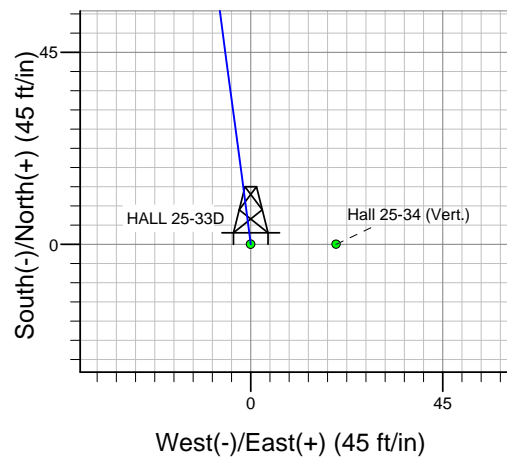
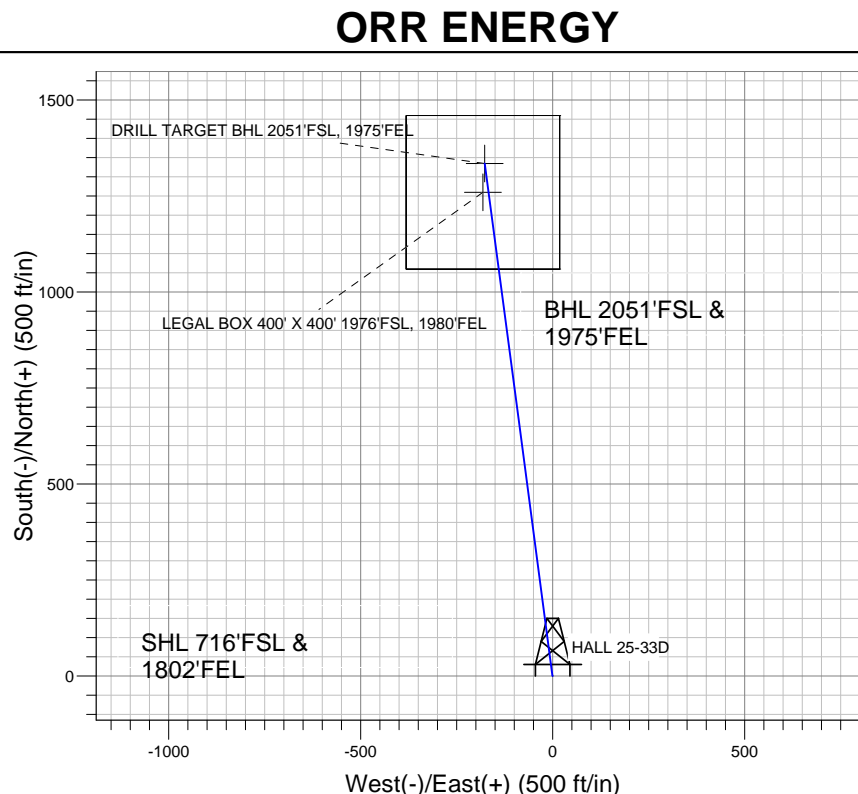
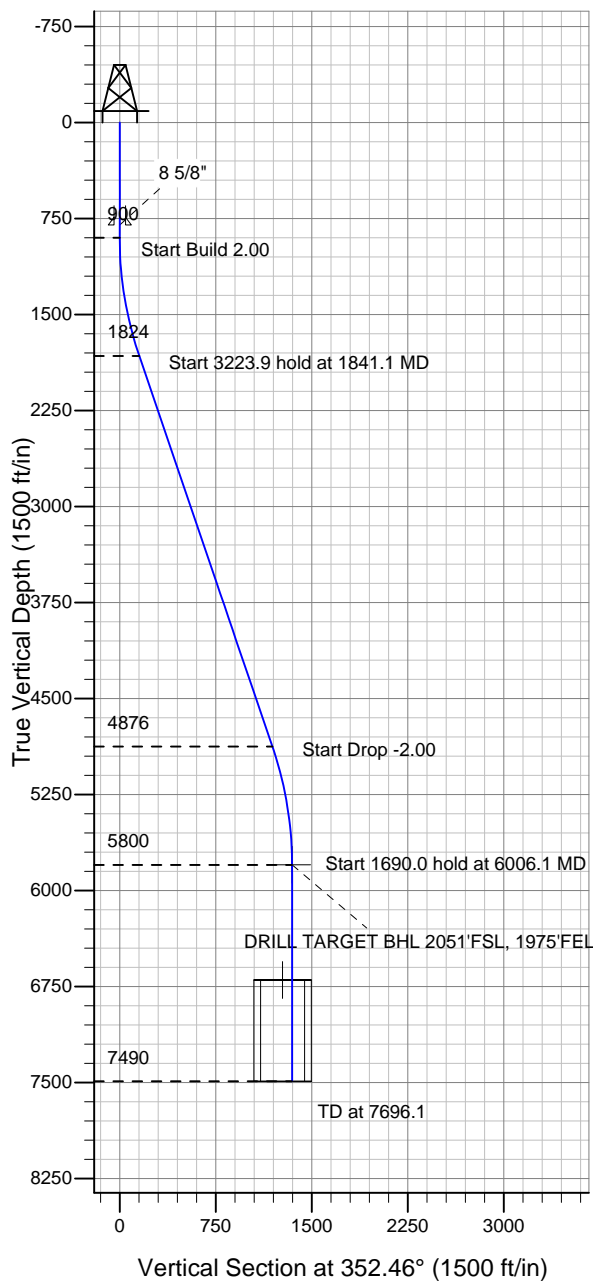


Well Name: HALL 25-33D

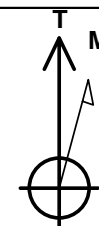
Surface Location: HALL 25-33D SEC.25-T6N-R67W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4721.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1408436.65	3183966.45	40° 27' 9.641 N	104° 50' 20.195 W	
Original Well Elev WELL @ 4734.0ft (Original Well Elev)						



HALL 25-33D SEC.25-T6N-R67W  
HALL 25-33D  
Plan #3 (11-24-10)  
17:33, November 30 2010



