

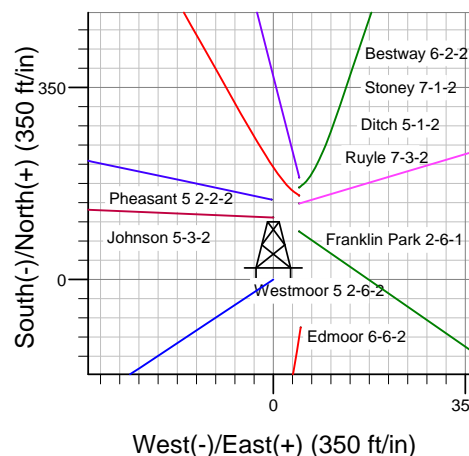
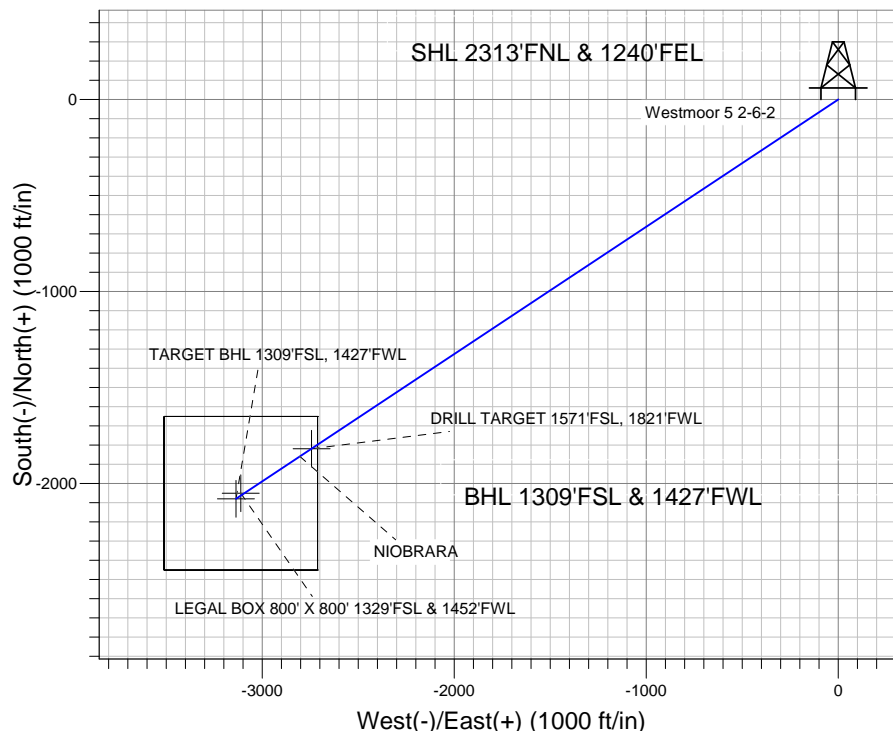
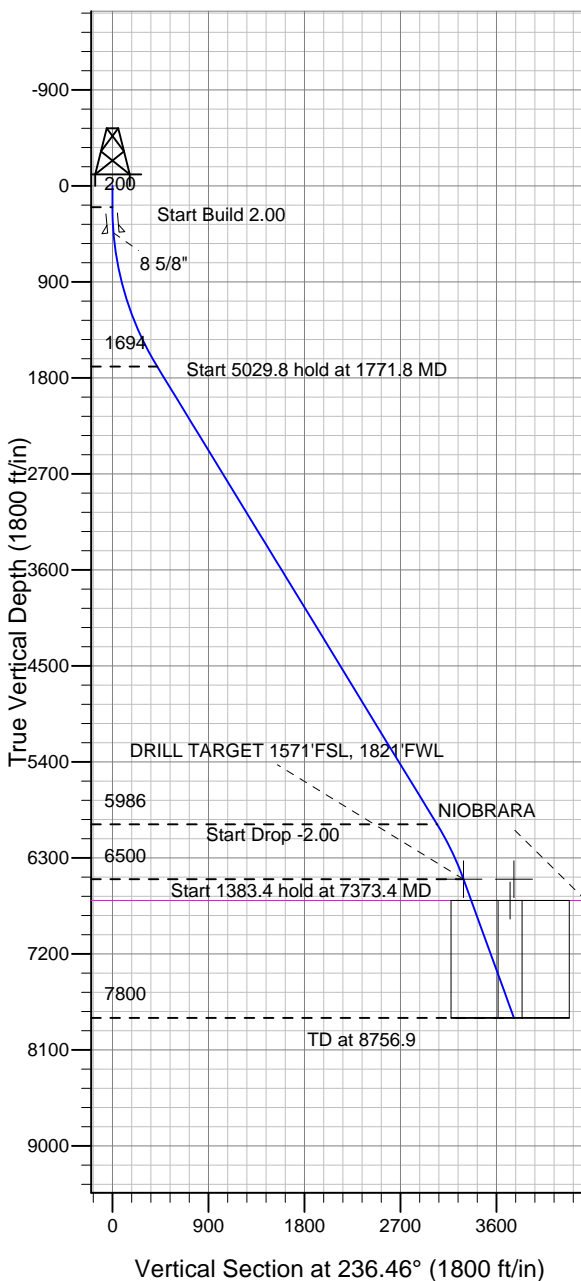
ENSIGN

Directional

Well Name: Westmoor 5 2-6-2

Surface Location: Bestway Pad Sec.2-T5N-R66W
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone
 Ground Elevation: 4701.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1400776.15 3211721.47 40.431040 -104.739450
 Original Well Elev WELL @ 4714.0ft (Original Well Elev)

Mineral Resources Inc



Bestway Pad Sec.2-T5N-R66W
 Westmoor 5 2-6-2
 Plan #1 (8-05-11)
 14:05, September 28 2011



Azimuths to True North
 Magnetic North: 8.82°

Magnetic Field
 Strength: 53121.7snT
 Dip Angle: 67.07°
 Date: 9/26/2011
 Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
DRILL TARGET 1571'FSL, 1821'FWL	6500.0	-1818.5	-2743.5	40.426048	-104.749304	Point
TARGET BHL 1309'FSL, 1427'FWL	6500.0	-2080.0	-3137.8	40.425330	-104.750720	Point
LEGAL BOX 800' X 800' 1329'FSL & 1452'FWL	6700.0	-2051.0	-3112.8	40.425410	-104.750630	Rectangle (Sides: L800.0 W800.0)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	1771.8	31.44	236.46	1694.1	-232.3	-350.5	2.00	236.46	420.5	
4	6801.6	31.44	236.46	5985.7	-1681.6	-2537.0	0.00	0.00	3043.8	
5	7373.4	20.00	236.46	6500.0	-1818.5	-2743.5	2.00	180.00	3291.5	DRILL TARGET 1571'FSL, 1821'FWL
6	8756.9	20.00	236.46	7800.0	-2079.9	-3137.9	0.00	0.00	3764.6	



Directional

Mineral Resources Inc

SEC.2-T5N-R66W

Bestway Pad Sec.2-T5N-R66W

Westmoor 5 2-6-2

Wellbore #1

Plan: Plan #1 (8-05-11)

Standard Planning Report

28 September, 2011

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,771.8	31.44	236.46	1,694.1	-232.3	-350.5	2.00	2.00	0.00	236.46	
6,801.6	31.44	236.46	5,985.7	-1,681.6	-2,537.0	0.00	0.00	0.00	0.00	
7,373.4	20.00	236.46	6,500.0	-1,818.5	-2,743.5	2.00	-2.00	0.00	180.00	DRILL TARGET 15
8,756.9	20.00	236.46	7,800.0	-2,079.9	-3,137.9	0.00	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Westmoor 5 2-6-2
Company:	Mineral Resources Inc	TVD Reference:	WELL @ 4714.0ft (Original Well Elev)
Project:	SEC.2-T5N-R66W	MD Reference:	WELL @ 4714.0ft (Original Well Elev)
Site:	Bestway Pad Sec.2-T5N-R66W	North Reference:	True
Well:	Westmoor 5 2-6-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (8-05-11)		

