

# Mineral Resources Inc

Well Name: **ISLAND GROVE 2-32**

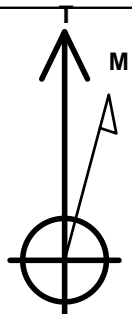
Surface Location: ISLAND GROVE HOR PAD 32-6N-65W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone  
Ground Elevation: 4647.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1404756.07	3223876.25	40.441670	-104.695660	

KB ENSIGN RIG 14 - 15' RKB @ 4662.0ft (KB ENSIGN RIG 14 - 15')

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
HARDLINE 460'FSL	1.0	-1249.6	1463.4	Polygon
HARDLINE BHL 460'FNL	1.0	3173.2	1432.5	Polygon
BHL 460'FNL & 1330'FWL	6850.0	3173.2	1032.5	Point
T1 460'FSL & 1330'FWL	6850.0	-1249.6	1063.4	Point



Azimuths to True North  
Magnetic North: 8.74°

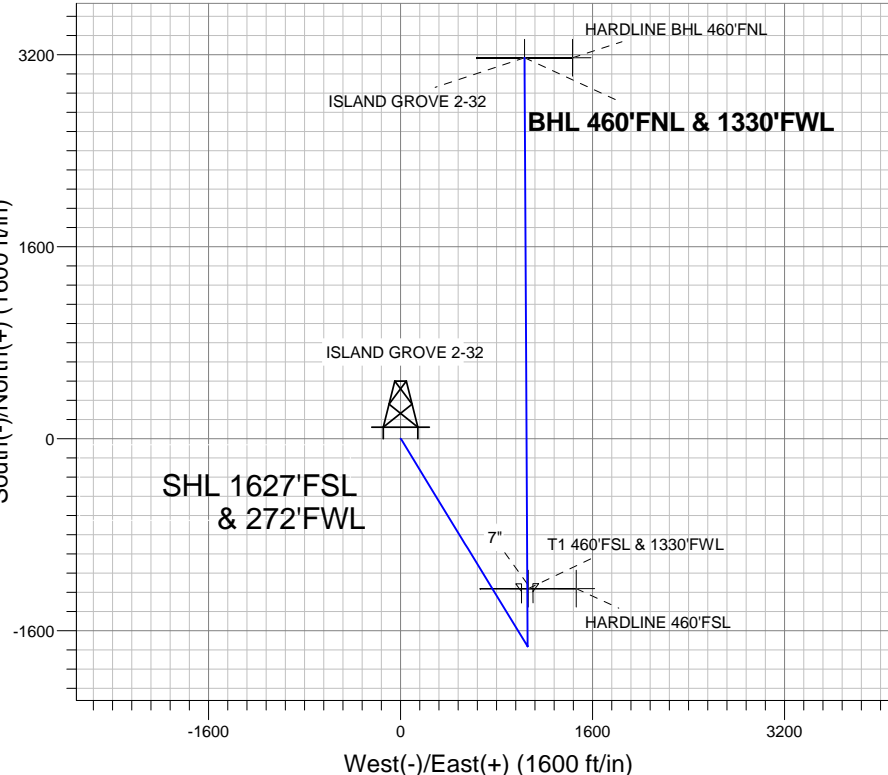
Magnetic Field  
Strength: 53093.1srT  
Dip Angle: 67.07°  
Date: 2/9/2012  
Model: IGRF2010

ISLAND GROVE HOR PAD 32-6N-65W  
ISLAND GROVE 2-32  
PLAN 1 (FEB 9 2012)  
11:07, February 15 2012

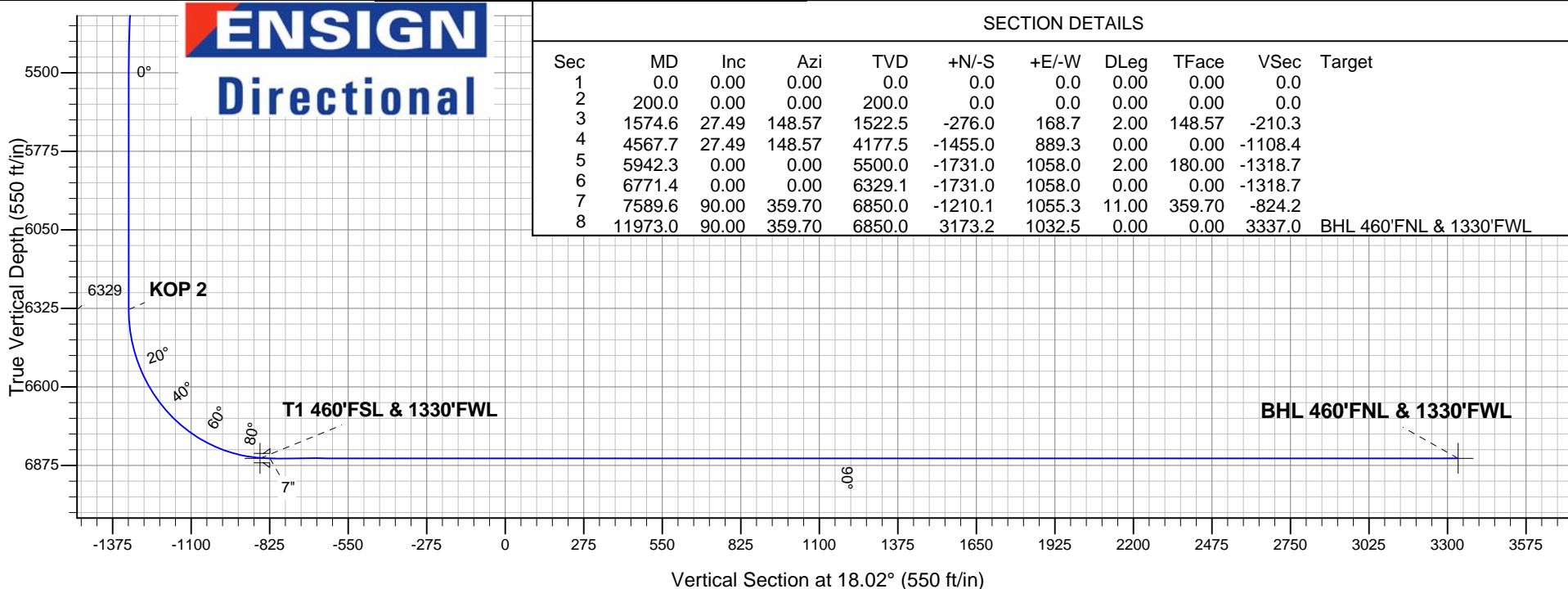
## ANNOTATIONS

TVD	MD	Annotation
200.0	200.0	KOP 1
6329.1	6771.4	KOP 2

South(-)/North(+) (1600 ft/in)



