04	7083.62	2659.04	-3179.81	4139.02	0.57	-0.54	-0.20	LAST WFT SURVEY
11565.00	91.91	310.04	7081.69	2696.33	-3224.19	4196.91	0.00	0.00	0.00	EXT. TD

Weatherford International Ltd.

SURVEY REPORT



Company: CHESAPEAKE	Date: 3/26/2010	Time: 08:31:46	Page: 6
Field: MARSHALL COUNTY, WV	Co-ordinate(NE) Reference: Site: McDowell B 3H, Grid North		
Site: McDowell B 3H	Vertical (TVD) Reference: SITE 1375.0		
Well: B 3H	Section (VS) Reference: User (0.00N,0.00E,313.00Azi)		
Wellpath: Horizontal	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Annotation

MD ft	TVD ft	
11507.00	7083.62	LAST WFT SURVEY
11565.00	7081.69	EXT. TD