

PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: LaSalle 25G-402

Surface Location: LaSalle 25F-HZ Pad Sec.25-T5N-R65W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

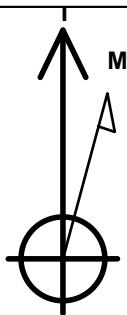
Ground Elevation: 4640.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1380140.87	3245133.35	40.373550	-104.620170	

RKB - 15' WELL @ 4655.0ft (RKB - 15')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape Point
BHL 2421'FNL, 500'FEL	6916.0	-1019.6	4558.6	Point



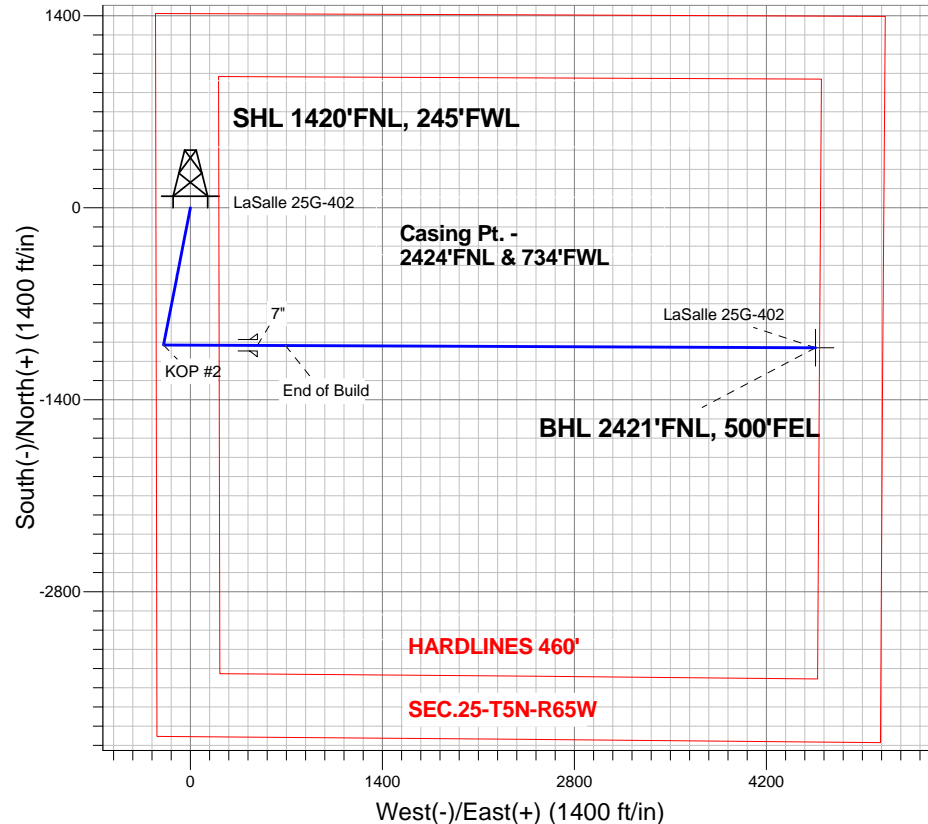
Azimuths to True North
Magnetic North: 8.56°

Magnetic Field
Strength: 52955.3nT
Dip Angle: 66.99°
Date: 2/25/2013
Model: IGRF2010