**ENSIGN**  
Directional



## 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	1574.6	27.49	148.57	1522.5	-276.0	168.7	2.00	148.57	-210.3	
4	4567.7	27.49	148.57	4177.5	-1455.0	889.3	0.00	0.00	-1108.4	
5	5942.3	0.00	0.00	5500.0	-1731.0	1058.0	2.00	180.00	-1318.7	
6	6771.4	0.00	0.00	6329.1	-1731.0	1058.0	0.00	0.00	-1318.7	
7	7589.6	90.00	359.70	6850.0	-1210.1	1055.3	11.00	359.70	-824.2	
8	11973.0	90.00	359.70	6850.0	3173.2	1032.5	0.00	0.00	3337.0	BHL 460'FNL & 1330'FWL



## **Mineral Resources Inc**

**SEC.32-T6N-R65W**

**ISLAND GROVE HOR PAD 32-6N-65W**

**ISLAND GROVE 2-32**

**Wellbore #1**

**Plan: PLAN 1 (FEB 9 2012)**

## **Standard Planning Report**

**15 February, 2012**

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	
1,574.6	27.49	148.57	1,522.5	-276.0	168.7	2.00	2.00	0.00	148.57	
4,567.7	27.49	148.57	4,177.5	-1,455.0	889.3	0.00	0.00	0.00	0.00	
5,942.3	0.00	0.00	5,500.0	-1,731.0	1,058.0	2.00	-2.00	0.00	180.00	
6,771.4	0.00	0.00	6,329.1	-1,731.0	1,058.0	0.00	0.00	0.00	0.00	
7,589.6	90.00	359.70	6,850.0	-1,210.1	1,055.3	11.00	11.00	0.00	359.70	
11,973.0	90.00	359.70	6,850.0	3,173.2	1,032.5	0.00	0.00	0.00	0.00	BHL 460'FNL & 133

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well ISLAND GROVE 2-32
<b>Company:</b>	Mineral Resources Inc	<b>TVD Reference:</b>	RKB @ 4662.0ft (KB ENSIGN RIG 14 - 15')
<b>Project:</b>	SEC.32-T6N-R65W	<b>MD Reference:</b>	RKB @ 4662.0ft (KB ENSIGN RIG 14 - 15')
<b>Site:</b>	ISLAND GROVE HOR PAD 32-6N-65W	<b>North Reference:</b>	True
<b>Well:</b>	ISLAND GROVE 2-32	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PLAN 1 (FEB 9 2012)		

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
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>HARDLINE BHL 460'FNL - HARDLINE 460'FSL</b>									
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
<b>KOP 1</b>									
240.0	0.80	148.57	240.0	-0.2	0.1	-0.2	2.00	2.00	0.00
280.0	1.60	148.57	280.0	-1.0	0.6	-0.7	2.00	2.00	0.00
320.0	2.40	148.57	320.0	-2.1	1.3	-1.6	2.00	2.00	0.00
360.0	3.20	148.57	359.9	-3.8	2.3	-2.9	2.00	2.00	0.00
400.0	4.00	148.57	399.8	-6.0	3.6	-4.5	2.00	2.00	0.00
440.0	4.80	148.57	439.7	-8.6	5.2	-6.5	2.00	2.00	0.00
480.0	5.60	148.57	479.6	-11.7	7.1	-8.9	2.00	2.00	0.00
520.0	6.40	148.57	519.3	-15.2	9.3	-11.6	2.00	2.00	0.00
560.0	7.20	148.57	559.1	-19.3	11.8	-14.7	2.00	2.00	0.00
600.0	8.00	148.57	598.7	-23.8	14.5	-18.1	2.00	2.00	0.00
640.0	8.80	148.57	638.3	-28.8	17.6	-21.9	2.00	2.00	0.00
680.0	9.60	148.57	677.8	-34.2	20.9	-26.1	2.00	2.00	0.00
720.0	10.40	148.57	717.1	-40.2	24.5	-30.6	2.00	2.00	0.00
760.0	11.20	148.57	756.4	-46.6	28.5	-35.5	2.00	2.00	0.00
800.0	12.00	148.57	795.6	-53.4	32.6	-40.7	2.00	2.00	0.00
840.0	12.80	148.57	834.7	-60.7	37.1	-46.3	2.00	2.00	0.00
880.0	13.60	148.57	873.6	-68.5	41.9	-52.2	2.00	2.00	0.00
920.0	14.40	148.57	912.4	-76.8	46.9	-58.5	2.00	2.00	0.00
960.0	15.20	148.57	951.1	-85.5	52.3	-65.1	2.00	2.00	0.00
1,000.0	16.00	148.57	989.6	-94.7	57.9	-72.1	2.00	2.00	0.00
1,040.0	16.80	148.57	1,028.0	-104.3	63.8	-79.5	2.00	2.00	0.00
1,080.0	17.60	148.57	1,066.2	-114.4	69.9	-87.2	2.00	2.00	0.00
1,120.0	18.40	148.57	1,104.3	-125.0	76.4	-95.2	2.00	2.00	0.00
1,160.0	19.20	148.57	1,142.1	-136.0	83.1	-103.6	2.00	2.00	0.00
1,200.0	20.00	148.57	1,179.8	-147.4	90.1	-112.3	2.00	2.00	0.00
1,240.0	20.80	148.57	1,217.3	-159.3	97.4	-121.4	2.00	2.00	0.00
1,280.0	21.60	148.57	1,254.6	-171.7	104.9	-130.8	2.00	2.00	0.00
1,320.0	22.40	148.57	1,291.7	-184.4	112.7	-140.5	2.00	2.00	0.00
1,360.0	23.20	148.57	1,328.6	-197.7	120.8	-150.6	2.00	2.00	0.00
1,400.0	24.00	148.57	1,365.2	-211.3	129.2	-161.0	2.00	2.00	0.00
1,440.0	24.80	148.57	1,401.6	-225.4	137.8	-171.7	2.00	2.00	0.00
1,480.0	25.60	148.57	1,437.8	-240.0	146.7	-182.8	2.00	2.00	0.00
1,520.0	26.40	148.57	1,473.8	-254.9	155.8	-194.2	2.00	2.00	0.00
1,560.0	27.20	148.57	1,509.5	-270.3	165.2	-205.9	2.00	2.00	0.00
1,574.6	27.49	148.57	1,522.5	-276.0	168.7	-210.3	2.00	2.00	0.00
1,600.0	27.49	148.57	1,545.0	-286.0	174.8	-217.9	0.00	0.00	0.00
1,640.0	27.49	148.57	1,580.5	-301.8	184.5	-229.9	0.00	0.00	0.00
1,680.0	27.49	148.57	1,616.0	-317.5	194.1	-241.9	0.00	0.00	0.00
1,720.0	27.49	148.57	1,651.4	-333.3	203.7	-253.9	0.00	0.00	0.00
1,760.0	27.49	148.57	1,686.9	-349.1	213.3	-265.9	0.00	0.00	0.00
1,800.0	27.49	148.57	1,722.4	-364.8	223.0	-277.9	0.00	0.00	0.00
1,840.0	27.49	148.57	1,757.9	-380.6	232.6	-289.9	0.00	0.00	0.00
1,880.0	27.49	148.57	1,793.4	-396.3	242.2	-301.9	0.00	0.00	0.00
1,920.0	27.49	148.57	1,828.9	-412.1	251.9	-313.9	0.00	0.00	0.00
1,960.0	27.49	148.57	1,864.3	-427.8	261.5	-325.9	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well ISLAND GROVE 2-32
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<b>Project:</b>	SEC.32-T6N-R65W	<b>MD Reference:</b>	RKB @ 4662.0ft (KB ENSIGN RIG 14 - 15')
<b>Site:</b>	ISLAND GROVE HOR PAD 32-6N-65W	<b>North Reference:</b>	True
<b>Well:</b>	ISLAND GROVE 2-32	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PLAN 1 (FEB 9 2012)		