Azimuths to True North  
Magnetic North:  $8.98^\circ$

Magnetic Field  
Strength: 53210.6snT  
Dip Angle: 67.10°  
Date: 11/24/2010  
Model: IGRF2010

## WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
DRILL TARGET BHL 2051'FSL, 1975'FEL	5800.0	1334.9	-176.7	40° 27' 22.831 N	104° 50' 22.481 W	Point
LEGAL BOX 400' X 400' 1976'FSL, 1980'FEL	6700.0	1259.9	-181.7	40° 27' 22.090 N	104° 50' 22.545 W	Rectangle (Sides: L400.0 W400.0)

## 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	900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.0	
3	1841.1	18.82	352.46	1824.3	151.9	-20.1	2.00	352.46	153.2	
4	5065.0	18.82	352.46	4875.7	1183.0	-156.6	0.00	0.00	1193.3	
5	6006.1	0.00	0.00	5800.0	1334.9	-176.7	2.00	180.00	1346.5	DRILL TARGET BHL 2051'FSL, 1975'FEL
6	7696.1	0.00	0.00	7490.0	1334.9	-176.7	0.00	0.00	1346.5	



## **Directional**

### **ORR ENERGY**

**SEC.25-T6N-R67W**

**HALL 25-33D SEC.25-T6N-R67W**

**HALL 25-33D**

**Wellbore #1**

**Plan: Plan #3 (11-24-10)**

## **Standard Planning Report**

**30 November, 2010**

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well HALL 25-33D
<b>Company:</b>	ORR ENERGY	<b>TVD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Project:</b>	SEC.25-T6N-R67W	<b>MD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Site:</b>	HALL 25-33D SEC.25-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	HALL 25-33D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #3 (11-24-10)		

<b>Project</b>	SEC.25-T6N-R67W, Weld County, Colorado		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site		HALL 25-33D SEC.25-T6N-R67W				
Site Position:		Northing:	1,408,436.66 ft	Latitude:	40° 27' 9.641 N	
From:	Lat/Long	Easting:	3,183,966.45 ft	Longitude:	104° 50' 20.195 W	
Position Uncertainty:		0.0 ft	Slot Radius:	"	Grid Convergence:	0.43 °

Well	HALL 25-33D					
Well Position	+N-S	0.0 ft	Northing:	1,408,436.65 ft	Latitude:	40° 27' 9.641 N
	+E-W	0.0 ft	Easting:	3,183,966.45 ft	Longitude:	104° 50' 20.195 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,721.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	11/24/2010	8.98	67.10	53,211

<b>Design</b>	Plan #3 (11-24-10)			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	352.46

<b>Plan Sections</b>										
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	
900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,841.1	18.82	352.46	1,824.3	151.9	-20.1	2.00	2.00	0.00	352.46	
5,065.0	18.82	352.46	4,875.7	1,183.0	-156.6	0.00	0.00	0.00	0.00	
6,006.1	0.00	0.00	5,800.0	1,334.9	-176.7	2.00	-2.00	0.00	180.00	DRILL TARGET BH-
7,696.1	0.00	0.00	7,490.0	1,334.9	-176.7	0.00	0.00	0.00	0.00	

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well HALL 25-33D
<b>Company:</b>	ORR ENERGY	<b>TVD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Project:</b>	SEC.25-T6N-R67W	<b>MD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Site:</b>	HALL 25-33D SEC.25-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	HALL 25-33D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #3 (11-24-10)		

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	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
680.0	0.00	0.00	680.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	0.00
760.0	0.00	0.00	760.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
8 5/8"									
840.0	0.00	0.00	840.0	0.0	0.0	0.0	0.00	0.00	0.00
880.0	0.00	0.00	880.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
920.0	0.40	352.46	920.0	0.1	0.0	0.1	2.00	2.00	0.00
960.0	1.20	352.46	960.0	0.6	-0.1	0.6	2.00	2.00	0.00
1,000.0	2.00	352.46	1,000.0	1.7	-0.2	1.7	2.00	2.00	0.00
1,040.0	2.80	352.46	1,039.9	3.4	-0.4	3.4	2.00	2.00	0.00
1,080.0	3.60	352.46	1,079.9	5.6	-0.7	5.7	2.00	2.00	0.00
1,120.0	4.40	352.46	1,119.8	8.4	-1.1	8.4	2.00	2.00	0.00
1,160.0	5.20	352.46	1,159.6	11.7	-1.5	11.8	2.00	2.00	0.00
1,200.0	6.00	352.46	1,199.5	15.6	-2.1	15.7	2.00	2.00	0.00
1,240.0	6.80	352.46	1,239.2	20.0	-2.6	20.2	2.00	2.00	0.00
1,280.0	7.60	352.46	1,278.9	24.9	-3.3	25.2	2.00	2.00	0.00
1,320.0	8.40	352.46	1,318.5	30.5	-4.0	30.7	2.00	2.00	0.00
1,360.0	9.20	352.46	1,358.0	36.5	-4.8	36.9	2.00	2.00	0.00
1,400.0	10.00	352.46	1,397.5	43.1	-5.7	43.5	2.00	2.00	0.00
1,440.0	10.80	352.46	1,436.8	50.3	-6.7	50.7	2.00	2.00	0.00
1,480.0	11.60	352.46	1,476.0	58.0	-7.7	58.5	2.00	2.00	0.00
1,520.0	12.40	352.46	1,515.2	66.3	-8.8	66.8	2.00	2.00	0.00
1,560.0	13.20	352.46	1,554.2	75.0	-9.9	75.7	2.00	2.00	0.00
1,600.0	14.00	352.46	1,593.1	84.4	-11.2	85.1	2.00	2.00	0.00
1,640.0	14.80	352.46	1,631.8	94.2	-12.5	95.0	2.00	2.00	0.00
1,680.0	15.60	352.46	1,670.4	104.6	-13.8	105.5	2.00	2.00	0.00
1,720.0	16.40	352.46	1,708.8	115.5	-15.3	116.6	2.00	2.00	0.00
1,760.0	17.20	352.46	1,747.1	127.0	-16.8	128.1	2.00	2.00	0.00
1,800.0	18.00	352.46	1,785.3	139.0	-18.4	140.2	2.00	2.00	0.00
1,840.0	18.80	352.46	1,823.2	151.5	-20.1	152.8	2.00	2.00	0.00
1,841.1	18.82	352.46	1,824.3	151.9	-20.1	153.2	2.00	2.00	0.00
1,880.0	18.82	352.46	1,861.1	164.3	-21.8	165.7	0.00	0.00	0.00
1,920.0	18.82	352.46	1,898.9	177.1	-23.4	178.6	0.00	0.00	0.00
1,960.0	18.82	352.46	1,936.8	189.9	-25.1	191.6	0.00	0.00	0.00
2,000.0	18.82	352.46	1,974.7	202.7	-26.8	204.5	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well HALL 25-33D
<b>Company:</b>	ORR ENERGY	<b>TVD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Project:</b>	SEC.25-T6N-R67W	<b>MD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Site:</b>	HALL 25-33D SEC.25-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	HALL 25-33D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #3 (11-24-10)		

