

# PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: **Waste Management 2Q-201**

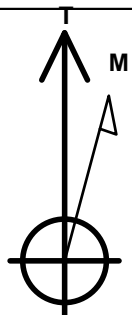
Surface Location: Waste Management 2Q-HZ Pad Sec.2-T2N-R64W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone  
Ground Elevation: 4932.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1302941.47	3273724.23	40.160820	-104.520620	

RKB -15' WELL @ 4947.0ft (RKB -15')

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
BHL 500'FNL, 2495'FWL	7032.0	4531.9	374.5	Point



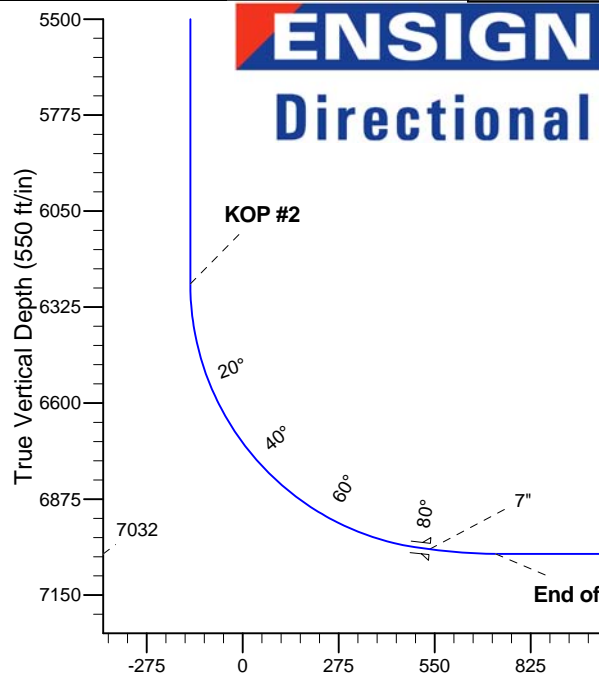
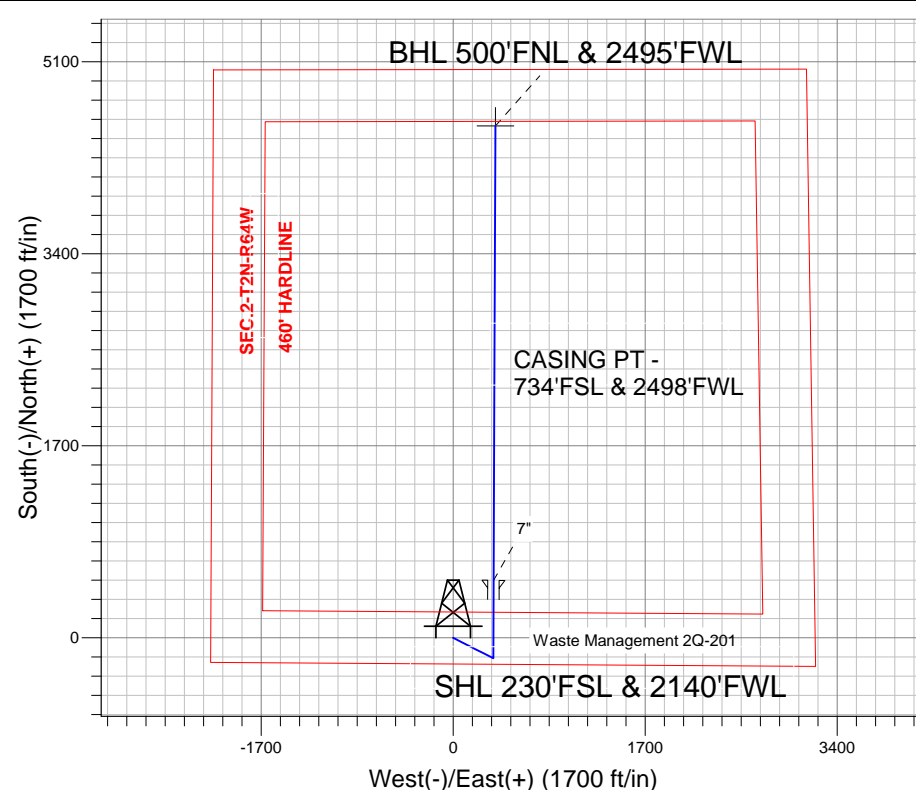
Azimuths to True North  
Magnetic North: 8.49°

Magnetic Field  
Strength: 52857.2snT  
Dip Angle: 66.84°  
Date: 2/6/2013  
Model: IGRF2010

Waste Management 2Q-HZ Pad Sec.2-T2N-R64W  
Waste Management 2Q-201  
Plan #1 (2-06-13)  
8:02, February 08 2013

## ANNOTATIONS

TVD	MD	Annotation
1000.0	1000.0	KOP #1
6258.2	6279.0	KOP #2
7032.0	7593.0	End of Build



## 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	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1307.7	6.15	116.89	1307.1	-7.5	14.7	2.00	116.89	-6.2	
4	4713.1	6.15	116.89	4692.9	-172.5	340.3	0.00	0.00	-143.9	
5	5020.8	0.00	0.00	5000.0	-180.0	355.0	2.00	180.00	-150.2	
6	6279.0	0.00	0.00	6258.2	-180.0	355.0	0.00	0.00	-150.2	
7	7399.0	84.00	0.24	7018.0	504.1	357.9	7.50	0.24	531.8	
8	7473.0	84.00	0.24	7025.7	577.7	358.2	0.00	0.00	605.2	
9	7593.0	90.00	0.24	7032.0	697.5	358.7	5.00	-0.04	724.6	
10	11427.5	90.00	0.24	7032.0	4531.9	374.5	0.00	0.00	4547.3	BHL 500'FNL, 2495'FWL

**BHL 500'FNL, 2495'FWL**

Vertical Section at 4.72° (550 ft/in)



# **PETROLEUM DEVELOPMENT CORP Weld County CO**

**SEC.2-T2N-R64W**

**Waste Management 2Q-HZ Pad Sec.2-T2N-R64W**

**Waste Management 2Q-201**

**Wellbore #1**

**Plan: Plan #1 (2-06-13)**

## **Standard Planning Report**

**08 February, 2013**

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Waste Management 2Q-201
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Project:</b>	SEC.2-T2N-R64W	<b>MD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Site:</b>	Waste Management 2Q-HZ Pad Sec.2-T2N-R64W	<b>North Reference:</b>	True
<b>Well:</b>	Waste Management 2Q-201	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (2-06-13)		

<b>Project</b>	SEC.2-T2N-R64W, 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						Waste Management 2Q-HZ Pad Sec.2-T2N-R64W											
Site Position:						Northing:			1,302,940.51 ft			Latitude:			40.160820		
From:			Lat/Long			Easting:			3,273,634.80 ft			Longitude:			-104.520940		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.63 °		

Well	Waste Management 2Q-201					
Well Position	+N/-S	0.0 ft	Northing:	1,302,941.47 ft	Latitude:	40.160820
	+E/-W	89.4 ft	Easting:	3,273,724.23 ft	Longitude:	-104.520620
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,932.0 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	2/6/2013	8.49	66.84	52,857

<b>Design</b>	Plan #1 (2-06-13)				
<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	4.72	

<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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,307.7	6.15	116.89	1,307.1	-7.5	14.7	2.00	2.00	0.00	116.89	
4,713.1	6.15	116.89	4,692.9	-172.5	340.3	0.00	0.00	0.00	0.00	
5,020.8	0.00	0.00	5,000.0	-180.0	355.0	2.00	-2.00	0.00	180.00	
6,279.0	0.00	0.00	6,258.2	-180.0	355.0	0.00	0.00	0.00	0.00	
7,399.0	84.00	0.24	7,018.0	504.1	357.9	7.50	7.50	0.00	0.24	
7,473.0	84.00	0.24	7,025.7	577.7	358.2	0.00	0.00	0.00	0.00	
7,593.0	90.00	0.24	7,032.0	697.5	358.7	5.00	5.00	0.00	-0.04	
11,427.5	90.00	0.24	7,032.0	4,531.9	374.5	0.00	0.00	0.00	0.00	BHL 500'FNL, 2495

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Waste Management 2Q-201
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Project:</b>	SEC.2-T2N-R64W	<b>MD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Site:</b>	Waste Management 2Q-HZ Pad Sec.2-T2N-R64W	<b>North Reference:</b>	True
<b>Well:</b>	Waste Management 2Q-201	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (2-06-13)		

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
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
920.0	0.00	0.00	920.0	0.0	0.0	0.0	0.00	0.00	0.00
960.0	0.00	0.00	960.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>KOP #1</b>									
1,040.0	0.80	116.89	1,040.0	-0.1	0.2	-0.1	2.00	2.00	0.00
1,080.0	1.60	116.89	1,080.0	-0.5	1.0	-0.4	2.00	2.00	0.00
1,120.0	2.40	116.89	1,120.0	-1.1	2.2	-0.9	2.00	2.00	0.00
1,160.0	3.20	116.89	1,159.9	-2.0	4.0	-1.7	2.00	2.00	0.00
1,200.0	4.00	116.89	1,199.8	-3.2	6.2	-2.6	2.00	2.00	0.00
1,240.0	4.80	116.89	1,239.7	-4.5	9.0	-3.8	2.00	2.00	0.00
1,280.0	5.60	116.89	1,279.6	-6.2	12.2	-5.2	2.00	2.00	0.00
1,307.7	6.15	116.89	1,307.1	-7.5	14.7	-6.2	2.00	2.00	0.00
1,320.0	6.15	116.89	1,319.3	-8.1	15.9	-6.7	0.00	0.00	0.00
1,360.0	6.15	116.89	1,359.1	-10.0	19.7	-8.3	0.00	0.00	0.00
1,400.0	6.15	116.89	1,398.9	-11.9	23.5	-10.0	0.00	0.00	0.00
1,440.0	6.15	116.89	1,438.6	-13.9	27.4	-11.6	0.00	0.00	0.00
1,480.0	6.15	116.89	1,478.4	-15.8	31.2	-13.2	0.00	0.00	0.00
1,520.0	6.15	116.89	1,518.2	-17.8	35.0	-14.8	0.00	0.00	0.00
1,560.0	6.15	116.89	1,558.0	-19.7	38.8	-16.4	0.00	0.00	0.00
1,600.0	6.15	116.89	1,597.7	-21.6	42.7	-18.0	0.00	0.00	0.00
1,640.0	6.15	116.89	1,637.5	-23.6	46.5	-19.7	0.00	0.00	0.00
1,680.0	6.15	116.89	1,677.3	-25.5	50.3	-21.3	0.00	0.00	0.00
1,720.0	6.15	116.89	1,717.0	-27.5	54.1	-22.9	0.00	0.00	0.00
1,760.0	6.15	116.89	1,756.8	-29.4	58.0	-24.5	0.00	0.00	0.00
1,800.0	6.15	116.89	1,796.6	-31.3	61.8	-26.1	0.00	0.00	0.00
1,840.0	6.15	116.89	1,836.3	-33.3	65.6	-27.8	0.00	0.00	0.00
1,880.0	6.15	116.89	1,876.1	-35.2	69.4	-29.4	0.00	0.00	0.00
1,920.0	6.15	116.89	1,915.9	-37.1	73.3	-31.0	0.00	0.00	0.00
1,960.0	6.15	116.89	1,955.7	-39.1	77.1	-32.6	0.00	0.00	0.00