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)
2,000.0	27.49	148.57	1,899.8	-443.6	271.1	-337.9	0.00	0.00	0.00
2,040.0	27.49	148.57	1,935.3	-459.3	280.8	-349.9	0.00	0.00	0.00
2,080.0	27.49	148.57	1,970.8	-475.1	290.4	-361.9	0.00	0.00	0.00
2,120.0	27.49	148.57	2,006.3	-490.9	300.0	-373.9	0.00	0.00	0.00
2,160.0	27.49	148.57	2,041.7	-506.6	309.6	-385.9	0.00	0.00	0.00
2,200.0	27.49	148.57	2,077.2	-522.4	319.3	-397.9	0.00	0.00	0.00
2,240.0	27.49	148.57	2,112.7	-538.1	328.9	-409.9	0.00	0.00	0.00
2,280.0	27.49	148.57	2,148.2	-553.9	338.5	-421.9	0.00	0.00	0.00
2,320.0	27.49	148.57	2,183.7	-569.6	348.2	-433.9	0.00	0.00	0.00
2,360.0	27.49	148.57	2,219.2	-585.4	357.8	-445.9	0.00	0.00	0.00
2,400.0	27.49	148.57	2,254.6	-601.1	367.4	-458.0	0.00	0.00	0.00
2,440.0	27.49	148.57	2,290.1	-616.9	377.1	-470.0	0.00	0.00	0.00
2,480.0	27.49	148.57	2,325.6	-632.7	386.7	-482.0	0.00	0.00	0.00
2,520.0	27.49	148.57	2,361.1	-648.4	396.3	-494.0	0.00	0.00	0.00
2,560.0	27.49	148.57	2,396.6	-664.2	405.9	-506.0	0.00	0.00	0.00
2,600.0	27.49	148.57	2,432.1	-679.9	415.6	-518.0	0.00	0.00	0.00
2,640.0	27.49	148.57	2,467.5	-695.7	425.2	-530.0	0.00	0.00	0.00
2,680.0	27.49	148.57	2,503.0	-711.4	434.8	-542.0	0.00	0.00	0.00
2,720.0	27.49	148.57	2,538.5	-727.2	444.5	-554.0	0.00	0.00	0.00
2,760.0	27.49	148.57	2,574.0	-742.9	454.1	-566.0	0.00	0.00	0.00
2,800.0	27.49	148.57	2,609.5	-758.7	463.7	-578.0	0.00	0.00	0.00
2,840.0	27.49	148.57	2,645.0	-774.5	473.4	-590.0	0.00	0.00	0.00
2,880.0	27.49	148.57	2,680.4	-790.2	483.0	-602.0	0.00	0.00	0.00
2,920.0	27.49	148.57	2,715.9	-806.0	492.6	-614.0	0.00	0.00	0.00
2,960.0	27.49	148.57	2,751.4	-821.7	502.2	-626.0	0.00	0.00	0.00
3,000.0	27.49	148.57	2,786.9	-837.5	511.9	-638.0	0.00	0.00	0.00
3,040.0	27.49	148.57	2,822.4	-853.2	521.5	-650.0	0.00	0.00	0.00
3,080.0	27.49	148.57	2,857.9	-869.0	531.1	-662.0	0.00	0.00	0.00
3,120.0	27.49	148.57	2,893.3	-884.7	540.8	-674.0	0.00	0.00	0.00
3,160.0	27.49	148.57	2,928.8	-900.5	550.4	-686.0	0.00	0.00	0.00
3,200.0	27.49	148.57	2,964.3	-916.3	560.0	-698.0	0.00	0.00	0.00
3,240.0	27.49	148.57	2,999.8	-932.0	569.7	-710.0	0.00	0.00	0.00
3,280.0	27.49	148.57	3,035.3	-947.8	579.3	-722.0	0.00	0.00	0.00
3,320.0	27.49	148.57	3,070.8	-963.5	588.9	-734.0	0.00	0.00	0.00
3,360.0	27.49	148.57	3,106.2	-979.3	598.5	-746.0	0.00	0.00	0.00
3,400.0	27.49	148.57	3,141.7	-995.0	608.2	-758.0	0.00	0.00	0.00
3,440.0	27.49	148.57	3,177.2	-1,010.8	617.8	-770.0	0.00	0.00	0.00
3,480.0	27.49	148.57	3,212.7	-1,026.5	627.4	-782.0	0.00	0.00	0.00
3,520.0	27.49	148.57	3,248.2	-1,042.3	637.1	-794.0	0.00	0.00	0.00
3,560.0	27.49	148.57	3,283.6	-1,058.1	646.7	-806.0	0.00	0.00	0.00
3,600.0	27.49	148.57	3,319.1	-1,073.8	656.3	-818.0	0.00	0.00	0.00
3,640.0	27.49	148.57	3,354.6	-1,089.6	665.9	-830.0	0.00	0.00	0.00
3,680.0	27.49	148.57	3,390.1	-1,105.3	675.6	-842.0	0.00	0.00	0.00
3,720.0	27.49	148.57	3,425.6	-1,121.1	685.2	-854.0	0.00	0.00	0.00
3,760.0	27.49	148.57	3,461.1	-1,136.8	694.8	-866.0	0.00	0.00	0.00
3,800.0	27.49	148.57	3,496.5	-1,152.6	704.5	-878.0	0.00	0.00	0.00
3,840.0	27.49	148.57	3,532.0	-1,168.3	714.1	-890.0	0.00	0.00	0.00
3,880.0	27.49	148.57	3,567.5	-1,184.1	723.7	-902.0	0.00	0.00	0.00
3,920.0	27.49	148.57	3,603.0	-1,199.9	733.4	-914.0	0.00	0.00	0.00
3,960.0	27.49	148.57	3,638.5	-1,215.6	743.0	-926.1	0.00	0.00	0.00
4,000.0	27.49	148.57	3,674.0	-1,231.4	752.6	-938.1	0.00	0.00	0.00
4,040.0	27.49	148.57	3,709.4	-1,247.1	762.2	-950.1	0.00	0.00	0.00
4,080.0	27.49	148.57	3,744.9	-1,262.9	771.9	-962.1	0.00	0.00	0.00
4,120.0	27.49	148.57	3,780.4	-1,278.6	781.5	-974.1	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well ISLAND GROVE 2-32
<b>Company:</b>	Mineral Resources Inc	<b>TVD Reference:</b>	RKB @ 4662.0ft (KB ENSIGN RIG 14 - 15')
<b>Project:</b>	SEC.32-T6N-R65W	<b>MD Reference:</b>	RKB @ 4662.0ft (KB ENSIGN RIG 14 - 15')
<b>Site:</b>	ISLAND GROVE HOR PAD 32-6N-65W	<b>North Reference:</b>	True
<b>Well:</b>	ISLAND GROVE 2-32	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PLAN 1 (FEB 9 2012)		