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	18.82	352.46	2,012.5	215.5	-28.5	217.4	0.00	0.00	0.00
2,080.0	18.82	352.46	2,050.4	228.3	-30.2	230.3	0.00	0.00	0.00
2,120.0	18.82	352.46	2,088.3	241.1	-31.9	243.2	0.00	0.00	0.00
2,160.0	18.82	352.46	2,126.1	253.9	-33.6	256.1	0.00	0.00	0.00
2,200.0	18.82	352.46	2,164.0	266.7	-35.3	269.0	0.00	0.00	0.00
2,240.0	18.82	352.46	2,201.8	279.5	-37.0	281.9	0.00	0.00	0.00
2,280.0	18.82	352.46	2,239.7	292.2	-38.7	294.8	0.00	0.00	0.00
2,320.0	18.82	352.46	2,277.6	305.0	-40.4	307.7	0.00	0.00	0.00
2,360.0	18.82	352.46	2,315.4	317.8	-42.1	320.6	0.00	0.00	0.00
2,400.0	18.82	352.46	2,353.3	330.6	-43.8	333.5	0.00	0.00	0.00
2,440.0	18.82	352.46	2,391.1	343.4	-45.5	346.4	0.00	0.00	0.00
2,480.0	18.82	352.46	2,429.0	356.2	-47.2	359.3	0.00	0.00	0.00
2,520.0	18.82	352.46	2,466.9	369.0	-48.9	372.2	0.00	0.00	0.00
2,560.0	18.82	352.46	2,504.7	381.8	-50.5	385.1	0.00	0.00	0.00
2,600.0	18.82	352.46	2,542.6	394.6	-52.2	398.0	0.00	0.00	0.00
2,640.0	18.82	352.46	2,580.4	407.4	-53.9	410.9	0.00	0.00	0.00
2,680.0	18.82	352.46	2,618.3	420.2	-55.6	423.8	0.00	0.00	0.00
2,720.0	18.82	352.46	2,656.2	433.0	-57.3	436.8	0.00	0.00	0.00
2,760.0	18.82	352.46	2,694.0	445.8	-59.0	449.7	0.00	0.00	0.00
2,800.0	18.82	352.46	2,731.9	458.6	-60.7	462.6	0.00	0.00	0.00
2,840.0	18.82	352.46	2,769.7	471.4	-62.4	475.5	0.00	0.00	0.00
2,880.0	18.82	352.46	2,807.6	484.2	-64.1	488.4	0.00	0.00	0.00
2,920.0	18.82	352.46	2,845.5	496.9	-65.8	501.3	0.00	0.00	0.00
2,960.0	18.82	352.46	2,883.3	509.7	-67.5	514.2	0.00	0.00	0.00
3,000.0	18.82	352.46	2,921.2	522.5	-69.2	527.1	0.00	0.00	0.00
3,040.0	18.82	352.46	2,959.1	535.3	-70.9	540.0	0.00	0.00	0.00
3,080.0	18.82	352.46	2,996.9	548.1	-72.6	552.9	0.00	0.00	0.00
3,120.0	18.82	352.46	3,034.8	560.9	-74.3	565.8	0.00	0.00	0.00
3,160.0	18.82	352.46	3,072.6	573.7	-75.9	578.7	0.00	0.00	0.00
3,200.0	18.82	352.46	3,110.5	586.5	-77.6	591.6	0.00	0.00	0.00
3,240.0	18.82	352.46	3,148.4	599.3	-79.3	604.5	0.00	0.00	0.00
3,280.0	18.82	352.46	3,186.2	612.1	-81.0	617.4	0.00	0.00	0.00
3,320.0	18.82	352.46	3,224.1	624.9	-82.7	630.3	0.00	0.00	0.00
3,360.0	18.82	352.46	3,261.9	637.7	-84.4	643.2	0.00	0.00	0.00
3,400.0	18.82	352.46	3,299.8	650.5	-86.1	656.1	0.00	0.00	0.00
3,440.0	18.82	352.46	3,337.7	663.3	-87.8	669.0	0.00	0.00	0.00
3,480.0	18.82	352.46	3,375.5	676.1	-89.5	682.0	0.00	0.00	0.00
3,520.0	18.82	352.46	3,413.4	688.8	-91.2	694.9	0.00	0.00	0.00
3,560.0	18.82	352.46	3,451.2	701.6	-92.9	707.8	0.00	0.00	0.00
3,600.0	18.82	352.46	3,489.1	714.4	-94.6	720.7	0.00	0.00	0.00
3,640.0	18.82	352.46	3,527.0	727.2	-96.3	733.6	0.00	0.00	0.00
3,680.0	18.82	352.46	3,564.8	740.0	-98.0	746.5	0.00	0.00	0.00
3,720.0	18.82	352.46	3,602.7	752.8	-99.7	759.4	0.00	0.00	0.00
3,760.0	18.82	352.46	3,640.6	765.6	-101.4	772.3	0.00	0.00	0.00
3,800.0	18.82	352.46	3,678.4	778.4	-103.0	785.2	0.00	0.00	0.00
3,840.0	18.82	352.46	3,716.3	791.2	-104.7	798.1	0.00	0.00	0.00
3,880.0	18.82	352.46	3,754.1	804.0	-106.4	811.0	0.00	0.00	0.00
3,920.0	18.82	352.46	3,792.0	816.8	-108.1	823.9	0.00	0.00	0.00
3,960.0	18.82	352.46	3,829.9	829.6	-109.8	836.8	0.00	0.00	0.00
4,000.0	18.82	352.46	3,867.7	842.4	-111.5	849.7	0.00	0.00	0.00
4,040.0	18.82	352.46	3,905.6	855.2	-113.2	862.6	0.00	0.00	0.00
4,080.0	18.82	352.46	3,943.4	868.0	-114.9	875.5	0.00	0.00	0.00
4,120.0	18.82	352.46	3,981.3	880.8	-116.6	888.4	0.00	0.00	0.00
4,160.0	18.82	352.46	4,019.2	893.5	-118.3	901.3	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well HALL 25-33D
<b>Company:</b>	ORR ENERGY	<b>TVD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Project:</b>	SEC.25-T6N-R67W	<b>MD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Site:</b>	HALL 25-33D SEC.25-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	HALL 25-33D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #3 (11-24-10)		