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<b>Project:</b>	SEC.2-T2N-R64W	<b>MD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Site:</b>	Waste Management 2Q-HZ Pad Sec.2-T2N-R64W	<b>North Reference:</b>	True
<b>Well:</b>	Waste Management 2Q-201	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (2-06-13)		

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	6.15	116.89	1,995.4	-41.0	80.9	-34.2	0.00	0.00	0.00
2,040.0	6.15	116.89	2,035.2	-43.0	84.7	-35.8	0.00	0.00	0.00
2,080.0	6.15	116.89	2,075.0	-44.9	88.6	-37.5	0.00	0.00	0.00
2,120.0	6.15	116.89	2,114.7	-46.8	92.4	-39.1	0.00	0.00	0.00
2,160.0	6.15	116.89	2,154.5	-48.8	96.2	-40.7	0.00	0.00	0.00
2,200.0	6.15	116.89	2,194.3	-50.7	100.0	-42.3	0.00	0.00	0.00
2,240.0	6.15	116.89	2,234.0	-52.7	103.9	-43.9	0.00	0.00	0.00
2,280.0	6.15	116.89	2,273.8	-54.6	107.7	-45.5	0.00	0.00	0.00
2,320.0	6.15	116.89	2,313.6	-56.5	111.5	-47.2	0.00	0.00	0.00
2,360.0	6.15	116.89	2,353.3	-58.5	115.3	-48.8	0.00	0.00	0.00
2,400.0	6.15	116.89	2,393.1	-60.4	119.1	-50.4	0.00	0.00	0.00
2,440.0	6.15	116.89	2,432.9	-62.4	123.0	-52.0	0.00	0.00	0.00
2,480.0	6.15	116.89	2,472.7	-64.3	126.8	-53.6	0.00	0.00	0.00
2,520.0	6.15	116.89	2,512.4	-66.2	130.6	-55.2	0.00	0.00	0.00
2,560.0	6.15	116.89	2,552.2	-68.2	134.4	-56.9	0.00	0.00	0.00
2,600.0	6.15	116.89	2,592.0	-70.1	138.3	-58.5	0.00	0.00	0.00
2,640.0	6.15	116.89	2,631.7	-72.0	142.1	-60.1	0.00	0.00	0.00
2,680.0	6.15	116.89	2,671.5	-74.0	145.9	-61.7	0.00	0.00	0.00
2,720.0	6.15	116.89	2,711.3	-75.9	149.7	-63.3	0.00	0.00	0.00
2,760.0	6.15	116.89	2,751.0	-77.9	153.6	-65.0	0.00	0.00	0.00
2,800.0	6.15	116.89	2,790.8	-79.8	157.4	-66.6	0.00	0.00	0.00
2,840.0	6.15	116.89	2,830.6	-81.7	161.2	-68.2	0.00	0.00	0.00
2,880.0	6.15	116.89	2,870.4	-83.7	165.0	-69.8	0.00	0.00	0.00
2,920.0	6.15	116.89	2,910.1	-85.6	168.9	-71.4	0.00	0.00	0.00
2,960.0	6.15	116.89	2,949.9	-87.6	172.7	-73.0	0.00	0.00	0.00
3,000.0	6.15	116.89	2,989.7	-89.5	176.5	-74.7	0.00	0.00	0.00
3,040.0	6.15	116.89	3,029.4	-91.4	180.3	-76.3	0.00	0.00	0.00
3,080.0	6.15	116.89	3,069.2	-93.4	184.2	-77.9	0.00	0.00	0.00
3,120.0	6.15	116.89	3,109.0	-95.3	188.0	-79.5	0.00	0.00	0.00
3,160.0	6.15	116.89	3,148.7	-97.3	191.8	-81.1	0.00	0.00	0.00
3,200.0	6.15	116.89	3,188.5	-99.2	195.6	-82.7	0.00	0.00	0.00
3,240.0	6.15	116.89	3,228.3	-101.1	199.4	-84.4	0.00	0.00	0.00
3,280.0	6.15	116.89	3,268.0	-103.1	203.3	-86.0	0.00	0.00	0.00
3,320.0	6.15	116.89	3,307.8	-105.0	207.1	-87.6	0.00	0.00	0.00
3,360.0	6.15	116.89	3,347.6	-106.9	210.9	-89.2	0.00	0.00	0.00
3,400.0	6.15	116.89	3,387.4	-108.9	214.7	-90.8	0.00	0.00	0.00
3,440.0	6.15	116.89	3,427.1	-110.8	218.6	-92.5	0.00	0.00	0.00
3,480.0	6.15	116.89	3,466.9	-112.8	222.4	-94.1	0.00	0.00	0.00
3,520.0	6.15	116.89	3,506.7	-114.7	226.2	-95.7	0.00	0.00	0.00
3,560.0	6.15	116.89	3,546.4	-116.6	230.0	-97.3	0.00	0.00	0.00
3,600.0	6.15	116.89	3,586.2	-118.6	233.9	-98.9	0.00	0.00	0.00
3,640.0	6.15	116.89	3,626.0	-120.5	237.7	-100.5	0.00	0.00	0.00
3,680.0	6.15	116.89	3,665.7	-122.5	241.5	-102.2	0.00	0.00	0.00
3,720.0	6.15	116.89	3,705.5	-124.4	245.3	-103.8	0.00	0.00	0.00
3,760.0	6.15	116.89	3,745.3	-126.3	249.2	-105.4	0.00	0.00	0.00
3,800.0	6.15	116.89	3,785.1	-128.3	253.0	-107.0	0.00	0.00	0.00
3,840.0	6.15	116.89	3,824.8	-130.2	256.8	-108.6	0.00	0.00	0.00
3,880.0	6.15	116.89	3,864.6	-132.2	260.6	-110.2	0.00	0.00	0.00
3,920.0	6.15	116.89	3,904.4	-134.1	264.5	-111.9	0.00	0.00	0.00
3,960.0	6.15	116.89	3,944.1	-136.0	268.3	-113.5	0.00	0.00	0.00
4,000.0	6.15	116.89	3,983.9	-138.0	272.1	-115.1	0.00	0.00	0.00
4,040.0	6.15	116.89	4,023.7	-139.9	275.9	-116.7	0.00	0.00	0.00

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<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Project:</b>	SEC.2-T2N-R64W	<b>MD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Site:</b>	Waste Management 2Q-HZ Pad Sec.2-T2N-R64W	<b>North Reference:</b>	True
<b>Well:</b>	Waste Management 2Q-201	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (2-06-13)		

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)
4,080.0	6.15	116.89	4,063.4	-141.8	279.8	-118.3	0.00	0.00	0.00
4,120.0	6.15	116.89	4,103.2	-143.8	283.6	-119.9	0.00	0.00	0.00
4,160.0	6.15	116.89	4,143.0	-145.7	287.4	-121.6	0.00	0.00	0.00
4,200.0	6.15	116.89	4,182.7	-147.7	291.2	-123.2	0.00	0.00	0.00
4,240.0	6.15	116.89	4,222.5	-149.6	295.0	-124.8	0.00	0.00	0.00
4,280.0	6.15	116.89	4,262.3	-151.5	298.9	-126.4	0.00	0.00	0.00
4,320.0	6.15	116.89	4,302.1	-153.5	302.7	-128.0	0.00	0.00	0.00
4,360.0	6.15	116.89	4,341.8	-155.4	306.5	-129.7	0.00	0.00	0.00
4,400.0	6.15	116.89	4,381.6	-157.4	310.3	-131.3	0.00	0.00	0.00
4,440.0	6.15	116.89	4,421.4	-159.3	314.2	-132.9	0.00	0.00	0.00
4,480.0	6.15	116.89	4,461.1	-161.2	318.0	-134.5	0.00	0.00	0.00
4,520.0	6.15	116.89	4,500.9	-163.2	321.8	-136.1	0.00	0.00	0.00
4,560.0	6.15	116.89	4,540.7	-165.1	325.6	-137.7	0.00	0.00	0.00
4,600.0	6.15	116.89	4,580.4	-167.1	329.5	-139.4	0.00	0.00	0.00
4,640.0	6.15	116.89	4,620.2	-169.0	333.3	-141.0	0.00	0.00	0.00
4,680.0	6.15	116.89	4,660.0	-170.9	337.1	-142.6	0.00	0.00	0.00
4,713.1	6.15	116.89	4,692.9	-172.5	340.3	-143.9	0.00	0.00	0.00
4,720.0	6.02	116.89	4,699.8	-172.9	340.9	-144.2	2.00	-2.00	0.00
4,760.0	5.22	116.89	4,739.6	-174.6	344.4	-145.7	2.00	-2.00	0.00
4,800.0	4.42	116.89	4,779.4	-176.2	347.4	-147.0	2.00	-2.00	0.00
4,840.0	3.62	116.89	4,819.3	-177.4	349.9	-148.0	2.00	-2.00	0.00
4,880.0	2.82	116.89	4,859.3	-178.4	351.9	-148.9	2.00	-2.00	0.00
4,920.0	2.02	116.89	4,899.2	-179.2	353.4	-149.5	2.00	-2.00	0.00
4,960.0	1.22	116.89	4,939.2	-179.7	354.4	-149.9	2.00	-2.00	0.00
5,000.0	0.42	116.89	4,979.2	-180.0	354.9	-150.1	2.00	-2.00	0.00
5,020.8	0.00	0.00	5,000.0	-180.0	355.0	-150.2	2.00	-2.00	0.00
5,040.0	0.00	0.00	5,019.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,080.0	0.00	0.00	5,059.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,120.0	0.00	0.00	5,099.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,160.0	0.00	0.00	5,139.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,200.0	0.00	0.00	5,179.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,240.0	0.00	0.00	5,219.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,280.0	0.00	0.00	5,259.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,320.0	0.00	0.00	5,299.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,360.0	0.00	0.00	5,339.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,400.0	0.00	0.00	5,379.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,440.0	0.00	0.00	5,419.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,480.0	0.00	0.00	5,459.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,520.0	0.00	0.00	5,499.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,560.0	0.00	0.00	5,539.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,600.0	0.00	0.00	5,579.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,640.0	0.00	0.00	5,619.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,680.0	0.00	0.00	5,659.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,720.0	0.00	0.00	5,699.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,760.0	0.00	0.00	5,739.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,800.0	0.00	0.00	5,779.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,840.0	0.00	0.00	5,819.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,880.0	0.00	0.00	5,859.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,920.0	0.00	0.00	5,899.2	-180.0	355.0	-150.2	0.00	0.00	0.00
5,960.0	0.00	0.00	5,939.2	-180.0	355.0	-150.2	0.00	0.00	0.00
6,000.0	0.00	0.00	5,979.2	-180.0	355.0	-150.2	0.00	0.00	0.00
6,040.0	0.00	0.00	6,019.2	-180.0	355.0	-150.2	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Waste Management 2Q-201
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Project:</b>	SEC.2-T2N-R64W	<b>MD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Site:</b>	Waste Management 2Q-HZ Pad Sec.2-T2N-R64W	<b>North Reference:</b>	True
<b>Well:</b>	Waste Management 2Q-201	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (2-06-13)		