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)
4,160.0	27.49	148.57	3,815.9	-1,294.4	791.1	-986.1	0.00	0.00	0.00
4,200.0	27.49	148.57	3,851.4	-1,310.1	800.8	-998.1	0.00	0.00	0.00
4,240.0	27.49	148.57	3,886.9	-1,325.9	810.4	-1,010.1	0.00	0.00	0.00
4,280.0	27.49	148.57	3,922.3	-1,341.7	820.0	-1,022.1	0.00	0.00	0.00
4,320.0	27.49	148.57	3,957.8	-1,357.4	829.7	-1,034.1	0.00	0.00	0.00
4,360.0	27.49	148.57	3,993.3	-1,373.2	839.3	-1,046.1	0.00	0.00	0.00
4,400.0	27.49	148.57	4,028.8	-1,388.9	848.9	-1,058.1	0.00	0.00	0.00
4,440.0	27.49	148.57	4,064.3	-1,404.7	858.5	-1,070.1	0.00	0.00	0.00
4,480.0	27.49	148.57	4,099.8	-1,420.4	868.2	-1,082.1	0.00	0.00	0.00
4,520.0	27.49	148.57	4,135.2	-1,436.2	877.8	-1,094.1	0.00	0.00	0.00
4,560.0	27.49	148.57	4,170.7	-1,451.9	887.4	-1,106.1	0.00	0.00	0.00
4,567.7	27.49	148.57	4,177.5	-1,455.0	889.3	-1,108.4	0.00	0.00	0.00
4,600.0	26.85	148.57	4,206.3	-1,467.6	897.0	-1,118.0	2.00	-2.00	0.00
4,640.0	26.05	148.57	4,242.1	-1,482.8	906.3	-1,129.6	2.00	-2.00	0.00
4,680.0	25.25	148.57	4,278.2	-1,497.5	915.3	-1,140.8	2.00	-2.00	0.00
4,720.0	24.45	148.57	4,314.5	-1,511.9	924.1	-1,151.7	2.00	-2.00	0.00
4,760.0	23.65	148.57	4,351.0	-1,525.8	932.6	-1,162.3	2.00	-2.00	0.00
4,800.0	22.85	148.57	4,387.7	-1,539.2	940.8	-1,172.6	2.00	-2.00	0.00
4,840.0	22.05	148.57	4,424.7	-1,552.3	948.8	-1,182.5	2.00	-2.00	0.00
4,880.0	21.25	148.57	4,461.9	-1,564.9	956.5	-1,192.1	2.00	-2.00	0.00
4,920.0	20.45	148.57	4,499.3	-1,577.0	963.9	-1,201.4	2.00	-2.00	0.00
4,960.0	19.65	148.57	4,536.8	-1,588.7	971.0	-1,210.3	2.00	-2.00	0.00
5,000.0	18.85	148.57	4,574.6	-1,600.0	977.9	-1,218.8	2.00	-2.00	0.00
5,040.0	18.05	148.57	4,612.6	-1,610.8	984.5	-1,227.1	2.00	-2.00	0.00
5,080.0	17.25	148.57	4,650.7	-1,621.1	990.8	-1,235.0	2.00	-2.00	0.00
5,120.0	16.45	148.57	4,689.0	-1,631.0	996.9	-1,242.5	2.00	-2.00	0.00
5,160.0	15.65	148.57	4,727.4	-1,640.4	1,002.6	-1,249.7	2.00	-2.00	0.00
5,200.0	14.85	148.57	4,766.0	-1,649.4	1,008.1	-1,256.5	2.00	-2.00	0.00
5,240.0	14.05	148.57	4,804.7	-1,657.9	1,013.3	-1,263.0	2.00	-2.00	0.00
5,280.0	13.25	148.57	4,843.6	-1,666.0	1,018.3	-1,269.1	2.00	-2.00	0.00
5,320.0	12.45	148.57	4,882.6	-1,673.6	1,022.9	-1,274.9	2.00	-2.00	0.00
5,360.0	11.65	148.57	4,921.7	-1,680.7	1,027.2	-1,280.3	2.00	-2.00	0.00
5,400.0	10.85	148.57	4,960.9	-1,687.3	1,031.3	-1,285.4	2.00	-2.00	0.00
5,440.0	10.05	148.57	5,000.3	-1,693.5	1,035.1	-1,290.1	2.00	-2.00	0.00
5,480.0	9.25	148.57	5,039.7	-1,699.2	1,038.6	-1,294.5	2.00	-2.00	0.00
5,520.0	8.45	148.57	5,079.2	-1,704.5	1,041.8	-1,298.5	2.00	-2.00	0.00
5,560.0	7.65	148.57	5,118.8	-1,709.3	1,044.7	-1,302.1	2.00	-2.00	0.00
5,600.0	6.85	148.57	5,158.5	-1,713.6	1,047.3	-1,305.4	2.00	-2.00	0.00
5,640.0	6.05	148.57	5,198.3	-1,717.4	1,049.7	-1,308.3	2.00	-2.00	0.00
5,680.0	5.25	148.57	5,238.1	-1,720.8	1,051.7	-1,310.9	2.00	-2.00	0.00
5,720.0	4.45	148.57	5,277.9	-1,723.6	1,053.5	-1,313.1	2.00	-2.00	0.00
5,760.0	3.65	148.57	5,317.8	-1,726.1	1,055.0	-1,314.9	2.00	-2.00	0.00
5,800.0	2.85	148.57	5,357.8	-1,728.0	1,056.2	-1,316.4	2.00	-2.00	0.00
5,840.0	2.05	148.57	5,397.7	-1,729.4	1,057.0	-1,317.5	2.00	-2.00	0.00
5,880.0	1.25	148.57	5,437.7	-1,730.4	1,057.6	-1,318.2	2.00	-2.00	0.00
5,920.0	0.45	148.57	5,477.7	-1,730.9	1,058.0	-1,318.6	2.00	-2.00	0.00
5,942.3	0.00	0.00	5,500.0	-1,731.0	1,058.0	-1,318.7	2.00	-2.00	0.00
5,960.0	0.00	0.00	5,517.7	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00
6,000.0	0.00	0.00	5,557.7	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00
6,040.0	0.00	0.00	5,597.7	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00
6,080.0	0.00	0.00	5,637.7	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00
6,120.0	0.00	0.00	5,677.7	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00
6,160.0	0.00	0.00	5,717.7	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00
6,200.0	0.00	0.00	5,757.7	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well ISLAND GROVE 2-32
<b>Company:</b>	Mineral Resources Inc	<b>TVD Reference:</b>	RKB @ 4662.0ft (KB ENSIGN RIG 14 - 15')
<b>Project:</b>	SEC.32-T6N-R65W	<b>MD Reference:</b>	RKB @ 4662.0ft (KB ENSIGN RIG 14 - 15')
<b>Site:</b>	ISLAND GROVE HOR PAD 32-6N-65W	<b>North Reference:</b>	True
<b>Well:</b>	ISLAND GROVE 2-32	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PLAN 1 (FEB 9 2012)		

