

PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: Waste Management 2L-441

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

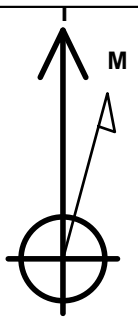
Ground Elevation: 4939.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1302932.66	3272262.49	40.160840	-104.525850	

RKB - 15' WELL @ 4954.0ft (RKB - 15')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape Point
BHL 500'FNL, 820'FWL	7054.0	4524.6	162.1	Point



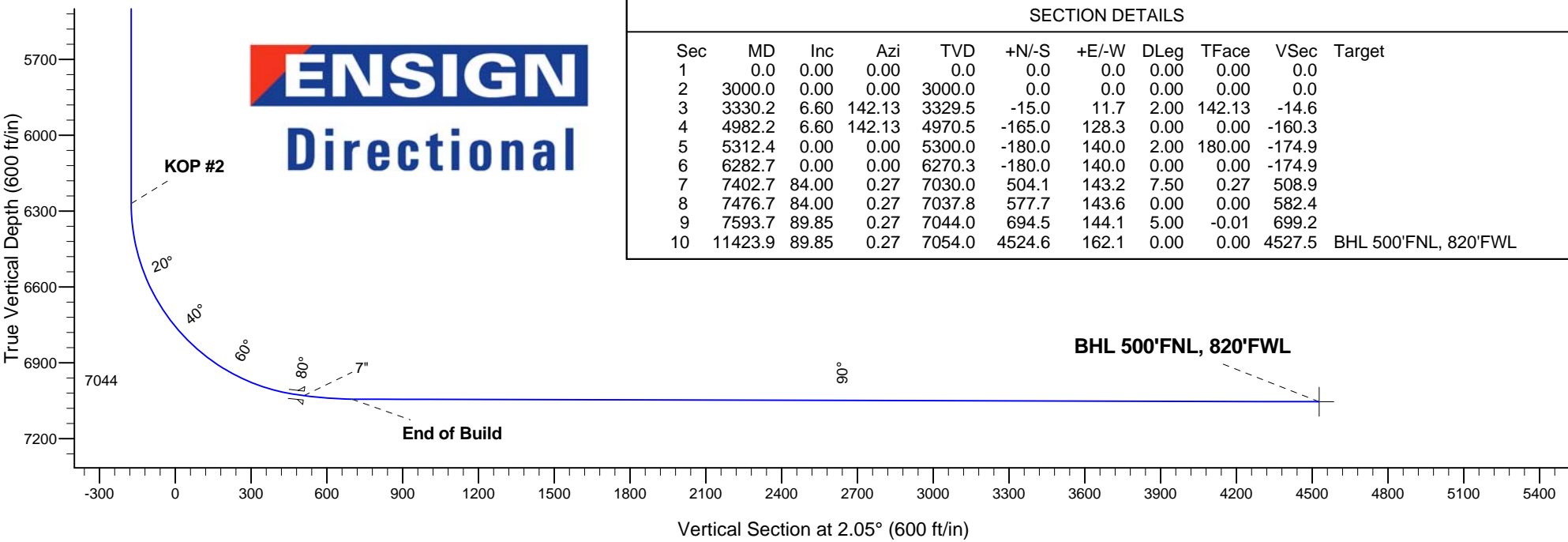
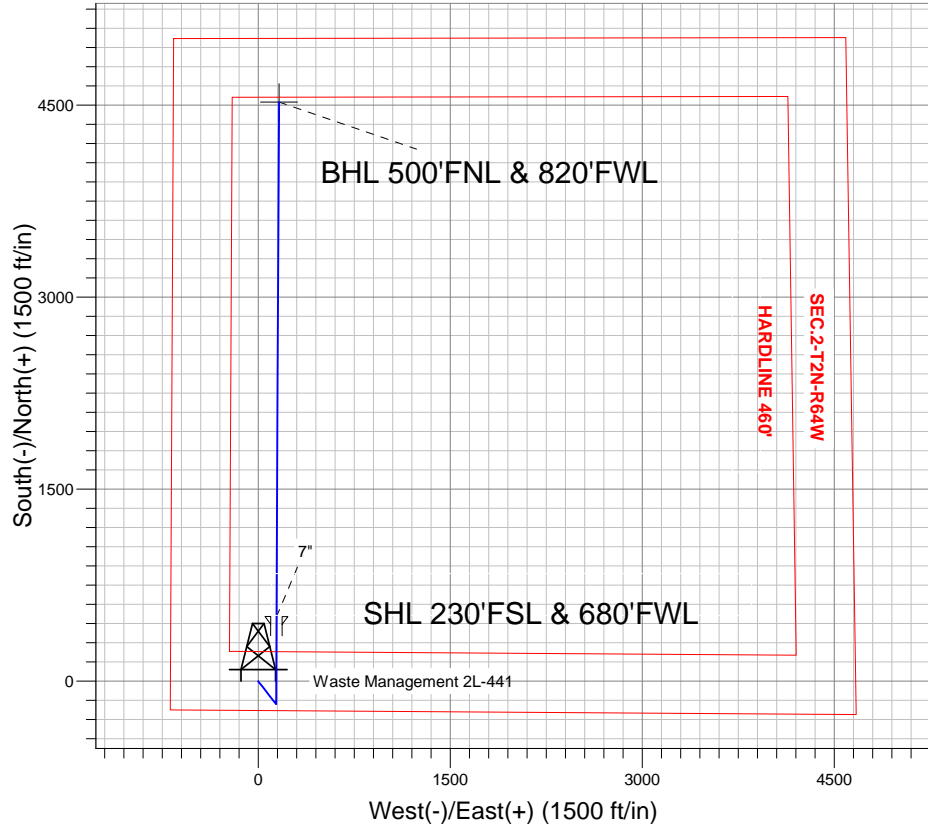
Azimuths to True North
 Magnetic North: 8.50°

Magnetic Field
 Strength: 52860.7snT
 Dip Angle: 66.84°
 Date: 1/23/2013
 Model: IGRF2010

ANNOTATIONS

TVD	MD	Annotation
3000.0	3000.0	KOP #1
6270.3	6282.7	KOP #2
7044.0	7593.7	End of Build

Waste Management 2IL-HZ Pad Sec.2-T2N-R64W
 Waste Management 2L-441
 Plan #1 (1-23-13)
 11:07, January 24 2013



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	3000.0	0.00	0.00	3000.0	0.0	0.0	0.00	0.00	0.0	
3	3330.2	6.60	142.13	3329.5	-15.0	11.7	2.00	142.13	-14.6	
4	4982.2	6.60	142.13	4970.5	-165.0	128.3	0.00	0.00	-160.3	
5	5312.4	0.00	0.00	5300.0	-180.0	140.0	2.00	180.00	-174.9	
6	6282.7	0.00	0.00	6270.3	-180.0	140.0	0.00	0.00	-174.9	
7	7402.7	84.00	0.27	7030.0	504.1	143.2	7.50	0.27	508.9	
8	7476.7	84.00	0.27	7037.8	577.7	143.6	0.00	0.00	582.4	
9	7593.7	89.85	0.27	7044.0	694.5	144.1	5.00	-0.01	699.2	
10	11423.9	89.85	0.27	7054.0	4524.6	162.1	0.00	0.00	4527.5	BHL 500'FNL, 820'FWL



Directional

**PETROLEUM DEVELOPMENT
CORP Weld County CO**

SEC.2-T2N-R64W

Waste Management 2IL-HZ Pad Sec.2-T2N-R64W

Waste Management 2L-441

Wellbore #1

Plan: Plan #1 (1-23-13)

Standard Planning Report

24 January, 2013

Database:	Landmark	Local Co-ordinate Reference:	Well Waste Management 2L-441
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4954.0ft (RKB - 15')
Project:	SEC.2-T2N-R64W	MD Reference:	WELL @ 4954.0ft (RKB - 15')
Site:	Waste Management 2IL-HZ Pad Sec.2-T2N-R64W	North Reference:	True
Well:	Waste Management 2L-441	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (1-23-13)		

Project	SEC.2-T2N-R64W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Waste Management 2IL-HZ Pad Sec.2-T2N-R64W				
Site Position:		Northing:	1,302,936.01 ft	Latitude:	40.160850
From:	Lat/Long	Easting:	3,272,234.50 ft	Longitude:	-104.525950
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.63 °

Well	Waste Management 2L-441					
Well Position	+N/-S	-3.7 ft	Northing:	1,302,932.66 ft	Latitude:	40.160840
	+E/-W	28.0 ft	Easting:	3,272,262.49 ft	Longitude:	-104.525850
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,939.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/23/2013	8.50	66.84	52,861

Design	Plan #1 (1-23-13)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	7,054.0	0.0	0.0	2.05

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,330.2	6.60	142.13	3,329.5	-15.0	11.7	2.00	2.00	0.00	142.13	
4,982.2	6.60	142.13	4,970.5	-165.0	128.3	0.00	0.00	0.00	0.00	
5,312.4	0.00	0.00	5,300.0	-180.0	140.0	2.00	-2.00	0.00	180.00	
6,282.7	0.00	0.00	6,270.3	-180.0	140.0	0.00	0.00	0.00	0.00	
7,402.7	84.00	0.27	7,030.0	504.1	143.2	7.50	7.50	0.00	0.27	
7,476.7	84.00	0.27	7,037.8	577.7	143.6	0.00	0.00	0.00	0.00	
7,593.7	89.85	0.27	7,044.0	694.5	144.1	5.00	5.00	0.00	-0.01	
11,423.9	89.85	0.27	7,054.0	4,524.6	162.1	0.00	0.00	0.00	0.00	BHL 500'FNL, 820'

Database:	Landmark	Local Co-ordinate Reference:	Well Waste Management 2L-441
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4954.0ft (RKB - 15')
Project:	SEC.2-T2N-R64W	MD Reference:	WELL @ 4954.0ft (RKB - 15')
Site:	Waste Management 2IL-HZ Pad Sec.2-T2N-R64W	North Reference:	True
Well:	Waste Management 2L-441	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (1-23-13)		

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
1,040.0	0.00	0.00	1,040.0	0.0	0.0	0.0	0.00	0.00	0.00
1,080.0	0.00	0.00	1,080.0	0.0	0.0	0.0	0.00	0.00	0.00
1,120.0	0.00	0.00	1,120.0	0.0	0.0	0.0	0.00	0.00	0.00
1,160.0	0.00	0.00	1,160.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,240.0	0.00	0.00	1,240.0	0.0	0.0	0.0	0.00	0.00	0.00
1,280.0	0.00	0.00	1,280.0	0.0	0.0	0.0	0.00	0.00	0.00
1,320.0	0.00	0.00	1,320.0	0.0	0.0	0.0	0.00	0.00	0.00
1,360.0	0.00	0.00	1,360.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,440.0	0.00	0.00	1,440.0	0.0	0.0	0.0	0.00	0.00	0.00
1,480.0	0.00	0.00	1,480.0	0.0	0.0	0.0	0.00	0.00	0.00
1,520.0	0.00	0.00	1,520.0	0.0	0.0	0.0	0.00	0.00	0.00
1,560.0	0.00	0.00	1,560.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,640.0	0.00	0.00	1,640.0	0.0	0.0	0.0	0.00	0.00	0.00
1,680.0	0.00	0.00	1,680.0	0.0	0.0	0.0	0.00	0.00	0.00
1,720.0	0.00	0.00	1,720.0	0.0	0.0	0.0	0.00	0.00	0.00
1,760.0	0.00	0.00	1,760.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,840.0	0.00	0.00	1,840.0	0.0	0.0	0.0	0.00	0.00	0.00
1,880.0	0.00	0.00	1,880.0	0.0	0.0	0.0	0.00	0.00	0.00
1,920.0	0.00	0.00	1,920.0	0.0	0.0	0.0	0.00	0.00	0.00
1,960.0	0.00	0.00	1,960.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,040.0	0.00	0.00	2,040.0	0.0	0.0	0.0	0.00	0.00	0.00