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	18.82	352.46	4,057.0	906.3	-120.0	914.2	0.00	0.00	0.00
4,240.0	18.82	352.46	4,094.9	919.1	-121.7	927.2	0.00	0.00	0.00
4,280.0	18.82	352.46	4,132.7	931.9	-123.4	940.1	0.00	0.00	0.00
4,320.0	18.82	352.46	4,170.6	944.7	-125.1	953.0	0.00	0.00	0.00
4,360.0	18.82	352.46	4,208.5	957.5	-126.8	965.9	0.00	0.00	0.00
4,400.0	18.82	352.46	4,246.3	970.3	-128.5	978.8	0.00	0.00	0.00
4,440.0	18.82	352.46	4,284.2	983.1	-130.1	991.7	0.00	0.00	0.00
4,480.0	18.82	352.46	4,322.0	995.9	-131.8	1,004.6	0.00	0.00	0.00
4,520.0	18.82	352.46	4,359.9	1,008.7	-133.5	1,017.5	0.00	0.00	0.00
4,560.0	18.82	352.46	4,397.8	1,021.5	-135.2	1,030.4	0.00	0.00	0.00
4,600.0	18.82	352.46	4,435.6	1,034.3	-136.9	1,043.3	0.00	0.00	0.00
4,640.0	18.82	352.46	4,473.5	1,047.1	-138.6	1,056.2	0.00	0.00	0.00
4,680.0	18.82	352.46	4,511.4	1,059.9	-140.3	1,069.1	0.00	0.00	0.00
4,720.0	18.82	352.46	4,549.2	1,072.7	-142.0	1,082.0	0.00	0.00	0.00
4,760.0	18.82	352.46	4,587.1	1,085.5	-143.7	1,094.9	0.00	0.00	0.00
4,800.0	18.82	352.46	4,624.9	1,098.2	-145.4	1,107.8	0.00	0.00	0.00
4,840.0	18.82	352.46	4,662.8	1,111.0	-147.1	1,120.7	0.00	0.00	0.00
4,880.0	18.82	352.46	4,700.7	1,123.8	-148.8	1,133.6	0.00	0.00	0.00
4,920.0	18.82	352.46	4,738.5	1,136.6	-150.5	1,146.5	0.00	0.00	0.00
4,960.0	18.82	352.46	4,776.4	1,149.4	-152.2	1,159.4	0.00	0.00	0.00
5,000.0	18.82	352.46	4,814.2	1,162.2	-153.9	1,172.4	0.00	0.00	0.00
5,040.0	18.82	352.46	4,852.1	1,175.0	-155.6	1,185.3	0.00	0.00	0.00
5,065.0	18.82	352.46	4,875.7	1,183.0	-156.6	1,193.3	0.00	0.00	0.00
5,080.0	18.52	352.46	4,890.0	1,187.8	-157.2	1,198.1	2.00	-2.00	0.00
5,120.0	17.72	352.46	4,928.0	1,200.1	-158.9	1,210.6	2.00	-2.00	0.00
5,160.0	16.92	352.46	4,966.2	1,211.9	-160.4	1,222.5	2.00	-2.00	0.00
5,200.0	16.12	352.46	5,004.5	1,223.2	-161.9	1,233.9	2.00	-2.00	0.00
5,240.0	15.32	352.46	5,043.0	1,233.9	-163.4	1,244.7	2.00	-2.00	0.00
5,280.0	14.52	352.46	5,081.7	1,244.1	-164.7	1,255.0	2.00	-2.00	0.00
5,320.0	13.72	352.46	5,120.5	1,253.8	-166.0	1,264.7	2.00	-2.00	0.00
5,360.0	12.92	352.46	5,159.4	1,262.9	-167.2	1,274.0	2.00	-2.00	0.00
5,400.0	12.12	352.46	5,198.4	1,271.5	-168.3	1,282.6	2.00	-2.00	0.00
5,440.0	11.32	352.46	5,237.6	1,279.6	-169.4	1,290.8	2.00	-2.00	0.00
5,480.0	10.52	352.46	5,276.9	1,287.1	-170.4	1,298.3	2.00	-2.00	0.00
5,520.0	9.72	352.46	5,316.3	1,294.1	-171.3	1,305.4	2.00	-2.00	0.00
5,560.0	8.92	352.46	5,355.7	1,300.5	-172.2	1,311.8	2.00	-2.00	0.00
5,600.0	8.12	352.46	5,395.3	1,306.4	-172.9	1,317.8	2.00	-2.00	0.00
5,640.0	7.32	352.46	5,434.9	1,311.7	-173.6	1,323.2	2.00	-2.00	0.00
5,680.0	6.52	352.46	5,474.6	1,316.5	-174.3	1,328.0	2.00	-2.00	0.00
5,720.0	5.72	352.46	5,514.4	1,320.7	-174.8	1,332.2	2.00	-2.00	0.00
5,760.0	4.92	352.46	5,554.2	1,324.4	-175.3	1,335.9	2.00	-2.00	0.00
5,800.0	4.12	352.46	5,594.1	1,327.5	-175.7	1,339.1	2.00	-2.00	0.00
5,840.0	3.32	352.46	5,634.0	1,330.1	-176.1	1,341.7	2.00	-2.00	0.00
5,880.0	2.52	352.46	5,674.0	1,332.1	-176.3	1,343.7	2.00	-2.00	0.00
5,920.0	1.72	352.46	5,713.9	1,333.6	-176.5	1,345.2	2.00	-2.00	0.00
5,960.0	0.92	352.46	5,753.9	1,334.5	-176.7	1,346.1	2.00	-2.00	0.00
6,000.0	0.12	352.46	5,793.9	1,334.9	-176.7	1,346.5	2.00	-2.00	0.00
6,006.1	0.00	0.00	5,800.0	1,334.9	-176.7	1,346.5	2.00	-2.00	0.00
DRILL TARGET BHL 2051'FSL, 1975'FEL									
6,040.0	0.00	0.00	5,833.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,080.0	0.00	0.00	5,873.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,120.0	0.00	0.00	5,913.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,160.0	0.00	0.00	5,953.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,200.0	0.00	0.00	5,993.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well HALL 25-33D
<b>Company:</b>	ORR ENERGY	<b>TVD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Project:</b>	SEC.25-T6N-R67W	<b>MD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Site:</b>	HALL 25-33D SEC.25-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	HALL 25-33D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #3 (11-24-10)		