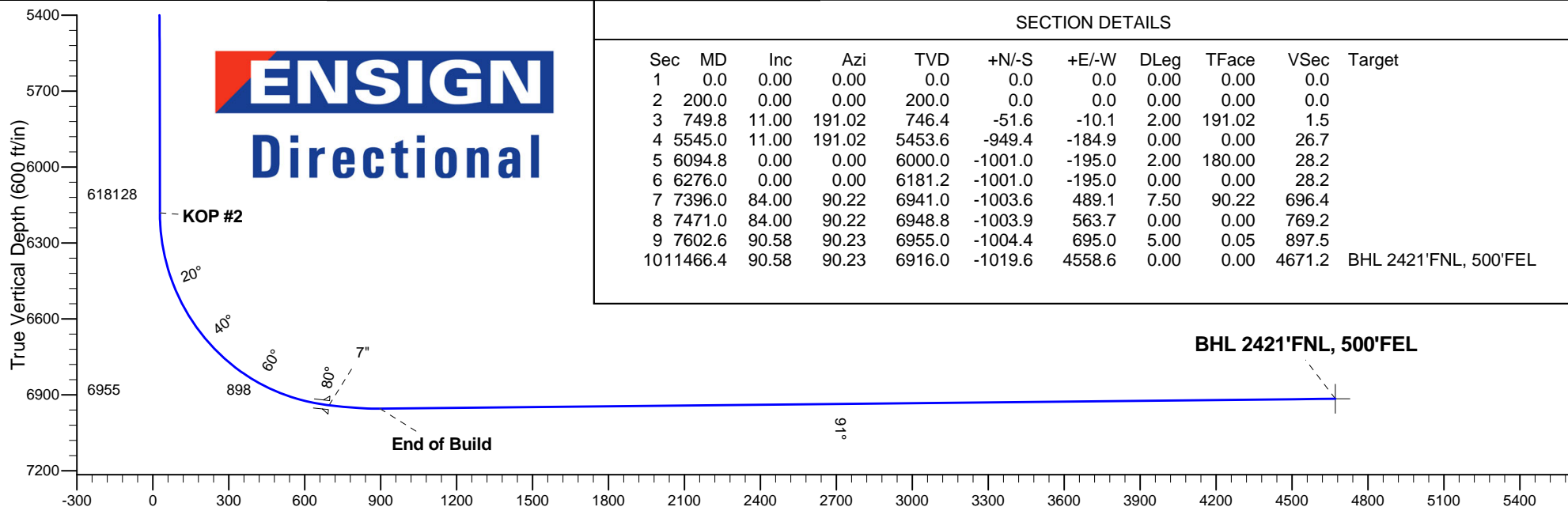
ANNOTATIONS

TVD	MD	Annotation
200.0	200.0	KOP #1
6181.2	6276.0	KOP #2
6955.0	7602.6	End of Build

LaSalle 25F-HZ Pad Sec.25-T5N-R65W
LaSalle 25G-402
Plan #1 (2-25-13)



ENSIGN
Directional



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	749.8	11.00	191.02	746.4	-51.6	-10.1	2.00	191.02	1.5	
4	5545.0	11.00	191.02	5453.6	-949.4	-184.9	0.00	0.00	26.7	
5	6094.8	0.00	0.00	6000.0	-1001.0	-195.0	2.00	180.00	28.2	
6	6276.0	0.00	0.00	6181.2	-1001.0	-195.0	0.00	0.00	28.2	
7	7396.0	84.00	90.22	6941.0	-1003.6	489.1	7.50	90.22	696.4	
8	7471.0	84.00	90.22	6948.8	-1003.9	563.7	0.00	0.00	769.2	
9	7602.6	90.58	90.23	6955.0	-1004.4	695.0	5.00	0.05	897.5	
10	11466.4	90.58	90.23	6916.0	-1019.6	4558.6	0.00	0.00	4671.2	BHL 2421'FNL, 500'FEL



Directional

PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.25-T5N-R65W

LaSalle 25F-HZ Pad Sec.25-T5N-R65W

LaSalle 25G-402

Wellbore #1

Plan: Plan #1 (2-25-13)

Standard Planning Report

01 March, 2013

Database:	Landmark	Local Co-ordinate Reference:	Well LaSalle 25G-402
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Project:	SEC.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	North Reference:	True
Well:	LaSalle 25G-402	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (2-25-13)		

Project	SEC.25-T5N-R65W, 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						LaSalle 25F-HZ Pad Sec.25-T5N-R65W											
Site Position:						Northing:			1,380,231.95 ft			Latitude:			40.373800		
From:			Lat/Long			Easting:			3,245,132.45 ft			Longitude:			-104.620170		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.57 °		

Well	LaSalle 25G-402					
Well Position	+N/-S	-91.1 ft	Northing:	1,380,140.87 ft	Latitude:	40.373550
	+E/-W	0.0 ft	Easting:	3,245,133.35 ft	Longitude:	-104.620170
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,640.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/25/2013	8.56	66.99	52,955

Design	Plan #1 (2-25-13)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	102.61