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)
6,080.0	0.00	0.00	6,059.2	-180.0	355.0	-150.2	0.00	0.00	0.00
6,120.0	0.00	0.00	6,099.2	-180.0	355.0	-150.2	0.00	0.00	0.00
6,160.0	0.00	0.00	6,139.2	-180.0	355.0	-150.2	0.00	0.00	0.00
6,200.0	0.00	0.00	6,179.2	-180.0	355.0	-150.2	0.00	0.00	0.00
6,240.0	0.00	0.00	6,219.2	-180.0	355.0	-150.2	0.00	0.00	0.00
6,279.0	0.00	0.00	6,258.2	-180.0	355.0	-150.2	0.00	0.00	0.00
<b>KOP #2</b>									
6,280.0	0.07	0.24	6,259.2	-180.0	355.0	-150.2	7.50	7.50	0.00
6,320.0	3.07	0.24	6,299.2	-178.9	355.0	-149.1	7.50	7.50	0.00
6,360.0	6.07	0.24	6,339.0	-175.7	355.0	-145.9	7.50	7.50	0.00
6,400.0	9.07	0.24	6,378.7	-170.4	355.0	-140.6	7.50	7.50	0.00
6,440.0	12.07	0.24	6,418.0	-163.1	355.1	-133.3	7.50	7.50	0.00
6,480.0	15.07	0.24	6,456.9	-153.7	355.1	-124.0	7.50	7.50	0.00
6,520.0	18.07	0.24	6,495.2	-142.3	355.2	-112.6	7.50	7.50	0.00
6,560.0	21.07	0.24	6,532.9	-128.9	355.2	-99.2	7.50	7.50	0.00
6,600.0	24.07	0.24	6,569.8	-113.5	355.3	-83.9	7.50	7.50	0.00
6,640.0	27.07	0.24	6,605.9	-96.3	355.4	-66.7	7.50	7.50	0.00
6,680.0	30.07	0.24	6,641.0	-77.2	355.4	-47.6	7.50	7.50	0.00
6,720.0	33.07	0.24	6,675.1	-56.2	355.5	-26.7	7.50	7.50	0.00
6,760.0	36.07	0.24	6,708.0	-33.5	355.6	-4.1	7.50	7.50	0.00
6,800.0	39.07	0.24	6,739.7	-9.1	355.7	20.2	7.50	7.50	0.00
6,840.0	42.07	0.24	6,770.1	16.9	355.8	46.1	7.50	7.50	0.00
6,880.0	45.07	0.24	6,799.1	44.5	355.9	73.6	7.50	7.50	0.00
6,920.0	48.07	0.24	6,826.6	73.5	356.1	102.6	7.50	7.50	0.00
6,960.0	51.07	0.24	6,852.5	104.0	356.2	132.9	7.50	7.50	0.00
7,000.0	54.07	0.24	6,876.8	135.7	356.3	164.6	7.50	7.50	0.00
7,040.0	57.07	0.24	6,899.4	168.7	356.5	197.5	7.50	7.50	0.00
7,080.0	60.07	0.24	6,920.3	202.8	356.6	231.5	7.50	7.50	0.00
7,120.0	63.07	0.24	6,939.3	238.0	356.8	266.6	7.50	7.50	0.00
7,160.0	66.07	0.24	6,956.5	274.1	356.9	302.6	7.50	7.50	0.00
7,200.0	69.07	0.24	6,971.8	311.1	357.1	339.4	7.50	7.50	0.00
7,240.0	72.07	0.24	6,985.1	348.8	357.2	377.0	7.50	7.50	0.00
7,280.0	75.07	0.24	6,996.4	387.2	357.4	415.3	7.50	7.50	0.00
7,320.0	78.07	0.24	7,005.7	426.1	357.5	454.1	7.50	7.50	0.00
7,360.0	81.07	0.24	7,012.9	465.4	357.7	493.3	7.50	7.50	0.00
7,399.0	84.00	0.24	7,018.0	504.1	357.9	531.8	7.50	7.50	0.00
7,400.0	84.00	0.24	7,018.1	505.1	357.9	532.8	0.00	0.00	0.00
7,403.0	84.00	0.24	7,018.4	508.1	357.9	535.8	0.00	0.00	0.00
<b>7"</b>									
7,440.0	84.00	0.24	7,022.2	544.9	358.0	572.5	0.00	0.00	0.00
7,473.0	84.00	0.24	7,025.7	577.7	358.2	605.2	0.00	0.00	0.00
7,480.0	84.35	0.24	7,026.4	584.6	358.2	612.1	5.00	5.00	0.00
7,520.0	86.35	0.24	7,029.6	624.5	358.4	651.9	5.00	5.00	0.00
7,560.0	88.35	0.24	7,031.5	664.5	358.5	691.7	5.00	5.00	0.00
7,593.0	90.00	0.24	7,032.0	697.5	358.7	724.6	5.00	5.00	0.00
<b>End of Build</b>									
7,600.0	90.00	0.24	7,032.0	704.5	358.7	731.6	0.00	0.00	0.00
7,640.0	90.00	0.24	7,032.0	744.5	358.9	771.5	0.00	0.00	0.00
7,680.0	90.00	0.24	7,032.0	784.5	359.0	811.4	0.00	0.00	0.00
7,720.0	90.00	0.24	7,032.0	824.5	359.2	851.2	0.00	0.00	0.00
7,760.0	90.00	0.24	7,032.0	864.5	359.4	891.1	0.00	0.00	0.00
7,800.0	90.00	0.24	7,032.0	904.5	359.5	931.0	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Waste Management 2Q-201
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Project:</b>	SEC.2-T2N-R64W	<b>MD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Site:</b>	Waste Management 2Q-HZ Pad Sec.2-T2N-R64W	<b>North Reference:</b>	True
<b>Well:</b>	Waste Management 2Q-201	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (2-06-13)		

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)
7,840.0	90.00	0.24	7,032.0	944.5	359.7	970.9	0.00	0.00	0.00
7,880.0	90.00	0.24	7,032.0	984.5	359.9	1,010.7	0.00	0.00	0.00
7,920.0	90.00	0.24	7,032.0	1,024.5	360.0	1,050.6	0.00	0.00	0.00
7,960.0	90.00	0.24	7,032.0	1,064.5	360.2	1,090.5	0.00	0.00	0.00
8,000.0	90.00	0.24	7,032.0	1,104.5	360.3	1,130.4	0.00	0.00	0.00
8,040.0	90.00	0.24	7,032.0	1,144.5	360.5	1,170.2	0.00	0.00	0.00
8,080.0	90.00	0.24	7,032.0	1,184.5	360.7	1,210.1	0.00	0.00	0.00
8,120.0	90.00	0.24	7,032.0	1,224.5	360.8	1,250.0	0.00	0.00	0.00
8,160.0	90.00	0.24	7,032.0	1,264.5	361.0	1,289.9	0.00	0.00	0.00
8,200.0	90.00	0.24	7,032.0	1,304.5	361.2	1,329.8	0.00	0.00	0.00
8,240.0	90.00	0.24	7,032.0	1,344.5	361.3	1,369.6	0.00	0.00	0.00
8,280.0	90.00	0.24	7,032.0	1,384.5	361.5	1,409.5	0.00	0.00	0.00
8,320.0	90.00	0.24	7,032.0	1,424.5	361.7	1,449.4	0.00	0.00	0.00
8,360.0	90.00	0.24	7,032.0	1,464.5	361.8	1,489.3	0.00	0.00	0.00
8,400.0	90.00	0.24	7,032.0	1,504.4	362.0	1,529.1	0.00	0.00	0.00
8,440.0	90.00	0.24	7,032.0	1,544.4	362.2	1,569.0	0.00	0.00	0.00
8,480.0	90.00	0.24	7,032.0	1,584.4	362.3	1,608.9	0.00	0.00	0.00
8,520.0	90.00	0.24	7,032.0	1,624.4	362.5	1,648.8	0.00	0.00	0.00
8,560.0	90.00	0.24	7,032.0	1,664.4	362.7	1,688.7	0.00	0.00	0.00
8,600.0	90.00	0.24	7,032.0	1,704.4	362.8	1,728.5	0.00	0.00	0.00
8,640.0	90.00	0.24	7,032.0	1,744.4	363.0	1,768.4	0.00	0.00	0.00
8,680.0	90.00	0.24	7,032.0	1,784.4	363.1	1,808.3	0.00	0.00	0.00
8,720.0	90.00	0.24	7,032.0	1,824.4	363.3	1,848.2	0.00	0.00	0.00
8,760.0	90.00	0.24	7,032.0	1,864.4	363.5	1,888.0	0.00	0.00	0.00
8,800.0	90.00	0.24	7,032.0	1,904.4	363.6	1,927.9	0.00	0.00	0.00
8,840.0	90.00	0.24	7,032.0	1,944.4	363.8	1,967.8	0.00	0.00	0.00
8,880.0	90.00	0.24	7,032.0	1,984.4	364.0	2,007.7	0.00	0.00	0.00
8,920.0	90.00	0.24	7,032.0	2,024.4	364.1	2,047.6	0.00	0.00	0.00
8,960.0	90.00	0.24	7,032.0	2,064.4	364.3	2,087.4	0.00	0.00	0.00
9,000.0	90.00	0.24	7,032.0	2,104.4	364.5	2,127.3	0.00	0.00	0.00
9,040.0	90.00	0.24	7,032.0	2,144.4	364.6	2,167.2	0.00	0.00	0.00
9,080.0	90.00	0.24	7,032.0	2,184.4	364.8	2,207.1	0.00	0.00	0.00
9,120.0	90.00	0.24	7,032.0	2,224.4	365.0	2,246.9	0.00	0.00	0.00
9,160.0	90.00	0.24	7,032.0	2,264.4	365.1	2,286.8	0.00	0.00	0.00
9,200.0	90.00	0.24	7,032.0	2,304.4	365.3	2,326.7	0.00	0.00	0.00
9,240.0	90.00	0.24	7,032.0	2,344.4	365.5	2,366.6	0.00	0.00	0.00
9,280.0	90.00	0.24	7,032.0	2,384.4	365.6	2,406.4	0.00	0.00	0.00
9,320.0	90.00	0.24	7,032.0	2,424.4	365.8	2,446.3	0.00	0.00	0.00
9,360.0	90.00	0.24	7,032.0	2,464.4	366.0	2,486.2	0.00	0.00	0.00
9,400.0	90.00	0.24	7,032.0	2,504.4	366.1	2,526.1	0.00	0.00	0.00
9,440.0	90.00	0.24	7,032.0	2,544.4	366.3	2,566.0	0.00	0.00	0.00
9,480.0	90.00	0.24	7,032.0	2,584.4	366.4	2,605.8	0.00	0.00	0.00
9,520.0	90.00	0.24	7,032.0	2,624.4	366.6	2,645.7	0.00	0.00	0.00
9,560.0	90.00	0.24	7,032.0	2,664.4	366.8	2,685.6	0.00	0.00	0.00
9,600.0	90.00	0.24	7,032.0	2,704.4	366.9	2,725.5	0.00	0.00	0.00
9,640.0	90.00	0.24	7,032.0	2,744.4	367.1	2,765.3	0.00	0.00	0.00
9,680.0	90.00	0.24	7,032.0	2,784.4	367.3	2,805.2	0.00	0.00	0.00
9,720.0	90.00	0.24	7,032.0	2,824.4	367.4	2,845.1	0.00	0.00	0.00
9,760.0	90.00	0.24	7,032.0	2,864.4	367.6	2,885.0	0.00	0.00	0.00
9,800.0	90.00	0.24	7,032.0	2,904.4	367.8	2,924.9	0.00	0.00	0.00
9,840.0	90.00	0.24	7,032.0	2,944.4	367.9	2,964.7	0.00	0.00	0.00
9,880.0	90.00	0.24	7,032.0	2,984.4	368.1	3,004.6	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Waste Management 2Q-201
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Project:</b>	SEC.2-T2N-R64W	<b>MD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Site:</b>	Waste Management 2Q-HZ Pad Sec.2-T2N-R64W	<b>North Reference:</b>	True
<b>Well:</b>	Waste Management 2Q-201	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (2-06-13)		