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	6,033.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,280.0	0.00	0.00	6,073.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,320.0	0.00	0.00	6,113.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,360.0	0.00	0.00	6,153.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,400.0	0.00	0.00	6,193.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,440.0	0.00	0.00	6,233.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,480.0	0.00	0.00	6,273.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,520.0	0.00	0.00	6,313.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,560.0	0.00	0.00	6,353.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,600.0	0.00	0.00	6,393.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,640.0	0.00	0.00	6,433.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,680.0	0.00	0.00	6,473.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,720.0	0.00	0.00	6,513.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,760.0	0.00	0.00	6,553.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,800.0	0.00	0.00	6,593.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,840.0	0.00	0.00	6,633.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,880.0	0.00	0.00	6,673.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,906.1	0.00	0.00	6,700.0	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
LEGAL BOX 400' X 400' 1976'FSL, 1980'FEL									
6,920.0	0.00	0.00	6,713.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
6,960.0	0.00	0.00	6,753.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
7,000.0	0.00	0.00	6,793.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
7,040.0	0.00	0.00	6,833.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
7,080.0	0.00	0.00	6,873.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
7,120.0	0.00	0.00	6,913.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
7,160.0	0.00	0.00	6,953.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
7,200.0	0.00	0.00	6,993.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
7,231.1	0.00	0.00	7,025.0	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
CODELL									
7,240.0	0.00	0.00	7,033.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
7,280.0	0.00	0.00	7,073.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
7,320.0	0.00	0.00	7,113.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
7,360.0	0.00	0.00	7,153.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
7,400.0	0.00	0.00	7,193.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
7,440.0	0.00	0.00	7,233.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
7,480.0	0.00	0.00	7,273.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
7,520.0	0.00	0.00	7,313.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
7,560.0	0.00	0.00	7,353.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
7,600.0	0.00	0.00	7,393.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
7,640.0	0.00	0.00	7,433.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
7,680.0	0.00	0.00	7,473.9	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
7,696.1	0.00	0.00	7,490.0	1,334.9	-176.7	1,346.5	0.00	0.00	0.00
J SAND									

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well HALL 25-33D
<b>Company:</b>	ORR ENERGY	<b>TVD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Project:</b>	SEC.25-T6N-R67W	<b>MD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Site:</b>	HALL 25-33D SEC.25-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	HALL 25-33D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #3 (11-24-10)		

Targets									
Target Name									
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
LEGAL BOX 400' X 400'	0.00	0.00	6,700.0	1,259.9	-181.7	1,409,695.11	3,183,775.37	40° 27' 22.090 N	104° 50' 22.545 W
- plan misses by 75.1ft at 6906.1ft MD (6700.0 TVD, 1334.9 N, -176.7 E)									
- Rectangle (sides W400.0 H400.0 D790.0)									
DRILL TARGET BHL	0.00	0.00	5,800.0	1,334.9	-176.7	1,409,770.11	3,183,779.80	40° 27' 22.831 N	104° 50' 22.481 W
- plan hits target									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
800.0	800.0	8 5/8"	8-5/8	12-1/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
7,231.1	7,025.0	CODELL		0.00		
7,696.1	7,490.0	J SAND		0.00		





## **Directional**

### **ORR ENERGY**

**SEC.25-T6N-R67W**

**HALL 25-33D SEC.25-T6N-R67W**

**HALL 25-33D**

**Wellbore #1**

**Plan #3 (11-24-10)**

## **Anticollision Report**

**30 November, 2010**

<b>Company:</b>	ORR ENERGY	<b>Local Co-ordinate Reference:</b>	Well HALL 25-33D
<b>Project:</b>	SEC.25-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Reference Site:</b>	HALL 25-33D SEC.25-T6N-R67W	<b>MD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	HALL 25-33D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (11-24-10)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #3 (11-24-10)		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.0ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b> 11/30/2010			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	7,695.9	Plan #3 (11-24-10) (Wellbore #1)	MWD	MWD - Standard

<b>Summary</b>						
<b>Site Name</b>	<b>Reference Measured Depth (ft)</b>	<b>Offset Measured Depth (ft)</b>	<b>Distance Between Centres (ft)</b>	<b>Distance Between Ellipses (ft)</b>	<b>Separation Factor</b>	<b>Warning</b>
<b>Offset Well - Wellbore - Design</b>						
HALL 25-33D SEC.25-T6N-R67W						
Hall 25-34 (Vert.) - Wellbore #1 - Design #1	900.0	901.0	20.0	17.1	6.842	CC
Hall 25-34 (Vert.) - Wellbore #1 - Design #1	1,000.0	1,001.0	20.3	17.0	6.229	ES
Hall 25-34 (Vert.) - Wellbore #1 - Design #1	1,100.0	1,100.8	22.0	18.4	6.129	SF