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
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	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
240.0	0.80	236.46	240.0	-0.2	-0.2	0.3	2.00	2.00	0.00
280.0	1.60	236.46	280.0	-0.6	-0.9	1.1	2.00	2.00	0.00
320.0	2.40	236.46	320.0	-1.4	-2.1	2.5	2.00	2.00	0.00
360.0	3.20	236.46	359.9	-2.5	-3.7	4.5	2.00	2.00	0.00
400.0	4.00	236.46	399.8	-3.9	-5.8	7.0	2.00	2.00	0.00
440.0	4.80	236.46	439.7	-5.6	-8.4	10.0	2.00	2.00	0.00
440.3	4.81	236.46	440.0	-5.6	-8.4	10.1	2.00	2.00	0.00
8 5/8"									
480.0	5.60	236.46	479.6	-7.6	-11.4	13.7	2.00	2.00	0.00
520.0	6.40	236.46	519.3	-9.9	-14.9	17.9	2.00	2.00	0.00
560.0	7.20	236.46	559.1	-12.5	-18.8	22.6	2.00	2.00	0.00
600.0	8.00	236.46	598.7	-15.4	-23.2	27.9	2.00	2.00	0.00
640.0	8.80	236.46	638.3	-18.6	-28.1	33.7	2.00	2.00	0.00
680.0	9.60	236.46	677.8	-22.2	-33.4	40.1	2.00	2.00	0.00
720.0	10.40	236.46	717.1	-26.0	-39.2	47.1	2.00	2.00	0.00
760.0	11.20	236.46	756.4	-30.1	-45.5	54.6	2.00	2.00	0.00
800.0	12.00	236.46	795.6	-34.6	-52.2	62.6	2.00	2.00	0.00
840.0	12.80	236.46	834.7	-39.3	-59.3	71.2	2.00	2.00	0.00
880.0	13.60	236.46	873.6	-44.4	-67.0	80.3	2.00	2.00	0.00
920.0	14.40	236.46	912.4	-49.7	-75.0	90.0	2.00	2.00	0.00
960.0	15.20	236.46	951.1	-55.4	-83.5	100.2	2.00	2.00	0.00
1,000.0	16.00	236.46	989.6	-61.3	-92.5	111.0	2.00	2.00	0.00
1,040.0	16.80	236.46	1,028.0	-67.6	-101.9	122.3	2.00	2.00	0.00
1,080.0	17.60	236.46	1,066.2	-74.1	-111.8	134.1	2.00	2.00	0.00
1,120.0	18.40	236.46	1,104.3	-80.9	-122.1	146.5	2.00	2.00	0.00
1,160.0	19.20	236.46	1,142.1	-88.0	-132.8	159.3	2.00	2.00	0.00
1,200.0	20.00	236.46	1,179.8	-95.5	-144.0	172.8	2.00	2.00	0.00
1,240.0	20.80	236.46	1,217.3	-103.2	-155.6	186.7	2.00	2.00	0.00
1,280.0	21.60	236.46	1,254.6	-111.1	-167.7	201.2	2.00	2.00	0.00
1,320.0	22.40	236.46	1,291.7	-119.4	-180.2	216.2	2.00	2.00	0.00
1,360.0	23.20	236.46	1,328.6	-128.0	-193.1	231.7	2.00	2.00	0.00
1,400.0	24.00	236.46	1,365.2	-136.8	-206.4	247.7	2.00	2.00	0.00
1,440.0	24.80	236.46	1,401.6	-146.0	-220.2	264.2	2.00	2.00	0.00
1,480.0	25.60	236.46	1,437.8	-155.4	-234.4	281.2	2.00	2.00	0.00
1,520.0	26.40	236.46	1,473.8	-165.1	-249.0	298.8	2.00	2.00	0.00
1,560.0	27.20	236.46	1,509.5	-175.0	-264.1	316.8	2.00	2.00	0.00
1,600.0	28.00	236.46	1,544.9	-185.3	-279.5	335.3	2.00	2.00	0.00
1,640.0	28.80	236.46	1,580.1	-195.8	-295.4	354.4	2.00	2.00	0.00
1,680.0	29.60	236.46	1,615.0	-206.6	-311.6	373.9	2.00	2.00	0.00
1,720.0	30.40	236.46	1,649.7	-217.6	-328.3	393.9	2.00	2.00	0.00
1,760.0	31.20	236.46	1,684.0	-228.9	-345.4	414.4	2.00	2.00	0.00
1,771.8	31.44	236.46	1,694.1	-232.3	-350.5	420.5	2.00	2.00	0.00
1,800.0	31.44	236.46	1,718.2	-240.4	-362.7	435.2	0.00	0.00	0.00
1,840.0	31.44	236.46	1,752.3	-252.0	-380.1	456.1	0.00	0.00	0.00
1,880.0	31.44	236.46	1,786.4	-263.5	-397.5	476.9	0.00	0.00	0.00
1,920.0	31.44	236.46	1,820.6	-275.0	-414.9	497.8	0.00	0.00	0.00
1,960.0	31.44	236.46	1,854.7	-286.5	-432.3	518.6	0.00	0.00	0.00
2,000.0	31.44	236.46	1,888.8	-298.1	-449.7	539.5	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Westmoor 5 2-6-2
Company:	Mineral Resources Inc	TVD Reference:	WELL @ 4714.0ft (Original Well Elev)
Project:	SEC.2-T5N-R66W	MD Reference:	WELL @ 4714.0ft (Original Well Elev)
Site:	Bestway Pad Sec.2-T5N-R66W	North Reference:	True
Well:	Westmoor 5 2-6-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (8-05-11)		

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)
2,040.0	31.44	236.46	1,923.0	-309.6	-467.1	560.4	0.00	0.00	0.00
2,080.0	31.44	236.46	1,957.1	-321.1	-484.5	581.2	0.00	0.00	0.00
2,120.0	31.44	236.46	1,991.2	-332.6	-501.8	602.1	0.00	0.00	0.00
2,160.0	31.44	236.46	2,025.3	-344.2	-519.2	622.9	0.00	0.00	0.00
2,200.0	31.44	236.46	2,059.5	-355.7	-536.6	643.8	0.00	0.00	0.00
2,240.0	31.44	236.46	2,093.6	-367.2	-554.0	664.7	0.00	0.00	0.00
2,280.0	31.44	236.46	2,127.7	-378.7	-571.4	685.5	0.00	0.00	0.00
2,320.0	31.44	236.46	2,161.9	-390.3	-588.8	706.4	0.00	0.00	0.00
2,360.0	31.44	236.46	2,196.0	-401.8	-606.2	727.3	0.00	0.00	0.00
2,400.0	31.44	236.46	2,230.1	-413.3	-623.6	748.1	0.00	0.00	0.00
2,440.0	31.44	236.46	2,264.2	-424.9	-641.0	769.0	0.00	0.00	0.00
2,480.0	31.44	236.46	2,298.4	-436.4	-658.3	789.8	0.00	0.00	0.00
2,520.0	31.44	236.46	2,332.5	-447.9	-675.7	810.7	0.00	0.00	0.00
2,560.0	31.44	236.46	2,366.6	-459.4	-693.1	831.6	0.00	0.00	0.00
2,600.0	31.44	236.46	2,400.8	-471.0	-710.5	852.4	0.00	0.00	0.00
2,640.0	31.44	236.46	2,434.9	-482.5	-727.9	873.3	0.00	0.00	0.00
2,680.0	31.44	236.46	2,469.0	-494.0	-745.3	894.1	0.00	0.00	0.00
2,720.0	31.44	236.46	2,503.1	-505.5	-762.7	915.0	0.00	0.00	0.00
2,760.0	31.44	236.46	2,537.3	-517.1	-780.1	935.9	0.00	0.00	0.00
2,800.0	31.44	236.46	2,571.4	-528.6	-797.5	956.7	0.00	0.00	0.00
2,840.0	31.44	236.46	2,605.5	-540.1	-814.8	977.6	0.00	0.00	0.00
2,880.0	31.44	236.46	2,639.7	-551.6	-832.2	998.5	0.00	0.00	0.00
2,920.0	31.44	236.46	2,673.8	-563.2	-849.6	1,019.3	0.00	0.00	0.00
2,960.0	31.44	236.46	2,707.9	-574.7	-867.0	1,040.2	0.00	0.00	0.00
3,000.0	31.44	236.46	2,742.1	-586.2	-884.4	1,061.0	0.00	0.00	0.00
3,040.0	31.44	236.46	2,776.2	-597.7	-901.8	1,081.9	0.00	0.00	0.00
3,080.0	31.44	236.46	2,810.3	-609.3	-919.2	1,102.8	0.00	0.00	0.00
3,120.0	31.44	236.46	2,844.4	-620.8	-936.6	1,123.6	0.00	0.00	0.00
3,160.0	31.44	236.46	2,878.6	-632.3	-954.0	1,144.5	0.00	0.00	0.00
3,200.0	31.44	236.46	2,912.7	-643.8	-971.3	1,165.3	0.00	0.00	0.00
3,240.0	31.44	236.46	2,946.8	-655.4	-988.7	1,186.2	0.00	0.00	0.00
3,280.0	31.44	236.46	2,981.0	-666.9	-1,006.1	1,207.1	0.00	0.00	0.00
3,320.0	31.44	236.46	3,015.1	-678.4	-1,023.5	1,227.9	0.00	0.00	0.00
3,360.0	31.44	236.46	3,049.2	-689.9	-1,040.9	1,248.8	0.00	0.00	0.00
3,400.0	31.44	236.46	3,083.3	-701.5	-1,058.3	1,269.7	0.00	0.00	0.00
3,440.0	31.44	236.46	3,117.5	-713.0	-1,075.7	1,290.5	0.00	0.00	0.00
3,480.0	31.44	236.46	3,151.6	-724.5	-1,093.1	1,311.4	0.00	0.00	0.00
3,520.0	31.44	236.46	3,185.7	-736.1	-1,110.5	1,332.2	0.00	0.00	0.00
3,560.0	31.44	236.46	3,219.9	-747.6	-1,127.8	1,353.1	0.00	0.00	0.00
3,600.0	31.44	236.46	3,254.0	-759.1	-1,145.2	1,374.0	0.00	0.00	0.00
3,640.0	31.44	236.46	3,288.1	-770.6	-1,162.6	1,394.8	0.00	0.00	0.00
3,680.0	31.44	236.46	3,322.2	-782.2	-1,180.0	1,415.7	0.00	0.00	0.00
3,720.0	31.44	236.46	3,356.4	-793.7	-1,197.4	1,436.6	0.00	0.00	0.00
3,760.0	31.44	236.46	3,390.5	-805.2	-1,214.8	1,457.4	0.00	0.00	0.00
3,800.0	31.44	236.46	3,424.6	-816.7	-1,232.2	1,478.3	0.00	0.00	0.00
3,840.0	31.44	236.46	3,458.8	-828.3	-1,249.6	1,499.1	0.00	0.00	0.00
3,880.0	31.44	236.46	3,492.9	-839.8	-1,266.9	1,520.0	0.00	0.00	0.00
3,920.0	31.44	236.46	3,527.0	-851.3	-1,284.3	1,540.9	0.00	0.00	0.00
3,960.0	31.44	236.46	3,561.1	-862.8	-1,301.7	1,561.7	0.00	0.00	0.00
4,000.0	31.44	236.46	3,595.3	-874.4	-1,319.1	1,582.6	0.00	0.00	0.00
4,040.0	31.44	236.46	3,629.4	-885.9	-1,336.5	1,603.4	0.00	0.00	0.00
4,080.0	31.44	236.46	3,663.5	-897.4	-1,353.9	1,624.3	0.00	0.00	0.00
4,120.0	31.44	236.46	3,697.7	-908.9	-1,371.3	1,645.2	0.00	0.00	0.00
4,160.0	31.44	236.46	3,731.8	-920.5	-1,388.7	1,666.0	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Westmoor 5 2-6-2
Company:	Mineral Resources Inc	TVD Reference:	WELL @ 4714.0ft (Original Well Elev)
Project:	SEC.2-T5N-R66W	MD Reference:	WELL @ 4714.0ft (Original Well Elev)
Site:	Bestway Pad Sec.2-T5N-R66W	North Reference:	True
Well:	Westmoor 5 2-6-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (8-05-11)		