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Project:	SEC.2-T2N-R64W	MD Reference:	WELL @ 4954.0ft (RKB - 15')
Site:	Waste Management 2IL-HZ Pad Sec.2-T2N-R64W	North Reference:	True
Well:	Waste Management 2L-441	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (1-23-13)		

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)
2,080.0	0.00	0.00	2,080.0	0.0	0.0	0.0	0.00	0.00	0.00
2,120.0	0.00	0.00	2,120.0	0.0	0.0	0.0	0.00	0.00	0.00
2,160.0	0.00	0.00	2,160.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,240.0	0.00	0.00	2,240.0	0.0	0.0	0.0	0.00	0.00	0.00
2,280.0	0.00	0.00	2,280.0	0.0	0.0	0.0	0.00	0.00	0.00
2,320.0	0.00	0.00	2,320.0	0.0	0.0	0.0	0.00	0.00	0.00
2,360.0	0.00	0.00	2,360.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,440.0	0.00	0.00	2,440.0	0.0	0.0	0.0	0.00	0.00	0.00
2,480.0	0.00	0.00	2,480.0	0.0	0.0	0.0	0.00	0.00	0.00
2,520.0	0.00	0.00	2,520.0	0.0	0.0	0.0	0.00	0.00	0.00
2,560.0	0.00	0.00	2,560.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,640.0	0.00	0.00	2,640.0	0.0	0.0	0.0	0.00	0.00	0.00
2,680.0	0.00	0.00	2,680.0	0.0	0.0	0.0	0.00	0.00	0.00
2,720.0	0.00	0.00	2,720.0	0.0	0.0	0.0	0.00	0.00	0.00
2,760.0	0.00	0.00	2,760.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,840.0	0.00	0.00	2,840.0	0.0	0.0	0.0	0.00	0.00	0.00
2,880.0	0.00	0.00	2,880.0	0.0	0.0	0.0	0.00	0.00	0.00
2,920.0	0.00	0.00	2,920.0	0.0	0.0	0.0	0.00	0.00	0.00
2,960.0	0.00	0.00	2,960.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,040.0	0.80	142.13	3,040.0	-0.2	0.2	-0.2	2.00	2.00	0.00
3,080.0	1.60	142.13	3,080.0	-0.9	0.7	-0.9	2.00	2.00	0.00
3,120.0	2.40	142.13	3,120.0	-2.0	1.5	-1.9	2.00	2.00	0.00
3,160.0	3.20	142.13	3,159.9	-3.5	2.7	-3.4	2.00	2.00	0.00
3,200.0	4.00	142.13	3,199.8	-5.5	4.3	-5.4	2.00	2.00	0.00
3,240.0	4.80	142.13	3,239.7	-7.9	6.2	-7.7	2.00	2.00	0.00
3,280.0	5.60	142.13	3,279.6	-10.8	8.4	-10.5	2.00	2.00	0.00
3,320.0	6.40	142.13	3,319.3	-14.1	11.0	-13.7	2.00	2.00	0.00
3,330.2	6.60	142.13	3,329.5	-15.0	11.7	-14.6	2.00	2.00	0.00
3,360.0	6.60	142.13	3,359.1	-17.7	13.8	-17.2	0.00	0.00	0.00
3,400.0	6.60	142.13	3,398.8	-21.3	16.6	-20.7	0.00	0.00	0.00
3,440.0	6.60	142.13	3,438.5	-25.0	19.4	-24.3	0.00	0.00	0.00
3,480.0	6.60	142.13	3,478.3	-28.6	22.2	-27.8	0.00	0.00	0.00
3,520.0	6.60	142.13	3,518.0	-32.2	25.1	-31.3	0.00	0.00	0.00
3,560.0	6.60	142.13	3,557.7	-35.9	27.9	-34.8	0.00	0.00	0.00
3,600.0	6.60	142.13	3,597.5	-39.5	30.7	-38.4	0.00	0.00	0.00
3,640.0	6.60	142.13	3,637.2	-43.1	33.5	-41.9	0.00	0.00	0.00
3,680.0	6.60	142.13	3,676.9	-46.8	36.4	-45.4	0.00	0.00	0.00
3,720.0	6.60	142.13	3,716.7	-50.4	39.2	-49.0	0.00	0.00	0.00
3,760.0	6.60	142.13	3,756.4	-54.0	42.0	-52.5	0.00	0.00	0.00
3,800.0	6.60	142.13	3,796.2	-57.7	44.8	-56.0	0.00	0.00	0.00
3,840.0	6.60	142.13	3,835.9	-61.3	47.7	-59.5	0.00	0.00	0.00
3,880.0	6.60	142.13	3,875.6	-64.9	50.5	-63.1	0.00	0.00	0.00
3,920.0	6.60	142.13	3,915.4	-68.6	53.3	-66.6	0.00	0.00	0.00
3,960.0	6.60	142.13	3,955.1	-72.2	56.1	-70.1	0.00	0.00	0.00
4,000.0	6.60	142.13	3,994.8	-75.8	59.0	-73.7	0.00	0.00	0.00
4,040.0	6.60	142.13	4,034.6	-79.4	61.8	-77.2	0.00	0.00	0.00
4,080.0	6.60	142.13	4,074.3	-83.1	64.6	-80.7	0.00	0.00	0.00

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Project:	SEC.2-T2N-R64W	MD Reference:	WELL @ 4954.0ft (RKB - 15')
Site:	Waste Management 2IL-HZ Pad Sec.2-T2N-R64W	North Reference:	True
Well:	Waste Management 2L-441	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (1-23-13)		

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)
4,120.0	6.60	142.13	4,114.0	-86.7	67.4	-84.2	0.00	0.00	0.00
4,160.0	6.60	142.13	4,153.8	-90.3	70.3	-87.8	0.00	0.00	0.00
4,200.0	6.60	142.13	4,193.5	-94.0	73.1	-91.3	0.00	0.00	0.00
4,240.0	6.60	142.13	4,233.2	-97.6	75.9	-94.8	0.00	0.00	0.00
4,280.0	6.60	142.13	4,273.0	-101.2	78.7	-98.4	0.00	0.00	0.00
4,320.0	6.60	142.13	4,312.7	-104.9	81.6	-101.9	0.00	0.00	0.00
4,360.0	6.60	142.13	4,352.4	-108.5	84.4	-105.4	0.00	0.00	0.00
4,400.0	6.60	142.13	4,392.2	-112.1	87.2	-108.9	0.00	0.00	0.00
4,440.0	6.60	142.13	4,431.9	-115.8	90.0	-112.5	0.00	0.00	0.00
4,480.0	6.60	142.13	4,471.6	-119.4	92.9	-116.0	0.00	0.00	0.00
4,520.0	6.60	142.13	4,511.4	-123.0	95.7	-119.5	0.00	0.00	0.00
4,560.0	6.60	142.13	4,551.1	-126.7	98.5	-123.1	0.00	0.00	0.00
4,600.0	6.60	142.13	4,590.8	-130.3	101.3	-126.6	0.00	0.00	0.00
4,640.0	6.60	142.13	4,630.6	-133.9	104.2	-130.1	0.00	0.00	0.00
4,680.0	6.60	142.13	4,670.3	-137.6	107.0	-133.6	0.00	0.00	0.00
4,720.0	6.60	142.13	4,710.0	-141.2	109.8	-137.2	0.00	0.00	0.00
4,760.0	6.60	142.13	4,749.8	-144.8	112.6	-140.7	0.00	0.00	0.00
4,800.0	6.60	142.13	4,789.5	-148.5	115.5	-144.2	0.00	0.00	0.00
4,840.0	6.60	142.13	4,829.2	-152.1	118.3	-147.8	0.00	0.00	0.00
4,880.0	6.60	142.13	4,869.0	-155.7	121.1	-151.3	0.00	0.00	0.00
4,920.0	6.60	142.13	4,908.7	-159.3	123.9	-154.8	0.00	0.00	0.00
4,960.0	6.60	142.13	4,948.5	-163.0	126.8	-158.3	0.00	0.00	0.00
4,982.2	6.60	142.13	4,970.5	-165.0	128.3	-160.3	0.00	0.00	0.00
5,000.0	6.25	142.13	4,988.2	-166.6	129.6	-161.8	2.00	-2.00	0.00
5,040.0	5.45	142.13	5,028.0	-169.8	132.1	-164.9	2.00	-2.00	0.00
5,080.0	4.65	142.13	5,067.8	-172.6	134.2	-167.6	2.00	-2.00	0.00
5,120.0	3.85	142.13	5,107.7	-174.9	136.0	-169.9	2.00	-2.00	0.00
5,160.0	3.05	142.13	5,147.6	-176.8	137.5	-171.8	2.00	-2.00	0.00
5,200.0	2.25	142.13	5,187.6	-178.3	138.6	-173.2	2.00	-2.00	0.00
5,240.0	1.45	142.13	5,227.6	-179.3	139.4	-174.2	2.00	-2.00	0.00
5,280.0	0.65	142.13	5,267.6	-179.9	139.9	-174.7	2.00	-2.00	0.00
5,312.4	0.00	0.00	5,300.0	-180.0	140.0	-174.9	2.00	-2.00	0.00
5,320.0	0.00	0.00	5,307.6	-180.0	140.0	-174.9	0.00	0.00	0.00
5,360.0	0.00	0.00	5,347.6	-180.0	140.0	-174.9	0.00	0.00	0.00
5,400.0	0.00	0.00	5,387.6	-180.0	140.0	-174.9	0.00	0.00	0.00
5,440.0	0.00	0.00	5,427.6	-180.0	140.0	-174.9	0.00	0.00	0.00
5,480.0	0.00	0.00	5,467.6	-180.0	140.0	-174.9	0.00	0.00	0.00
5,520.0	0.00	0.00	5,507.6	-180.0	140.0	-174.9	0.00	0.00	0.00
5,560.0	0.00	0.00	5,547.6	-180.0	140.0	-174.9	0.00	0.00	0.00
5,600.0	0.00	0.00	5,587.6	-180.0	140.0	-174.9	0.00	0.00	0.00
5,640.0	0.00	0.00	5,627.6	-180.0	140.0	-174.9	0.00	0.00	0.00
5,680.0	0.00	0.00	5,667.6	-180.0	140.0	-174.9	0.00	0.00	0.00
5,720.0	0.00	0.00	5,707.6	-180.0	140.0	-174.9	0.00	0.00	0.00
5,760.0	0.00	0.00	5,747.6	-180.0	140.0	-174.9	0.00	0.00	0.00
5,800.0	0.00	0.00	5,787.6	-180.0	140.0	-174.9	0.00	0.00	0.00
5,840.0	0.00	0.00	5,827.6	-180.0	140.0	-174.9	0.00	0.00	0.00
5,880.0	0.00	0.00	5,867.6	-180.0	140.0	-174.9	0.00	0.00	0.00
5,920.0	0.00	0.00	5,907.6	-180.0	140.0	-174.9	0.00	0.00	0.00
5,960.0	0.00	0.00	5,947.6	-180.0	140.0	-174.9	0.00	0.00	0.00
6,000.0	0.00	0.00	5,987.6	-180.0	140.0	-174.9	0.00	0.00	0.00
6,040.0	0.00	0.00	6,027.6	-180.0	140.0	-174.9	0.00	0.00	0.00
6,080.0	0.00	0.00	6,067.6	-180.0	140.0	-174.9	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Waste Management 2L-441
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4954.0ft (RKB - 15')
Project:	SEC.2-T2N-R64W	MD Reference:	WELL @ 4954.0ft (RKB - 15')
Site:	Waste Management 2IL-HZ Pad Sec.2-T2N-R64W	North Reference:	True
Well:	Waste Management 2L-441	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (1-23-13)		