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)
6,240.0	0.00	0.00	5,797.7	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00
6,280.0	0.00	0.00	5,837.7	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00
6,320.0	0.00	0.00	5,877.7	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00
6,360.0	0.00	0.00	5,917.7	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00
6,400.0	0.00	0.00	5,957.7	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00
6,440.0	0.00	0.00	5,997.7	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00
6,480.0	0.00	0.00	6,037.7	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00
6,520.0	0.00	0.00	6,077.7	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00
6,560.0	0.00	0.00	6,117.7	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00
6,600.0	0.00	0.00	6,157.7	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00
6,640.0	0.00	0.00	6,197.7	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00
6,680.0	0.00	0.00	6,237.7	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00
6,720.0	0.00	0.00	6,277.7	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00
6,760.0	0.00	0.00	6,317.7	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00
6,771.4	0.00	0.00	6,329.1	-1,731.0	1,058.0	-1,318.7	0.00	0.00	0.00
<b>KOP 2</b>									
6,800.0	3.14	359.70	6,357.7	-1,730.2	1,058.0	-1,317.9	10.99	10.99	0.00
6,840.0	7.54	359.70	6,397.5	-1,726.5	1,058.0	-1,314.4	11.00	11.00	0.00
6,880.0	11.94	359.70	6,436.9	-1,719.7	1,057.9	-1,308.0	11.00	11.00	0.00
6,920.0	16.34	359.70	6,475.7	-1,710.0	1,057.9	-1,298.7	11.00	11.00	0.00
6,960.0	20.74	359.70	6,513.6	-1,697.2	1,057.8	-1,286.6	11.00	11.00	0.00
7,000.0	25.14	359.70	6,550.4	-1,681.6	1,057.7	-1,271.8	11.00	11.00	0.00
7,040.0	29.54	359.70	6,586.0	-1,663.3	1,057.6	-1,254.4	11.00	11.00	0.00
7,080.0	33.94	359.70	6,620.0	-1,642.2	1,057.5	-1,234.4	11.00	11.00	0.00
7,120.0	38.34	359.70	6,652.3	-1,618.7	1,057.4	-1,212.0	11.00	11.00	0.00
7,160.0	42.74	359.70	6,682.7	-1,592.7	1,057.3	-1,187.3	11.00	11.00	0.00
7,200.0	47.14	359.70	6,711.0	-1,564.4	1,057.1	-1,160.5	11.00	11.00	0.00
7,240.0	51.54	359.70	6,737.0	-1,534.1	1,057.0	-1,131.7	11.00	11.00	0.00
7,280.0	55.94	359.70	6,760.7	-1,501.8	1,056.8	-1,101.1	11.00	11.00	0.00
7,320.0	60.34	359.70	6,781.8	-1,467.9	1,056.6	-1,068.9	11.00	11.00	0.00
7,360.0	64.74	359.70	6,800.2	-1,432.4	1,056.5	-1,035.2	11.00	11.00	0.00
7,400.0	69.14	359.70	6,815.9	-1,395.6	1,056.3	-1,000.3	11.00	11.00	0.00
7,440.0	73.54	359.70	6,828.7	-1,357.7	1,056.1	-964.3	11.00	11.00	0.00
7,480.0	77.94	359.70	6,838.5	-1,318.9	1,055.9	-927.5	11.00	11.00	0.00
7,520.0	82.34	359.70	6,845.4	-1,279.5	1,055.7	-890.1	11.00	11.00	0.00
7,550.2	85.67	359.70	6,848.5	-1,249.5	1,055.5	-861.6	11.00	11.00	0.00
<b>T1 460'FSL &amp; 1330'FWL</b>									
7,560.0	86.74	359.70	6,849.2	-1,239.7	1,055.5	-852.3	11.00	11.00	0.00
7,589.6	90.00	359.70	6,850.0	-1,210.1	1,055.3	-824.2	11.00	11.00	0.00
<b>7"</b>									
7,600.0	90.00	359.70	6,850.0	-1,199.7	1,055.2	-814.3	0.01	0.01	0.00
7,640.0	90.00	359.70	6,850.0	-1,159.7	1,055.0	-776.4	0.00	0.00	0.00
7,680.0	90.00	359.70	6,850.0	-1,119.7	1,054.8	-738.4	0.00	0.00	0.00
7,720.0	90.00	359.70	6,850.0	-1,079.7	1,054.6	-700.4	0.00	0.00	0.00
7,760.0	90.00	359.70	6,850.0	-1,039.7	1,054.4	-662.5	0.00	0.00	0.00
7,800.0	90.00	359.70	6,850.0	-999.7	1,054.2	-624.5	0.00	0.00	0.00
7,840.0	90.00	359.70	6,850.0	-959.7	1,054.0	-586.5	0.00	0.00	0.00
7,880.0	90.00	359.70	6,850.0	-919.7	1,053.8	-548.5	0.00	0.00	0.00
7,920.0	90.00	359.70	6,850.0	-879.7	1,053.6	-510.6	0.00	0.00	0.00
7,960.0	90.00	359.70	6,850.0	-839.7	1,053.4	-472.6	0.00	0.00	0.00
8,000.0	90.00	359.70	6,850.0	-799.7	1,053.2	-434.6	0.00	0.00	0.00
8,040.0	90.00	359.70	6,850.0	-759.7	1,053.0	-396.6	0.00	0.00	0.00
8,080.0	90.00	359.70	6,850.0	-719.7	1,052.8	-358.7	0.00	0.00	0.00