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)	
4,200.0	31.44	236.46	3,765.9	-932.0	-1,406.1	1,686.9	0.00	0.00	0.00	
4,240.0	31.44	236.46	3,800.1	-943.5	-1,423.4	1,707.8	0.00	0.00	0.00	
4,280.0	31.44	236.46	3,834.2	-955.0	-1,440.8	1,728.6	0.00	0.00	0.00	
4,320.0	31.44	236.46	3,868.3	-966.6	-1,458.2	1,749.5	0.00	0.00	0.00	
4,360.0	31.44	236.46	3,902.4	-978.1	-1,475.6	1,770.3	0.00	0.00	0.00	
4,400.0	31.44	236.46	3,936.6	-989.6	-1,493.0	1,791.2	0.00	0.00	0.00	
4,440.0	31.44	236.46	3,970.7	-1,001.1	-1,510.4	1,812.1	0.00	0.00	0.00	
4,480.0	31.44	236.46	4,004.8	-1,012.7	-1,527.8	1,832.9	0.00	0.00	0.00	
4,520.0	31.44	236.46	4,039.0	-1,024.2	-1,545.2	1,853.8	0.00	0.00	0.00	
4,560.0	31.44	236.46	4,073.1	-1,035.7	-1,562.6	1,874.6	0.00	0.00	0.00	
4,600.0	31.44	236.46	4,107.2	-1,047.2	-1,579.9	1,895.5	0.00	0.00	0.00	
4,640.0	31.44	236.46	4,141.3	-1,058.8	-1,597.3	1,916.4	0.00	0.00	0.00	
4,680.0	31.44	236.46	4,175.5	-1,070.3	-1,614.7	1,937.2	0.00	0.00	0.00	
4,720.0	31.44	236.46	4,209.6	-1,081.8	-1,632.1	1,958.1	0.00	0.00	0.00	
4,760.0	31.44	236.46	4,243.7	-1,093.4	-1,649.5	1,979.0	0.00	0.00	0.00	
4,800.0	31.44	236.46	4,277.9	-1,104.9	-1,666.9	1,999.8	0.00	0.00	0.00	
4,840.0	31.44	236.46	4,312.0	-1,116.4	-1,684.3	2,020.7	0.00	0.00	0.00	
4,880.0	31.44	236.46	4,346.1	-1,127.9	-1,701.7	2,041.5	0.00	0.00	0.00	
4,920.0	31.44	236.46	4,380.2	-1,139.5	-1,719.1	2,062.4	0.00	0.00	0.00	
4,960.0	31.44	236.46	4,414.4	-1,151.0	-1,736.4	2,083.3	0.00	0.00	0.00	
5,000.0	31.44	236.46	4,448.5	-1,162.5	-1,753.8	2,104.1	0.00	0.00	0.00	
5,040.0	31.44	236.46	4,482.6	-1,174.0	-1,771.2	2,125.0	0.00	0.00	0.00	
5,080.0	31.44	236.46	4,516.8	-1,185.6	-1,788.6	2,145.8	0.00	0.00	0.00	
5,120.0	31.44	236.46	4,550.9	-1,197.1	-1,806.0	2,166.7	0.00	0.00	0.00	
5,160.0	31.44	236.46	4,585.0	-1,208.6	-1,823.4	2,187.6	0.00	0.00	0.00	
5,200.0	31.44	236.46	4,619.1	-1,220.1	-1,840.8	2,208.4	0.00	0.00	0.00	
5,240.0	31.44	236.46	4,653.3	-1,231.7	-1,858.2	2,229.3	0.00	0.00	0.00	
5,280.0	31.44	236.46	4,687.4	-1,243.2	-1,875.5	2,250.2	0.00	0.00	0.00	
5,320.0	31.44	236.46	4,721.5	-1,254.7	-1,892.9	2,271.0	0.00	0.00	0.00	
5,360.0	31.44	236.46	4,755.7	-1,266.2	-1,910.3	2,291.9	0.00	0.00	0.00	
5,400.0	31.44	236.46	4,789.8	-1,277.8	-1,927.7	2,312.7	0.00	0.00	0.00	
5,440.0	31.44	236.46	4,823.9	-1,289.3	-1,945.1	2,333.6	0.00	0.00	0.00	
5,480.0	31.44	236.46	4,858.1	-1,300.8	-1,962.5	2,354.5	0.00	0.00	0.00	
5,520.0	31.44	236.46	4,892.2	-1,312.3	-1,979.9	2,375.3	0.00	0.00	0.00	
5,560.0	31.44	236.46	4,926.3	-1,323.9	-1,997.3	2,396.2	0.00	0.00	0.00	
5,600.0	31.44	236.46	4,960.4	-1,335.4	-2,014.7	2,417.0	0.00	0.00	0.00	
5,640.0	31.44	236.46	4,994.6	-1,346.9	-2,032.0	2,437.9	0.00	0.00	0.00	
5,680.0	31.44	236.46	5,028.7	-1,358.4	-2,049.4	2,458.8	0.00	0.00	0.00	
5,720.0	31.44	236.46	5,062.8	-1,370.0	-2,066.8	2,479.6	0.00	0.00	0.00	
5,760.0	31.44	236.46	5,097.0	-1,381.5	-2,084.2	2,500.5	0.00	0.00	0.00	
5,800.0	31.44	236.46	5,131.1	-1,393.0	-2,101.6	2,521.4	0.00	0.00	0.00	
5,840.0	31.44	236.46	5,165.2	-1,404.6	-2,119.0	2,542.2	0.00	0.00	0.00	
5,880.0	31.44	236.46	5,199.3	-1,416.1	-2,136.4	2,563.1	0.00	0.00	0.00	
5,920.0	31.44	236.46	5,233.5	-1,427.6	-2,153.8	2,583.9	0.00	0.00	0.00	
5,960.0	31.44	236.46	5,267.6	-1,439.1	-2,171.2	2,604.8	0.00	0.00	0.00	
6,000.0	31.44	236.46	5,301.7	-1,450.7	-2,188.5	2,625.7	0.00	0.00	0.00	
6,040.0	31.44	236.46	5,335.9	-1,462.2	-2,205.9	2,646.5	0.00	0.00	0.00	
6,080.0	31.44	236.46	5,370.0	-1,473.7	-2,223.3	2,667.4	0.00	0.00	0.00	
6,120.0	31.44	236.46	5,404.1	-1,485.2	-2,240.7	2,688.3	0.00	0.00	0.00	
6,160.0	31.44	236.46	5,438.2	-1,496.8	-2,258.1	2,709.1	0.00	0.00	0.00	
6,200.0	31.44	236.46	5,472.4	-1,508.3	-2,275.5	2,730.0	0.00	0.00	0.00	
6,240.0	31.44	236.46	5,506.5	-1,519.8	-2,292.9	2,750.8	0.00	0.00	0.00	
6,280.0	31.44	236.46	5,540.6	-1,531.3	-2,310.3	2,771.7	0.00	0.00	0.00	
6,320.0	31.44	236.46	5,574.8	-1,542.9	-2,327.7	2,792.6	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Westmoor 5 2-6-2
Company:	Mineral Resources Inc	TVD Reference:	WELL @ 4714.0ft (Original Well Elev)
Project:	SEC.2-T5N-R66W	MD Reference:	WELL @ 4714.0ft (Original Well Elev)
Site:	Bestway Pad Sec.2-T5N-R66W	North Reference:	True
Well:	Westmoor 5 2-6-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (8-05-11)		

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)
6,360.0	31.44	236.46	5,608.9	-1,554.4	-2,345.0	2,813.4	0.00	0.00	0.00
6,400.0	31.44	236.46	5,643.0	-1,565.9	-2,362.4	2,834.3	0.00	0.00	0.00
6,440.0	31.44	236.46	5,677.1	-1,577.4	-2,379.8	2,855.1	0.00	0.00	0.00
6,480.0	31.44	236.46	5,711.3	-1,589.0	-2,397.2	2,876.0	0.00	0.00	0.00
6,520.0	31.44	236.46	5,745.4	-1,600.5	-2,414.6	2,896.9	0.00	0.00	0.00
6,560.0	31.44	236.46	5,779.5	-1,612.0	-2,432.0	2,917.7	0.00	0.00	0.00
6,600.0	31.44	236.46	5,813.7	-1,623.5	-2,449.4	2,938.6	0.00	0.00	0.00
6,640.0	31.44	236.46	5,847.8	-1,635.1	-2,466.8	2,959.5	0.00	0.00	0.00
6,680.0	31.44	236.46	5,881.9	-1,646.6	-2,484.2	2,980.3	0.00	0.00	0.00
6,720.0	31.44	236.46	5,916.1	-1,658.1	-2,501.5	3,001.2	0.00	0.00	0.00
6,760.0	31.44	236.46	5,950.2	-1,669.6	-2,518.9	3,022.0	0.00	0.00	0.00
6,800.0	31.44	236.46	5,984.3	-1,681.2	-2,536.3	3,042.9	0.00	0.00	0.00
6,801.6	31.44	236.46	5,985.7	-1,681.6	-2,537.0	3,043.8	0.00	0.00	0.00
6,840.0	30.67	236.46	6,018.6	-1,692.6	-2,553.5	3,063.5	2.00	-2.00	0.00
6,880.0	29.87	236.46	6,053.1	-1,703.7	-2,570.3	3,083.7	2.00	-2.00	0.00
6,920.0	29.07	236.46	6,087.9	-1,714.6	-2,586.7	3,103.4	2.00	-2.00	0.00
6,960.0	28.27	236.46	6,123.0	-1,725.2	-2,602.7	3,122.6	2.00	-2.00	0.00
7,000.0	27.47	236.46	6,158.4	-1,735.5	-2,618.3	3,141.3	2.00	-2.00	0.00
7,040.0	26.67	236.46	6,194.0	-1,745.6	-2,633.5	3,159.5	2.00	-2.00	0.00
7,080.0	25.87	236.46	6,229.9	-1,755.4	-2,648.2	3,177.2	2.00	-2.00	0.00
7,120.0	25.07	236.46	6,266.0	-1,764.9	-2,662.6	3,194.4	2.00	-2.00	0.00
7,160.0	24.27	236.46	6,302.3	-1,774.1	-2,676.5	3,211.1	2.00	-2.00	0.00
7,200.0	23.47	236.46	6,338.9	-1,783.0	-2,690.0	3,227.3	2.00	-2.00	0.00
7,240.0	22.67	236.46	6,375.7	-1,791.7	-2,703.0	3,242.9	2.00	-2.00	0.00
7,280.0	21.87	236.46	6,412.7	-1,800.1	-2,715.7	3,258.1	2.00	-2.00	0.00
7,320.0	21.07	236.46	6,450.0	-1,808.1	-2,727.9	3,272.7	2.00	-2.00	0.00
7,360.0	20.27	236.46	6,487.4	-1,815.9	-2,739.6	3,286.8	2.00	-2.00	0.00
7,373.4	20.00	236.46	6,500.0	-1,818.5	-2,743.5	3,291.5	2.00	-2.00	0.00
DRILL TARGET 1571'FSL, 1821'FWL									
7,400.0	20.00	236.46	6,525.0	-1,823.5	-2,751.1	3,300.6	0.00	0.00	0.00
7,440.0	20.00	236.46	6,562.6	-1,831.1	-2,762.5	3,314.2	0.00	0.00	0.00
7,480.0	20.00	236.46	6,600.1	-1,838.6	-2,773.9	3,327.9	0.00	0.00	0.00
7,520.0	20.00	236.46	6,637.7	-1,846.2	-2,785.3	3,341.6	0.00	0.00	0.00
7,535.2	20.00	236.46	6,652.1	-1,849.1	-2,789.6	3,346.8	0.00	0.00	0.00
TARGET BHL 1309'FSL, 1427'FWL									
7,560.0	20.00	236.46	6,675.3	-1,853.8	-2,796.7	3,355.3	0.00	0.00	0.00
7,586.3	20.00	236.46	6,700.0	-1,858.7	-2,804.2	3,364.3	0.00	0.00	0.00
NIOBRARA									
7,600.0	20.00	236.46	6,712.9	-1,861.3	-2,808.1	3,369.0	0.00	0.00	0.00
7,640.0	20.00	236.46	6,750.5	-1,868.9	-2,819.5	3,382.6	0.00	0.00	0.00
7,680.0	20.00	236.46	6,788.1	-1,876.4	-2,830.9	3,396.3	0.00	0.00	0.00
7,710.6	20.00	236.46	6,816.8	-1,882.2	-2,839.6	3,406.8	0.00	0.00	0.00
LEGAL BOX 800' X 800' 1329'FSL & 1452'FWL									
7,720.0	20.00	236.46	6,825.7	-1,884.0	-2,842.3	3,410.0	0.00	0.00	0.00
7,760.0	20.00	236.46	6,863.3	-1,891.5	-2,853.7	3,423.7	0.00	0.00	0.00
7,800.0	20.00	236.46	6,900.8	-1,899.1	-2,865.1	3,437.4	0.00	0.00	0.00
7,840.0	20.00	236.46	6,938.4	-1,906.7	-2,876.5	3,451.0	0.00	0.00	0.00
7,880.0	20.00	236.46	6,976.0	-1,914.2	-2,887.9	3,464.7	0.00	0.00	0.00
7,920.0	20.00	236.46	7,013.6	-1,921.8	-2,899.3	3,478.4	0.00	0.00	0.00
7,960.0	20.00	236.46	7,051.2	-1,929.3	-2,910.7	3,492.1	0.00	0.00	0.00
8,000.0	20.00	236.46	7,088.8	-1,936.9	-2,922.1	3,505.8	0.00	0.00	0.00
8,040.0	20.00	236.46	7,126.4	-1,944.5	-2,933.5	3,519.4	0.00	0.00	0.00
8,080.0	20.00	236.46	7,164.0	-1,952.0	-2,944.9	3,533.1	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Westmoor 5 2-6-2
Company:	Mineral Resources Inc	TVD Reference:	WELL @ 4714.0ft (Original Well Elev)
Project:	SEC.2-T5N-R66W	MD Reference:	WELL @ 4714.0ft (Original Well Elev)
Site:	Bestway Pad Sec.2-T5N-R66W	North Reference:	True
Well:	Westmoor 5 2-6-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (8-05-11)		