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)
9,920.0	90.00	0.24	7,032.0	3,024.4	368.3	3,044.5	0.00	0.00	0.00
9,960.0	90.00	0.24	7,032.0	3,064.4	368.4	3,084.4	0.00	0.00	0.00
10,000.0	90.00	0.24	7,032.0	3,104.4	368.6	3,124.2	0.00	0.00	0.00
10,040.0	90.00	0.24	7,032.0	3,144.4	368.8	3,164.1	0.00	0.00	0.00
10,080.0	90.00	0.24	7,032.0	3,184.4	368.9	3,204.0	0.00	0.00	0.00
10,120.0	90.00	0.24	7,032.0	3,224.4	369.1	3,243.9	0.00	0.00	0.00
10,160.0	90.00	0.24	7,032.0	3,264.4	369.2	3,283.8	0.00	0.00	0.00
10,200.0	90.00	0.24	7,032.0	3,304.4	369.4	3,323.6	0.00	0.00	0.00
10,240.0	90.00	0.24	7,032.0	3,344.4	369.6	3,363.5	0.00	0.00	0.00
10,280.0	90.00	0.24	7,032.0	3,384.4	369.7	3,403.4	0.00	0.00	0.00
10,320.0	90.00	0.24	7,032.0	3,424.4	369.9	3,443.3	0.00	0.00	0.00
10,360.0	90.00	0.24	7,032.0	3,464.4	370.1	3,483.1	0.00	0.00	0.00
10,400.0	90.00	0.24	7,032.0	3,504.4	370.2	3,523.0	0.00	0.00	0.00
10,440.0	90.00	0.24	7,032.0	3,544.4	370.4	3,562.9	0.00	0.00	0.00
10,480.0	90.00	0.24	7,032.0	3,584.4	370.6	3,602.8	0.00	0.00	0.00
10,520.0	90.00	0.24	7,032.0	3,624.4	370.7	3,642.6	0.00	0.00	0.00
10,560.0	90.00	0.24	7,032.0	3,664.4	370.9	3,682.5	0.00	0.00	0.00
10,600.0	90.00	0.24	7,032.0	3,704.4	371.1	3,722.4	0.00	0.00	0.00
10,640.0	90.00	0.24	7,032.0	3,744.4	371.2	3,762.3	0.00	0.00	0.00
10,680.0	90.00	0.24	7,032.0	3,784.4	371.4	3,802.2	0.00	0.00	0.00
10,720.0	90.00	0.24	7,032.0	3,824.4	371.6	3,842.0	0.00	0.00	0.00
10,760.0	90.00	0.24	7,032.0	3,864.4	371.7	3,881.9	0.00	0.00	0.00
10,800.0	90.00	0.24	7,032.0	3,904.4	371.9	3,921.8	0.00	0.00	0.00
10,840.0	90.00	0.24	7,032.0	3,944.4	372.0	3,961.7	0.00	0.00	0.00
10,880.0	90.00	0.24	7,032.0	3,984.4	372.2	4,001.5	0.00	0.00	0.00
10,920.0	90.00	0.24	7,032.0	4,024.4	372.4	4,041.4	0.00	0.00	0.00
10,960.0	90.00	0.24	7,032.0	4,064.4	372.5	4,081.3	0.00	0.00	0.00
11,000.0	90.00	0.24	7,032.0	4,104.4	372.7	4,121.2	0.00	0.00	0.00
11,040.0	90.00	0.24	7,032.0	4,144.4	372.9	4,161.1	0.00	0.00	0.00
11,080.0	90.00	0.24	7,032.0	4,184.4	373.0	4,200.9	0.00	0.00	0.00
11,120.0	90.00	0.24	7,032.0	4,224.4	373.2	4,240.8	0.00	0.00	0.00
11,160.0	90.00	0.24	7,032.0	4,264.4	373.4	4,280.7	0.00	0.00	0.00
11,200.0	90.00	0.24	7,032.0	4,304.4	373.5	4,320.6	0.00	0.00	0.00
11,240.0	90.00	0.24	7,032.0	4,344.4	373.7	4,360.4	0.00	0.00	0.00
11,280.0	90.00	0.24	7,032.0	4,384.4	373.9	4,400.3	0.00	0.00	0.00
11,320.0	90.00	0.24	7,032.0	4,424.4	374.0	4,440.2	0.00	0.00	0.00
11,360.0	90.00	0.24	7,032.0	4,464.4	374.2	4,480.1	0.00	0.00	0.00
11,400.0	90.00	0.24	7,032.0	4,504.4	374.4	4,520.0	0.00	0.00	0.00
11,427.5	90.00	0.24	7,032.0	4,531.9	374.5	4,547.3	0.00	0.00	0.00
BHL 500'FNL, 2495'FWL									

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,403.0	7,018.4	7"	7	8-3/4

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Waste Management 2Q-201
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Project:</b>	SEC.2-T2N-R64W	<b>MD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Site:</b>	Waste Management 2Q-HZ Pad Sec.2-T2N-R64W	<b>North Reference:</b>	True
<b>Well:</b>	Waste Management 2Q-201	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (2-06-13)		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,000.0	1,000.0	0.0	0.0	KOP #1
6,279.0	6,258.2	-180.0	355.0	KOP #2
7,593.0	7,032.0	697.5	358.7	End of Build