<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well ISLAND GROVE 2-32
<b>Company:</b>	Mineral Resources Inc	<b>TVD Reference:</b>	RKB @ 4662.0ft (KB ENSIGN RIG 14 - 15')
<b>Project:</b>	SEC.32-T6N-R65W	<b>MD Reference:</b>	RKB @ 4662.0ft (KB ENSIGN RIG 14 - 15')
<b>Site:</b>	ISLAND GROVE HOR PAD 32-6N-65W	<b>North Reference:</b>	True
<b>Well:</b>	ISLAND GROVE 2-32	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PLAN 1 (FEB 9 2012)		

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	90.00	359.70	6,850.0	-679.7	1,052.5	-320.7	0.00	0.00	0.00
8,160.0	90.00	359.70	6,850.0	-639.7	1,052.3	-282.7	0.00	0.00	0.00
8,200.0	90.00	359.70	6,850.0	-599.7	1,052.1	-244.8	0.00	0.00	0.00
8,240.0	90.00	359.70	6,850.0	-559.7	1,051.9	-206.8	0.00	0.00	0.00
8,280.0	90.00	359.70	6,850.0	-519.8	1,051.7	-168.8	0.00	0.00	0.00
8,320.0	90.00	359.70	6,850.0	-479.8	1,051.5	-130.8	0.00	0.00	0.00
8,360.0	90.00	359.70	6,850.0	-439.8	1,051.3	-92.9	0.00	0.00	0.00
8,400.0	90.00	359.70	6,850.0	-399.8	1,051.1	-54.9	0.00	0.00	0.00
8,440.0	90.00	359.70	6,850.0	-359.8	1,050.9	-16.9	0.00	0.00	0.00
8,480.0	90.00	359.70	6,850.0	-319.8	1,050.7	21.0	0.00	0.00	0.00
8,520.0	90.00	359.70	6,850.0	-279.8	1,050.5	59.0	0.00	0.00	0.00
8,560.0	90.00	359.70	6,850.0	-239.8	1,050.3	97.0	0.00	0.00	0.00
8,600.0	90.00	359.70	6,850.0	-199.8	1,050.1	135.0	0.00	0.00	0.00
8,640.0	90.00	359.70	6,850.0	-159.8	1,049.8	172.9	0.00	0.00	0.00
8,680.0	90.00	359.70	6,850.0	-119.8	1,049.6	210.9	0.00	0.00	0.00
8,720.0	90.00	359.70	6,850.0	-79.8	1,049.4	248.9	0.00	0.00	0.00
8,760.0	90.00	359.70	6,850.0	-39.8	1,049.2	286.9	0.00	0.00	0.00
8,800.0	90.00	359.70	6,850.0	0.2	1,049.0	324.8	0.00	0.00	0.00
8,840.0	90.00	359.70	6,850.0	40.2	1,048.8	362.8	0.00	0.00	0.00
8,880.0	90.00	359.70	6,850.0	80.2	1,048.6	400.8	0.00	0.00	0.00
8,920.0	90.00	359.70	6,850.0	120.2	1,048.4	438.7	0.00	0.00	0.00
8,960.0	90.00	359.70	6,850.0	160.2	1,048.2	476.7	0.00	0.00	0.00
9,000.0	90.00	359.70	6,850.0	200.2	1,048.0	514.7	0.00	0.00	0.00
9,040.0	90.00	359.70	6,850.0	240.2	1,047.8	552.7	0.00	0.00	0.00
9,080.0	90.00	359.70	6,850.0	280.2	1,047.6	590.6	0.00	0.00	0.00
9,120.0	90.00	359.70	6,850.0	320.2	1,047.4	628.6	0.00	0.00	0.00
9,160.0	90.00	359.70	6,850.0	360.2	1,047.1	666.6	0.00	0.00	0.00
9,200.0	90.00	359.70	6,850.0	400.2	1,046.9	704.5	0.00	0.00	0.00
9,240.0	90.00	359.70	6,850.0	440.2	1,046.7	742.5	0.00	0.00	0.00
9,280.0	90.00	359.70	6,850.0	480.2	1,046.5	780.5	0.00	0.00	0.00
9,320.0	90.00	359.70	6,850.0	520.2	1,046.3	818.5	0.00	0.00	0.00
9,360.0	90.00	359.70	6,850.0	560.2	1,046.1	856.4	0.00	0.00	0.00
9,400.0	90.00	359.70	6,850.0	600.2	1,045.9	894.4	0.00	0.00	0.00
9,440.0	90.00	359.70	6,850.0	640.2	1,045.7	932.4	0.00	0.00	0.00
9,480.0	90.00	359.70	6,850.0	680.2	1,045.5	970.4	0.00	0.00	0.00
9,520.0	90.00	359.70	6,850.0	720.2	1,045.3	1,008.3	0.00	0.00	0.00
9,560.0	90.00	359.70	6,850.0	760.2	1,045.1	1,046.3	0.00	0.00	0.00
9,600.0	90.00	359.70	6,850.0	800.2	1,044.9	1,084.3	0.00	0.00	0.00
9,640.0	90.00	359.70	6,850.0	840.2	1,044.7	1,122.2	0.00	0.00	0.00
9,680.0	90.00	359.70	6,850.0	880.2	1,044.4	1,160.2	0.00	0.00	0.00
9,720.0	90.00	359.70	6,850.0	920.2	1,044.2	1,198.2	0.00	0.00	0.00
9,760.0	90.00	359.70	6,850.0	960.2	1,044.0	1,236.2	0.00	0.00	0.00
9,800.0	90.00	359.70	6,850.0	1,000.2	1,043.8	1,274.1	0.00	0.00	0.00
9,840.0	90.00	359.70	6,850.0	1,040.2	1,043.6	1,312.1	0.00	0.00	0.00
9,880.0	90.00	359.70	6,850.0	1,080.2	1,043.4	1,350.1	0.00	0.00	0.00
9,920.0	90.00	359.70	6,850.0	1,120.2	1,043.2	1,388.0	0.00	0.00	0.00
9,960.0	90.00	359.70	6,850.0	1,160.2	1,043.0	1,426.0	0.00	0.00	0.00
10,000.0	90.00	359.70	6,850.0	1,200.2	1,042.8	1,464.0	0.00	0.00	0.00
10,040.0	90.00	359.70	6,850.0	1,240.2	1,042.6	1,502.0	0.00	0.00	0.00
10,080.0	90.00	359.70	6,850.0	1,280.2	1,042.4	1,539.9	0.00	0.00	0.00
10,120.0	90.00	359.70	6,850.0	1,320.2	1,042.2	1,577.9	0.00	0.00	0.00
10,160.0	90.00	359.70	6,850.0	1,360.2	1,042.0	1,615.9	0.00	0.00	0.00
10,200.0	90.00	359.70	6,850.0	1,400.2	1,041.7	1,653.9	0.00	0.00	0.00
10,240.0	90.00	359.70	6,850.0	1,440.2	1,041.5	1,691.8	0.00	0.00	0.00



<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well ISLAND GROVE 2-32
<b>Company:</b>	Mineral Resources Inc	<b>TVD Reference:</b>	RKB @ 4662.0ft (KB ENSIGN RIG 14 - 15')
<b>Project:</b>	SEC.32-T6N-R65W	<b>MD Reference:</b>	RKB @ 4662.0ft (KB ENSIGN RIG 14 - 15')
<b>Site:</b>	ISLAND GROVE HOR PAD 32-6N-65W	<b>North Reference:</b>	True
<b>Well:</b>	ISLAND GROVE 2-32	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PLAN 1 (FEB 9 2012)		