<b>Offset Design</b> HALL 25-33D SEC.25-T6N-R67W - Hall 25-34 (Vert.) - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0ft
<b>Survey Program:</b> 0-MWD												<b>Offset Well Error:</b>	0.0ft
<b>Reference</b>	<b>Offset</b>	<b>Semi Major Axis</b>		<b>Distance</b>									
<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Reference (ft)</b>	<b>Offset (ft)</b>	<b>Highside Toolface (°)</b>	<b>Offset Wellbore Centre +N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Between Centres (ft)</b>	<b>Between Ellipses (ft)</b>	<b>Minimum Separation (ft)</b>	<b>Separation Factor</b>	<b>Warning</b>
0.0	0.0	1.0	1.0	0.0	0.0	90.01	0.0	20.0	20.0	20.0	0.00	N/A	
100.0	100.0	101.0	101.0	0.1	0.1	90.01	0.0	20.0	20.0	19.8	0.23	88.462	
200.0	200.0	201.0	201.0	0.3	0.2	90.01	0.0	20.0	20.0	19.4	0.56	35.509	
300.0	300.0	301.0	301.0	0.6	0.3	90.01	0.0	20.0	20.0	19.1	0.90	22.213	
400.0	400.0	401.0	401.0	0.8	0.5	90.01	0.0	20.0	20.0	18.8	1.24	16.161	
500.0	500.0	501.0	501.0	1.0	0.6	90.01	0.0	20.0	20.0	18.4	1.57	12.701	
600.0	600.0	601.0	601.0	1.2	0.7	90.01	0.0	20.0	20.0	18.1	1.91	10.461	
700.0	700.0	701.0	701.0	1.5	0.8	90.01	0.0	20.0	20.0	17.8	2.25	8.893	
800.0	800.0	801.0	801.0	1.7	0.9	90.01	0.0	20.0	20.0	17.4	2.59	7.734	
900.0	900.0	901.0	901.0	1.9	1.0	90.01	0.0	20.0	20.0	17.1	2.92	6.842	CC
1,000.0	1,000.0	1,001.0	1,001.0	2.1	1.1	102.43	0.0	20.0	20.3	17.0	3.26	6.229	ES
1,100.0	1,099.8	1,100.8	1,100.8	2.4	1.2	115.80	0.0	20.0	22.0	18.4	3.59	6.129	SF
1,200.0	1,199.5	1,200.5	1,200.5	2.6	1.3	132.59	0.0	20.0	27.0	23.1	3.93	6.869	
1,300.0	1,298.7	1,299.7	1,299.7	2.8	1.5	146.73	0.0	20.0	36.4	32.1	4.26	8.534	
1,400.0	1,397.5	1,398.5	1,398.5	3.1	1.6	156.43	0.0	20.0	50.2	45.6	4.59	10.935	
1,500.0	1,495.6	1,496.6	1,496.6	3.4	1.7	162.74	0.0	20.0	68.2	63.3	4.92	13.852	
1,600.0	1,593.1	1,594.1	1,594.1	3.8	1.8	166.89	0.0	20.0	89.9	84.7	5.25	17.130	
1,700.0	1,689.6	1,690.6	1,690.6	4.2	1.9	169.71	0.0	20.0	115.3	109.7	5.58	20.664	
1,800.0	1,785.3	1,786.3	1,786.3	4.6	2.0	171.70	0.0	20.0	144.2	138.3	5.91	24.382	
1,841.1	1,824.3	1,825.3	1,825.3	4.9	2.1	172.34	0.0	20.0	157.1	151.0	6.05	25.951	
1,900.0	1,880.0	1,881.0	1,881.0	5.2	2.1	173.17	0.0	20.0	175.9	169.7	6.27	28.040	
2,000.0	1,974.7	1,975.7	1,975.7	5.7	2.2	174.22	0.0	20.0	208.0	201.4	6.66	31.253	
2,100.0	2,069.3	2,070.3	2,070.3	6.3	2.3	175.00	0.0	20.0	240.2	233.1	7.04	34.097	
2,200.0	2,164.0	2,165.0	2,165.0	6.9	2.4	175.59	0.0	20.0	272.3	264.9	7.44	36.625	