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)
6,120.0	0.00	0.00	6,107.6	-180.0	140.0	-174.9	0.00	0.00	0.00
6,160.0	0.00	0.00	6,147.6	-180.0	140.0	-174.9	0.00	0.00	0.00
6,200.0	0.00	0.00	6,187.6	-180.0	140.0	-174.9	0.00	0.00	0.00
6,240.0	0.00	0.00	6,227.6	-180.0	140.0	-174.9	0.00	0.00	0.00
6,280.0	0.00	0.00	6,267.6	-180.0	140.0	-174.9	0.00	0.00	0.00
6,282.7	0.00	0.00	6,270.3	-180.0	140.0	-174.9	0.00	0.00	0.00
6,320.0	2.80	0.27	6,307.6	-179.1	140.0	-174.0	7.50	7.50	0.00
6,360.0	5.80	0.27	6,347.4	-176.1	140.0	-171.0	7.50	7.50	0.00
6,400.0	8.80	0.27	6,387.1	-171.0	140.0	-165.9	7.50	7.50	0.00
6,440.0	11.80	0.27	6,426.5	-163.9	140.1	-158.7	7.50	7.50	0.00
6,480.0	14.80	0.27	6,465.4	-154.7	140.1	-149.5	7.50	7.50	0.00
6,520.0	17.80	0.27	6,503.8	-143.4	140.2	-138.3	7.50	7.50	0.00
6,560.0	20.80	0.27	6,541.5	-130.2	140.2	-125.1	7.50	7.50	0.00
6,600.0	23.80	0.27	6,578.5	-115.0	140.3	-110.0	7.50	7.50	0.00
6,640.0	26.80	0.27	6,614.7	-98.0	140.4	-92.9	7.50	7.50	0.00
6,680.0	29.80	0.27	6,649.9	-79.0	140.5	-73.9	7.50	7.50	0.00
6,720.0	32.80	0.27	6,684.1	-58.2	140.6	-53.2	7.50	7.50	0.00
6,760.0	35.80	0.27	6,717.1	-35.7	140.7	-30.6	7.50	7.50	0.00
6,800.0	38.80	0.27	6,748.9	-11.4	140.8	-6.4	7.50	7.50	0.00
6,840.0	41.80	0.27	6,779.4	14.4	140.9	19.5	7.50	7.50	0.00
6,880.0	44.80	0.27	6,808.6	41.8	141.0	46.9	7.50	7.50	0.00
6,920.0	47.80	0.27	6,836.2	70.8	141.2	75.8	7.50	7.50	0.00
6,960.0	50.80	0.27	6,862.3	101.1	141.3	106.1	7.50	7.50	0.00
7,000.0	53.80	0.27	6,886.7	132.7	141.5	137.7	7.50	7.50	0.00
7,040.0	56.80	0.27	6,909.5	165.6	141.6	170.6	7.50	7.50	0.00
7,080.0	59.80	0.27	6,930.5	199.6	141.8	204.6	7.50	7.50	0.00
7,120.0	62.80	0.27	6,949.7	234.7	142.0	239.6	7.50	7.50	0.00
7,160.0	65.80	0.27	6,967.1	270.7	142.1	275.7	7.50	7.50	0.00
7,200.0	68.80	0.27	6,982.5	307.6	142.3	312.5	7.50	7.50	0.00
7,240.0	71.80	0.27	6,996.0	345.3	142.5	350.2	7.50	7.50	0.00
7,280.0	74.80	0.27	7,007.5	383.6	142.7	388.5	7.50	7.50	0.00
7,320.0	77.80	0.27	7,017.0	422.5	142.8	427.3	7.50	7.50	0.00
7,360.0	80.80	0.27	7,024.4	461.8	143.0	466.6	7.50	7.50	0.00
7,400.0	83.80	0.27	7,029.7	501.4	143.2	506.2	7.50	7.50	0.00
7,402.7	84.00	0.27	7,030.0	504.1	143.2	508.9	7.50	7.50	0.00
7,440.0	84.00	0.27	7,033.9	541.2	143.4	546.0	0.00	0.00	0.00
7,476.7	84.00	0.27	7,037.8	577.7	143.6	582.4	0.00	0.00	0.00
7,480.0	84.16	0.27	7,038.1	581.0	143.6	585.7	5.00	5.00	0.00
7,520.0	86.16	0.27	7,041.5	620.8	143.8	625.6	5.00	5.00	0.00
7,560.0	88.16	0.27	7,043.5	660.8	144.0	665.5	5.00	5.00	0.00
7,593.7	89.85	0.27	7,044.0	694.5	144.1	699.2	5.00	5.00	0.00
7,600.0	89.85	0.27	7,044.1	700.8	144.1	705.5	0.00	0.00	0.00
7,640.0	89.85	0.27	7,044.2	740.8	144.3	745.4	0.00	0.00	0.00
7,680.0	89.85	0.27	7,044.3	780.8	144.5	785.4	0.00	0.00	0.00
7,720.0	89.85	0.27	7,044.4	820.8	144.7	825.4	0.00	0.00	0.00
7,760.0	89.85	0.27	7,044.5	860.8	144.9	865.4	0.00	0.00	0.00
7,800.0	89.85	0.27	7,044.6	900.8	145.1	905.4	0.00	0.00	0.00
7,840.0	89.85	0.27	7,044.7	940.8	145.3	945.3	0.00	0.00	0.00
7,880.0	89.85	0.27	7,044.8	980.8	145.5	985.3	0.00	0.00	0.00
7,920.0	89.85	0.27	7,044.9	1,020.8	145.6	1,025.3	0.00	0.00	0.00
7,960.0	89.85	0.27	7,045.0	1,060.7	145.8	1,065.3	0.00	0.00	0.00
8,000.0	89.85	0.27	7,045.1	1,100.7	146.0	1,105.3	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Waste Management 2L-441
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4954.0ft (RKB - 15')
Project:	SEC.2-T2N-R64W	MD Reference:	WELL @ 4954.0ft (RKB - 15')
Site:	Waste Management 2IL-HZ Pad Sec.2-T2N-R64W	North Reference:	True
Well:	Waste Management 2L-441	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (1-23-13)		

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)
8,040.0	89.85	0.27	7,045.2	1,140.7	146.2	1,145.3	0.00	0.00	0.00
8,080.0	89.85	0.27	7,045.3	1,180.7	146.4	1,185.2	0.00	0.00	0.00
8,120.0	89.85	0.27	7,045.4	1,220.7	146.6	1,225.2	0.00	0.00	0.00
8,160.0	89.85	0.27	7,045.5	1,260.7	146.8	1,265.2	0.00	0.00	0.00
8,200.0	89.85	0.27	7,045.6	1,300.7	147.0	1,305.2	0.00	0.00	0.00
8,240.0	89.85	0.27	7,045.7	1,340.7	147.2	1,345.2	0.00	0.00	0.00
8,280.0	89.85	0.27	7,045.8	1,380.7	147.3	1,385.1	0.00	0.00	0.00
8,320.0	89.85	0.27	7,045.9	1,420.7	147.5	1,425.1	0.00	0.00	0.00
8,360.0	89.85	0.27	7,046.0	1,460.7	147.7	1,465.1	0.00	0.00	0.00
8,400.0	89.85	0.27	7,046.1	1,500.7	147.9	1,505.1	0.00	0.00	0.00
8,440.0	89.85	0.27	7,046.2	1,540.7	148.1	1,545.1	0.00	0.00	0.00
8,480.0	89.85	0.27	7,046.3	1,580.7	148.3	1,585.0	0.00	0.00	0.00
8,520.0	89.85	0.27	7,046.5	1,620.7	148.5	1,625.0	0.00	0.00	0.00
8,560.0	89.85	0.27	7,046.6	1,660.7	148.7	1,665.0	0.00	0.00	0.00
8,600.0	89.85	0.27	7,046.7	1,700.7	148.8	1,705.0	0.00	0.00	0.00
8,640.0	89.85	0.27	7,046.8	1,740.7	149.0	1,745.0	0.00	0.00	0.00
8,680.0	89.85	0.27	7,046.9	1,780.7	149.2	1,784.9	0.00	0.00	0.00
8,720.0	89.85	0.27	7,047.0	1,820.7	149.4	1,824.9	0.00	0.00	0.00
8,760.0	89.85	0.27	7,047.1	1,860.7	149.6	1,864.9	0.00	0.00	0.00
8,800.0	89.85	0.27	7,047.2	1,900.7	149.8	1,904.9	0.00	0.00	0.00
8,840.0	89.85	0.27	7,047.3	1,940.7	150.0	1,944.9	0.00	0.00	0.00
8,880.0	89.85	0.27	7,047.4	1,980.7	150.2	1,984.8	0.00	0.00	0.00
8,920.0	89.85	0.27	7,047.5	2,020.7	150.3	2,024.8	0.00	0.00	0.00
8,960.0	89.85	0.27	7,047.6	2,060.7	150.5	2,064.8	0.00	0.00	0.00
9,000.0	89.85	0.27	7,047.7	2,100.7	150.7	2,104.8	0.00	0.00	0.00
9,040.0	89.85	0.27	7,047.8	2,140.7	150.9	2,144.8	0.00	0.00	0.00
9,080.0	89.85	0.27	7,047.9	2,180.7	151.1	2,184.7	0.00	0.00	0.00
9,120.0	89.85	0.27	7,048.0	2,220.7	151.3	2,224.7	0.00	0.00	0.00
9,160.0	89.85	0.27	7,048.1	2,260.7	151.5	2,264.7	0.00	0.00	0.00
9,200.0	89.85	0.27	7,048.2	2,300.7	151.7	2,304.7	0.00	0.00	0.00
9,240.0	89.85	0.27	7,048.3	2,340.7	151.8	2,344.7	0.00	0.00	0.00
9,280.0	89.85	0.27	7,048.4	2,380.7	152.0	2,384.6	0.00	0.00	0.00
9,320.0	89.85	0.27	7,048.5	2,420.7	152.2	2,424.6	0.00	0.00	0.00
9,360.0	89.85	0.27	7,048.6	2,460.7	152.4	2,464.6	0.00	0.00	0.00
9,400.0	89.85	0.27	7,048.7	2,500.7	152.6	2,504.6	0.00	0.00	0.00
9,440.0	89.85	0.27	7,048.8	2,540.7	152.8	2,544.6	0.00	0.00	0.00
9,480.0	89.85	0.27	7,048.9	2,580.7	153.0	2,584.5	0.00	0.00	0.00
9,520.0	89.85	0.27	7,049.1	2,620.7	153.2	2,624.5	0.00	0.00	0.00
9,560.0	89.85	0.27	7,049.2	2,660.7	153.3	2,664.5	0.00	0.00	0.00
9,600.0	89.85	0.27	7,049.3	2,700.7	153.5	2,704.5	0.00	0.00	0.00
9,640.0	89.85	0.27	7,049.4	2,740.7	153.7	2,744.5	0.00	0.00	0.00
9,680.0	89.85	0.27	7,049.5	2,780.7	153.9	2,784.5	0.00	0.00	0.00
9,720.0	89.85	0.27	7,049.6	2,820.7	154.1	2,824.4	0.00	0.00	0.00
9,760.0	89.85	0.27	7,049.7	2,860.7	154.3	2,864.4	0.00	0.00	0.00
9,800.0	89.85	0.27	7,049.8	2,900.7	154.5	2,904.4	0.00	0.00	0.00
9,840.0	89.85	0.27	7,049.9	2,940.7	154.7	2,944.4	0.00	0.00	0.00
9,880.0	89.85	0.27	7,050.0	2,980.7	154.8	2,984.4	0.00	0.00	0.00
9,920.0	89.85	0.27	7,050.1	3,020.7	155.0	3,024.3	0.00	0.00	0.00
9,960.0	89.85	0.27	7,050.2	3,060.7	155.2	3,064.3	0.00	0.00	0.00
10,000.0	89.85	0.27	7,050.3	3,100.7	155.4	3,104.3	0.00	0.00	0.00
10,040.0	89.85	0.27	7,050.4	3,140.7	155.6	3,144.3	0.00	0.00	0.00
10,080.0	89.85	0.27	7,050.5	3,180.7	155.8	3,184.3	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Waste Management 2L-441
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4954.0ft (RKB - 15')
Project:	SEC.2-T2N-R64W	MD Reference:	WELL @ 4954.0ft (RKB - 15')
Site:	Waste Management 2IL-HZ Pad Sec.2-T2N-R64W	North Reference:	True
Well:	Waste Management 2L-441	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (1-23-13)		