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)
10,280.0	90.00	359.70	6,850.0	1,480.2	1,041.3	1,729.8	0.00	0.00	0.00
10,320.0	90.00	359.70	6,850.0	1,520.2	1,041.1	1,767.8	0.00	0.00	0.00
10,360.0	90.00	359.70	6,850.0	1,560.2	1,040.9	1,805.7	0.00	0.00	0.00
10,400.0	90.00	359.70	6,850.0	1,600.2	1,040.7	1,843.7	0.00	0.00	0.00
10,440.0	90.00	359.70	6,850.0	1,640.2	1,040.5	1,881.7	0.00	0.00	0.00
10,480.0	90.00	359.70	6,850.0	1,680.2	1,040.3	1,919.7	0.00	0.00	0.00
10,520.0	90.00	359.70	6,850.0	1,720.2	1,040.1	1,957.6	0.00	0.00	0.00
10,560.0	90.00	359.70	6,850.0	1,760.2	1,039.9	1,995.6	0.00	0.00	0.00
10,600.0	90.00	359.70	6,850.0	1,800.2	1,039.7	2,033.6	0.00	0.00	0.00
10,640.0	90.00	359.70	6,850.0	1,840.2	1,039.5	2,071.5	0.00	0.00	0.00
10,680.0	90.00	359.70	6,850.0	1,880.2	1,039.3	2,109.5	0.00	0.00	0.00
10,720.0	90.00	359.70	6,850.0	1,920.2	1,039.0	2,147.5	0.00	0.00	0.00
10,760.0	90.00	359.70	6,850.0	1,960.2	1,038.8	2,185.5	0.00	0.00	0.00
10,800.0	90.00	359.70	6,850.0	2,000.2	1,038.6	2,223.4	0.00	0.00	0.00
10,840.0	90.00	359.70	6,850.0	2,040.2	1,038.4	2,261.4	0.00	0.00	0.00
10,880.0	90.00	359.70	6,850.0	2,080.2	1,038.2	2,299.4	0.00	0.00	0.00
10,920.0	90.00	359.70	6,850.0	2,120.2	1,038.0	2,337.3	0.00	0.00	0.00
10,960.0	90.00	359.70	6,850.0	2,160.2	1,037.8	2,375.3	0.00	0.00	0.00
11,000.0	90.00	359.70	6,850.0	2,200.2	1,037.6	2,413.3	0.00	0.00	0.00
11,040.0	90.00	359.70	6,850.0	2,240.2	1,037.4	2,451.3	0.00	0.00	0.00
11,080.0	90.00	359.70	6,850.0	2,280.2	1,037.2	2,489.2	0.00	0.00	0.00
11,120.0	90.00	359.70	6,850.0	2,320.2	1,037.0	2,527.2	0.00	0.00	0.00
11,160.0	90.00	359.70	6,850.0	2,360.2	1,036.8	2,565.2	0.00	0.00	0.00
11,200.0	90.00	359.70	6,850.0	2,400.2	1,036.6	2,603.2	0.00	0.00	0.00
11,240.0	90.00	359.70	6,850.0	2,440.2	1,036.4	2,641.1	0.00	0.00	0.00
11,280.0	90.00	359.70	6,850.0	2,480.2	1,036.1	2,679.1	0.00	0.00	0.00
11,320.0	90.00	359.70	6,850.0	2,520.2	1,035.9	2,717.1	0.00	0.00	0.00
11,360.0	90.00	359.70	6,850.0	2,560.2	1,035.7	2,755.0	0.00	0.00	0.00
11,400.0	90.00	359.70	6,850.0	2,600.2	1,035.5	2,793.0	0.00	0.00	0.00
11,440.0	90.00	359.70	6,850.0	2,640.2	1,035.3	2,831.0	0.00	0.00	0.00
11,480.0	90.00	359.70	6,850.0	2,680.2	1,035.1	2,869.0	0.00	0.00	0.00
11,520.0	90.00	359.70	6,850.0	2,720.2	1,034.9	2,906.9	0.00	0.00	0.00
11,560.0	90.00	359.70	6,850.0	2,760.2	1,034.7	2,944.9	0.00	0.00	0.00
11,600.0	90.00	359.70	6,850.0	2,800.2	1,034.5	2,982.9	0.00	0.00	0.00
11,640.0	90.00	359.70	6,850.0	2,840.2	1,034.3	3,020.8	0.00	0.00	0.00