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)	
8,120.0	20.00	236.46	7,201.5	-1,959.6	-2,956.3	3,546.8	0.00	0.00	0.00	
8,160.0	20.00	236.46	7,239.1	-1,967.1	-2,967.7	3,560.5	0.00	0.00	0.00	
8,200.0	20.00	236.46	7,276.7	-1,974.7	-2,979.1	3,574.2	0.00	0.00	0.00	
8,240.0	20.00	236.46	7,314.3	-1,982.3	-2,990.5	3,587.8	0.00	0.00	0.00	
8,280.0	20.00	236.46	7,351.9	-1,989.8	-3,001.9	3,601.5	0.00	0.00	0.00	
8,320.0	20.00	236.46	7,389.5	-1,997.4	-3,013.3	3,615.2	0.00	0.00	0.00	
8,360.0	20.00	236.46	7,427.1	-2,004.9	-3,024.8	3,628.9	0.00	0.00	0.00	
8,400.0	20.00	236.46	7,464.7	-2,012.5	-3,036.2	3,642.6	0.00	0.00	0.00	
8,440.0	20.00	236.46	7,502.3	-2,020.0	-3,047.6	3,656.3	0.00	0.00	0.00	
8,480.0	20.00	236.46	7,539.8	-2,027.6	-3,059.0	3,669.9	0.00	0.00	0.00	
8,520.0	20.00	236.46	7,577.4	-2,035.2	-3,070.4	3,683.6	0.00	0.00	0.00	
8,560.0	20.00	236.46	7,615.0	-2,042.7	-3,081.8	3,697.3	0.00	0.00	0.00	
8,600.0	20.00	236.46	7,652.6	-2,050.3	-3,093.2	3,711.0	0.00	0.00	0.00	
8,640.0	20.00	236.46	7,690.2	-2,057.8	-3,104.6	3,724.7	0.00	0.00	0.00	
8,680.0	20.00	236.46	7,727.8	-2,065.4	-3,116.0	3,738.3	0.00	0.00	0.00	
8,720.0	20.00	236.46	7,765.4	-2,073.0	-3,127.4	3,752.0	0.00	0.00	0.00	
8,756.9	20.00	236.46	7,800.0	-2,079.9	-3,137.9	3,764.6	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		
DRILL TARGET 1571 - hit/miss target center - Shape - Point	0.00	0.00	6,500.0	-1,818.5	-2,743.5	1,398,934.26	3,208,993.78	40.426048 -104.749304		
LEGAL BOX 800' X 800' - plan misses target center by 341.7ft at 7710.6ft MD (6816.8 TVD, -1882.2 N, -2839.6 E) - Rectangle (sides W800.0 H800.0 D1,100.0)	0.00	0.00	6,700.0	-2,051.0	-3,112.8	1,398,698.62	3,208,626.50	40.425410 -104.750630		
TARGET BHL 1309'F: - plan misses target center by 444.6ft at 7535.2ft MD (6652.1 TVD, -1849.1 N, -2789.6 E) - Point	0.00	0.00	6,500.0	-2,080.0	-3,137.8	1,398,669.38	3,208,601.79	40.425330 -104.750720		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name		Casing Diameter (")	Hole Diameter (")
440.3	440.0	8 5/8"		8-5/8	12-1/4

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,586.3	6,700.0	NIOBRARA		0.00	



Directional

Mineral Resources Inc

SEC.2-T5N-R66W

Bestway Pad Sec.2-T5N-R66W

Westmoor 5 2-6-2

Wellbore #1

Plan #1 (8-05-11)

Anticollision Report

28 September, 2011

Bestway Pad Sec.2-T5N-R66W - Edmoor 6-6-2 - Wellbore #1 - Plan #1 (8-05-11)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
2,000.0	1,888.8	1,903.6	1,839.4	11.8	8.9	-114.68	-499.6	-18.9	477.9	458.9	19.08	25.050	24.853 SF	
2,100.0	1,974.1	1,996.0	1,926.0	12.9	9.6	-116.38	-531.4	-24.2	513.6	493.1	20.59	24.949		
2,200.0	2,059.5	2,088.4	2,012.5	14.0	10.2	-117.85	-563.1	-29.6	549.7	527.6	22.08	24.890		
2,300.0	2,144.8	2,180.8	2,099.1	15.1	10.9	-119.15	-594.9	-34.9	586.0	562.5	23.57	24.861		
2,400.0	2,230.1	2,273.2	2,185.7	16.2	11.5	-120.30	-626.6	-40.2	622.6	597.5	25.05	24.853 SF		
2,500.0	2,315.4	2,365.5	2,272.3	17.3	12.1	-121.32	-658.4	-45.5	659.4	632.8	26.52	24.859		
2,600.0	2,400.8	2,457.9	2,358.9	18.4	12.8	-122.24	-690.1	-50.8	696.3	668.3	27.99	24.877		
2,700.0	2,486.1	2,550.3	2,445.5	19.5	13.4	-123.06	-721.9	-56.1	733.4	703.9	29.45	24.901		
2,800.0	2,571.4	2,642.7	2,532.1	20.6	14.1	-123.80	-753.6	-61.5	770.5	739.6	30.91	24.931		
2,900.0	2,656.7	2,735.1	2,618.7	21.7	14.7	-124.48	-785.4	-66.8	807.8	775.5	32.36	24.964		
3,000.0	2,742.1	2,827.4	2,705.3	22.9	15.4	-125.10	-817.1	-72.1	845.2	811.4	33.81	25.000		
3,100.0	2,827.4	2,919.8	2,791.8	24.0	16.0	-125.66	-848.9	-77.4	882.7	847.4	35.25	25.037		
3,200.0	2,912.7	3,012.2	2,878.4	25.1	16.7	-126.18	-880.7	-82.7	920.2	883.5	36.70	25.074		
3,300.0	2,998.0	3,104.6	2,965.0	26.2	17.3	-126.66	-912.4	-88.1	957.8	919.6	38.14	25.112		
3,400.0	3,083.3	3,197.0	3,051.6	27.3	17.9	-127.11	-944.2	-93.4	995.4	955.8	39.58	25.150		
3,500.0	3,168.7	3,289.3	3,138.2	28.4	18.6	-127.52	-975.9	-98.7	1,033.1	992.1	41.02	25.187		
3,600.0	3,254.0	3,381.7	3,224.8	29.6	19.2	-127.90	-1,007.7	-104.0	1,070.8	1,028.4	42.45	25.224		
3,700.0	3,339.3	3,474.1	3,311.4	30.7	19.9	-128.26	-1,039.4	-109.3	1,108.6	1,064.7	43.89	25.260		
3,800.0	3,424.6	3,566.5	3,398.0	31.8	20.5	-128.59	-1,071.2	-114.6	1,146.4	1,101.1	45.32	25.295		
3,900.0	3,510.0	3,658.9	3,484.6	32.9	21.2	-128.90	-1,102.9	-120.0	1,184.2	1,137.5	46.75	25.330		
4,000.0	3,595.3	3,751.2	3,571.1	34.0	21.8	-129.20	-1,134.7	-125.3	1,222.1	1,173.9	48.18	25.363		
4,100.0	3,680.6	3,843.6	3,657.7	35.1	22.5	-129.47	-1,166.4	-130.6	1,260.0	1,210.4	49.61	25.396		
4,200.0	3,765.9	3,936.0	3,744.3	36.3	23.1	-129.73	-1,198.2	-135.9	1,297.9	1,246.8	51.04	25.427		
4,300.0	3,851.2	4,028.4	3,830.9	37.4	23.8	-129.97	-1,229.9	-141.2	1,335.8	1,283.3	52.47	25.458		
4,400.0	3,936.6	4,120.8	3,917.5	38.5	24.4	-130.20	-1,261.7	-146.5	1,373.8	1,319.9	53.90	25.488		
4,500.0	4,021.9	4,213.1	4,004.1	39.6	25.1	-130.42	-1,293.4	-151.9	1,411.7	1,356.4	55.33	25.516		
4,600.0	4,107.2	4,305.5	4,090.7	40.7	25.7	-130.63	-1,325.2	-157.2	1,449.7	1,393.0	56.75	25.544		
4,700.0	4,192.5	4,397.9	4,177.3	41.9	26.3	-130.83	-1,356.9	-162.5	1,487.7	1,429.5	58.18	25.571		
4,800.0	4,277.9	4,490.3	4,263.8	43.0	27.0	-131.01	-1,388.7	-167.8	1,525.7	1,466.1	59.60	25.598		
4,900.0	4,363.2	4,582.7	4,350.4	44.1	27.6	-131.19	-1,420.4	-173.1	1,563.8	1,502.7	61.03	25.623		
5,000.0	4,448.5	4,675.0	4,437.0	45.2	28.3	-131.36	-1,452.2	-178.5	1,601.8	1,539.4	62.45	25.648		
5,100.0	4,533.8	4,767.4	4,523.6	46.3	28.9	-131.52	-1,483.9	-183.8	1,639.9	1,576.0	63.88	25.672		
5,200.0	4,619.1	4,859.8	4,610.2	47.5	29.6	-131.68	-1,515.7	-189.1	1,677.9	1,612.6	65.30	25.695		
5,300.0	4,704.5	4,952.2	4,696.8	48.6	30.2	-131.82	-1,547.5	-194.4	1,716.0	1,649.3	66.73	25.717		
5,400.0	4,789.8	5,044.6	4,783.4	49.7	30.9	-131.96	-1,579.2	-199.7	1,754.1	1,685.9	68.15	25.739		
5,500.0	4,875.1	5,136.9	4,870.0	50.8	31.5	-132.10	-1,611.0	-205.0	1,792.2	1,722.6	69.57	25.760		
5,600.0	4,960.4	5,229.4	4,956.9	51.9	32.1	-132.25	-1,642.2	-210.3	1,830.3	1,759.4	70.89	25.819		
5,700.0	5,045.8	5,321.7	5,044.4	53.1	32.5	-132.49	-1,670.7	-215.1	1,868.4	1,796.3	72.04	25.935		
5,800.0	5,131.1	5,413.3	5,132.3	54.2	32.8	-132.80	-1,696.4	-219.4	1,906.5	1,833.4	73.11	26.076		
5,900.0	5,216.4	5,504.3	5,220.4	55.3	33.2	-133.20	-1,719.0	-223.1	1,944.8	1,870.7	74.11	26.243		
6,000.0	5,301.7	5,594.4	5,308.2	56.4	33.5	-133.67	-1,738.7	-226.4	1,983.2	1,908.1	75.02	26.436		
6,100.0	5,387.1	5,683.4	5,395.5	57.5	33.8	-134.20	-1,755.5	-229.3	2,021.7	1,945.9	75.85	26.656		
6,200.0	5,472.4	5,771.2	5,482.2	58.7	34.0	-134.78	-1,769.5	-231.6	2,060.5	1,984.0	76.59	26.903		
6,300.0	5,557.7	5,857.6	5,567.9	59.8	34.2	-135.41	-1,780.6	-233.5	2,099.7	2,022.4	77.26	27.177		
6,400.0	5,643.0	5,942.6	5,652.4	60.9	34.4	-136.08	-1,789.1	-234.9	2,139.3	2,061.4	77.85	27.479		
6,500.0	5,728.3	6,026.0	5,735.6	62.0	34.5	-136.78	-1,795.0	-235.9	2,179.3	2,100.9	78.37	27.808		
6,600.0	5,813.7	6,107.7	5,817.2	63.2	34.6	-137.52	-1,798.5	-236.5	2,219.8	2,141.0	78.82	28.164		
6,700.0	5,899.0	6,190.5	5,900.0	64.3	34.7	-138.30	-1,799.7	-236.7	2,261.0	2,181.8	79.19	28.551		
6,801.6	5,985.7	6,274.2	5,983.7	65.4	34.7	-139.09	-1,799.7	-236.7	2,303.4	2,223.9	79.52	28.967		
6,900.0	6,070.5	6,359.0	6,068.5	66.4	34.8	-140.41	-1,799.7	-236.7	2,343.7	2,264.0	79.65	29.425		
7,000.0	6,158.4	6,446.9	6,156.4	67.2	34.8	-141.64	-1,799.7	-236.7	2,382.5	2,302.8	79.70	29.894		
7,100.0	6,247.9	6,536.4	6,245.9	67.9	34.9	-142.75	-1,799.7	-236.7	2,419.1	2,339.4	79.74	30.336		