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
749.8	11.00	191.02	746.4	-51.6	-10.1	2.00	2.00	0.00	191.02	
5,545.0	11.00	191.02	5,453.6	-949.4	-184.9	0.00	0.00	0.00	0.00	
6,094.8	0.00	0.00	6,000.0	-1,001.0	-195.0	2.00	-2.00	0.00	180.00	
6,276.0	0.00	0.00	6,181.2	-1,001.0	-195.0	0.00	0.00	0.00	0.00	
7,396.0	84.00	90.22	6,941.0	-1,003.6	489.1	7.50	7.50	0.00	90.22	
7,471.0	84.00	90.22	6,948.8	-1,003.9	563.7	0.00	0.00	0.00	0.00	
7,602.6	90.58	90.23	6,955.0	-1,004.4	695.0	5.00	5.00	0.00	0.05	
11,466.4	90.58	90.23	6,916.0	-1,019.6	4,558.6	0.00	0.00	0.00	0.00	BHL 2421'FNL, 500

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Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	North Reference:	True
Well:	LaSalle 25G-402	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (2-25-13)		

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
KOP #1									
240.0	0.80	191.02	240.0	-0.3	-0.1	0.0	2.00	2.00	0.00
280.0	1.60	191.02	280.0	-1.1	-0.2	0.0	2.00	2.00	0.00
320.0	2.40	191.02	320.0	-2.5	-0.5	0.1	2.00	2.00	0.00
360.0	3.20	191.02	359.9	-4.4	-0.9	0.1	2.00	2.00	0.00
400.0	4.00	191.02	399.8	-6.8	-1.3	0.2	2.00	2.00	0.00
440.0	4.80	191.02	439.7	-9.9	-1.9	0.3	2.00	2.00	0.00
480.0	5.60	191.02	479.6	-13.4	-2.6	0.4	2.00	2.00	0.00
520.0	6.40	191.02	519.3	-17.5	-3.4	0.5	2.00	2.00	0.00
560.0	7.20	191.02	559.1	-22.2	-4.3	0.6	2.00	2.00	0.00
600.0	8.00	191.02	598.7	-27.4	-5.3	0.8	2.00	2.00	0.00
640.0	8.80	191.02	638.3	-33.1	-6.4	0.9	2.00	2.00	0.00
680.0	9.60	191.02	677.8	-39.4	-7.7	1.1	2.00	2.00	0.00
720.0	10.40	191.02	717.1	-46.2	-9.0	1.3	2.00	2.00	0.00
749.8	11.00	191.02	746.4	-51.6	-10.1	1.5	2.00	2.00	0.00
760.0	11.00	191.02	756.4	-53.5	-10.4	1.5	0.00	0.00	0.00
800.0	11.00	191.02	795.7	-61.0	-11.9	1.7	0.00	0.00	0.00
840.0	11.00	191.02	835.0	-68.5	-13.3	1.9	0.00	0.00	0.00
880.0	11.00	191.02	874.2	-76.0	-14.8	2.1	0.00	0.00	0.00
920.0	11.00	191.02	913.5	-83.5	-16.3	2.4	0.00	0.00	0.00
960.0	11.00	191.02	952.8	-91.0	-17.7	2.6	0.00	0.00	0.00
1,000.0	11.00	191.02	992.0	-98.5	-19.2	2.8	0.00	0.00	0.00
1,040.0	11.00	191.02	1,031.3	-106.0	-20.6	3.0	0.00	0.00	0.00
1,080.0	11.00	191.02	1,070.6	-113.4	-22.1	3.2	0.00	0.00	0.00
1,120.0	11.00	191.02	1,109.8	-120.9	-23.6	3.4	0.00	0.00	0.00
1,160.0	11.00	191.02	1,149.1	-128.4	-25.0	3.6	0.00	0.00	0.00
1,200.0	11.00	191.02	1,188.4	-135.9	-26.5	3.8	0.00	0.00	0.00
1,240.0	11.00	191.02	1,227.6	-143.4	-27.9	4.0	0.00	0.00	0.00
1,280.0	11.00	191.02	1,266.9	-150.9	-29.4	4.3	0.00	0.00	0.00
1,320.0	11.00	191.02	1,306.2	-158.4	-30.9	4.5	0.00	0.00	0.00
1,360.0	11.00	191.02	1,345.4	-165.9	-32.3	4.7	0.00	0.00	0.00
1,400.0	11.00	191.02	1,384.7	-173.4	-33.8	4.9	0.00	0.00	0.00
1,440.0	11.00	191.02	1,424.0	-180.8	-35.2	5.1	0.00	0.00	0.00
1,480.0	11.00	191.02	1,463.2	-188.3	-36.7	5.3	0.00	0.00	0.00
1,520.0	11.00	191.02	1,502.5	-195.8	-38.1	5.5	0.00	0.00	0.00
1,560.0	11.00	191.02	1,541.8	-203.3	-39.6	5.7	0.00	0.00	0.00
1,600.0	11.00	191.02	1,581.0	-210.8	-41.1	5.9	0.00	0.00	0.00
1,640.0	11.00	191.02	1,620.3	-218.3	-42.5	6.1	0.00	0.00	0.00
1,680.0	11.00	191.02	1,659.6	-225.8	-44.0	6.4	0.00	0.00	0.00
1,720.0	11.00	191.02	1,698.8	-233.3	-45.4	6.6	0.00	0.00	0.00
1,760.0	11.00	191.02	1,738.1	-240.8	-46.9	6.8	0.00	0.00	0.00
1,800.0	11.00	191.02	1,777.4	-248.2	-48.4	7.0	0.00	0.00	0.00
1,840.0	11.00	191.02	1,816.6	-255.7	-49.8	7.2	0.00	0.00	0.00
1,880.0	11.00	191.02	1,855.9	-263.2	-51.3	7.4	0.00	0.00	0.00
1,920.0	11.00	191.02	1,895.1	-270.7	-52.7	7.6	0.00	0.00	0.00
1,960.0	11.00	191.02	1,934.4	-278.2	-54.2	7.8	0.00	0.00	0.00
2,000.0	11.00	191.02	1,973.7	-285.7	-55.7	8.0	0.00	0.00	0.00