11,680.0	90.00	359.70	6,850.0	2,880.2	1,034.1	3,058.8	0.00	0.00	0.00
11,720.0	90.00	359.70	6,850.0	2,920.2	1,033.9	3,096.8	0.00	0.00	0.00
11,760.0	90.00	359.70	6,850.0	2,960.2	1,033.7	3,134.8	0.00	0.00	0.00
11,800.0	90.00	359.70	6,850.0	3,000.2	1,033.4	3,172.7	0.00	0.00	0.00
11,840.0	90.00	359.70	6,850.0	3,040.2	1,033.2	3,210.7	0.00	0.00	0.00
11,880.0	90.00	359.70	6,850.0	3,080.2	1,033.0	3,248.7	0.00	0.00	0.00
11,920.0	90.00	359.70	6,850.0	3,120.2	1,032.8	3,286.7	0.00	0.00	0.00
11,960.0	90.00	359.70	6,850.0	3,160.2	1,032.6	3,324.6	0.00	0.00	0.00
11,973.0	90.00	359.70	6,850.0	3,173.2	1,032.5	3,337.0	0.00	0.00	0.00
BHL 460'FNL & 1330'FWL									

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well ISLAND GROVE 2-32
<b>Company:</b>	Mineral Resources Inc	<b>TVD Reference:</b>	RKB @ 4662.0ft (KB ENSIGN RIG 14 - 15')
<b>Project:</b>	SEC.32-T6N-R65W	<b>MD Reference:</b>	RKB @ 4662.0ft (KB ENSIGN RIG 14 - 15')
<b>Site:</b>	ISLAND GROVE HOR PAD 32-6N-65W	<b>North Reference:</b>	True
<b>Well:</b>	ISLAND GROVE 2-32	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PLAN 1 (FEB 9 2012)		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
HARDLINE BHL 460'f	0.00	0.00	1.0	3,173.2	1,432.5	1,407,942.01	3,225,279.86	40.450380	-104.690513
- plan misses target center by 3481.6ft at 1.0ft MD (1.0 TVD, 0.0 N, 0.0 E)									
- Polygon									
Point 1			1.0	0.0	0.0	1,407,942.01	3,225,279.86		
Point 2			1.0	0.0	-800.0	1,407,934.75	3,224,479.92		
Point 3			1.0	0.0	0.0	1,407,942.01	3,225,279.86		
BHL 460'FNL & 1330'	0.00	0.00	6,850.0	3,173.2	1,032.5	1,407,938.39	3,224,879.94	40.450380	-104.691950
- plan hits target center									
- Point									
T1 460'FSL & 1330'FV	0.00	0.00	6,850.0	-1,249.6	1,063.4	1,403,516.24	3,224,950.85	40.438240	-104.691840
- plan misses target center by 8.0ft at 7550.2ft MD (6848.5 TVD, -1249.5 N, 1055.5 E)									
- Point									
HARDLINE 460'FSL	0.00	0.00	1.0	-1,249.6	1,463.4	1,403,519.85	3,225,350.87	40.438240	-104.690403
- plan misses target center by 1924.3ft at 1.0ft MD (1.0 TVD, 0.0 N, 0.0 E)									
- Polygon									
Point 1			1.0	0.0	0.0	1,403,519.85	3,225,350.87		
Point 2			1.0	0.0	-800.0	1,403,512.59	3,224,550.94		

Casing Points					
Measured Depth	Vertical Depth		Name	Casing Diameter	Hole Diameter
(ft)	(ft)			(")	(")
7,589.6	6,850.0	7"		7	8-3/4

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	KOP 1
6,771.4	6,329.1	-1,731.0	1,058.0	KOP 2