# **PETROLEUM DEVELOPMENT CORP Weld County CO**

**SEC.2-T2N-R64W**

**Waste Management 2Q-HZ Pad Sec.2-T2N-R64W**

**Waste Management 2Q-201**

**Wellbore #1**

**Plan #1 (2-06-13)**

## **Anticollision Report**

**08 February, 2013**



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Waste Management 2Q-201
<b>Project:</b>	SEC.2-T2N-R64W	<b>TVD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Reference Site:</b>	Waste Management 2Q-HZ Pad Sec.2-T2N-R64W	<b>MD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Waste Management 2Q-201	<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 #1 (2-06-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Waste Management 2Q-HZ Pad Sec.2-T2N-R64W - Waste Management 2L-221 - Wellbore #1 - Plan #													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		
1,600.0	1,597.7	1,588.0	1,585.5	3.5	3.4	150.04	-28.2	-101.5	145.0	138.3	6.70	21.633		
1,700.0	1,697.1	1,686.1	1,683.0	3.7	3.7	149.73	-34.8	-110.8	164.1	156.9	7.15	22.953		
1,800.0	1,796.6	1,784.3	1,780.5	4.0	4.0	149.49	-41.4	-120.2	183.1	175.5	7.60	24.089		
1,900.0	1,896.0	1,882.5	1,878.0	4.3	4.2	149.29	-48.0	-129.5	202.2	194.1	8.06	25.073		
2,000.0	1,995.4	1,980.6	1,975.5	4.5	4.5	149.12	-54.6	-138.8	221.2	212.7	8.53	25.934		
2,100.0	2,094.8	2,078.8	2,073.0	4.8	4.8	148.99	-61.2	-148.1	240.3	231.3	9.00	26.689		
2,200.0	2,194.3	2,177.0	2,170.5	5.1	5.1	148.87	-67.7	-157.5	259.3	249.9	9.48	27.355		
2,300.0	2,293.7	2,275.1	2,268.0	5.4	5.4	148.76	-74.3	-166.8	278.4	268.4	9.96	27.947		
2,400.0	2,393.1	2,373.3	2,365.5	5.7	5.7	148.68	-80.9	-176.1	297.5	287.0	10.45	28.474		
2,500.0	2,492.5	2,471.5	2,463.0	6.0	6.0	148.60	-87.5	-185.5	316.5	305.6	10.93	28.948		
2,600.0	2,592.0	2,569.6	2,560.5	6.2	6.3	148.53	-94.1	-194.8	335.6	324.2	11.42	29.374		
2,700.0	2,691.4	2,667.8	2,658.0	6.5	6.6	148.47	-100.7	-204.1	354.6	342.7	11.92	29.760		
2,800.0	2,790.8	2,766.0	2,755.5	6.8	6.9	148.41	-107.2	-213.4	373.7	361.3	12.41	30.111		
2,900.0	2,890.2	2,864.1	2,853.0	7.1	7.2	148.36	-113.8	-222.8	392.8	379.9	12.91	30.430		
3,000.0	2,889.7	2,862.3	2,850.5	7.4	7.5	148.31	-120.4	-232.1	411.8	398.4	13.40	30.722		
3,100.0	3,089.1	3,060.5	3,048.0	7.7	7.8	148.27	-127.0	-241.4	430.9	417.0	13.90	30.990		
3,200.0	3,188.5	3,158.6	3,145.5	8.0	8.1	148.23	-133.6	-250.7	449.9	435.5	14.40	31.237		
3,300.0	3,287.9	3,256.8	3,243.0	8.3	8.4	148.20	-140.2	-260.1	469.0	454.1	14.91	31.465		
3,400.0	3,387.4	3,355.0	3,340.5	8.6	8.7	148.17	-146.7	-269.4	488.1	472.7	15.41	31.676		
3,500.0	3,486.8	3,453.1	3,438.0	8.9	9.0	148.14	-153.3	-278.7	507.1	491.2	15.91	31.872		
3,600.0	3,586.2	3,551.3	3,535.5	9.2	9.3	148.11	-159.9	-288.0	526.2	509.8	16.42	32.054		
3,700.0	3,685.6	3,649.5	3,633.0	9.5	9.6	148.08	-166.5	-297.4	545.3	528.3	16.92	32.224		
3,800.0	3,785.1	3,760.7	3,743.6	9.8	9.9	148.11	-173.4	-307.1	563.6	546.2	17.42	32.351		
3,900.0	3,884.5	3,860.0	3,862.6	10.1	10.1	148.37	-178.1	-313.8	578.6	560.7	17.90	32.314		
4,000.0	3,983.9	4,000.3	3,982.9	10.4	10.3	148.87	-180.0	-316.4	590.1	571.7	18.38	32.108		
4,100.0	4,083.3	4,102.8	4,085.3	10.7	10.5	149.41	-180.0	-316.5	599.3	580.5	18.82	31.840		
4,200.0	4,182.7	4,202.2	4,184.7	11.0	10.7	149.92	-180.0	-316.5	608.6	589.3	19.26	31.597		
4,300.0	4,282.2	4,301.6	4,284.2	11.3	10.8	150.42	-180.0	-316.5	617.9	598.2	19.70	31.367		
4,400.0	4,381.6	4,401.0	4,383.6	11.6	11.0	150.90	-180.0	-316.5	627.2	607.1	20.14	31.149		
4,500.0	4,481.0	4,500.5	4,483.0	11.9	11.2	151.37	-180.0	-316.5	636.6	616.1	20.58	30.941		
4,600.0	4,580.4	4,599.9	4,582.4	12.2	11.4	151.83	-180.0	-316.5	646.1	625.1	21.02	30.743		
4,700.0	4,679.9	4,699.3	4,681.9	12.5	11.5	152.27	-180.0	-316.5	655.6	634.1	21.46	30.555		
4,800.0	4,779.4	4,798.9	4,781.4	12.8	11.7	152.71	-180.0	-316.5	663.9	642.0	21.90	30.311		
4,900.0	4,879.2	4,898.7	4,881.2	13.0	11.9	152.99	-180.0	-316.5	669.2	646.9	22.30	30.006		
5,000.0	4,979.2	4,998.7	4,981.2	13.1	12.1	153.11	-180.0	-316.5	671.4	648.7	22.68	29.607		
5,100.0	5,079.2	5,098.7	5,081.2	13.3	12.3	-90.00	-180.0	-316.5	671.5	648.4	23.06	29.118		
5,200.0	5,179.2	5,198.7	5,181.2	13.5	12.4	-90.00	-180.0	-316.5	671.5	648.0	23.44	28.644		
5,300.0	5,279.2	5,298.7	5,281.2	13.6	12.6	-90.00	-180.0	-316.5	671.5	647.7	23.83	28.182		
5,400.0	5,379.2	5,398.7	5,381.2	13.8	12.8	-90.00	-180.0	-316.5	671.5	647.3	24.21	27.733		
5,500.0	5,479.2	5,498.7	5,481.2	14.0	13.0	-90.00	-180.0	-316.5	671.5	646.9	24.60	27.296		
5,600.0	5,579.2	5,598.7	5,581.2	14.1	13.2	-90.00	-180.0	-316.5	671.5	646.5	24.99	26.869		
5,700.0	5,679.2	5,698.7	5,681.2	14.3	13.4	-90.00	-180.0	-316.5	671.5	646.1	25.38	26.454		
5,800.0	5,779.2	5,798.7	5,781.2	14.5	13.6	-90.00	-180.0	-316.5	671.5	645.7	25.78	26.050		
5,900.0	5,879.2	5,898.7	5,881.2	14.7	13.8	-90.00	-180.0	-316.5	671.5	645.3	26.17	25.656		
6,000.0	5,979.2	5,998.7	5,981.2	14.9	14.0	-90.00	-180.0	-316.5	671.5	644.9	26.57	25.272		
6,100.0	6,079.2	6,098.7	6,081.2	15.0	14.2	-90.00	-180.0	-316.5	671.5	644.5	26.97	24.898		
6,200.0	6,179.2	6,198.7	6,181.2	15.2	14.4	-90.00	-180.0	-316.5	671.5	644.1	27.37	24.533		
6,300.0	6,279.2	6,298.7	6,281.3	15.4	14.5	-90.24	-179.8	-316.5	671.5	643.7	27.77	24.181		
6,400.0	6,378.7	6,399.2	6,381.2	15.5	14.7	-90.26	-170.7	-316.4	671.5	643.4	28.10	23.893		
6,500.0	6,476.1	6,499.7	6,479.2	15.7	14.9	-90.28	-148.5	-316.3	671.5	643.1	28.36	23.679		
6,600.0	6,569.8	6,600.2	6,573.4	15.8	15.0	-90.29	-113.8	-316.2	671.4	642.9	28.57	23.505		

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Waste Management 2Q-201
<b>Project:</b>	SEC.2-T2N-R64W	<b>TVD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Reference Site:</b>	Waste Management 2Q-HZ Pad Sec.2-T2N-R64W	<b>MD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Waste Management 2Q-201	<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 #1 (2-06-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Waste Management 2Q-HZ Pad Sec.2-T2N-R64W - Waste Management 2L-221 - Wellbore #1 - Plan #										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			
6,700.0	6,658.2	6,700.7	6,662.2	15.8	15.0	-90.30	-66.9	-315.9	671.4	642.6	28.79	23.321			
6,800.0	6,739.7	6,801.2	6,744.2	15.9	15.1	-90.30	-8.8	-315.7	671.4	642.3	29.11	23.066			
6,900.0	6,813.0	6,901.7	6,817.7	16.0	15.2	-90.29	59.5	-315.3	671.3	641.7	29.60	22.683			
7,000.0	6,876.8	7,002.2	6,881.7	16.1	15.4	-90.28	136.9	-314.9	671.3	640.9	30.33	22.129			
7,100.0	6,930.0	7,102.6	6,935.0	16.4	15.8	-90.27	222.0	-314.5	671.2	639.8	31.38	21.389			
7,200.0	6,971.8	7,203.0	6,976.6	17.0	16.5	-90.25	313.3	-314.1	671.1	638.4	32.77	20.481			
7,300.0	7,001.3	7,303.4	7,005.9	17.8	17.4	-90.23	409.2	-313.6	671.1	636.6	34.50	19.453			
7,400.0	7,018.1	7,403.7	7,022.4	18.8	18.4	-90.20	508.1	-313.1	671.0	634.5	36.54	18.366			
7,500.0	7,028.2	7,503.8	7,032.5	19.9	19.5	-90.19	607.7	-312.6	670.9	632.1	38.83	17.277			
7,600.0	7,032.0	7,604.0	7,036.0	21.2	20.8	-90.18	707.7	-312.2	670.9	629.5	41.35	16.225			
7,700.0	7,032.0	7,704.0	7,036.1	22.5	22.1	-90.18	807.7	-311.7	670.8	626.7	44.04	15.230			
7,800.0	7,032.0	7,804.0	7,036.2	23.9	23.6	-90.19	907.7	-311.2	670.7	623.8	46.90	14.302			
7,900.0	7,032.0	7,904.0	7,036.3	25.4	25.0	-90.20	1,007.7	-310.7	670.6	620.8	49.88	13.444			
8,000.0	7,032.0	8,004.0	7,036.3	26.9	26.6	-90.20	1,107.7	-310.2	670.6	617.6	52.98	12.658			
8,100.0	7,032.0	8,104.0	7,036.4	28.5	28.2	-90.21	1,207.7	-309.7	670.5	614.3	56.16	11.938			
8,200.0	7,032.0	8,204.0	7,036.5	30.1	29.8	-90.22	1,307.7	-309.2	670.4	611.0	59.43	11.281			
8,300.0	7,032.0	8,304.0	7,036.6	31.8	31.5	-90.22	1,407.7	-308.7	670.3	607.6	62.75	10.682			
8,400.0	7,032.0	8,404.0	7,036.6	33.5	33.2	-90.23	1,507.7	-308.2	670.2	604.1	66.13	10.135			
8,500.0	7,032.0	8,504.0	7,036.7	35.2	34.9	-90.23	1,607.7	-307.7	670.2	600.6	69.56	9.634			
8,600.0	7,032.0	8,604.0	7,036.8	36.9	36.6	-90.24	1,707.7	-307.3	670.1	597.1	73.03	9.175			
8,700.0	7,032.0	8,704.0	7,036.9	38.6	38.3	-90.25	1,807.7	-306.8	670.0	593.5	76.53	8.754			
8,800.0	7,032.0	8,804.0	7,037.0	40.4	40.1	-90.25	1,907.7	-306.3	669.9	589.9	80.07	8.367			
8,900.0	7,032.0	8,904.0	7,037.0	42.1	41.9	-90.26	2,007.7	-305.8	669.9	586.2	83.63	8.010			
9,000.0	7,032.0	9,004.0	7,037.1	43.9	43.7	-90.27	2,107.7	-305.3	669.8	582.6	87.21	7.680			
9,100.0	7,032.0	9,104.0	7,037.2	45.7	45.5	-90.27	2,207.7	-304.8	669.7	578.9	90.82	7.374			
9,200.0	7,032.0	9,204.0	7,037.3	47.5	47.3	-90.28	2,307.7	-304.3	669.6	575.2	94.44	7.091			
9,300.0	7,032.0	9,304.0	7,037.3	49.3	49.1	-90.29	2,407.7	-303.8	669.6	571.5	98.08	6.827			
9,400.0	7,032.0	9,404.0	7,037.4	51.2	50.9	-90.29	2,507.7	-303.3	669.5	567.7	101.73	6.581			
9,500.0	7,032.0	9,504.0	7,037.5	53.0	52.7	-90.30	2,607.7	-302.9	669.4	564.0	105.39	6.351			
9,600.0	7,032.0	9,604.0	7,037.6	54.8	54.6	-90.31	2,707.7	-302.4	669.3	560.3	109.07	6.137			
9,700.0	7,032.0	9,704.0	7,037.7	56.6	56.4	-90.31	2,807.7	-301.9	669.2	556.5	112.76	5.935			
9,800.0	7,032.0	9,804.0	7,037.7	58.5	58.3	-90.32	2,907.7	-301.4	669.2	552.7	116.45	5.746			
9,900.0	7,032.0	9,904.0	7,037.8	60.3	60.1	-90.33	3,007.7	-300.9	669.1	548.9	120.16	5.568			
10,000.0	7,032.0	10,004.0	7,037.9	62.2	62.0	-90.33	3,107.7	-300.4	669.0	545.1	123.87	5.401			
10,100.0	7,032.0	10,104.0	7,038.0	64.0	63.8	-90.34	3,207.7	-299.9	668.9	541.3	127.59	5.243			
10,200.0	7,032.0	10,204.0	7,038.0	65.9	65.7	-90.35	3,307.7	-299.4	668.9	537.5	131.32	5.093			
10,300.0	7,032.0	10,304.0	7,038.1	67.8	67.6	-90.35	3,407.7	-298.9	668.8	533.7	135.05	4.952			
10,400.0	7,032.0	10,404.0	7,038.2	69.6	69.4	-90.36	3,507.7	-298.5	668.7	529.9	138.79	4.818			
10,500.0	7,032.0	10,504.0	7,038.3	71.5	71.3	-90.37	3,607.7	-298.0	668.6	526.1	142.53	4.691			
10,600.0	7,032.0	10,604.0	7,038.4	73.4	73.2	-90.37	3,707.7	-297.5	668.6	522.3	146.28	4.570			
10,700.0	7,032.0	10,704.0	7,038.4	75.2	75.0	-90.38	3,807.7	-297.0	668.5	518.4	150.03	4.456			
10,800.0	7,032.0	10,804.0	7,038.5	77.1	76.9	-90.39	3,907.7	-296.5	668.4	514.6	153.79	4.346			
10,900.0	7,032.0	10,904.0	7,038.6	79.0	78.8	-90.39	4,007.7	-296.0	668.3	510.8	157.55	4.242			
11,000.0	7,032.0	11,004.0	7,038.7	80.9	80.7	-90.40	4,107.7	-295.5	668.2	506.9	161.31	4.143			
11,100.0	7,032.0	11,104.0	7,038.7	82.7	82.6	-90.41	4,207.7	-295.0	668.2	503.1	165.07	4.048			
11,200.0	7,032.0	11,204.0	7,038.8	84.6	84.4	-90.41	4,307.7	-294.5	668.1	499.2	168.84	3.957			
11,300.0	7,032.0	11,304.0	7,038.9	86.5	86.3	-90.42	4,407.7	-294.0	668.0	495.4	172.62	3.870			
11,400.0	7,032.0	11,404.0	7,039.0	88.4	88.2	-90.43	4,507.7	-293.6	667.9	491.5	176.39	3.787			
11,424.3	7,032.0	11,428.2	7,039.0	88.8	88.7	-90.43	4,531.9	-293.4	667.9	490.6	177.30	3.767			
11,428.3	7,032.0	11,428.2	7,039.0	88.9	88.7	-90.43	4,531.9	-293.4	667.9	490.5	177.38	3.766 SF			