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Well:	LaSalle 25G-402	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (2-25-13)		

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)
2,040.0	11.00	191.02	2,012.9	-293.2	-57.1	8.3	0.00	0.00	0.00
2,080.0	11.00	191.02	2,052.2	-300.7	-58.6	8.5	0.00	0.00	0.00
2,120.0	11.00	191.02	2,091.5	-308.2	-60.0	8.7	0.00	0.00	0.00
2,160.0	11.00	191.02	2,130.7	-315.6	-61.5	8.9	0.00	0.00	0.00
2,200.0	11.00	191.02	2,170.0	-323.1	-62.9	9.1	0.00	0.00	0.00
2,240.0	11.00	191.02	2,209.3	-330.6	-64.4	9.3	0.00	0.00	0.00
2,280.0	11.00	191.02	2,248.5	-338.1	-65.9	9.5	0.00	0.00	0.00
2,320.0	11.00	191.02	2,287.8	-345.6	-67.3	9.7	0.00	0.00	0.00
2,360.0	11.00	191.02	2,327.1	-353.1	-68.8	9.9	0.00	0.00	0.00
2,400.0	11.00	191.02	2,366.3	-360.6	-70.2	10.2	0.00	0.00	0.00
2,440.0	11.00	191.02	2,405.6	-368.1	-71.7	10.4	0.00	0.00	0.00
2,480.0	11.00	191.02	2,444.9	-375.6	-73.2	10.6	0.00	0.00	0.00
2,520.0	11.00	191.02	2,484.1	-383.0	-74.6	10.8	0.00	0.00	0.00
2,560.0	11.00	191.02	2,523.4	-390.5	-76.1	11.0	0.00	0.00	0.00
2,600.0	11.00	191.02	2,562.7	-398.0	-77.5	11.2	0.00	0.00	0.00
2,640.0	11.00	191.02	2,601.9	-405.5	-79.0	11.4	0.00	0.00	0.00
2,680.0	11.00	191.02	2,641.2	-413.0	-80.5	11.6	0.00	0.00	0.00
2,720.0	11.00	191.02	2,680.5	-420.5	-81.9	11.8	0.00	0.00	0.00
2,760.0	11.00	191.02	2,719.7	-428.0	-83.4	12.1	0.00	0.00	0.00
2,800.0	11.00	191.02	2,759.0	-435.5	-84.8	12.3	0.00	0.00	0.00
2,840.0	11.00	191.02	2,798.3	-443.0	-86.3	12.5	0.00	0.00	0.00
2,880.0	11.00	191.02	2,837.5	-450.4	-87.7	12.7	0.00	0.00	0.00
2,920.0	11.00	191.02	2,876.8	-457.9	-89.2	12.9	0.00	0.00	0.00
2,960.0	11.00	191.02	2,916.1	-465.4	-90.7	13.1	0.00	0.00	0.00
3,000.0	11.00	191.02	2,955.3	-472.9	-92.1	13.3	0.00	0.00	0.00
3,040.0	11.00	191.02	2,994.6	-480.4	-93.6	13.5	0.00	0.00	0.00
3,080.0	11.00	191.02	3,033.9	-487.9	-95.0	13.7	0.00	0.00	0.00