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

<b>Company:</b>	ORR ENERGY	<b>Local Co-ordinate Reference:</b>	Well HALL 25-33D
<b>Project:</b>	SEC.25-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Reference Site:</b>	HALL 25-33D SEC.25-T6N-R67W	<b>MD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	HALL 25-33D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (11-24-10)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design HALL 25-33D SEC.25-T6N-R67W - Hall 25-34 (Vert.) - Wellbore #1 - Design #1												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	
2,300.0	2,258.6	2,259.6	2,259.6	7.5	2.5	176.06	0.0	20.0	304.5	296.7	7.83	38.884	
2,400.0	2,353.3	2,354.3	2,354.3	8.1	2.6	176.43	0.0	20.0	336.7	328.5	8.23	40.911	
2,500.0	2,447.9	2,448.9	2,448.9	8.7	2.8	176.75	0.0	20.0	368.9	360.3	8.63	42.738	
2,600.0	2,542.6	2,543.6	2,543.6	9.3	2.9	177.01	0.0	20.0	401.2	392.1	9.04	44.391	
2,700.0	2,637.2	2,638.2	2,638.2	9.9	3.0	177.23	0.0	20.0	433.4	423.9	9.44	45.894	
2,800.0	2,731.9	2,732.9	2,732.9	10.5	3.1	177.42	0.0	20.0	465.6	455.8	9.85	47.264	
2,900.0	2,826.5	2,827.5	2,827.5	11.1	3.2	177.59	0.0	20.0	497.9	487.6	10.26	48.519	
3,000.0	2,921.2	2,922.2	2,922.2	11.7	3.3	177.74	0.0	20.0	530.1	519.4	10.67	49.672	
3,100.0	3,015.8	3,016.8	3,016.8	12.4	3.4	177.87	0.0	20.0	562.3	551.2	11.08	50.733	
3,200.0	3,110.5	3,111.5	3,111.5	13.0	3.5	177.98	0.0	20.0	594.6	583.1	11.50	51.714	
3,300.0	3,205.1	3,206.1	3,206.1	13.6	3.6	178.09	0.0	20.0	626.8	614.9	11.91	52.623	
3,400.0	3,299.8	3,300.8	3,300.8	14.3	3.7	178.18	0.0	20.0	659.1	646.7	12.33	53.468	
3,500.0	3,394.5	3,395.5	3,395.5	14.9	3.8	178.26	0.0	20.0	691.3	678.6	12.74	54.254	
3,600.0	3,489.1	3,490.1	3,490.1	15.5	3.9	178.34	0.0	20.0	723.6	710.4	13.16	54.988	
3,700.0	3,583.8	3,584.8	3,584.8	16.2	4.0	178.41	0.0	20.0	755.8	742.2	13.58	55.674	
3,800.0	3,678.4	3,679.4	3,679.4	16.8	4.1	178.48	0.0	20.0	788.1	774.1	13.99	56.317	
3,900.0	3,773.1	3,774.1	3,774.1	17.4	4.2	178.54	0.0	20.0	820.3	805.9	14.41	56.921	
4,000.0	3,867.7	3,868.7	3,868.7	18.1	4.3	178.59	0.0	20.0	852.6	837.8	14.83	57.490	
4,100.0	3,962.4	3,963.4	3,963.4	18.7	4.5	178.64	0.0	20.0	884.8	869.6	15.25	58.025	
4,200.0	4,057.0	4,058.0	4,058.0	19.3	4.6	178.69	0.0	20.0	917.1	901.4	15.67	58.531	
4,300.0	4,151.7	4,152.7	4,152.7	20.0	4.7	178.74	0.0	20.0	949.3	933.3	16.09	59.008	
4,400.0	4,246.3	4,247.3	4,247.3	20.6	4.8	178.78	0.0	20.0	981.6	965.1	16.51	59.461	
4,500.0	4,341.0	4,342.0	4,342.0	21.3	4.9	178.82	0.0	20.0	1,013.9	996.9	16.93	59.890	
4,600.0	4,435.6	4,436.6	4,436.6	21.9	5.0	178.85	0.0	20.0	1,046.1	1,028.8	17.35	60.297	
4,700.0	4,530.3	4,531.3	4,531.3	22.5	5.1	178.89	0.0	20.0	1,078.4	1,060.6	17.77	60.684	
4,800.0	4,624.9	4,625.9	4,625.9	23.2	5.2	178.92	0.0	20.0	1,110.6	1,092.4	18.19	61.053	
4,900.0	4,719.6	4,720.6	4,720.6	23.8	5.3	178.95	0.0	20.0	1,142.9	1,124.3	18.61	61.404	
5,000.0	4,814.2	4,815.2	4,815.2	24.4	5.5	178.98	0.0	20.0	1,175.1	1,156.0	19.12	61.469	
5,065.0	4,875.7	4,876.7	4,876.7	24.9	5.6	179.00	0.0	20.0	1,196.1	1,176.6	19.46	61.478	
5,100.0	4,909.0	4,910.0	4,910.0	25.1	5.7	179.01	0.0	20.0	1,207.2	1,187.6	19.65	61.448	
5,200.0	5,004.5	5,005.5	5,005.5	25.5	5.9	179.04	0.0	20.0	1,236.6	1,216.5	20.15	61.371	
5,300.0	5,101.1	5,102.1	5,102.1	25.9	6.1	179.07	0.0	20.0	1,262.7	1,242.1	20.63	61.211	
5,400.0	5,198.4	5,199.4	5,199.4	26.3	6.4	179.10	0.0	20.0	1,285.4	1,264.3	21.08	60.978	
5,500.0	5,296.6	5,297.6	5,297.6	26.7	6.6	179.12	0.0	20.0	1,304.7	1,283.2	21.50	60.678	
5,600.0	5,395.3	5,396.3	5,396.3	27.0	6.8	179.13	0.0	20.0	1,320.6	1,298.7	21.89	60.317	
5,700.0	5,494.5	5,495.5	5,495.5	27.2	7.0	179.14	0.0	20.0	1,332.9	1,310.7	22.25	59.898	
5,800.0	5,594.1	5,595.1	5,595.1	27.4	7.3	179.15	0.0	20.0	1,341.9	1,319.3	22.58	59.424	
5,900.0	5,694.0	5,695.0	5,695.0	27.6	7.5	179.16	0.0	20.0	1,347.3	1,324.4	22.88	58.897	
6,006.1	5,800.0	5,801.0	5,801.0	27.7	7.7	171.62	0.0	20.0	1,349.3	1,326.1	23.15	58.281	
6,100.0	5,893.9	5,894.9	5,894.9	27.8	7.9	171.62	0.0	20.0	1,349.3	1,325.8	23.51	57.389	
6,200.0	5,993.9	5,994.9	5,994.9	27.9	8.2	171.62	0.0	20.0	1,349.3	1,325.4	23.91	56.428	
6,300.0	6,093.9	6,094.9	6,094.9	28.0	8.4	171.62	0.0	20.0	1,349.3	1,325.0	24.31	55.496	
6,400.0	6,193.9	6,194.9	6,194.9	28.1	8.6	171.62	0.0	20.0	1,349.3	1,324.6	24.72	54.592	
6,500.0	6,293.9	6,294.9	6,294.9	28.2	8.8	171.62	0.0	20.0	1,349.3	1,324.2	25.12	53.714	
6,600.0	6,393.9	6,394.9	6,394.9	28.3	9.1	171.62	0.0	20.0	1,349.3	1,323.8	25.52	52.862	
6,700.0	6,493.9	6,494.9	6,494.9	28.4	9.3	171.62	0.0	20.0	1,349.3	1,323.4	25.93	52.034	
6,800.0	6,593.9	6,594.9	6,594.9	28.5	9.5	171.62	0.0	20.0	1,349.3	1,322.9	26.34	51.230	
6,900.0	6,693.9	6,694.9	6,694.9	28.6	9.7	171.62	0.0	20.0	1,349.3	1,322.5	26.75	50.448	
7,000.0	6,793.9	6,794.9	6,794.9	28.7	10.0	171.62	0.0	20.0	1,349.3	1,322.1	27.16	49.688	
7,100.0	6,893.9	6,894.9	6,894.9	28.8	10.2	171.62	0.0	20.0	1,349.3	1,321.7	27.57	48.948	
7,200.0	6,993.9	6,994.9	6,994.9	28.9	10.4	171.62	0.0	20.0	1,349.3	1,321.3	27.98	48.229	
7,300.0	7,093.9	7,094.9	7,094.9	29.0	10.6	171.62	0.0	20.0	1,349.3	1,320.9	28.39	47.530	