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Waste Management 2Q-201
<b>Project:</b>	SEC.2-T2N-R64W	<b>TVD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Reference Site:</b>	Waste Management 2Q-HZ Pad Sec.2-T2N-R64W	<b>MD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Waste Management 2Q-201	<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 #1 (2-06-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Waste Management 2Q-HZ Pad Sec.2-T2N-R64W - Waste Management 2L-401 - Wellbore #1 - Plan #											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	2.0	2.0	0.0	0.0	-89.98	0.0	-89.4	89.4	89.4	0.00	N/A		
100.0	100.0	102.0	102.0	0.1	0.1	-89.98	0.0	-89.4	89.4	89.2	0.23	390.130		
166.0	166.0	168.0	168.0	0.3	0.3	-89.98	0.0	-89.4	89.4	88.9	0.53	170.076 CC		
200.0	200.0	201.9	201.9	0.3	0.3	-89.98	0.0	-89.4	89.4	88.8	0.68	131.843 ES		
300.0	300.0	300.0	300.0	0.6	0.5	-90.32	-0.5	-91.1	91.1	90.0	1.11	82.106		
400.0	400.0	395.9	395.7	0.8	0.8	-91.21	-2.0	-95.8	96.0	94.5	1.54	62.174		
500.0	500.0	492.3	491.8	1.0	1.0	-92.50	-4.5	-103.6	104.2	102.2	2.01	51.877		
600.0	600.0	590.0	588.8	1.2	1.3	-93.98	-7.9	-114.2	115.3	112.8	2.51	45.964		
700.0	700.0	689.3	687.4	1.5	1.6	-95.25	-11.5	-125.4	126.7	123.7	3.02	41.895		
800.0	800.0	788.6	786.0	1.7	1.9	-96.31	-15.1	-136.5	138.2	134.7	3.55	38.963		
900.0	900.0	887.9	884.7	1.9	2.2	-97.21	-18.7	-147.6	149.8	145.7	4.07	36.765		
1,000.0	1,000.0	987.2	983.3	2.1	2.5	-97.98	-22.3	-158.7	161.4	156.8	4.60	35.062 SF		
1,100.0	1,100.0	1,086.3	1,081.7	2.3	2.8	144.65	-25.8	-169.9	174.4	169.7	4.71	37.025		
1,200.0	1,199.8	1,185.0	1,179.8	2.5	3.1	144.80	-29.4	-180.9	190.3	185.1	5.13	37.073		
1,300.0	1,299.5	1,283.2	1,277.3	2.7	3.4	145.42	-32.9	-191.9	208.9	203.4	5.56	37.582		
1,400.0	1,398.9	1,381.1	1,374.4	3.0	3.7	146.39	-36.4	-202.9	229.3	223.3	6.00	38.208		
1,500.0	1,498.3	1,478.9	1,471.6	3.2	4.0	147.21	-40.0	-213.9	249.7	243.3	6.45	38.697		
1,600.0	1,597.7	1,576.7	1,568.7	3.5	4.4	147.92	-43.5	-224.8	270.2	263.3	6.91	39.089		
1,700.0	1,697.1	1,674.6	1,665.9	3.7	4.7	148.52	-47.0	-235.8	290.7	283.3	7.38	39.409		
1,800.0	1,796.6	1,772.4	1,763.1	4.0	5.0	149.04	-50.5	-246.8	311.2	303.3	7.84	39.672		
1,900.0	1,896.0	1,870.3	1,860.2	4.3	5.3	149.50	-54.1	-257.7	331.7	323.4	8.32	39.891		
2,000.0	1,995.4	1,968.1	1,957.4	4.5	5.6	149.90	-57.6	-268.7	352.3	343.5	8.79	40.076		
2,100.0	2,094.8	2,065.9	2,054.5	4.8	5.9	150.26	-61.1	-279.7	372.8	363.6	9.27	40.233		
2,200.0	2,194.3	2,163.8	2,151.7	5.1	6.2	150.59	-64.6	-290.6	393.4	383.7	9.75	40.367		
2,300.0	2,293.7	2,261.6	2,248.8	5.4	6.5	150.88	-68.2	-301.6	414.0	403.8	10.23	40.483		
2,400.0	2,393.1	2,359.4	2,346.0	5.7	6.9	151.14	-71.7	-312.6	434.6	423.9	10.71	40.584		
2,500.0	2,492.5	2,457.3	2,443.1	6.0	7.2	151.38	-75.2	-323.5	455.2	444.1	11.19	40.672		
2,600.0	2,592.0	2,555.1	2,540.3	6.2	7.5	151.60	-78.7	-334.5	475.9	464.2	11.68	40.749		
2,700.0	2,691.4	2,652.9	2,637.4	6.5	7.8	151.80	-82.3	-345.5	496.5	484.3	12.16	40.818		
2,800.0	2,790.8	2,750.8	2,734.6	6.8	8.1	151.98	-85.8	-356.4	517.1	504.5	12.65	40.879		
2,900.0	2,890.2	2,848.6	2,831.8	7.1	8.4	152.15	-89.3	-367.4	537.8	524.6	13.14	40.933		
3,000.0	2,989.7	2,946.4	2,928.9	7.4	8.7	152.31	-92.8	-378.3	558.4	544.8	13.63	40.982		
3,100.0	3,089.1	3,044.3	3,026.1	7.7	9.0	152.46	-96.4	-389.3	579.0	564.9	14.11	41.026		
3,200.0	3,188.5	3,142.1	3,123.2	8.0	9.4	152.59	-99.9	-400.3	599.7	585.1	14.60	41.065		
3,300.0	3,287.9	3,240.0	3,220.4	8.3	9.7	152.72	-103.4	-411.2	620.3	605.2	15.09	41.101		
3,400.0	3,387.4	3,337.8	3,317.5	8.6	10.0	152.84	-106.9	-422.2	641.0	625.4	15.58	41.134		
3,500.0	3,486.8	3,435.6	3,414.7	8.9	10.3	152.95	-110.5	-433.2	661.7	645.6	16.07	41.164		
3,600.0	3,586.2	3,533.5	3,511.8	9.2	10.6	153.05	-114.0	-444.1	682.3	665.7	16.56	41.191		
3,700.0	3,685.6	3,631.3	3,609.0	9.5	10.9	153.15	-117.5	-455.1	703.0	685.9	17.06	41.216		
3,800.0	3,785.1	3,729.1	3,706.2	9.8	11.2	153.25	-121.0	-466.1	723.6	706.1	17.55	41.239		
3,900.0	3,884.5	3,827.0	3,803.3	10.1	11.5	153.33	-124.6	-477.0	744.3	726.3	18.04	41.260		
4,000.0	3,983.9	3,924.8	3,900.5	10.4	11.9	153.42	-128.1	-488.0	765.0	746.4	18.53	41.279		
4,100.0	4,083.3	4,022.6	3,997.6	10.7	12.2	153.50	-131.6	-499.0	785.6	766.6	19.02	41.297		
4,200.0	4,182.7	4,120.5	4,094.8	11.0	12.5	153.57	-135.1	-509.9	806.3	786.8	19.52	41.314		
4,300.0	4,282.2	4,218.3	4,191.9	11.3	12.8	153.64	-138.7	-520.9	827.0	807.0	20.01	41.329		
4,400.0	4,381.6	4,316.1	4,289.1	11.6	13.1	153.71	-142.2	-531.9	847.6	827.1	20.50	41.343		
4,500.0	4,481.0	4,414.0	4,386.2	11.9	13.4	153.77	-145.7	-542.8	868.3	847.3	21.00	41.357		
4,600.0	4,580.4	4,511.8	4,483.4	12.2	13.7	153.83	-149.2	-553.8	889.0	867.5	21.49	41.369		
4,700.0	4,679.9	4,609.7	4,580.6	12.5	14.1	153.89	-152.8	-564.8	909.7	887.7	21.98	41.380		
4,800.0	4,779.4	4,707.7	4,677.9	12.8	14.4	154.06	-156.3	-575.8	929.2	906.7	22.50	41.292		
4,900.0	4,879.2	4,806.3	4,775.9	13.0	14.7	154.13	-159.8	-586.8	945.6	922.6	22.97	41.159		