3,120.0	11.00	191.02	3,073.1	-495.4	-96.5	14.0	0.00	0.00	0.00
3,160.0	11.00	191.02	3,112.4	-502.9	-98.0	14.2	0.00	0.00	0.00
3,200.0	11.00	191.02	3,151.6	-510.4	-99.4	14.4	0.00	0.00	0.00
3,240.0	11.00	191.02	3,190.9	-517.8	-100.9	14.6	0.00	0.00	0.00
3,280.0	11.00	191.02	3,230.2	-525.3	-102.3	14.8	0.00	0.00	0.00
3,320.0	11.00	191.02	3,269.4	-532.8	-103.8	15.0	0.00	0.00	0.00
3,360.0	11.00	191.02	3,308.7	-540.3	-105.3	15.2	0.00	0.00	0.00
3,400.0	11.00	191.02	3,348.0	-547.8	-106.7	15.4	0.00	0.00	0.00
3,440.0	11.00	191.02	3,387.2	-555.3	-108.2	15.6	0.00	0.00	0.00
3,480.0	11.00	191.02	3,426.5	-562.8	-109.6	15.9	0.00	0.00	0.00
3,520.0	11.00	191.02	3,465.8	-570.3	-111.1	16.1	0.00	0.00	0.00
3,560.0	11.00	191.02	3,505.0	-577.7	-112.5	16.3	0.00	0.00	0.00
3,600.0	11.00	191.02	3,544.3	-585.2	-114.0	16.5	0.00	0.00	0.00
3,640.0	11.00	191.02	3,583.6	-592.7	-115.5	16.7	0.00	0.00	0.00
3,680.0	11.00	191.02	3,622.8	-600.2	-116.9	16.9	0.00	0.00	0.00
3,720.0	11.00	191.02	3,662.1	-607.7	-118.4	17.1	0.00	0.00	0.00
3,760.0	11.00	191.02	3,701.4	-615.2	-119.8	17.3	0.00	0.00	0.00
3,800.0	11.00	191.02	3,740.6	-622.7	-121.3	17.5	0.00	0.00	0.00
3,840.0	11.00	191.02	3,779.9	-630.2	-122.8	17.8	0.00	0.00	0.00
3,880.0	11.00	191.02	3,819.2	-637.7	-124.2	18.0	0.00	0.00	0.00
3,920.0	11.00	191.02	3,858.4	-645.1	-125.7	18.2	0.00	0.00	0.00
3,960.0	11.00	191.02	3,897.7	-652.6	-127.1	18.4	0.00	0.00	0.00
4,000.0	11.00	191.02	3,937.0	-660.1	-128.6	18.6	0.00	0.00	0.00
4,040.0	11.00	191.02	3,976.2	-667.6	-130.1	18.8	0.00	0.00	0.00
4,080.0	11.00	191.02	4,015.5	-675.1	-131.5	19.0	0.00	0.00	0.00
4,120.0	11.00	191.02	4,054.8	-682.6	-133.0	19.2	0.00	0.00	0.00

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Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	North Reference:	True
Well:	LaSalle 25G-402	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (2-25-13)		