Company:	Mineral Resources Inc	Local Co-ordinate Reference:	Well Westmoor 5 2-6-2
Project:	SEC.2-T5N-R66W	TVD Reference:	WELL @ 4714.0ft (Original Well Elev)
Reference Site:	Bestway Pad Sec.2-T5N-R66W	MD Reference:	WELL @ 4714.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Westmoor 5 2-6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-05-11)	Offset TVD Reference:	Offset Datum

Offset Design Bestway Pad Sec.2-T5N-R66W - Edmoor 6-6-2 - Wellbore #1 - Plan #1 (8-05-11)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7,200.0	6,338.9	6,627.4	6,336.9	68.6	35.0	-143.75	-1,799.7	-236.7	2,453.4	2,373.6	79.78	30.751	
7,300.0	6,431.3	6,719.8	6,429.3	69.3	35.0	-144.64	-1,799.7	-236.7	2,485.2	2,405.4	79.81	31.138	
7,373.4	6,500.0	6,788.5	6,498.0	69.7	35.1	-145.24	-1,799.7	-236.7	2,506.9	2,427.1	79.83	31.403	
7,400.0	6,525.0	6,813.5	6,523.0	69.9	35.1	-145.36	-1,799.7	-236.7	2,514.5	2,434.7	79.87	31.481	
7,500.0	6,618.9	6,907.4	6,616.9	70.6	35.1	-145.79	-1,799.7	-236.7	2,543.3	2,463.2	80.08	31.758	
7,600.0	6,712.9	7,001.4	6,710.9	71.3	35.2	-146.21	-1,799.7	-236.7	2,572.2	2,491.9	80.29	32.035	
7,700.0	6,806.9	7,095.4	6,804.9	72.0	35.3	-146.62	-1,799.7	-236.7	2,601.2	2,520.7	80.51	32.311	
7,800.0	6,900.8	7,189.3	6,898.8	72.7	35.4	-147.02	-1,799.7	-236.7	2,630.3	2,549.6	80.72	32.586	
7,900.0	6,994.8	7,283.3	6,992.8	73.4	35.4	-147.42	-1,799.7	-236.7	2,659.6	2,578.7	80.94	32.861	
8,000.0	7,088.8	7,377.3	7,086.8	74.1	35.5	-147.80	-1,799.7	-236.7	2,689.0	2,607.8	81.15	33.134	
8,100.0	7,182.8	7,471.3	7,180.8	74.9	35.6	-148.18	-1,799.7	-236.7	2,718.5	2,637.1	81.37	33.407	
8,200.0	7,276.7	7,565.2	7,274.7	75.6	35.6	-148.55	-1,799.7	-236.7	2,748.1	2,666.5	81.60	33.679	
8,300.0	7,370.7	7,659.2	7,368.7	76.3	35.7	-148.91	-1,799.7	-236.7	2,777.8	2,695.9	81.82	33.949	
8,400.0	7,464.7	7,753.2	7,462.7	77.0	35.8	-149.27	-1,799.7	-236.7	2,807.6	2,725.5	82.05	34.219	
8,500.0	7,558.6	7,847.1	7,556.6	77.7	35.9	-149.61	-1,799.7	-236.7	2,837.5	2,755.2	82.28	34.487	
8,600.0	7,652.6	7,941.1	7,650.6	78.4	35.9	-149.96	-1,799.7	-236.7	2,867.5	2,785.0	82.51	34.753	
8,700.0	7,746.6	8,035.1	7,744.6	79.1	36.0	-150.29	-1,799.7	-236.7	2,897.6	2,814.8	82.74	35.018	
8,756.9	7,800.0	8,088.5	7,798.0	79.6	36.1	-150.48	-1,799.7	-236.7	2,914.7	2,831.9	82.88	35.168	