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)
10,120.0	89.85	0.27	7,050.6	3,220.7	156.0	3,224.2	0.00	0.00	0.00
10,160.0	89.85	0.27	7,050.7	3,260.7	156.2	3,264.2	0.00	0.00	0.00
10,200.0	89.85	0.27	7,050.8	3,300.7	156.3	3,304.2	0.00	0.00	0.00
10,240.0	89.85	0.27	7,050.9	3,340.7	156.5	3,344.2	0.00	0.00	0.00
10,280.0	89.85	0.27	7,051.0	3,380.7	156.7	3,384.2	0.00	0.00	0.00
10,320.0	89.85	0.27	7,051.1	3,420.7	156.9	3,424.1	0.00	0.00	0.00
10,360.0	89.85	0.27	7,051.2	3,460.7	157.1	3,464.1	0.00	0.00	0.00
10,400.0	89.85	0.27	7,051.3	3,500.7	157.3	3,504.1	0.00	0.00	0.00
10,440.0	89.85	0.27	7,051.4	3,540.7	157.5	3,544.1	0.00	0.00	0.00
10,480.0	89.85	0.27	7,051.5	3,580.7	157.7	3,584.1	0.00	0.00	0.00
10,520.0	89.85	0.27	7,051.7	3,620.7	157.8	3,624.0	0.00	0.00	0.00
10,560.0	89.85	0.27	7,051.8	3,660.7	158.0	3,664.0	0.00	0.00	0.00
10,600.0	89.85	0.27	7,051.9	3,700.7	158.2	3,704.0	0.00	0.00	0.00
10,640.0	89.85	0.27	7,052.0	3,740.7	158.4	3,744.0	0.00	0.00	0.00
10,680.0	89.85	0.27	7,052.1	3,780.7	158.6	3,784.0	0.00	0.00	0.00
10,720.0	89.85	0.27	7,052.2	3,820.7	158.8	3,823.9	0.00	0.00	0.00
10,760.0	89.85	0.27	7,052.3	3,860.7	159.0	3,863.9	0.00	0.00	0.00
10,800.0	89.85	0.27	7,052.4	3,900.7	159.2	3,903.9	0.00	0.00	0.00
10,840.0	89.85	0.27	7,052.5	3,940.7	159.3	3,943.9	0.00	0.00	0.00
10,880.0	89.85	0.27	7,052.6	3,980.7	159.5	3,983.9	0.00	0.00	0.00
10,920.0	89.85	0.27	7,052.7	4,020.7	159.7	4,023.8	0.00	0.00	0.00
10,960.0	89.85	0.27	7,052.8	4,060.7	159.9	4,063.8	0.00	0.00	0.00
11,000.0	89.85	0.27	7,052.9	4,100.7	160.1	4,103.8	0.00	0.00	0.00
11,040.0	89.85	0.27	7,053.0	4,140.7	160.3	4,143.8	0.00	0.00	0.00
11,080.0	89.85	0.27	7,053.1	4,180.7	160.5	4,183.8	0.00	0.00	0.00
11,120.0	89.85	0.27	7,053.2	4,220.7	160.7	4,223.8	0.00	0.00	0.00
11,160.0	89.85	0.27	7,053.3	4,260.7	160.8	4,263.7	0.00	0.00	0.00
11,200.0	89.85	0.27	7,053.4	4,300.7	161.0	4,303.7	0.00	0.00	0.00
11,240.0	89.85	0.27	7,053.5	4,340.7	161.2	4,343.7	0.00	0.00	0.00
11,280.0	89.85	0.27	7,053.6	4,380.7	161.4	4,383.7	0.00	0.00	0.00
11,320.0	89.85	0.27	7,053.7	4,420.7	161.6	4,423.7	0.00	0.00	0.00
11,360.0	89.85	0.27	7,053.8	4,460.7	161.8	4,463.6	0.00	0.00	0.00
11,400.0	89.85	0.27	7,053.9	4,500.7	162.0	4,503.6	0.00	0.00	0.00
11,423.9	89.85	0.27	7,054.0	4,524.6	162.1	4,527.5	0.00	0.00	0.00

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,402.7	7,030.0	7"	7	8-3/4

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
3,000.0	3,000.0	0.0	0.0	KOP #1
6,282.7	6,270.3	-180.0	140.0	KOP #2
7,593.7	7,044.0	694.5	144.1	End of Build



Directional

**PETROLEUM DEVELOPMENT
CORP Weld County CO**

SEC.2-T2N-R64W

Waste Management 2IL-HZ Pad Sec.2-T2N-R64W

Waste Management 2L-441

Wellbore #1

Plan #1 (1-23-13)

Anticollision Report

24 January, 2013

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Waste Management 2L-441
Project:	SEC.2-T2N-R64W	TVD Reference:	WELL @ 4954.0ft (RKB - 15')
Reference Site:	Waste Management 2IL-HZ Pad Sec.2-T2N-R64W	MD Reference:	WELL @ 4954.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Management 2L-441	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (1-23-13)	Offset TVD Reference:	Offset Datum

Reference	Plan #1 (1-23-13)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 1/24/2013			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,423.2	Plan #1 (1-23-13) (Wellbore #1)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Waste Management 2IL-HZ Pad Sec.2-T2N-R64W						
Waste Management 2L-201 - Wellbore #1 - Plan #1 (1-2	200.0	200.0	30.7	30.1	45.596	CC, ES
Waste Management 2L-201 - Wellbore #1 - Plan #1 (1-2	11,423.9	11,237.2	418.3	269.4	2.810	SF
Waste Management 2L-221 - Wellbore #1 - Plan #1 (1-2	1,000.0	1,000.0	28.2	23.9	6.601	CC, ES
Waste Management 2L-221 - Wellbore #1 - Plan #1 (1-2	11,423.9	11,222.9	412.4	263.1	2.763	SF

Offset Design													Offset Site Error:	0.0 ft
Waste Management 2IL-HZ Pad Sec.2-T2N-R64W - Waste Management 2L-201 - Wellbore #1 - Plan #													Offset Well Error:	0.0 ft
Survey Program: 0-MWD														
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	0.0	0.0	0.0	0.0	89.98	0.0	30.7	30.7					
100.0	100.0	100.0	100.0	0.1	0.1	89.98	0.0	30.7	30.7	30.5	0.22	136.789		
200.0	200.0	200.0	200.0	0.3	0.3	89.98	0.0	30.7	30.7	30.1	0.67	45.596	CC, ES	
300.0	300.0	299.0	299.0	0.6	0.5	91.12	-0.6	32.3	32.4	31.2	1.11	29.197		
400.0	400.0	397.7	397.6	0.8	0.8	93.93	-2.5	37.1	37.2	35.7	1.55	24.051		
500.0	500.0	496.0	495.5	1.0	1.0	97.26	-5.7	44.9	45.5	43.5	2.00	22.729		
600.0	600.0	595.3	594.2	1.2	1.3	100.03	-9.7	54.7	55.8	53.4	2.46	22.685		
700.0	700.0	694.7	693.1	1.5	1.6	101.94	-13.6	64.5	66.2	63.3	2.92	22.677		
800.0	800.0	794.2	791.9	1.7	1.9	103.33	-17.6	74.2	76.7	73.3	3.39	22.648		
900.0	900.0	893.6	890.8	1.9	2.1	104.38	-21.5	84.0	87.2	83.4	3.86	22.612		
1,000.0	1,000.0	993.0	989.7	2.1	2.4	105.21	-25.5	93.8	97.8	93.4	4.33	22.573		
1,100.0	1,100.0	1,092.5	1,088.6	2.4	2.7	105.87	-29.5	103.6	108.3	103.5	4.81	22.537		
1,200.0	1,200.0	1,191.9	1,187.4	2.6	3.0	106.42	-33.4	113.4	118.9	113.6	5.28	22.502		
1,300.0	1,300.0	1,291.3	1,286.3	2.8	3.3	106.88	-37.4	123.2	129.5	123.7	5.76	22.471		
1,400.0	1,400.0	1,390.8	1,385.2	3.0	3.6	107.27	-41.3	133.0	140.0	133.8	6.24	22.442		
1,500.0	1,500.0	1,490.2	1,484.1	3.3	3.9	107.61	-45.3	142.8	150.6	143.9	6.72	22.416		
1,600.0	1,600.0	1,589.6	1,582.9	3.5	4.2	107.90	-49.3	152.6	161.2	154.0	7.20	22.393		
1,700.0	1,700.0	1,689.1	1,681.8	3.7	4.5	108.15	-53.2	162.3	171.8	164.1	7.68	22.371		
1,800.0	1,800.0	1,788.5	1,780.7	3.9	4.8	108.38	-57.2	172.1	182.4	174.2	8.16	22.352		
1,900.0	1,900.0	1,887.9	1,879.5	4.2	5.1	108.58	-61.1	181.9	193.0	184.4	8.64	22.334		
2,000.0	2,000.0	1,987.4	1,978.4	4.4	5.4	108.76	-65.1	191.7	203.6	194.5	9.12	22.317		

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Waste Management 2L-441
Project:	SEC.2-T2N-R64W	TVD Reference:	WELL @ 4954.0ft (RKB - 15')
Reference Site:	Waste Management 2IL-HZ Pad Sec.2-T2N-R64W	MD Reference:	WELL @ 4954.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Management 2L-441	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (1-23-13)	Offset TVD Reference:	Offset Datum