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Waste Management 2Q-201
<b>Project:</b>	SEC.2-T2N-R64W	<b>TVD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Reference Site:</b>	Waste Management 2Q-HZ Pad Sec.2-T2N-R64W	<b>MD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Waste Management 2Q-201	<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 #1 (2-06-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design											Waste Management 2Q-HZ Pad Sec.2-T2N-R64W - Waste Management 2L-401 - Wellbore #1 - Plan #			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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)					
5,000.0	4,979.2	4,905.4	4,874.3	13.1	15.0	154.09	-163.4	-597.9	959.0	935.6	23.42	40.948				
5,100.0	5,079.2	5,004.7	4,972.9	13.3	15.3	-89.23	-167.0	-609.0	970.2	946.4	23.85	40.679				
5,200.0	5,179.2	5,104.0	5,071.5	13.5	15.6	-89.45	-170.6	-620.2	981.4	957.1	24.28	40.420				
5,300.0	5,279.2	5,207.0	5,173.7	13.6	16.0	-89.67	-174.3	-631.7	992.5	967.8	24.71	40.163				

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Waste Management 2Q-201
<b>Project:</b>	SEC.2-T2N-R64W	<b>TVD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Reference Site:</b>	Waste Management 2Q-HZ Pad Sec.2-T2N-R64W	<b>MD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Waste Management 2Q-201	<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 #1 (2-06-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Waste Management 2Q-HZ Pad Sec.2-T2N-R64W - Waste Management 2Q-441 - Wellbore #1 - Plan #										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		
0.0	0.0	1.0	1.0	0.0	0.0	-89.97	0.0	-30.7	30.7	30.7	0.00	N/A			
100.0	100.0	101.0	101.0	0.1	0.1	-89.97	0.0	-30.7	30.7	30.5	0.23	135.435			
200.0	200.0	201.0	201.0	0.3	0.3	-89.97	0.0	-30.7	30.7	30.1	0.68	45.445			
300.0	300.0	301.0	301.0	0.6	0.6	-89.97	0.0	-30.7	30.7	29.6	1.13	27.303			
400.0	400.0	401.0	401.0	0.8	0.8	-89.97	0.0	-30.7	30.7	29.2	1.58	19.513			
500.0	500.0	501.0	501.0	1.0	1.0	-89.97	0.0	-30.7	30.7	28.7	2.03	15.182			
600.0	600.0	601.0	601.0	1.2	1.2	-89.97	0.0	-30.7	30.7	28.3	2.47	12.424			
700.0	700.0	701.0	701.0	1.5	1.5	-89.97	0.0	-30.7	30.7	27.8	2.92	10.514			
800.0	800.0	801.0	801.0	1.7	1.7	-89.97	0.0	-30.7	30.7	27.4	3.37	9.113			
900.0	900.0	901.0	901.0	1.9	1.9	-89.97	0.0	-30.7	30.7	26.9	3.82	8.042			
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-89.97	0.0	-30.7	30.7	26.5	4.27	7.196 CC, ES			
1,100.0	1,100.0	1,101.0	1,101.0	2.3	2.4	154.53	0.0	-30.7	32.3	27.6	4.70	6.873			
1,200.0	1,199.8	1,200.8	1,200.8	2.5	2.6	157.97	0.0	-30.7	37.1	32.0	5.11	7.260			
1,300.0	1,299.5	1,300.5	1,300.5	2.7	2.8	162.06	0.0	-30.7	45.3	39.8	5.52	8.202			
1,400.0	1,398.9	1,399.9	1,399.9	3.0	3.0	165.45	0.0	-30.7	55.6	49.6	5.95	9.350			
1,500.0	1,498.3	1,499.3	1,499.3	3.2	3.3	167.79	0.0	-30.7	66.0	59.7	6.37	10.358			
1,600.0	1,597.7	1,598.7	1,598.7	3.5	3.5	169.49	0.0	-30.7	76.5	69.7	6.81	11.244			
1,700.0	1,697.1	1,698.1	1,698.1	3.7	3.7	170.77	0.0	-30.7	87.1	79.9	7.24	12.025			
1,800.0	1,796.6	1,797.6	1,797.6	4.0	3.9	171.78	0.0	-30.7	97.7	90.0	7.68	12.717			
1,900.0	1,896.0	1,897.0	1,897.0	4.3	4.2	172.59	0.0	-30.7	108.3	100.2	8.12	13.334			
2,000.0	1,995.4	1,996.4	1,996.4	4.5	4.4	173.26	0.0	-30.7	119.0	110.4	8.57	13.885			
2,100.0	2,094.8	2,095.8	2,095.8	4.8	4.6	173.81	0.0	-30.7	129.6	120.6	9.01	14.382			
2,200.0	2,194.3	2,195.3	2,195.3	5.1	4.8	174.28	0.0	-30.7	140.3	130.8	9.46	14.830			
2,300.0	2,293.7	2,294.7	2,294.7	5.4	5.0	174.69	0.0	-30.7	150.9	141.0	9.91	15.237			
2,400.0	2,393.1	2,394.1	2,394.1	5.7	5.3	175.04	0.0	-30.7	161.6	151.3	10.35	15.608			
2,500.0	2,492.5	2,493.5	2,493.5	6.0	5.5	175.35	0.0	-30.7	172.3	161.5	10.80	15.947			
2,600.0	2,592.0	2,593.0	2,593.0	6.2	5.7	175.62	0.0	-30.7	183.0	171.7	11.26	16.258			
2,700.0	2,691.4	2,692.4	2,692.4	6.5	5.9	175.86	0.0	-30.7	193.7	182.0	11.71	16.544			
2,800.0	2,790.8	2,791.8	2,791.8	6.8	6.2	176.08	0.0	-30.7	204.4	192.2	12.16	16.809			
2,900.0	2,890.2	2,891.2	2,891.2	7.1	6.4	176.28	0.0	-30.7	215.1	202.4	12.61	17.053			
3,000.0	2,889.7	2,890.7	2,890.7	7.4	6.6	176.45	0.0	-30.7	225.8	212.7	13.06	17.281			
3,100.0	3,089.1	3,095.0	3,095.0	7.7	6.8	176.32	-1.5	-30.3	235.5	222.0	13.50	17.445			
3,200.0	3,188.5	3,200.1	3,199.9	8.0	7.0	175.50	-6.7	-28.9	243.0	229.1	13.91	17.468			
3,300.0	3,287.9	3,305.2	3,304.7	8.3	7.2	174.01	-15.6	-26.4	248.4	234.0	14.33	17.329			
3,400.0	3,387.4	3,405.5	3,404.3	8.6	7.4	172.25	-26.3	-23.4	252.6	237.9	14.76	17.117			
3,500.0	3,486.8	3,505.1	3,503.3	8.9	7.6	170.55	-36.9	-20.5	257.1	241.9	15.19	16.920			
3,600.0	3,586.2	3,604.7	3,602.3	9.2	7.7	168.92	-47.4	-17.6	261.7	246.1	15.64	16.736			
3,700.0	3,685.6	3,704.3	3,701.3	9.5	8.0	167.34	-58.0	-14.6	266.6	250.5	16.09	16.565			
3,800.0	3,785.1	3,803.9	3,800.3	9.8	8.2	165.81	-68.6	-11.7	271.7	255.1	16.56	16.404			
3,900.0	3,884.5	3,903.5	3,899.3	10.1	8.4	164.35	-79.2	-8.7	276.9	259.9	17.04	16.254			
4,000.0	3,983.9	4,003.1	3,998.3	10.4	8.6	162.94	-89.8	-5.8	282.4	264.8	17.52	16.113			
4,100.0	4,083.3	4,102.8	4,097.3	10.7	8.8	161.58	-100.4	-2.9	288.0	269.9	18.02	15.982			
4,200.0	4,182.7	4,202.4	4,196.3	11.0	9.1	160.28	-111.0	0.1	293.7	275.2	18.52	15.858			
4,300.0	4,282.2	4,302.0	4,295.3	11.3	9.3	159.02	-121.6	3.0	299.6	280.6	19.03	15.743			
4,400.0	4,381.6	4,401.6	4,394.3	11.6	9.5	157.82	-132.2	6.0	305.6	286.1	19.55	15.635			
4,500.0	4,481.0	4,501.2	4,493.3	11.9	9.8	156.66	-142.7	8.9	311.8	291.7	20.07	15.534			
4,600.0	4,580.4	4,600.8	4,592.3	12.2	10.0	155.55	-153.3	11.9	318.1	297.5	20.60	15.439			
4,700.0	4,679.9	4,700.0	4,690.9	12.5	10.3	154.49	-163.9	14.8	324.5	303.4	21.14	15.351			
4,800.0	4,779.4	4,796.8	4,787.3	12.8	10.5	153.74	-172.4	17.1	330.4	308.7	21.64	15.265			
4,900.0	4,879.2	4,893.6	4,883.9	13.0	10.8	153.30	-177.7	18.6	334.1	312.1	22.07	15.139			
5,000.0	4,979.2	4,990.5	4,980.8	13.1	11.0	153.12	-179.9	19.2	335.7	313.3	22.44	14.958			