Bestway Pad Sec.2-T5N-R66W - Franklin Park 2-6-1 - Wellbore #1 - Plan #1 (8-05-11)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	28.43	87.4	47.3	99.5					
100.0	100.0	96.0	96.0	0.1	0.1	28.43	87.4	47.3	99.4	99.2	0.22	451.347		
200.0	200.0	196.0	196.0	0.3	0.3	28.43	87.4	47.3	99.4	98.8	0.67	149.438	CC, ES	
300.0	300.0	296.3	296.3	0.5	0.5	153.33	86.5	48.7	100.8	99.7	1.09	92.739		
400.0	399.8	396.1	396.0	0.8	0.8	157.34	83.6	52.8	105.3	103.8	1.52	69.372		
500.0	499.5	494.9	494.4	1.0	1.0	163.24	78.8	59.8	113.8	111.9	1.99	57.110		
600.0	598.7	592.3	591.1	1.3	1.3	170.01	72.2	69.4	127.5	125.0	2.51	50.808		
700.0	697.5	687.8	685.5	1.6	1.6	176.70	63.8	81.4	147.1	144.0	3.06	48.097		
800.0	795.6	781.0	777.0	2.0	2.0	-177.29	54.0	95.6	172.9	169.3	3.63	47.588	SF	
900.0	893.1	871.6	865.4	2.5	2.4	-172.20	42.8	111.7	204.9	200.7	4.23	48.397		
1,000.0	989.6	959.2	950.3	3.0	2.8	-167.98	30.4	129.5	242.8	237.9	4.86	49.959		
1,100.0	1,085.3	1,043.6	1,031.4	3.6	3.3	-164.52	17.2	148.7	286.3	280.7	5.51	51.920		
1,200.0	1,179.8	1,124.6	1,108.6	4.2	3.7	-161.64	3.2	168.9	334.9	328.7	6.19	54.066		
1,300.0	1,273.2	1,200.0	1,179.8	4.9	4.2	-159.27	-11.0	189.3	388.3	381.4	6.89	56.348		
1,400.0	1,365.2	1,275.8	1,250.7	5.7	4.8	-157.14	-26.3	211.4	446.1	438.5	7.64	58.425		
1,500.0	1,455.8	1,345.8	1,315.5	6.6	5.3	-155.29	-41.4	233.1	508.1	499.6	8.41	60.388		
1,600.0	1,544.9	1,412.1	1,376.2	7.5	5.9	-153.61	-56.5	254.9	573.8	564.7	9.20	62.404		
1,700.0	1,632.4	1,474.5	1,432.9	8.5	6.4	-152.04	-71.5	276.5	643.2	633.2	10.02	64.206		
1,771.8	1,694.1	1,517.1	1,471.2	9.3	6.8	-150.95	-82.1	291.8	695.0	684.4	10.62	65.418		
1,800.0	1,718.2	1,533.4	1,485.7	9.6	7.0	-150.82	-86.2	297.7	715.7	704.8	10.89	65.744		
1,900.0	1,803.5	1,589.8	1,535.9	10.7	7.5	-150.36	-100.9	319.0	789.7	777.9	11.82	66.829		
2,000.0	1,888.8	1,653.0	1,591.7	11.8	8.1	-149.87	-117.9	343.4	864.5	851.7	12.80	67.517		
2,100.0	1,974.1	1,719.2	1,650.1	12.9	8.8	-149.42	-135.6	369.0	939.3	925.5	13.82	67.989		
2,200.0	2,059.5	1,785.4	1,708.5	14.0	9.4	-149.05	-153.4	394.6	1,014.2	999.3	14.83	68.370		
2,300.0	2,144.8	1,851.6	1,766.9	15.1	10.1	-148.72	-171.2	420.2	1,089.0	1,073.2	15.86	68.670		
2,400.0	2,230.1	1,917.7	1,825.2	16.2	10.8	-148.44	-188.9	445.8	1,163.9	1,147.0	16.89	68.915		
2,500.0	2,315.4	1,983.9	1,883.6	17.3	11.4	-148.19	-206.7	471.5	1,238.8	1,220.9	17.93	69.111		
2,600.0	2,400.8	2,050.1	1,942.0	18.4	12.1	-147.96	-224.4	497.1	1,313.7	1,294.7	18.97	69.269		
2,700.0	2,486.1	2,116.3	2,000.4	19.5	12.8	-147.77	-242.2	522.7	1,388.6	1,368.6	20.01	69.402		
2,800.0	2,571.4	2,182.5	2,058.8	20.6	13.5	-147.59	-260.0	548.3	1,463.5	1,442.5	21.06	69.510		
2,900.0	2,656.7	2,248.6	2,117.1	21.7	14.1	-147.43	-277.7	573.9	1,538.4	1,516.3	22.10	69.599		
3,000.0	2,742.1	2,314.8	2,175.5	22.9	14.8	-147.28	-295.5	599.5	1,613.4	1,590.2	23.16	69.675		
3,100.0	2,827.4	2,381.0	2,233.9	24.0	15.5	-147.15	-313.2	625.1	1,688.3	1,664.1	24.21	69.737		
3,200.0	2,912.7	2,447.2	2,292.3	25.1	16.2	-147.03	-331.0	650.7	1,763.2	1,738.0	25.27	69.789		
3,300.0	2,998.0	2,513.3	2,350.7	26.2	16.9	-146.92	-348.7	676.3	1,838.2	1,811.8	26.32	69.834		
3,400.0	3,083.3	2,579.5	2,409.0	27.3	17.5	-146.82	-366.5	702.0	1,913.1	1,885.7	27.38	69.871		
3,500.0	3,168.7	2,645.7	2,467.4	28.4	18.2	-146.72	-384.3	727.6	1,988.0	1,959.6	28.44	69.902		
3,600.0	3,254.0	2,711.9	2,525.8	29.6	18.9	-146.63	-402.0	753.2	2,063.0	2,033.5	29.50	69.928		
3,700.0	3,339.3	2,778.1	2,584.2	30.7	19.6	-146.55	-419.8	778.8	2,137.9	2,107.4	30.56	69.950		
3,800.0	3,424.6	2,844.2	2,642.6	31.8	20.3	-146.48	-437.5	804.4	2,212.9	2,181.2	31.63	69.968		
3,900.0	3,510.0	2,910.4	2,700.9	32.9	20.9	-146.40	-455.3	830.0	2,287.8	2,255.1	32.69	69.984		
4,000.0	3,595.3	2,976.6	2,759.3	34.0	21.6	-146.34	-473.1	855.6	2,362.8	2,329.0	33.76	69.996		
4,100.0	3,680.6	3,042.8	2,817.7	35.1	22.3	-146.27	-490.8	881.2	2,437.7	2,402.9	34.82	70.007		
4,200.0	3,765.9	3,108.9	2,876.1	36.3	23.0	-146.22	-508.6	906.8	2,512.7	2,476.8	35.89	70.016		
4,300.0	3,851.2	3,175.1	2,934.5	37.4	23.7	-146.16	-526.3	932.5	2,587.6	2,550.7	36.95	70.022		
4,400.0	3,936.6	3,241.3	2,992.8	38.5	24.3	-146.11	-544.1	958.1	2,662.6	2,624.5	38.02	70.028		
4,500.0	4,021.9	3,307.5	3,051.2	39.6	25.0	-146.06	-561.9	983.7	2,737.5	2,698.4	39.09	70.032		
4,600.0	4,107.2	3,373.7	3,109.6	40.7	25.7	-146.01	-579.6	1,009.3	2,812.5	2,772.3	40.16	70.035		
4,700.0	4,192.5	3,439.8	3,168.0	41.9	26.4	-145.97	-597.4	1,034.9	2,887.4	2,846.2	41.23	70.037		
4,800.0	4,277.9	3,506.0	3,226.4	43.0	27.1	-145.92	-615.1	1,060.5	2,962.4	2,920.1	42.30	70.038		
4,900.0	4,363.2	3,572.2	3,284.7	44.1	27.7	-145.88	-632.9	1,086.1	3,037.3	2,994.0	43.37	70.038		
5,000.0	4,448.5	3,638.4	3,343.1	45.2	28.4	-145.85	-650.7	1,111.7	3,112.3	3,067.9	44.44	70.038		

COMPASS 2003.21 Build 46

Company:	Mineral Resources Inc	Local Co-ordinate Reference:	Well Westmoor 5 2-6-2
Project:	SEC.2-T5N-R66W	TVD Reference:	WELL @ 4714.0ft (Original Well Elev)
Reference Site:	Bestway Pad Sec.2-T5N-R66W	MD Reference:	WELL @ 4714.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Westmoor 5 2-6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-05-11)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0ft
Survey Program: 0-MWD												Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,100.0	4,533.8	3,704.5	3,401.5	46.3	29.1	-145.81	-668.4	1,137.3	3,187.3	3,141.8	45.51	70.037	
5,200.0	4,619.1	3,770.7	3,459.9	47.5	29.8	-145.78	-686.2	1,162.9	3,262.2	3,215.6	46.58	70.036	
5,300.0	4,704.5	3,836.9	3,518.3	48.6	30.5	-145.74	-703.9	1,188.6	3,337.2	3,289.5	47.65	70.034	
5,400.0	4,789.8	3,903.1	3,576.6	49.7	31.2	-145.71	-721.7	1,214.2	3,412.1	3,363.4	48.72	70.032	
5,500.0	4,875.1	3,969.3	3,635.0	50.8	31.8	-145.68	-739.5	1,239.8	3,487.1	3,437.3	49.80	70.029	
5,600.0	4,960.4	4,035.4	3,693.4	51.9	32.5	-145.65	-757.2	1,265.4	3,562.1	3,511.2	50.87	70.026	
5,700.0	5,045.8	4,101.6	3,751.8	53.1	33.2	-145.62	-775.0	1,291.0	3,637.0	3,585.1	51.94	70.023	
5,800.0	5,131.1	4,167.8	3,810.2	54.2	33.9	-145.60	-792.7	1,316.6	3,712.0	3,659.0	53.01	70.019	
5,900.0	5,216.4	4,234.0	3,868.5	55.3	34.6	-145.57	-810.5	1,342.2	3,786.9	3,732.9	54.09	70.016	
6,000.0	5,301.7	4,300.2	3,926.9	56.4	35.3	-145.55	-828.3	1,367.8	3,861.9	3,806.7	55.16	70.012	
6,100.0	5,387.1	4,366.3	3,985.3	57.5	35.9	-145.52	-846.0	1,393.4	3,936.9	3,880.6	56.23	70.008	
6,200.0	5,472.4	4,432.5	4,043.7	58.7	36.6	-145.50	-863.8	1,419.1	4,011.8	3,954.5	57.31	70.004	
6,300.0	5,557.7	4,498.7	4,102.1	59.8	37.3	-145.48	-881.5	1,444.7	4,086.8	4,028.4	58.38	69.999	
6,400.0	5,643.0	4,564.9	4,160.4	60.9	38.0	-145.46	-899.3	1,470.3	4,161.8	4,102.3	59.46	69.995	
6,500.0	5,728.3	4,631.0	4,218.8	62.0	38.7	-145.44	-917.0	1,495.9	4,236.7	4,176.2	60.53	69.990	
6,600.0	5,813.7	4,697.2	4,277.2	63.2	39.4	-145.42	-934.8	1,521.5	4,311.7	4,250.1	61.61	69.986	
6,700.0	5,899.0	4,763.4	4,335.6	64.3	40.0	-145.40	-952.6	1,547.1	4,386.6	4,324.0	62.68	69.981	
6,801.6	5,985.7	4,830.7	4,394.9	65.4	40.7	-145.38	-970.6	1,573.1	4,462.8	4,399.1	63.78	69.976	
6,900.0	6,070.5	4,896.8	4,453.2	66.4	41.4	-146.55	-988.4	1,598.7	4,535.6	4,470.6	65.01	69.765	
7,000.0	6,158.4	4,966.0	4,514.3	67.2	42.1	-147.61	-1,006.9	1,625.5	4,607.7	4,541.5	66.21	69.590	
7,100.0	6,247.9	5,037.2	4,577.1	67.9	42.9	-148.55	-1,026.0	1,653.1	4,677.7	4,610.2	67.41	69.391	
7,200.0	6,338.9	5,110.3	4,641.6	68.6	43.6	-149.38	-1,045.7	1,681.3	4,745.5	4,676.9	68.60	69.178	
7,300.0	6,431.3	5,185.1	4,707.6	69.3	44.4	-150.10	-1,065.7	1,710.3	4,811.1	4,741.3	69.77	68.958	
7,373.4	6,500.0	5,241.2	4,757.1	69.7	45.0	-150.58	-1,080.8	1,732.0	4,857.8	4,787.2	70.61	68.796	
7,400.0	6,525.0	5,261.6	4,775.1	69.9	45.2	-150.53	-1,086.3	1,739.9	4,874.5	4,803.6	70.87	68.785	
7,500.0	6,618.9	5,338.6	4,843.0	70.6	46.0	-150.35	-1,106.9	1,769.7	4,937.3	4,865.4	71.86	68.707	
7,600.0	6,712.9	5,415.5	4,910.8	71.3	46.8	-150.18	-1,127.6	1,799.5	5,000.1	4,927.2	72.85	68.633	
7,700.0	6,806.9	5,492.4	4,978.7	72.0	47.6	-150.02	-1,148.2	1,829.2	5,063.0	4,989.1	73.84	68.562	
7,800.0	6,900.8	5,569.4	5,046.6	72.7	48.4	-149.86	-1,168.9	1,859.0	5,125.8	5,051.0	74.83	68.495	
7,900.0	6,994.8	5,646.3	5,114.4	73.4	49.2	-149.70	-1,189.5	1,888.8	5,188.7	5,112.9	75.82	68.431	
8,000.0	7,088.8	5,723.2	5,182.3	74.1	50.0	-149.54	-1,210.1	1,918.6	5,251.6	5,174.8	76.81	68.371	
8,100.0	7,182.8	5,800.2	5,250.2	74.9	50.8	-149.39	-1,230.8	1,948.3	5,314.6	5,236.8	77.80	68.313	
8,200.0	7,276.7	5,877.1	5,318.1	75.6	51.5	-149.25	-1,251.4	1,978.1	5,377.6	5,298.8	78.78	68.258	
8,300.0	7,370.7	5,954.0	5,385.9	76.3	52.3	-149.10	-1,272.1	2,007.9	5,440.5	5,360.8	79.77	68.205	
8,400.0	7,464.7	6,030.4	5,453.8	77.0	53.1	-148.94	-1,292.8	2,038.6	5,503.1	5,421.0	80.76	68.152	
8,500.0	7,558.6	6,107.8	5,523.7	77.7	53.9	-148.78	-1,313.5	2,069.3	5,565.5	5,491.4	81.75	68.100	
8,600.0	7,652.6	6,185.1	5,593.6	78.4	54.7	-148.62	-1,334.2	2,100.0	5,627.9	5,561.8	82.74	68.048	
8,700.0	7,746.6	6,262.5	5,663.5	79.1	55.5	-148.46	-1,354.9	2,130.7	5,690.3	5,628.2	83.73	67.996	
8,756.9	7,800.0	6,340.0	5,733.4	79.6	56.0	-148.29	-1,375.6	2,161.4	5,752.7	5,699.6	84.72	67.944	