Offset Design													Waste Management 2IL-HZ Pad Sec.2-T2N-R64W - Waste Management 2L-201 - 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			
2,100.0	2,100.0	2,086.8	2,077.3	4.6	5.7	108.92	-69.1	201.5	214.2	204.6	9.60	22.302			
2,200.0	2,200.0	2,186.2	2,176.2	4.8	6.0	109.06	-73.0	211.3	224.8	214.7	10.09	22.288			
2,300.0	2,300.0	2,285.7	2,275.0	5.1	6.3	109.20	-77.0	221.1	235.4	224.9	10.57	22.275			
2,400.0	2,400.0	2,385.1	2,373.9	5.3	6.6	109.32	-80.9	230.9	246.0	235.0	11.05	22.263			
2,500.0	2,500.0	2,484.5	2,472.8	5.5	6.9	109.43	-84.9	240.7	256.6	245.1	11.53	22.252			
2,600.0	2,600.0	2,584.0	2,571.6	5.7	7.2	109.53	-88.9	250.4	267.2	255.2	12.02	22.242			
2,700.0	2,700.0	2,683.4	2,670.5	6.0	7.5	109.63	-92.8	260.2	277.9	265.4	12.50	22.232			
2,800.0	2,800.0	2,782.8	2,769.4	6.2	7.8	109.72	-96.8	270.0	288.5	275.5	12.98	22.223			
2,900.0	2,900.0	2,882.3	2,868.3	6.4	8.1	109.80	-100.7	279.8	299.1	285.6	13.46	22.214			
3,000.0	3,000.0	2,981.7	2,967.1	6.6	8.4	109.88	-104.7	289.6	309.7	295.7	13.95	22.206			
3,100.0	3,100.0	3,081.3	3,066.1	6.8	8.7	-32.25	-108.7	299.4	318.8	305.0	13.86	22.995			
3,200.0	3,199.8	3,181.1	3,165.4	7.0	9.0	-32.60	-112.6	309.2	325.0	310.8	14.28	22.765			
3,300.0	3,299.5	3,280.9	3,264.6	7.2	9.3	-33.30	-116.6	319.0	328.3	313.7	14.69	22.354			
3,330.2	3,329.5	3,311.1	3,294.7	7.2	9.4	-33.58	-117.8	322.0	328.8	314.0	14.81	22.197			
3,400.0	3,398.8	3,380.8	3,363.9	7.4	9.7	-34.28	-120.6	328.9	329.5	314.4	15.11	21.807			
3,500.0	3,498.1	3,480.6	3,463.2	7.6	10.0	-35.26	-124.6	338.7	330.7	315.1	15.55	21.270			
3,600.0	3,597.5	3,580.4	3,562.5	7.8	10.3	-36.24	-128.5	348.5	331.9	315.9	15.99	20.760			
3,700.0	3,696.8	3,680.2	3,661.7	8.0	10.6	-37.21	-132.5	358.4	333.2	316.8	16.44	20.273			
3,800.0	3,796.2	3,780.1	3,761.0	8.2	10.9	-38.18	-136.5	368.2	334.7	317.8	16.89	19.810			
3,900.0	3,895.5	3,879.9	3,860.3	8.5	11.2	-39.13	-140.5	378.0	336.2	318.8	17.36	19.369			
4,000.0	3,994.8	3,979.7	3,959.5	8.7	11.5	-40.08	-144.4	387.8	337.8	320.0	17.83	18.948			
4,100.0	4,094.2	4,079.6	4,058.8	8.9	11.8	-41.02	-148.4	397.7	339.5	321.2	18.31	18.547			
4,200.0	4,193.5	4,179.4	4,158.1	9.2	12.1	-41.95	-152.4	407.5	341.3	322.5	18.79	18.164			
4,300.0	4,292.8	4,279.2	4,257.3	9.4	12.4	-42.86	-156.4	417.3	343.2	323.9	19.28	17.799			
4,400.0	4,392.2	4,379.1	4,356.6	9.7	12.7	-43.77	-160.3	427.1	345.2	325.4	19.78	17.451			
4,500.0	4,491.5	4,478.9	4,455.9	9.9	13.0	-44.67	-164.3	437.0	347.2	326.9	20.28	17.118			
4,600.0	4,590.8	4,578.7	4,555.1	10.2	13.3	-45.55	-168.3	446.8	349.4	328.6	20.80	16.801			
4,700.0	4,690.2	4,678.6	4,654.4	10.4	13.6	-46.43	-172.3	456.6	351.6	330.3	21.31	16.498			
4,800.0	4,789.5	4,786.2	4,761.4	10.7	13.9	-47.40	-176.3	466.5	353.3	331.4	21.84	16.179			
4,900.0	4,888.9	4,899.2	4,874.2	11.0	14.1	-48.61	-179.0	473.2	351.6	329.3	22.34	15.743			
4,982.2	4,970.5	4,991.7	4,966.7	11.2	14.2	-49.80	-179.9	475.6	347.6	324.8	22.75	15.280			
5,000.0	4,988.2	5,011.7	4,986.7	11.2	14.3	-50.05	-180.0	475.7	346.4	323.6	22.84	15.169			
5,100.0	5,087.8	5,112.8	5,087.8	11.5	14.4	-51.16	-180.0	475.7	340.6	317.3	23.30	14.619			
5,200.0	5,187.6	5,212.6	5,187.6	11.7	14.6	-51.85	-180.0	475.7	337.1	313.4	23.72	14.213			
5,300.0	5,287.6	5,312.6	5,287.6	11.9	14.7	-52.12	-180.0	475.7	335.8	311.7	24.10	13.935			
5,312.4	5,300.0	5,325.0	5,300.0	11.9	14.7	90.00	-180.0	475.7	335.7	311.6	24.15	13.901			
5,400.0	5,387.6	5,412.6	5,387.6	12.1	14.9	90.00	-180.0	475.7	335.7	311.3	24.48	13.714			
5,500.0	5,487.6	5,512.6	5,487.6	12.3	15.0	90.00	-180.0	475.7	335.7	310.9	24.87	13.502			
5,600.0	5,587.6	5,612.6	5,587.6	12.5	15.2	90.00	-180.0	475.7	335.7	310.5	25.25	13.295			
5,700.0	5,687.6	5,712.6	5,687.6	12.7	15.4	90.00	-180.0	475.7	335.7	310.1	25.64	13.093			
5,800.0	5,787.6	5,812.6	5,787.6	12.9	15.5	90.00	-180.0	475.7	335.7	309.7	26.03	12.896			
5,900.0	5,887.6	5,912.6	5,887.6	13.1	15.7	90.00	-180.0	475.7	335.7	309.3	26.43	12.704			
6,000.0	5,987.6	6,012.6	5,987.6	13.3	15.8	90.00	-180.0	475.7	335.7	308.9	26.82	12.517			
6,062.1	6,049.7	6,074.6	6,049.7	13.5	15.9	90.00	-180.0	475.7	335.7	308.7	27.07	12.404			
6,100.0	6,087.6	6,112.5	6,087.5	13.5	16.0	89.98	-179.9	475.7	335.7	308.5	27.22	12.336			
6,200.0	6,187.6	6,211.5	6,186.2	13.7	16.2	88.61	-171.9	475.8	335.9	308.2	27.65	12.149			
6,282.7	6,270.3	6,290.8	6,263.8	13.9	16.2	85.97	-156.3	475.9	336.8	308.7	28.03	12.013			
6,300.0	6,287.6	6,307.0	6,279.5	14.0	16.3	84.99	-152.1	475.9	337.1	309.0	28.10	11.995			
6,350.0	6,337.5	6,353.3	6,323.7	14.0	16.3	82.99	-138.4	475.9	338.4	310.1	28.33	11.944			
6,400.0	6,387.1	6,400.0	6,367.4	14.1	16.3	81.01	-121.9	476.0	340.1	311.6	28.54	11.918			
6,450.0	6,436.2	6,444.0	6,407.5	14.2	16.4	79.16	-103.9	476.1	342.2	313.5	28.71	11.919			

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Waste Management 2L-441
Project:	SEC.2-T2N-R64W	TVD Reference:	WELL @ 4954.0ft (RKB - 15')
Reference Site:	Waste Management 2IL-HZ Pad Sec.2-T2N-R64W	MD Reference:	WELL @ 4954.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Management 2L-441	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (1-23-13)	Offset TVD Reference:	Offset Datum

Offset Design														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			
6,500.0	6,484.7	6,488.5	6,447.0	14.3	16.4	77.34	-83.3	476.2	344.5	315.7	28.85	11.941			
6,550.0	6,532.2	6,532.6	6,484.8	14.3	16.4	75.60	-60.8	476.3	347.1	318.2	28.97	11.984			
6,600.0	6,578.5	6,576.1	6,520.9	14.4	16.4	73.94	-36.4	476.4	350.0	320.9	29.05	12.045			
6,650.0	6,623.6	6,619.2	6,555.2	14.4	16.5	72.37	-10.3	476.5	352.9	323.8	29.12	12.121			
6,700.0	6,667.1	6,661.9	6,587.6	14.5	16.5	70.88	17.5	476.7	356.0	326.9	29.16	12.209			
6,750.0	6,709.0	6,704.3	6,618.2	14.6	16.5	69.49	46.7	476.8	359.2	330.0	29.19	12.304			
6,800.0	6,748.9	6,750.0	6,649.4	14.6	16.6	68.09	80.2	476.9	362.4	333.1	29.23	12.398			
6,850.0	6,786.9	6,787.9	6,673.7	14.7	16.6	66.98	109.3	477.1	365.5	336.2	29.28	12.483			
6,900.0	6,822.6	6,829.3	6,698.5	14.7	16.7	65.87	142.4	477.2	368.5	339.2	29.32	12.567			
6,950.0	6,855.9	6,870.4	6,721.4	14.8	16.7	64.86	176.6	477.4	371.5	342.1	29.41	12.629			
7,000.0	6,886.7	6,911.3	6,742.3	15.0	16.8	63.94	211.8	477.6	374.3	344.7	29.54	12.668			
7,050.0	6,914.9	6,950.0	6,760.2	15.3	17.0	63.14	246.0	477.7	376.9	347.1	29.73	12.678			
7,100.0	6,940.3	6,992.5	6,778.0	15.6	17.2	62.38	284.6	477.9	379.3	349.3	30.00	12.643			
7,150.0	6,962.9	7,032.9	6,792.8	15.9	17.4	61.74	322.2	478.1	381.4	351.1	30.34	12.570			
7,200.0	6,982.5	7,073.1	6,805.6	16.3	17.7	61.20	360.3	478.2	383.3	352.5	30.78	12.453			
7,250.0	6,999.1	7,113.2	6,816.3	16.7	18.0	60.74	398.9	478.4	384.9	353.6	31.31	12.293			
7,300.0	7,012.5	7,150.0	6,824.4	17.1	18.4	60.40	434.8	478.6	386.2	354.3	31.92	12.100			
7,350.0	7,022.7	7,193.1	6,831.6	17.6	18.8	60.11	477.3	478.8	387.2	354.5	32.69	11.847			
7,402.7	7,030.0	7,235.1	6,836.3	18.2	19.2	59.92	519.1	479.0	387.9	354.4	33.58	11.554			
7,476.7	7,037.8	7,293.9	6,839.0	19.0	19.9	59.49	577.7	479.2	390.1	355.3	34.80	11.210			
7,500.0	7,040.0	7,313.7	6,839.0	19.3	20.1	59.19	597.5	479.3	391.3	356.0	35.20	11.114			
7,593.7	7,044.0	7,407.2	6,838.1	20.5	21.3	58.47	691.1	479.8	393.8	356.6	37.20	10.586			
7,600.0	7,044.1	7,413.5	6,838.1	20.6	21.3	58.46	697.4	479.8	393.8	356.5	37.34	10.547			
7,700.0	7,044.3	7,513.5	6,837.2	21.9	22.7	58.32	797.4	480.3	394.4	354.8	39.65	9.947			
7,800.0	7,044.6	7,613.5	6,836.3	23.4	24.1	58.18	897.4	480.7	395.0	352.9	42.10	9.384			
7,900.0	7,044.8	7,713.5	6,835.4	24.8	25.5	58.04	997.3	481.2	395.6	351.0	44.65	8.861			
8,000.0	7,045.1	7,813.5	6,834.5	26.4	27.1	57.89	1,097.3	481.6	396.2	348.9	47.28	8.380			
8,100.0	7,045.4	7,913.5	6,833.6	28.0	28.6	57.75	1,197.3	482.1	396.8	346.8	49.99	7.938			
8,200.0	7,045.6	8,013.5	6,832.7	29.6	30.2	57.61	1,297.3	482.6	397.4	344.7	52.76	7.533			
8,300.0	7,045.9	8,113.5	6,831.8	31.3	31.9	57.47	1,397.3	483.0	398.0	342.5	55.58	7.162			
8,400.0	7,046.1	8,213.5	6,830.9	33.0	33.5	57.33	1,497.3	483.5	398.7	340.2	58.44	6.822			
8,500.0	7,046.4	8,313.5	6,830.1	34.7	35.2	57.19	1,597.3	483.9	399.3	337.9	61.33	6.511			
8,600.0	7,046.7	8,413.5	6,829.2	36.4	36.9	57.05	1,697.3	484.4	399.9	335.6	64.25	6.224			
8,700.0	7,046.9	8,513.4	6,828.3	38.2	38.7	56.91	1,797.2	484.9	400.5	333.3	67.19	5.961			
8,800.0	7,047.2	8,613.4	6,827.4	39.9	40.4	56.78	1,897.2	485.3	401.1	331.0	70.15	5.719			
8,900.0	7,047.4	8,713.4	6,826.5	41.7	42.2	56.64	1,997.2	485.8	401.8	328.6	73.12	5.494			
9,000.0	7,047.7	8,813.4	6,825.6	43.5	44.0	56.50	2,097.2	486.2	402.4	326.3	76.11	5.287			
9,100.0	7,048.0	8,913.4	6,824.7	45.3	45.8	56.36	2,197.2	486.7	403.0	323.9	79.11	5.094			
9,200.0	7,048.2	9,013.4	6,823.8	47.1	47.6	56.23	2,297.2	487.2	403.6	321.5	82.11	4.916			
9,300.0	7,048.5	9,113.4	6,822.9	48.9	49.4	56.09	2,397.2	487.6	404.3	319.2	85.13	4.749			
9,400.0	7,048.7	9,213.4	6,822.0	50.8	51.2	55.96	2,497.2	488.1	404.9	316.8	88.14	4.594			
9,500.0	7,049.0	9,313.4	6,821.2	52.6	53.0	55.82	2,597.2	488.5	405.6	314.4	91.16	4.449			
9,600.0	7,049.3	9,413.4	6,820.3	54.4	54.8	55.69	2,697.1	489.0	406.2	312.0	94.19	4.313			
9,700.0	7,049.5	9,513.4	6,819.4	56.3	56.7	55.55	2,797.1	489.5	406.8	309.6	97.21	4.185			
9,800.0	7,049.8	9,613.4	6,818.5	58.1	58.5	55.42	2,897.1	489.9	407.5	307.3	100.23	4.065			
9,900.0	7,050.0	9,713.4	6,817.6	60.0	60.3	55.28	2,997.1	490.4	408.1	304.9	103.26	3.953			
10,000.0	7,050.3	9,813.4	6,816.7	61.8	62.2	55.15	3,097.1	490.9	408.8	302.5	106.28	3.846			
10,100.0	7,050.6	9,913.4	6,815.8	63.7	64.0	55.02	3,197.1	491.3	409.4	300.1	109.30	3.746			
10,200.0	7,050.8	10,013.3	6,814.9	65.6	65.9	54.89	3,297.1	491.8	410.1	297.8	112.32	3.651			
10,300.0	7,051.1	10,113.3	6,814.0	67.4	67.8	54.75	3,397.1	492.2	410.7	295.4	115.33	3.561			