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Waste Management 2Q-201
<b>Project:</b>	SEC.2-T2N-R64W	<b>TVD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Reference Site:</b>	Waste Management 2Q-HZ Pad Sec.2-T2N-R64W	<b>MD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Waste Management 2Q-201	<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 #1 (2-06-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Waste Management 2Q-HZ Pad Sec.2-T2N-R64W - Waste Management 2Q-441 - Wellbore #1 - Plan #										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		
5,100.0	5,079.2	5,089.9	5,080.2	13.3	11.2	-90.00	-180.0	19.3	335.7	312.9	22.83	14.706		
5,200.0	5,179.2	5,189.9	5,180.2	13.5	11.4	-90.00	-180.0	19.3	335.7	312.5	23.22	14.459		
5,300.0	5,279.2	5,289.9	5,280.2	13.6	11.6	-90.00	-180.0	19.3	335.7	312.1	23.61	14.218		
5,400.0	5,379.2	5,389.9	5,380.2	13.8	11.8	-90.00	-180.0	19.3	335.7	311.7	24.01	13.984		
5,500.0	5,479.2	5,489.9	5,480.2	14.0	12.0	-90.00	-180.0	19.3	335.7	311.3	24.41	13.756		
5,600.0	5,579.2	5,589.9	5,580.2	14.1	12.2	-90.00	-180.0	19.3	335.7	310.9	24.81	13.535		
5,700.0	5,679.2	5,689.9	5,680.2	14.3	12.4	-90.00	-180.0	19.3	335.7	310.5	25.21	13.320		
5,800.0	5,779.2	5,789.9	5,780.2	14.5	12.6	-90.00	-180.0	19.3	335.7	310.1	25.61	13.111		
5,900.0	5,879.2	5,889.9	5,880.2	14.7	12.8	-90.00	-180.0	19.3	335.7	309.7	26.01	12.908		
6,000.0	5,979.2	5,989.9	5,980.2	14.9	13.0	-90.00	-180.0	19.3	335.7	309.3	26.42	12.710		
6,100.0	6,079.2	6,089.9	6,080.2	15.0	13.2	-90.00	-180.0	19.3	335.7	308.9	26.82	12.517		
6,200.0	6,179.2	6,189.9	6,180.2	15.2	13.5	-89.99	-179.9	19.3	335.7	308.5	27.23	12.330		
6,239.6	6,218.8	6,229.5	6,219.8	15.3	13.5	-90.00	-178.4	19.3	335.7	308.4	27.37	12.267		
6,300.0	6,279.2	6,289.4	6,279.3	15.4	13.6	-88.94	-172.1	19.3	335.8	308.2	27.56	12.185		
6,400.0	6,378.7	6,387.2	6,375.0	15.5	13.8	-87.00	-152.0	19.4	336.2	308.4	27.80	12.094		
6,500.0	6,476.1	6,483.7	6,466.1	15.7	13.9	-85.13	-120.3	19.5	336.9	309.0	27.98	12.041		
6,600.0	6,569.8	6,578.9	6,551.3	15.8	14.0	-83.36	-78.1	19.7	338.0	309.8	28.16	12.004		
6,700.0	6,658.2	6,673.0	6,629.8	15.8	14.1	-81.71	-26.2	20.0	339.2	310.8	28.37	11.957		
6,800.0	6,739.7	6,766.1	6,700.5	15.9	14.3	-80.22	34.2	20.3	340.6	311.9	28.69	11.873		
6,900.0	6,813.0	6,858.3	6,762.9	16.0	14.6	-78.89	102.0	20.6	342.0	312.9	29.16	11.730		
7,000.0	6,876.8	6,950.0	6,816.3	16.1	15.0	-77.74	176.5	21.0	343.4	313.5	29.84	11.507		
7,100.0	6,930.0	7,040.5	6,859.9	16.4	15.6	-76.79	255.7	21.3	344.6	313.8	30.78	11.197		
7,200.0	6,971.8	7,130.8	6,893.8	17.0	16.3	-76.05	339.4	21.8	345.6	313.6	31.99	10.804		
7,300.0	7,001.3	7,220.8	6,917.6	17.8	17.1	-75.52	426.1	22.2	346.4	312.9	33.48	10.345		
7,400.0	7,018.1	7,310.5	6,930.9	18.8	18.1	-75.21	514.7	22.6	346.8	311.6	35.25	9.840		
7,500.0	7,028.2	7,401.2	6,933.9	19.9	19.1	-74.19	605.4	23.0	348.5	311.3	37.20	9.369		
7,600.0	7,032.0	7,501.1	6,933.1	21.2	20.4	-73.40	705.2	23.5	349.8	310.3	39.42	8.873		
7,700.0	7,032.0	7,601.1	6,932.2	22.5	21.8	-73.27	805.2	24.0	349.9	307.9	41.99	8.333		
7,800.0	7,032.0	7,701.1	6,931.4	23.9	23.2	-73.13	905.2	24.5	350.1	305.4	44.72	7.829		
7,900.0	7,032.0	7,801.1	6,930.5	25.4	24.7	-73.00	1,005.2	25.0	350.3	302.7	47.57	7.363		
8,000.0	7,032.0	7,901.1	6,929.7	26.9	26.3	-72.86	1,105.2	25.4	350.5	299.9	50.53	6.937		
8,100.0	7,032.0	8,001.1	6,928.9	28.5	27.9	-72.73	1,205.2	25.9	350.7	297.1	53.56	6.547		
8,200.0	7,032.0	8,101.1	6,928.0	30.1	29.5	-72.60	1,305.2	26.4	350.8	294.2	56.67	6.191		
8,300.0	7,032.0	8,201.1	6,927.2	31.8	31.2	-72.46	1,405.2	26.9	351.0	291.2	59.83	5.867		
8,400.0	7,032.0	8,301.1	6,926.4	33.5	32.9	-72.33	1,505.2	27.4	351.2	288.2	63.04	5.571		
8,500.0	7,032.0	8,401.0	6,925.5	35.2	34.6	-72.19	1,605.2	27.8	351.4	285.1	66.29	5.301		
8,600.0	7,032.0	8,501.0	6,924.7	36.9	36.4	-72.06	1,705.1	28.3	351.6	282.0	69.58	5.053		
8,700.0	7,032.0	8,601.0	6,923.8	38.6	38.1	-71.93	1,805.1	28.8	351.8	278.9	72.89	4.826		
8,800.0	7,032.0	8,701.0	6,923.0	40.4	39.9	-71.79	1,905.1	29.3	352.0	275.8	76.23	4.617		
8,900.0	7,032.0	8,801.0	6,922.2	42.1	41.7	-71.66	2,005.1	29.8	352.2	272.6	79.59	4.425		
9,000.0	7,032.0	8,901.0	6,921.3	43.9	43.5	-71.53	2,105.1	30.2	352.4	269.4	82.96	4.247		
9,100.0	7,032.0	9,001.0	6,920.5	45.7	45.3	-71.39	2,205.1	30.7	352.6	266.2	86.35	4.083		
9,200.0	7,032.0	9,101.0	6,919.7	47.5	47.1	-71.26	2,305.1	31.2	352.8	263.0	89.76	3.930		
9,300.0	7,032.0	9,201.0	6,918.8	49.3	48.9	-71.13	2,405.1	31.7	353.0	259.8	93.17	3.789		
9,400.0	7,032.0	9,301.0	6,918.0	51.2	50.8	-71.00	2,505.1	32.2	353.2	256.6	96.59	3.657		
9,500.0	7,032.0	9,401.0	6,917.1	53.0	52.6	-70.87	2,605.1	32.6	353.4	253.4	100.02	3.533		
9,600.0	7,032.0	9,501.0	6,916.3	54.8	54.5	-70.73	2,705.1	33.1	353.6	250.2	103.45	3.418		
9,700.0	7,032.0	9,601.0	6,915.5	56.6	56.3	-70.60	2,805.1	33.6	353.8	246.9	106.89	3.310		
9,800.0	7,032.0	9,701.0	6,914.6	58.5	58.1	-70.47	2,905.1	34.1	354.0	243.7	110.33	3.209		
9,900.0	7,032.0	9,801.0	6,913.8	60.3	60.0	-70.34	3,005.0	34.6	354.3	240.5	113.78	3.114		

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Waste Management 2Q-201
<b>Project:</b>	SEC.2-T2N-R64W	<b>TVD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Reference Site:</b>	Waste Management 2Q-HZ Pad Sec.2-T2N-R64W	<b>MD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Waste Management 2Q-201	<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 #1 (2-06-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Waste Management 2Q-HZ Pad Sec.2-T2N-R64W - Waste Management 2Q-441 - Wellbore #1 - Plan #										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			
10,000.0	7,032.0	9,901.0	6,913.0	62.2	61.9	-70.21	3,105.0	35.1	354.5	237.3	117.22	3.024			
10,100.0	7,032.0	10,001.0	6,912.1	64.0	63.7	-70.08	3,205.0	35.5	354.7	234.0	120.67	2.939			
10,200.0	7,032.0	10,101.0	6,911.3	65.9	65.6	-69.94	3,305.0	36.0	354.9	230.8	124.12	2.859			
10,300.0	7,032.0	10,201.0	6,910.4	67.8	67.5	-69.81	3,405.0	36.5	355.1	227.6	127.57	2.784			
10,400.0	7,032.0	10,301.0	6,909.6	69.6	69.3	-69.68	3,505.0	37.0	355.4	224.4	131.02	2.712			
10,500.0	7,032.0	10,401.0	6,908.8	71.5	71.2	-69.55	3,605.0	37.5	355.6	221.1	134.47	2.644			
10,600.0	7,032.0	10,501.0	6,907.9	73.4	73.1	-69.42	3,705.0	37.9	355.8	217.9	137.92	2.580			
10,700.0	7,032.0	10,601.0	6,907.1	75.2	75.0	-69.29	3,805.0	38.4	356.1	214.7	141.36	2.519			
10,800.0	7,032.0	10,701.0	6,906.3	77.1	76.8	-69.16	3,905.0	38.9	356.3	211.5	144.80	2.460			
10,900.0	7,032.0	10,801.0	6,905.4	79.0	78.7	-69.03	4,005.0	39.4	356.5	208.3	148.25	2.405			
11,000.0	7,032.0	10,901.0	6,904.6	80.9	80.6	-68.90	4,105.0	39.9	356.8	205.1	151.69	2.352			
11,100.0	7,032.0	11,001.0	6,903.7	82.7	82.5	-68.77	4,204.9	40.3	357.0	201.9	155.12	2.301			
11,200.0	7,032.0	11,101.0	6,902.9	84.6	84.4	-68.64	4,304.9	40.8	357.2	198.7	158.56	2.253			
11,300.0	7,032.0	11,200.9	6,902.1	86.5	86.3	-68.51	4,404.9	41.3	357.5	195.5	161.99	2.207			
11,400.0	7,032.0	11,300.9	6,901.2	88.4	88.2	-68.39	4,504.9	41.8	357.7	192.3	165.41	2.163			
11,428.3	7,032.0	11,327.9	6,901.0	88.9	88.7	-68.35	4,531.9	41.9	357.8	191.4	166.36	2.151 SF			

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Waste Management 2Q-201
<b>Project:</b>	SEC.2-T2N-R64W	<b>TVD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Reference Site:</b>	Waste Management 2Q-HZ Pad Sec.2-T2N-R64W	<b>MD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Waste Management 2Q-201	<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 #1 (2-06-13)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4947.0ft (RKB -15')  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: Waste Management 2Q-201  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.63°



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Waste Management 2Q-201
<b>Project:</b>	SEC.2-T2N-R64W	<b>TVD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Reference Site:</b>	Waste Management 2Q-HZ Pad Sec.2-T2N-R64W	<b>MD Reference:</b>	WELL @ 4947.0ft (RKB -15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Waste Management 2Q-201	<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 #1 (2-06-13)	<b>Offset TVD Reference:</b>	Offset Datum

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