Company:	Mineral Resources Inc	Local Co-ordinate Reference:	Well Westmoor 5 2-6-2
Project:	SEC.2-T5N-R66W	TVD Reference:	WELL @ 4714.0ft (Original Well Elev)
Reference Site:	Bestway Pad Sec.2-T5N-R66W	MD Reference:	WELL @ 4714.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Westmoor 5 2-6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-05-11)	Offset TVD Reference:	Offset Datum

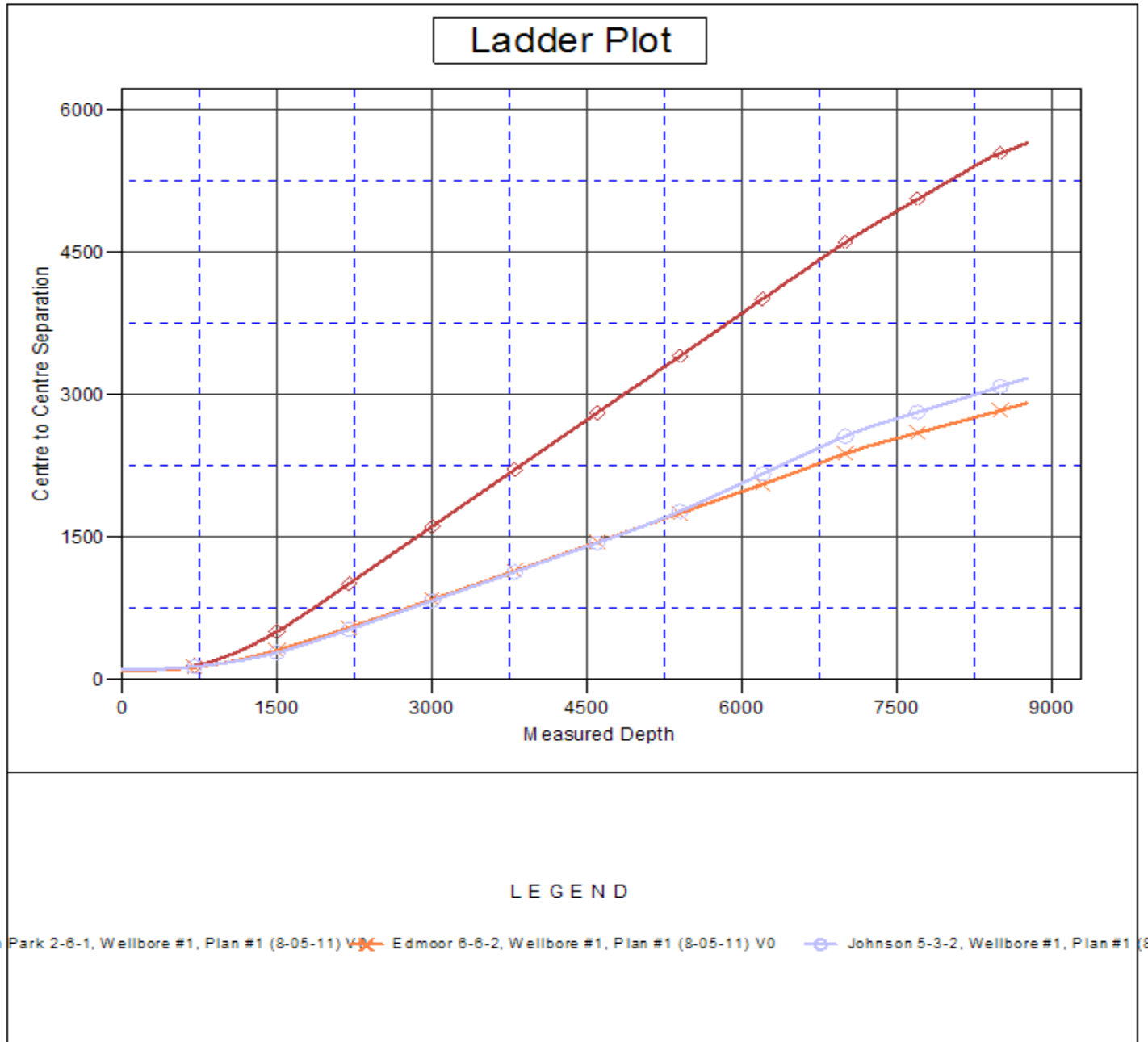
Offset Design													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	0.00	112.9	0.0	113.0					
100.0	100.0	98.0	98.0	0.1	0.1	0.00	112.9	0.0	112.9	112.7	0.22	507.533		
200.0	200.0	198.0	198.0	0.3	0.3	0.00	112.9	0.0	112.9	112.3	0.67	168.613 CC, ES		
300.0	300.0	298.0	298.0	0.5	0.6	124.25	112.9	0.0	113.9	112.8	1.10	103.133		
400.0	399.8	397.8	397.8	0.8	0.8	125.50	113.0	-1.7	116.9	115.4	1.53	76.199		
500.0	499.5	497.7	497.5	1.0	1.0	126.33	113.2	-6.8	122.1	120.1	1.99	61.223		
600.0	598.7	597.5	597.0	1.3	1.2	126.75	113.6	-15.4	129.2	126.7	2.50	51.591		
700.0	697.5	697.2	695.9	1.6	1.5	126.79	114.1	-27.5	138.4	135.3	3.08	44.897		
800.0	795.6	796.6	794.2	2.0	1.8	126.52	114.7	-42.9	149.6	145.9	3.74	39.963		
900.0	893.1	895.9	891.6	2.5	2.2	126.00	115.5	-61.7	162.8	158.3	4.50	36.158		
1,000.0	989.6	994.7	988.2	3.0	2.6	125.76	116.4	-82.4	178.0	172.6	5.34	33.320		
1,100.0	1,085.3	1,093.2	1,084.5	3.6	3.0	126.32	117.2	-103.0	195.2	189.0	6.23	31.334		
1,200.0	1,179.8	1,191.1	1,180.3	4.2	3.5	127.47	118.1	-123.5	214.5	207.4	7.15	30.001		
1,300.0	1,273.2	1,288.5	1,275.5	4.9	3.9	129.01	118.9	-143.9	236.1	228.0	8.09	29.175		
1,400.0	1,365.2	1,385.1	1,370.0	5.7	4.3	130.80	119.8	-164.2	260.1	251.1	9.05	28.757		
1,500.0	1,455.8	1,480.9	1,463.6	6.6	4.8	132.71	120.6	-184.3	286.8	276.8	10.00	28.671 SF		
1,600.0	1,544.9	1,575.8	1,556.4	7.5	5.2	134.65	121.4	-204.1	316.1	305.2	10.95	28.862		
1,700.0	1,632.4	1,669.5	1,648.0	8.5	5.6	136.56	122.2	-223.8	348.3	336.4	11.89	29.284		
1,771.8	1,694.1	1,736.1	1,713.1	9.3	5.9	137.89	122.8	-237.7	373.2	360.6	12.56	29.709		
1,800.0	1,718.2	1,762.1	1,738.6	9.6	6.1	138.53	123.0	-243.2	383.3	370.5	12.82	29.891		
1,900.0	1,803.5	1,854.4	1,828.8	10.7	6.5	140.55	123.9	-262.5	419.4	405.7	13.74	30.521		
2,000.0	1,888.8	1,946.7	1,919.0	11.8	6.9	142.26	124.7	-281.8	456.0	441.3	14.65	31.120		
2,100.0	1,974.1	2,039.0	2,009.3	12.9	7.3	143.72	125.5	-301.2	492.8	477.2	15.55	31.684		
2,200.0	2,059.5	2,131.2	2,099.5	14.0	7.8	144.97	126.3	-320.5	529.9	513.4	16.45	32.212		
2,300.0	2,144.8	2,223.5	2,189.7	15.1	8.2	146.07	127.1	-339.8	567.1	549.8	17.34	32.703		
2,400.0	2,230.1	2,315.8	2,279.9	16.2	8.6	147.03	127.9	-359.2	604.6	586.3	18.23	33.161		
2,500.0	2,315.4	2,408.1	2,370.2	17.3	9.0	147.88	128.7	-378.5	642.1	623.0	19.12	33.587		
2,600.0	2,400.8	2,500.4	2,460.4	18.4	9.5	148.63	129.5	-397.8	679.8	659.8	20.00	33.984		
2,700.0	2,486.1	2,592.6	2,550.6	19.5	9.9	149.31	130.3	-417.2	717.5	696.6	20.89	34.353		
2,800.0	2,571.4	2,684.9	2,640.9	20.6	10.3	149.92	131.1	-436.5	755.3	733.6	21.77	34.698		
2,900.0	2,656.7	2,777.2	2,731.1	21.7	10.8	150.47	131.9	-455.8	793.2	770.6	22.65	35.020		
3,000.0	2,742.1	2,869.5	2,821.3	22.9	11.2	150.97	132.7	-475.2	831.2	807.7	23.53	35.321		
3,100.0	2,827.4	2,961.8	2,911.6	24.0	11.6	151.43	133.5	-494.5	869.2	844.8	24.41	35.603		
3,200.0	2,912.7	3,054.1	3,001.8	25.1	12.1	151.85	134.3	-513.8	907.3	882.0	25.29	35.868		
3,300.0	2,998.0	3,146.3	3,092.0	26.2	12.5	152.23	135.1	-533.2	945.3	919.2	26.17	36.116		
3,400.0	3,083.3	3,238.6	3,182.3	27.3	12.9	152.59	135.9	-552.5	983.5	956.4	27.06	36.350		
3,500.0	3,168.7	3,330.9	3,272.5	28.4	13.3	152.92	136.7	-571.9	1,021.6	993.7	27.94	36.570		
3,600.0	3,254.0	3,423.2	3,362.7	29.6	13.8	153.22	137.5	-591.2	1,059.8	1,031.0	28.82	36.778		
3,700.0	3,339.3	3,515.5	3,452.9	30.7	14.2	153.51	138.3	-610.5	1,098.0	1,068.3	29.70	36.975		
3,800.0	3,424.6	3,607.8	3,543.2	31.8	14.6	153.77	139.1	-629.9	1,136.2	1,105.6	30.58	37.160		
3,900.0	3,510.0	3,700.0	3,633.4	32.9	15.1	154.02	139.9	-649.2	1,174.5	1,143.0	31.46	37.336		
4,000.0	3,595.3	3,792.3	3,723.6	34.0	15.5	154.26	140.7	-668.5	1,212.7	1,180.4	32.34	37.503		
4,100.0	3,680.6	3,884.6	3,813.9	35.1	15.9	154.47	141.5	-687.9	1,251.0	1,217.8	33.22	37.662		
4,200.0	3,765.9	3,976.9	3,904.1	36.3	16.3	154.68	142.3	-707.2	1,289.3	1,255.2	34.10	37.812		
4,300.0	3,851.2	4,069.2	3,994.3	37.4	16.8	154.87	143.1	-726.5	1,327.6	1,292.6	34.98	37.956		
4,400.0	3,936.6	4,161.5	4,084.6	38.5	17.2	155.06	143.9	-745.9	1,365.9	1,330.0	35.86	38.092		
4,500.0	4,021.9	4,253.7	4,174.8	39.6	17.6	155.23	144.8	-765.2	1,404.2	1,367.5	36.74	38.222		
4,600.0	4,107.2	4,346.0	4,265.0	40.7	18.1	155.39	145.6	-784.5	1,442.6	1,404.9	37.62	38.347		
4,700.0	4,192.5	4,438.3	4,355.3	41.9	18.5	155.55	146.4	-803.9	1,480.9	1,442.4	38.50	38.465		
4,800.0	4,277.9	4,520.2	4,435.4	43.0	18.8	155.69	147.1	-820.8	1,519.4	1,480.1	39.32	38.647		