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Waste Management 2L-441
Project:	SEC.2-T2N-R64W	TVD Reference:	WELL @ 4954.0ft (RKB - 15')
Reference Site:	Waste Management 2IL-HZ Pad Sec.2-T2N-R64W	MD Reference:	WELL @ 4954.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Management 2L-441	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (1-23-13)	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.0ft
Survey Program: 0-MWD														Offset Well Error:	0.0ft
Waste Management 2IL-HZ Pad Sec.2-T2N-R64W - Waste Management 2L-201 - Wellbore #1 - Plan #															
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		
10,400.0	7,051.3	10,213.3	6,813.1	69.3	69.6	54.62	3,497.0	492.7	411.4	293.1	118.34	3.476			
10,500.0	7,051.6	10,313.3	6,812.3	71.2	71.5	54.49	3,597.0	493.2	412.1	290.7	121.35	3.396			
10,600.0	7,051.9	10,413.3	6,811.4	73.0	73.4	54.36	3,697.0	493.6	412.7	288.4	124.35	3.319			
10,700.0	7,052.1	10,513.3	6,810.5	74.9	75.2	54.23	3,797.0	494.1	413.4	286.0	127.35	3.246			
10,800.0	7,052.4	10,613.3	6,809.6	76.8	77.1	54.10	3,897.0	494.5	414.1	283.7	130.35	3.177			
10,900.0	7,052.6	10,713.3	6,808.7	78.7	79.0	53.97	3,997.0	495.0	414.7	281.4	133.34	3.110			
11,000.0	7,052.9	10,813.3	6,807.8	80.6	80.8	53.84	4,097.0	495.5	415.4	279.1	136.32	3.047			
11,100.0	7,053.2	10,913.3	6,806.9	82.4	82.7	53.71	4,197.0	495.9	416.1	276.8	139.30	2.987			
11,200.0	7,053.4	11,013.3	6,806.0	84.3	84.6	53.59	4,297.0	496.4	416.7	274.5	142.27	2.929			
11,300.0	7,053.7	11,113.3	6,805.1	86.2	86.5	53.46	4,396.9	496.8	417.4	272.2	145.24	2.874			
11,400.0	7,053.9	11,213.3	6,804.2	88.1	88.4	53.33	4,496.9	497.3	418.1	269.9	148.20	2.821			
11,423.9	7,054.0	11,237.2	6,804.0	88.5	88.8	53.30	4,520.8	497.4	418.3	269.4	148.83	2.810 SF			

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Waste Management 2L-441
Project:	SEC.2-T2N-R64W	TVD Reference:	WELL @ 4954.0ft (RKB - 15')
Reference Site:	Waste Management 2IL-HZ Pad Sec.2-T2N-R64W	MD Reference:	WELL @ 4954.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Management 2L-441	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (1-23-13)	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.0 ft
Survey Program: 0-MWD														Offset Well Error:	0.0 ft
Waste Management 2IL-HZ Pad Sec.2-T2N-R64W - Waste Management 2I-221 - Wellbore #1 - Plan #															
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	0.0	0.0	0.0	0.0	-82.55	3.7	-28.0	28.2						
100.0	100.0	100.0	100.0	0.1	0.1	-82.55	3.7	-28.0	28.2	28.0	0.22	125.413			
200.0	200.0	200.0	200.0	0.3	0.3	-82.55	3.7	-28.0	28.2	27.5	0.67	41.804			
300.0	300.0	300.0	300.0	0.6	0.6	-82.55	3.7	-28.0	28.2	27.1	1.12	25.083			
400.0	400.0	400.0	400.0	0.8	0.8	-82.55	3.7	-28.0	28.2	26.6	1.57	17.916			
500.0	500.0	500.0	500.0	1.0	1.0	-82.55	3.7	-28.0	28.2	26.2	2.02	13.935			
600.0	600.0	600.0	600.0	1.2	1.2	-82.55	3.7	-28.0	28.2	25.7	2.47	11.401			
700.0	700.0	700.0	700.0	1.5	1.5	-82.55	3.7	-28.0	28.2	25.3	2.92	9.647			
800.0	800.0	800.0	800.0	1.7	1.7	-82.55	3.7	-28.0	28.2	24.8	3.37	8.361			
900.0	900.0	900.0	900.0	1.9	1.9	-82.55	3.7	-28.0	28.2	24.4	3.82	7.377			
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-82.55	3.7	-28.0	28.2	23.9	4.27	6.601 CC, ES			
1,100.0	1,100.0	1,099.4	1,099.4	2.4	2.3	-85.32	2.4	-29.1	29.2	24.5	4.69	6.225			
1,200.0	1,200.0	1,198.6	1,198.4	2.6	2.5	-92.49	-1.4	-32.6	32.7	27.6	5.10	6.404			
1,300.0	1,300.0	1,297.7	1,297.2	2.8	2.7	-101.11	-7.5	-38.2	39.0	33.5	5.52	7.063			
1,400.0	1,400.0	1,397.3	1,396.4	3.0	2.9	-107.60	-14.0	-44.1	46.4	40.5	5.96	7.798			
1,500.0	1,500.0	1,496.9	1,495.6	3.3	3.2	-112.26	-20.5	-50.1	54.3	47.9	6.40	8.490			
1,600.0	1,600.0	1,596.5	1,594.9	3.5	3.4	-115.72	-27.0	-56.1	62.4	55.6	6.84	9.124			
1,700.0	1,700.0	1,696.1	1,694.1	3.7	3.6	-118.38	-33.5	-62.0	70.7	63.4	7.29	9.699			
1,800.0	1,800.0	1,795.8	1,793.3	3.9	3.9	-120.48	-40.0	-68.0	79.2	71.4	7.75	10.217			
1,900.0	1,900.0	1,895.4	1,892.5	4.2	4.1	-122.17	-46.5	-73.9	87.7	79.5	8.21	10.684			
2,000.0	2,000.0	1,995.0	1,991.7	4.4	4.4	-123.57	-53.0	-79.9	96.3	87.6	8.67	11.106			
2,100.0	2,100.0	2,094.6	2,090.9	4.6	4.6	-124.73	-59.5	-85.9	104.9	95.7	9.13	11.488			
2,200.0	2,200.0	2,194.2	2,190.2	4.8	4.9	-125.72	-66.0	-91.8	113.5	103.9	9.59	11.834			
2,300.0	2,300.0	2,293.8	2,289.4	5.1	5.2	-126.57	-72.5	-97.8	122.2	112.2	10.06	12.150			
2,400.0	2,400.0	2,393.4	2,388.6	5.3	5.4	-127.30	-79.0	-103.8	130.9	120.4	10.53	12.439			
2,500.0	2,500.0	2,493.0	2,487.8	5.5	5.7	-127.94	-85.5	-109.7	139.7	128.7	10.99	12.704			
2,600.0	2,600.0	2,592.6	2,587.0	5.7	6.0	-128.51	-92.0	-115.7	148.4	136.9	11.46	12.947			
2,700.0	2,700.0	2,692.2	2,686.2	6.0	6.2	-129.01	-98.6	-121.6	157.2	145.2	11.93	13.171			
2,800.0	2,800.0	2,791.8	2,785.4	6.2	6.5	-129.46	-105.1	-127.6	165.9	153.5	12.40	13.379			
2,900.0	2,900.0	2,891.4	2,884.7	6.4	6.8	-129.87	-111.6	-133.6	174.7	161.8	12.87	13.571			
3,000.0	3,000.0	2,991.0	2,983.9	6.6	7.0	-130.24	-118.1	-139.5	183.5	170.1	13.34	13.750			
3,100.0	3,100.0	3,090.6	3,083.1	6.8	7.3	87.65	-124.6	-145.5	192.2	178.8	13.42	14.318			
3,200.0	3,199.8	3,190.2	3,182.2	7.0	7.6	88.65	-131.1	-151.4	200.8	187.0	13.83	14.520			
3,300.0	3,299.5	3,289.5	3,281.2	7.2	7.9	90.50	-137.6	-157.4	209.5	195.3	14.25	14.707			
3,330.2	3,329.5	3,319.5	3,311.1	7.2	8.0	91.21	-139.5	-159.2	212.2	197.8	14.38	14.762			
3,400.0	3,398.8	3,388.7	3,380.0	7.4	8.1	92.99	-144.0	-163.3	218.6	203.9	14.68	14.892			
3,500.0	3,498.1	3,487.8	3,478.7	7.6	8.4	95.37	-150.5	-169.3	228.1	213.0	15.12	15.082			
3,600.0	3,597.5	3,586.9	3,577.4	7.8	8.7	97.56	-157.0	-175.2	237.9	222.3	15.58	15.273			
3,700.0	3,696.8	3,686.0	3,676.1	8.0	9.0	99.58	-163.4	-181.1	248.1	232.0	16.04	15.465			
3,800.0	3,796.2	3,787.8	3,777.5	8.2	9.2	101.49	-170.0	-187.1	258.4	241.9	16.51	15.646			
3,900.0	3,895.5	3,896.2	3,885.8	8.5	9.5	103.63	-174.7	-191.4	266.4	249.4	16.97	15.693			
4,000.0	3,994.8	4,004.8	3,994.3	8.7	9.7	106.01	-176.3	-192.9	271.2	253.8	17.43	15.559			
4,100.0	4,094.2	4,104.7	4,094.2	8.9	9.8	108.31	-176.3	-193.0	274.7	256.8	17.89	15.353			
4,200.0	4,193.5	4,204.0	4,193.5	9.2	10.0	110.55	-176.3	-193.0	278.5	260.2	18.34	15.186			
4,300.0	4,292.8	4,303.3	4,292.8	9.4	10.2	112.72	-176.3	-193.0	282.8	264.0	18.79	15.047			
4,400.0	4,392.2	4,402.7	4,392.2	9.7	10.4	114.82	-176.3	-193.0	287.4	268.2	19.25	14.934			
4,500.0	4,491.5	4,502.0	4,491.5	9.9	10.5	116.86	-176.3	-193.0	292.5	272.8	19.70	14.846			
4,600.0	4,590.8	4,601.3	4,590.8	10.2	10.7	118.82	-176.3	-193.0	297.9	277.7	20.16	14.779			
4,700.0	4,690.2	4,700.7	4,690.2	10.4	10.9	120.71	-176.3	-193.0	303.6	283.0	20.61	14.732			
4,800.0	4,789.5	4,800.0	4,789.5	10.7	11.1	122.53	-176.3	-193.0	309.7	288.6	21.06	14.703			
4,900.0	4,888.9	4,899.4	4,888.9	11.0	11.3	124.28	-176.3	-193.0	316.0	294.5	21.51	14.690			