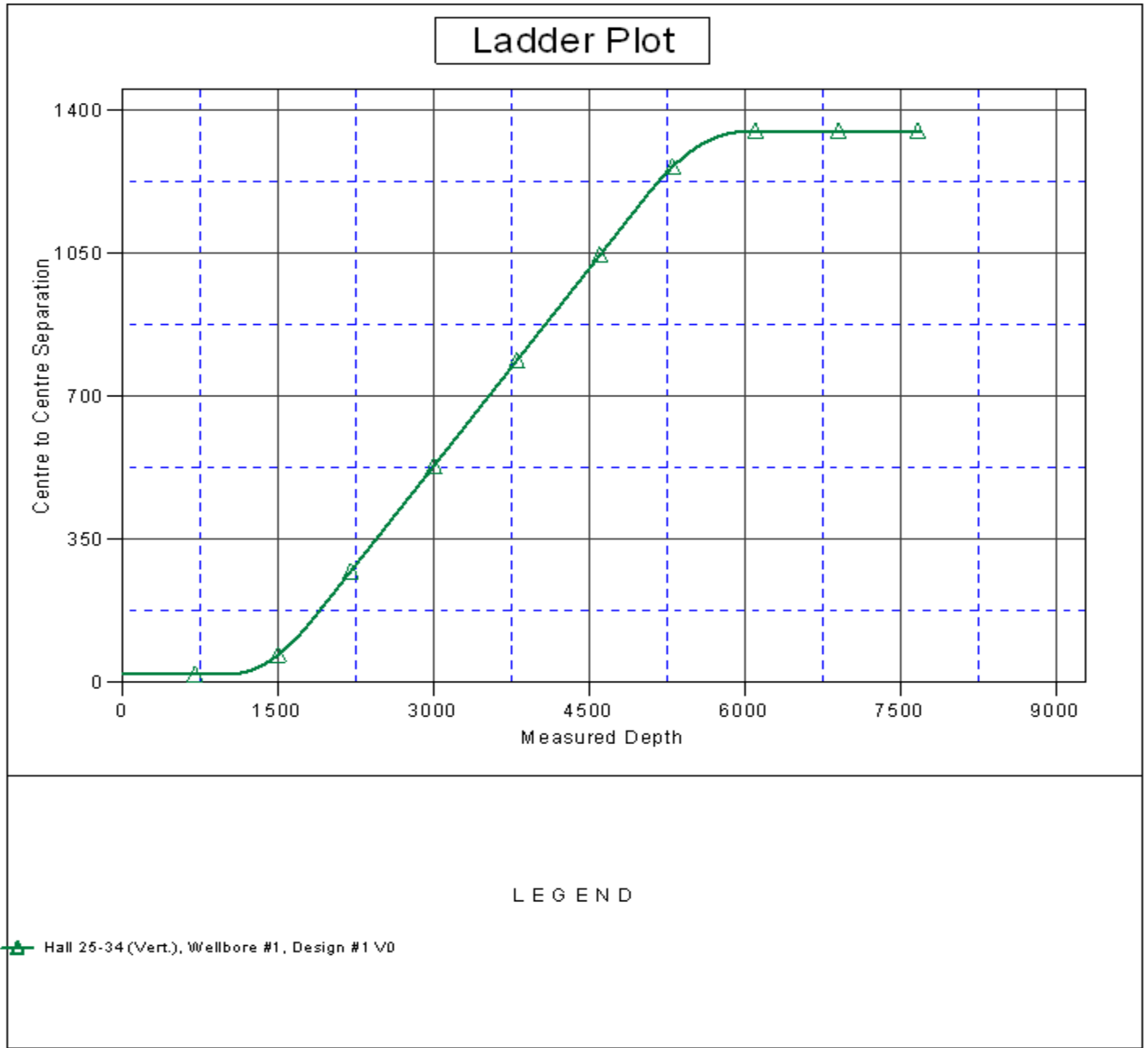
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	ORR ENERGY	<b>Local Co-ordinate Reference:</b>	Well HALL 25-33D
<b>Project:</b>	SEC.25-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Reference Site:</b>	HALL 25-33D SEC.25-T6N-R67W	<b>MD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	HALL 25-33D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (11-24-10)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> HALL 25-33D SEC.25-T6N-R67W - Hall 25-34 (Vert.) - Wellbore #1 - Design #1													<b>Offset Site Error:</b> 0.0 ft
Survey Program: 0-MWD													<b>Offset Well Error:</b> 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
7,400.0	7,193.9	7,194.9	7,194.9	29.2	10.9	171.62	0.0	20.0	1,349.3	1,320.5	28.80	46.848	
7,500.0	7,293.9	7,294.9	7,294.9	29.3	11.1	171.62	0.0	20.0	1,349.3	1,320.1	29.21	46.185	
7,600.0	7,393.9	7,394.9	7,394.9	29.4	11.3	171.62	0.0	20.0	1,349.3	1,319.7	29.63	45.539	
7,663.7	7,457.6	7,458.6	7,458.6	29.5	11.4	171.62	0.0	20.0	1,349.3	1,319.4	29.89	45.136	
7,696.1	7,490.0	7,490.0	7,490.0	29.5	11.5	171.62	0.0	20.0	1,349.3	1,319.3	30.03	44.938	

<b>Company:</b>	ORR ENERGY	<b>Local Co-ordinate Reference:</b>	Well HALL 25-33D
<b>Project:</b>	SEC.25-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Reference Site:</b>	HALL 25-33D SEC.25-T6N-R67W	<b>MD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	HALL 25-33D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (11-24-10)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4734.0ft (Original Well Elev) Coordinates are relative to: HALL 25-33D  
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.43°



<b>Company:</b>	ORR ENERGY	<b>Local Co-ordinate Reference:</b>	Well HALL 25-33D
<b>Project:</b>	SEC.25-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Reference Site:</b>	HALL 25-33D SEC.25-T6N-R67W	<b>MD Reference:</b>	WELL @ 4734.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	HALL 25-33D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (11-24-10)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4734.0ft (Original Well Elev) Coordinates are relative to: HALL 25-33D  
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone  
Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.43°