4,900.0	4,363.2	4,600.0	4,513.8	44.1	19.1	155.88	147.7	-835.4	1,559.1	1,519.0	40.04	38.943		
5,000.0	4,448.5	4,681.6	4,574.6	45.2	19.3	156.08	148.1	-845.2	1,599.9	1,559.2	40.68	39.331		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Survey Design												Offset Site Error:	
Bestway Pad Sec.2-T5N-R66W - Johnson 5-3-2 - Wellbore #1 - Plan #1 (8-04-11)												0.0 ft	
Survey Program: 0-MWD												Offset Well Error:	
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)		
5,100.0	4,533.8	4,730.7	4,643.1	46.3	19.4	156.34	148.5	-854.6	1,642.0	1,600.7	41.29	39.770	
5,200.0	4,619.1	4,800.0	4,712.0	47.5	19.6	156.64	148.8	-862.4	1,685.3	1,643.4	41.85	40.268	
5,300.0	4,704.5	4,865.5	4,777.1	48.6	19.7	156.97	149.0	-868.3	1,729.8	1,687.4	42.37	40.828	
5,400.0	4,789.8	4,931.0	4,842.6	49.7	19.8	157.32	149.2	-872.6	1,775.5	1,732.7	42.85	41.437	
5,500.0	4,875.1	5,000.0	4,911.5	50.8	20.0	157.73	149.3	-875.6	1,822.5	1,779.2	43.28	42.105	
5,600.0	4,960.4	5,058.3	4,969.8	51.9	20.0	158.10	149.4	-876.8	1,870.7	1,827.0	43.71	42.803	
5,700.0	5,045.8	5,132.3	5,043.8	53.1	20.1	158.59	149.4	-876.9	1,920.0	1,875.9	44.06	43.573	
5,800.0	5,131.1	5,217.6	5,129.1	54.2	20.2	159.14	149.4	-876.9	1,969.5	1,925.1	44.39	44.367	
5,900.0	5,216.4	5,302.9	5,214.4	55.3	20.3	159.66	149.4	-876.9	2,019.1	1,974.4	44.73	45.142	
6,000.0	5,301.7	5,388.3	5,299.7	56.4	20.4	160.15	149.4	-876.9	2,068.9	2,023.9	45.08	45.900	
6,100.0	5,387.1	5,473.6	5,385.1	57.5	20.5	160.62	149.4	-876.9	2,118.8	2,073.4	45.43	46.639	
6,200.0	5,472.4	5,558.9	5,470.4	58.7	20.6	161.07	149.4	-876.9	2,168.8	2,123.0	45.79	47.361	
6,300.0	5,557.7	5,644.2	5,555.7	59.8	20.7	161.50	149.4	-876.9	2,218.9	2,172.8	46.16	48.066	
6,400.0	5,643.0	5,729.6	5,641.0	60.9	20.8	161.92	149.4	-876.9	2,269.1	2,222.6	46.54	48.753	
6,500.0	5,728.3	5,814.9	5,726.3	62.0	20.9	162.31	149.4	-876.9	2,319.4	2,272.5	46.93	49.423	
6,600.0	5,813.7	5,900.2	5,811.7	63.2	21.0	162.69	149.4	-876.9	2,369.8	2,322.5	47.32	50.076	
6,700.0	5,899.0	5,985.5	5,897.0	64.3	21.2	163.05	149.4	-876.9	2,420.2	2,372.5	47.72	50.713	
6,801.6	5,985.7	6,072.2	5,983.7	65.4	21.3	163.41	149.4	-876.9	2,471.6	2,423.4	48.14	51.344	
6,900.0	6,070.5	6,157.0	6,068.5	66.4	21.4	164.04	149.4	-876.9	2,519.9	2,471.4	48.54	51.909	
7,000.0	6,158.4	6,244.9	6,156.4	67.2	21.5	164.61	149.4	-876.9	2,566.2	2,517.3	48.93	52.450	
7,100.0	6,247.9	6,334.4	6,245.9	67.9	21.6	165.11	149.4	-876.9	2,609.5	2,560.2	49.29	52.938	
7,200.0	6,338.9	6,425.5	6,336.9	68.6	21.7	165.56	149.4	-876.9	2,649.8	2,600.1	49.64	53.381	
7,300.0	6,431.3	6,517.9	6,429.3	69.3	21.9	165.96	149.4	-876.9	2,687.0	2,637.0	49.96	53.783	
7,373.4	6,500.0	6,586.5	6,498.0	69.7	22.0	166.22	149.4	-876.9	2,712.3	2,662.1	50.18	54.057	
7,400.0	6,525.0	6,611.5	6,523.0	69.9	22.0	166.27	149.4	-876.9	2,721.2	2,670.9	50.28	54.125	
7,500.0	6,618.9	6,705.5	6,616.9	70.6	22.1	166.44	149.4	-876.9	2,754.5	2,703.9	50.67	54.361	
7,600.0	6,712.9	6,799.4	6,710.9	71.3	22.3	166.60	149.4	-876.9	2,787.9	2,736.8	51.07	54.590	
7,700.0	6,806.9	6,893.4	6,804.9	72.0	22.4	166.76	149.4	-876.9	2,821.3	2,769.8	51.47	54.813	
7,800.0	6,900.8	6,987.4	6,898.8	72.7	22.5	166.92	149.4	-876.9	2,854.7	2,802.8	51.88	55.029	
7,900.0	6,994.8	7,081.4	6,992.8	73.4	22.7	167.07	149.4	-876.9	2,888.1	2,835.8	52.28	55.239	
8,000.0	7,088.8	7,175.3	7,086.8	74.1	22.8	167.22	149.4	-876.9	2,921.5	2,868.8	52.70	55.442	
8,100.0	7,182.8	7,269.3	7,180.8	74.9	23.0	167.37	149.4	-876.9	2,955.0	2,901.9	53.11	55.640	
8,200.0	7,276.7	7,363.3	7,274.7	75.6	23.1	167.51	149.4	-876.9	2,988.5	2,935.0	53.53	55.832	
8,300.0	7,370.7	7,457.2	7,368.7	76.3	23.2	167.65	149.4	-876.9	3,022.0	2,968.0	53.95	56.018	
8,400.0	7,464.7	7,551.2	7,462.7	77.0	23.4	167.79	149.4	-876.9	3,055.5	3,001.1	54.37	56.199	
8,500.0	7,558.6	7,645.2	7,556.6	77.7	23.5	167.92	149.4	-876.9	3,089.0	3,034.2	54.79	56.375	
8,600.0	7,652.6	7,739.1	7,650.6	78.4	23.7	168.05	149.4	-876.9	3,122.5	3,067.3	55.22	56.546	
8,700.0	7,746.6	7,833.1	7,744.6	79.1	23.8	168.18	149.4	-876.9	3,156.1	3,100.4	55.65	56.711	
8,756.9	7,800.0	7,886.5	7,798.0	79.6	23.9	168.25	149.4	-876.9	3,175.2	3,119.3	55.90	56.803	

Company:	Mineral Resources Inc	Local Co-ordinate Reference:	Well Westmoor 5 2-6-2
Project:	SEC.2-T5N-R66W	TVD Reference:	WELL @ 4714.0ft (Original Well Elev)
Reference Site:	Bestway Pad Sec.2-T5N-R66W	MD Reference:	WELL @ 4714.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Westmoor 5 2-6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-05-11)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4714.0ft (Original Well Elev) Coordinates are relative to: Westmoor 5 2-6-2
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.49°



Company:	Mineral Resources Inc	Local Co-ordinate Reference:	Well Westmoor 5 2-6-2
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