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Waste Management 2L-441
Project:	SEC.2-T2N-R64W	TVD Reference:	WELL @ 4954.0ft (RKB - 15')
Reference Site:	Waste Management 2IL-HZ Pad Sec.2-T2N-R64W	MD Reference:	WELL @ 4954.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Management 2L-441	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (1-23-13)	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.0 ft
Survey Program: 0-MWD														Offset Well Error:	0.0 ft
Waste Management 2IL-HZ Pad Sec.2-T2N-R64W - Waste Management 2I-221 - Wellbore #1 - Plan #															
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		
4,982.2	4,970.5	4,981.0	4,970.5	11.2	11.4	125.67	-176.3	-193.0	321.5	299.6	21.88	14.689			
5,000.0	4,988.2	4,998.7	4,988.2	11.2	11.5	125.98	-176.3	-193.0	322.6	300.7	21.97	14.687			
5,100.0	5,087.8	5,098.3	5,087.8	11.5	11.6	127.35	-176.3	-193.0	328.1	305.7	22.42	14.634			
5,200.0	5,187.6	5,198.1	5,187.6	11.7	11.8	128.18	-176.3	-193.0	331.6	308.7	22.86	14.509			
5,300.0	5,287.6	5,298.1	5,287.6	11.9	12.0	128.50	-176.3	-193.0	333.0	309.7	23.27	14.310			
5,312.4	5,300.0	5,310.5	5,300.0	11.9	12.1	-89.37	-176.3	-193.0	333.0	309.7	23.32	14.281			
5,400.0	5,387.6	5,398.1	5,387.6	12.1	12.2	-89.37	-176.3	-193.0	333.0	309.3	23.66	14.072			
5,500.0	5,487.6	5,498.1	5,487.6	12.3	12.4	-89.37	-176.3	-193.0	333.0	308.9	24.07	13.835			
5,600.0	5,587.6	5,598.1	5,587.6	12.5	12.6	-89.37	-176.3	-193.0	333.0	308.5	24.47	13.605			
5,700.0	5,687.6	5,698.1	5,687.6	12.7	12.8	-89.37	-176.3	-193.0	333.0	308.1	24.88	13.382			
5,800.0	5,787.6	5,798.1	5,787.6	12.9	13.0	-89.37	-176.3	-193.0	333.0	307.7	25.29	13.165			
5,900.0	5,887.6	5,898.1	5,887.6	13.1	13.2	-89.37	-176.3	-193.0	333.0	307.3	25.70	12.954			
6,000.0	5,987.6	5,998.1	5,987.6	13.3	13.4	-89.37	-176.3	-193.0	333.0	306.9	26.12	12.750			
6,062.2	6,049.8	6,060.3	6,049.8	13.5	13.5	-89.37	-176.3	-193.0	333.0	306.6	26.37	12.626			
6,100.0	6,087.6	6,098.0	6,087.5	13.5	13.6	-89.35	-176.2	-193.0	333.0	306.4	26.53	12.551			
6,200.0	6,187.6	6,197.0	6,186.1	13.7	13.8	-87.99	-168.3	-192.9	333.1	306.2	26.91	12.378			
6,282.7	6,270.3	6,276.2	6,263.7	13.9	13.9	-85.33	-152.8	-192.9	334.0	306.8	27.19	12.283			
6,300.0	6,287.6	6,292.3	6,279.3	14.0	13.9	-84.89	-148.6	-192.8	334.4	307.1	27.25	12.272			
6,350.0	6,337.5	6,338.6	6,323.5	14.0	14.0	-82.88	-135.0	-192.8	335.7	308.3	27.39	12.256			
6,400.0	6,387.1	6,384.2	6,366.2	14.1	14.0	-80.92	-118.9	-192.7	337.5	309.9	27.52	12.265			
6,450.0	6,436.2	6,429.3	6,407.4	14.2	14.0	-79.03	-100.5	-192.6	339.5	311.9	27.62	12.294			
6,500.0	6,484.7	6,473.8	6,446.9	14.3	14.1	-77.20	-80.0	-192.5	341.9	314.2	27.71	12.341			
6,550.0	6,532.2	6,517.8	6,484.7	14.3	14.1	-75.46	-57.5	-192.5	344.6	316.8	27.78	12.404			
6,600.0	6,578.5	6,561.4	6,520.8	14.4	14.2	-73.79	-33.1	-192.4	347.4	319.6	27.84	12.479			
6,650.0	6,623.6	6,604.5	6,555.1	14.4	14.2	-72.21	-7.0	-192.2	350.4	322.5	27.89	12.564			
6,700.0	6,667.1	6,650.0	6,589.6	14.5	14.2	-70.64	22.6	-192.1	353.6	325.6	27.94	12.654			
6,750.0	6,709.0	6,689.5	6,618.1	14.6	14.3	-69.33	49.9	-192.0	356.7	328.7	27.99	12.745			
6,800.0	6,748.9	6,731.5	6,646.9	14.6	14.3	-68.02	80.5	-191.9	359.9	331.9	28.05	12.834			
6,850.0	6,786.9	6,773.2	6,673.7	14.7	14.4	-66.82	112.4	-191.7	363.1	335.0	28.13	12.906			
6,900.0	6,822.6	6,814.5	6,698.5	14.7	14.6	-65.71	145.5	-191.6	366.2	337.9	28.22	12.975			
6,950.0	6,855.9	6,855.7	6,721.4	14.8	14.9	-64.69	179.7	-191.5	369.1	340.8	28.35	13.021			
7,000.0	6,886.7	6,900.0	6,744.0	15.0	15.1	-63.72	217.8	-191.3	372.0	343.4	28.53	13.038			
7,050.0	6,914.9	6,937.3	6,761.2	15.3	15.4	-62.95	250.9	-191.2	374.6	345.8	28.74	13.031			
7,100.0	6,940.3	6,977.8	6,778.1	15.6	15.7	-62.22	287.7	-191.0	377.0	348.0	29.03	12.987			
7,150.0	6,962.9	7,018.1	6,792.9	15.9	16.0	-61.59	325.2	-190.9	379.2	349.8	29.38	12.907			
7,200.0	6,982.5	7,058.3	6,805.7	16.3	16.4	-61.05	363.3	-190.7	381.1	351.3	29.80	12.788			
7,250.0	6,999.1	7,100.0	6,816.9	16.7	16.7	-60.59	403.5	-190.5	382.7	352.4	30.31	12.625			
7,300.0	7,012.5	7,138.4	6,825.2	17.1	17.1	-60.24	441.0	-190.4	384.0	353.1	30.89	12.431			
7,350.0	7,022.7	7,178.4	6,831.8	17.6	17.6	-59.97	480.4	-190.2	385.0	353.5	31.57	12.198			
7,402.7	7,030.0	7,220.4	6,836.6	18.2	18.0	-59.79	522.1	-190.0	385.7	353.4	32.37	11.918			
7,476.7	7,037.8	7,279.2	6,839.4	19.0	18.7	-59.36	580.8	-189.8	387.9	354.3	33.60	11.547			
7,500.0	7,040.0	7,299.3	6,839.3	19.3	19.0	-59.07	601.0	-189.7	389.1	355.1	33.96	11.456			
7,593.7	7,044.0	7,392.9	6,838.7	20.5	20.2	-58.38	694.5	-189.3	391.6	355.8	35.81	10.935			
7,600.0	7,044.1	7,399.2	6,838.7	20.6	20.2	-58.37	700.8	-189.3	391.6	355.7	35.95	10.894			
7,700.0	7,044.3	7,499.2	6,838.0	21.9	21.6	-58.26	800.8	-188.9	392.1	353.8	38.27	10.245			
7,800.0	7,044.6	7,599.2	6,837.4	23.4	23.1	-58.15	900.8	-188.4	392.6	351.9	40.74	9.639			
7,900.0	7,044.8	7,699.2	6,836.8	24.8	24.6	-58.04	1,000.8	-188.0	393.2	349.9	43.31	9.078			
8,000.0	7,045.1	7,799.2	6,836.1	26.4	26.1	-57.94	1,100.8	-187.6	393.7	347.7	45.97	8.564			
8,100.0	7,045.4	7,899.2	6,835.5	28.0	27.8	-57.83	1,200.8	-187.2	394.2	345.5	48.70	8.094			
8,200.0	7,045.6	7,999.2	6,834.8	29.6	29.4	-57.72	1,300.8	-186.8	394.7	343.2	51.50	7.665			

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

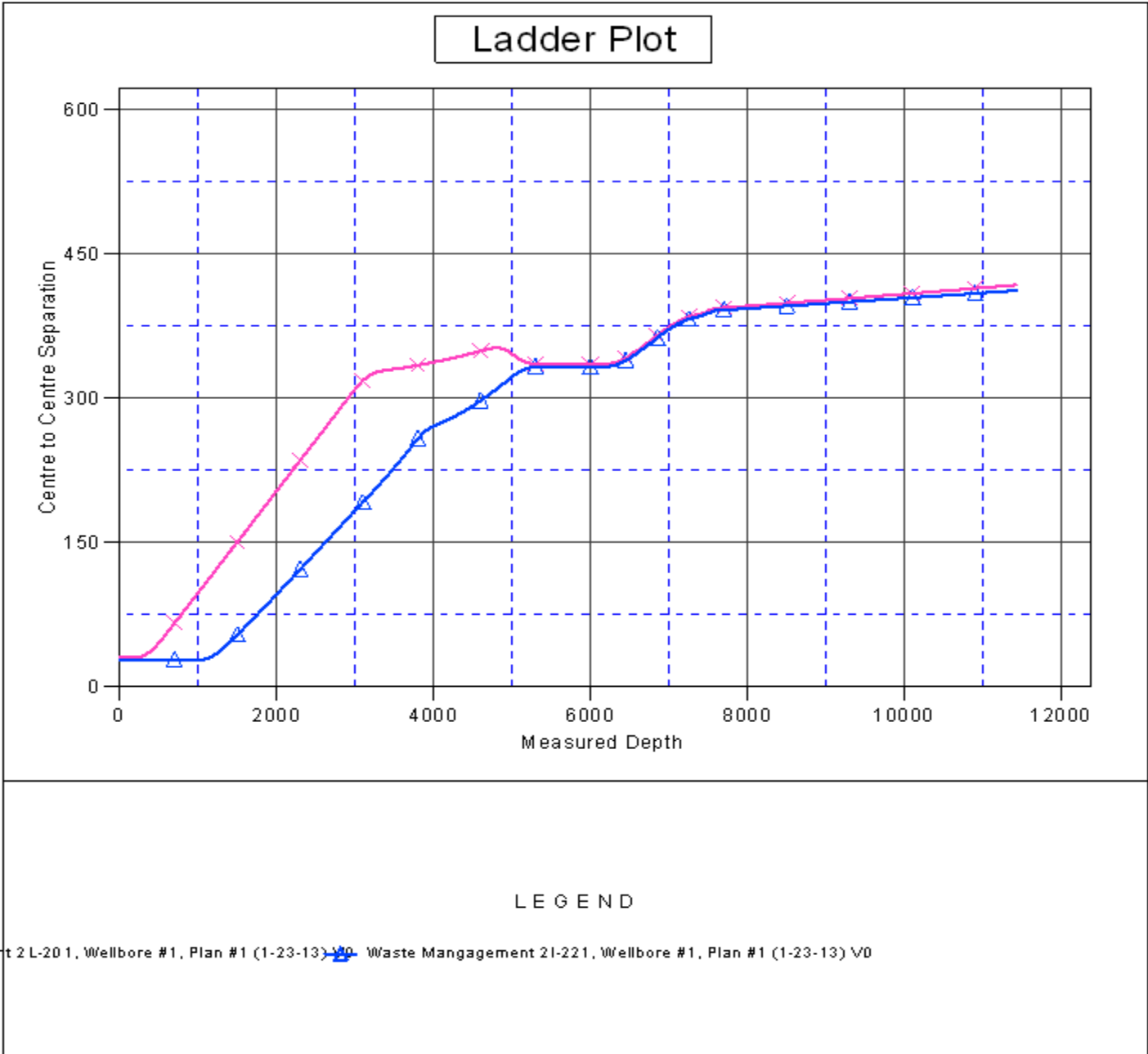
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Waste Management 2L-441
Project:	SEC.2-T2N-R64W	TVD Reference:	WELL @ 4954.0ft (RKB - 15')
Reference Site:	Waste Management 2IL-HZ Pad Sec.2-T2N-R64W	MD Reference:	WELL @ 4954.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Management 2L-441	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (1-23-13)	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.0 ft
Waste Management 2IL-HZ Pad Sec.2-T2N-R64W - Waste Management 2I-221 - Wellbore #1 - Plan #														Offset Well Error:	0.0 ft
Survey Program: 0-MWD															
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		
8,300.0	7,045.9	8,099.2	6,834.2	31.3	31.1	-57.61	1,400.8	-186.3	395.3	340.9	54.34	7.273			
8,400.0	7,046.1	8,199.2	6,833.5	33.0	32.8	-57.51	1,500.8	-185.9	395.8	338.6	57.23	6.915			
8,500.0	7,046.4	8,299.2	6,832.9	34.7	34.5	-57.40	1,600.8	-185.5	396.3	336.2	60.15	6.588			
8,600.0	7,046.7	8,399.2	6,832.2	36.4	36.3	-57.29	1,700.8	-185.1	396.8	333.7	63.11	6.289			
8,700.0	7,046.9	8,499.2	6,831.6	38.2	38.0	-57.19	1,800.7	-184.7	397.4	331.3	66.08	6.013			
8,800.0	7,047.2	8,599.2	6,830.9	39.9	39.8	-57.08	1,900.7	-184.3	397.9	328.8	69.08	5.760			
8,900.0	7,047.4	8,699.1	6,830.3	41.7	41.6	-56.98	2,000.7	-183.8	398.4	326.4	72.09	5.527			
9,000.0	7,047.7	8,799.1	6,829.7	43.5	43.4	-56.87	2,100.7	-183.4	399.0	323.9	75.11	5.312			
9,100.0	7,048.0	8,899.1	6,829.0	45.3	45.2	-56.77	2,200.7	-183.0	399.5	321.4	78.15	5.112			
9,200.0	7,048.2	8,999.1	6,828.4	47.1	47.0	-56.66	2,300.7	-182.6	400.1	318.9	81.20	4.927			
9,300.0	7,048.5	9,099.1	6,827.7	48.9	48.8	-56.56	2,400.7	-182.2	400.6	316.3	84.25	4.755			
9,400.0	7,048.7	9,199.1	6,827.1	50.8	50.7	-56.46	2,500.7	-181.7	401.1	313.8	87.31	4.594			
9,500.0	7,049.0	9,299.1	6,826.4	52.6	52.5	-56.35	2,600.7	-181.3	401.7	311.3	90.38	4.444			
9,600.0	7,049.3	9,399.1	6,825.8	54.4	54.3	-56.25	2,700.7	-180.9	402.2	308.8	93.45	4.304			
9,700.0	7,049.5	9,499.1	6,825.1	56.3	56.2	-56.14	2,800.7	-180.5	402.8	306.3	96.52	4.173			
9,800.0	7,049.8	9,599.1	6,824.5	58.1	58.0	-56.04	2,900.7	-180.1	403.3	303.7	99.59	4.050			
9,900.0	7,050.0	9,699.1	6,823.8	60.0	59.9	-55.94	3,000.7	-179.6	403.9	301.2	102.67	3.934			
10,000.0	7,050.3	9,799.1	6,823.2	61.8	61.8	-55.84	3,100.7	-179.2	404.4	298.7	105.74	3.825			
10,100.0	7,050.6	9,899.1	6,822.5	63.7	63.6	-55.74	3,200.6	-178.8	405.0	296.2	108.82	3.722			
10,200.0	7,050.8	9,999.1	6,821.9	65.6	65.5	-55.63	3,300.6	-178.4	405.5	293.6	111.89	3.624			
10,300.0	7,051.1	10,099.1	6,821.3	67.4	67.4	-55.53	3,400.6	-178.0	406.1	291.1	114.97	3.532			
10,400.0	7,051.3	10,199.1	6,820.6	69.3	69.2	-55.43	3,500.6	-177.6	406.6	288.6	118.04	3.445			
10,500.0	7,051.6	10,299.1	6,820.0	71.2	71.1	-55.33	3,600.6	-177.1	407.2	286.1	121.11	3.362			
10,600.0	7,051.9	10,399.1	6,819.3	73.0	73.0	-55.23	3,700.6	-176.7	407.7	283.6	124.18	3.284			
10,700.0	7,052.1	10,499.1	6,818.7	74.9	74.9	-55.13	3,800.6	-176.3	408.3	281.1	127.24	3.209			
10,800.0	7,052.4	10,599.1	6,818.0	76.8	76.7	-55.03	3,900.6	-175.9	408.9	278.6	130.30	3.138			
10,900.0	7,052.6	10,699.1	6,817.4	78.7	78.6	-54.93	4,000.6	-175.5	409.4	276.1	133.36	3.070			
11,000.0	7,052.9	10,799.1	6,816.7	80.6	80.5	-54.83	4,100.6	-175.0	410.0	273.6	136.42	3.005			
11,100.0	7,053.2	10,899.1	6,816.1	82.4	82.4	-54.73	4,200.6	-174.6	410.5	271.1	139.47	2.944			
11,200.0	7,053.4	10,999.1	6,815.4	84.3	84.3	-54.63	4,300.6	-174.2	411.1	268.6	142.52	2.885			
11,300.0	7,053.7	11,099.1	6,814.8	86.2	86.2	-54.53	4,400.6	-173.8	411.7	266.1	145.57	2.828			
11,400.0	7,053.9	11,199.0	6,814.2	88.1	88.1	-54.43	4,500.6	-173.4	412.2	263.6	148.61	2.774			
11,423.9	7,054.0	11,222.9	6,814.0	88.5	88.5	-54.41	4,524.4	-173.3	412.4	263.1	149.25	2.763 SF			

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Waste Management 2L-441
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Reference Site:	Waste Management 2IL-HZ Pad Sec.2-T2N-R64W	MD Reference:	WELL @ 4954.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Management 2L-441	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (1-23-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4954.0ft (RKB - 15')
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000 °

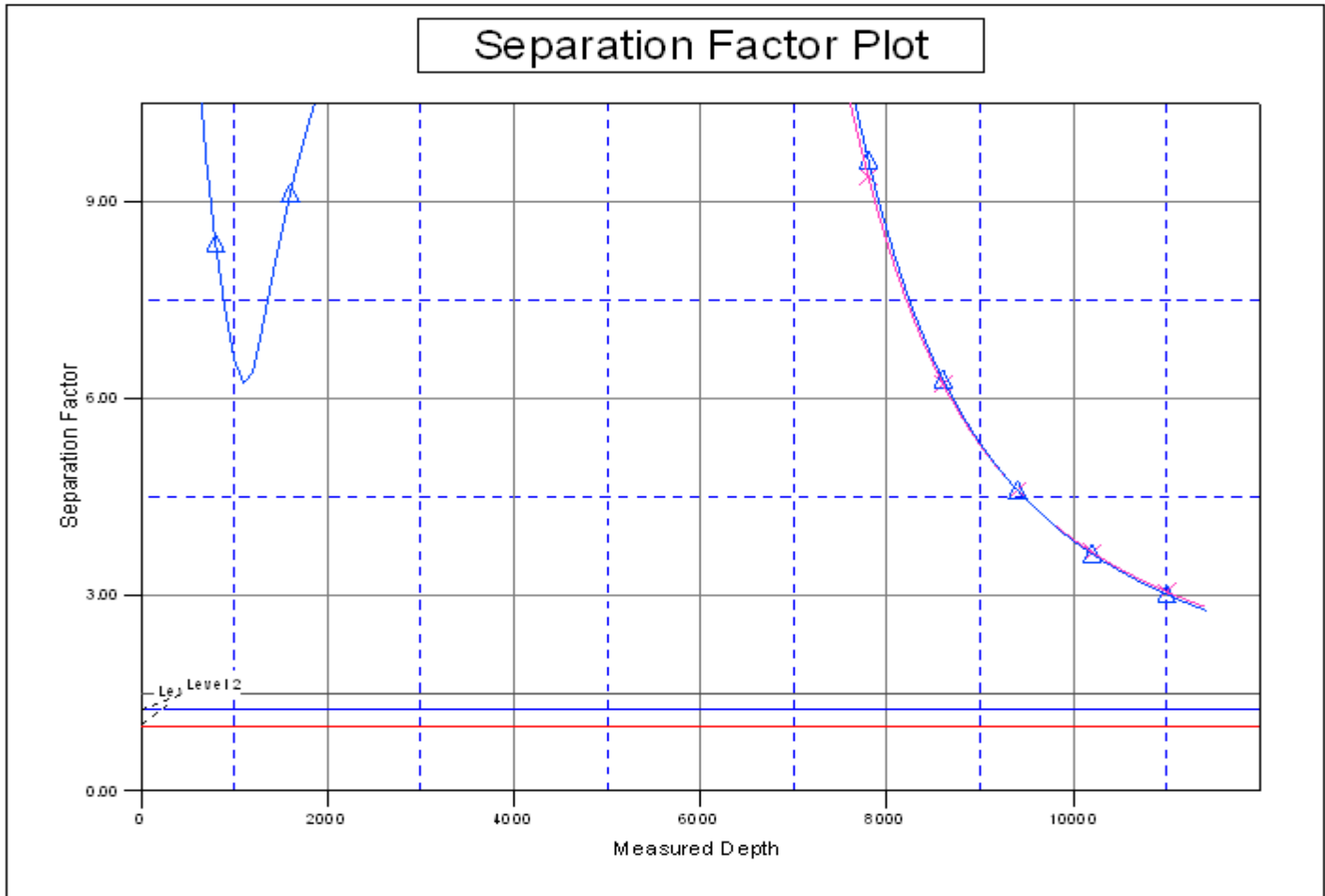
Coordinates are relative to: Waste Management 2L-441
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.63°



Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Waste Management 2L-441
Project:	SEC.2-T2N-R64W	TVD Reference:	WELL @ 4954.0ft (RKB - 15')
Reference Site:	Waste Management 2IL-HZ Pad Sec.2-T2N-R64W	MD Reference:	WELL @ 4954.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Management 2L-441	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (1-23-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4954.0ft (RKB - 15')
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000 °

Coordinates are relative to: Waste Management 2L-441
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.63°



LEGEND

ent 2 L-201, Wellbore #1, Plan #1 (1-23-13) Waste Mangement 2I-221, Wellbore #1, Plan #1 (1-23-13)