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)
4,160.0	11.00	191.02	4,094.0	-690.1	-134.4	19.4	0.00	0.00	0.00
4,200.0	11.00	191.02	4,133.3	-697.6	-135.9	19.7	0.00	0.00	0.00
4,240.0	11.00	191.02	4,172.6	-705.1	-137.3	19.9	0.00	0.00	0.00
4,280.0	11.00	191.02	4,211.8	-712.5	-138.8	20.1	0.00	0.00	0.00
4,320.0	11.00	191.02	4,251.1	-720.0	-140.3	20.3	0.00	0.00	0.00
4,360.0	11.00	191.02	4,290.4	-727.5	-141.7	20.5	0.00	0.00	0.00
4,400.0	11.00	191.02	4,329.6	-735.0	-143.2	20.7	0.00	0.00	0.00
4,440.0	11.00	191.02	4,368.9	-742.5	-144.6	20.9	0.00	0.00	0.00
4,480.0	11.00	191.02	4,408.1	-750.0	-146.1	21.1	0.00	0.00	0.00
4,520.0	11.00	191.02	4,447.4	-757.5	-147.6	21.3	0.00	0.00	0.00
4,560.0	11.00	191.02	4,486.7	-765.0	-149.0	21.6	0.00	0.00	0.00
4,600.0	11.00	191.02	4,525.9	-772.5	-150.5	21.8	0.00	0.00	0.00
4,640.0	11.00	191.02	4,565.2	-779.9	-151.9	22.0	0.00	0.00	0.00
4,680.0	11.00	191.02	4,604.5	-787.4	-153.4	22.2	0.00	0.00	0.00
4,720.0	11.00	191.02	4,643.7	-794.9	-154.9	22.4	0.00	0.00	0.00
4,760.0	11.00	191.02	4,683.0	-802.4	-156.3	22.6	0.00	0.00	0.00
4,800.0	11.00	191.02	4,722.3	-809.9	-157.8	22.8	0.00	0.00	0.00
4,840.0	11.00	191.02	4,761.5	-817.4	-159.2	23.0	0.00	0.00	0.00
4,880.0	11.00	191.02	4,800.8	-824.9	-160.7	23.2	0.00	0.00	0.00
4,920.0	11.00	191.02	4,840.1	-832.4	-162.1	23.5	0.00	0.00	0.00
4,960.0	11.00	191.02	4,879.3	-839.9	-163.6	23.7	0.00	0.00	0.00
5,000.0	11.00	191.02	4,918.6	-847.3	-165.1	23.9	0.00	0.00	0.00
5,040.0	11.00	191.02	4,957.9	-854.8	-166.5	24.1	0.00	0.00	0.00
5,080.0	11.00	191.02	4,997.1	-862.3	-168.0	24.3	0.00	0.00	0.00
5,120.0	11.00	191.02	5,036.4	-869.8	-169.4	24.5	0.00	0.00	0.00
5,160.0	11.00	191.02	5,075.7	-877.3	-170.9	24.7	0.00	0.00	0.00
5,200.0	11.00	191.02	5,114.9	-884.8	-172.4	24.9	0.00	0.00	0.00
5,240.0	11.00	191.02	5,154.2	-892.3	-173.8	25.1	0.00	0.00	0.00
5,280.0	11.00	191.02	5,193.5	-899.8	-175.3	25.3	0.00	0.00	0.00
5,320.0	11.00	191.02	5,232.7	-907.3	-176.7	25.6	0.00	0.00	0.00
5,360.0	11.00	191.02	5,272.0	-914.7	-178.2	25.8	0.00	0.00	0.00
5,400.0	11.00	191.02	5,311.3	-922.2	-179.7	26.0	0.00	0.00	0.00
5,440.0	11.00	191.02	5,350.5	-929.7	-181.1	26.2	0.00	0.00	0.00
5,480.0	11.00	191.02	5,389.8	-937.2	-182.6	26.4	0.00	0.00	0.00
5,520.0	11.00	191.02	5,429.1	-944.7	-184.0	26.6	0.00	0.00	0.00
5,545.0	11.00	191.02	5,453.6	-949.4	-184.9	26.7	0.00	0.00	0.00
5,560.0	10.70	191.02	5,468.3	-952.1	-185.5	26.8	2.00	-2.00	0.00
5,600.0	9.90	191.02	5,507.7	-959.2	-186.9	27.0	2.00	-2.00	0.00
5,640.0	9.10	191.02	5,547.1	-965.6	-188.1	27.2	2.00	-2.00	0.00
5,680.0	8.30	191.02	5,586.7	-971.6	-189.3	27.4	2.00	-2.00	0.00
5,720.0	7.50	191.02	5,626.3	-977.0	-190.3	27.5	2.00	-2.00	0.00
5,760.0	6.70	191.02	5,666.0	-981.8	-191.3	27.7	2.00	-2.00	0.00
5,800.0	5.90	191.02	5,705.7	-986.1	-192.1	27.8	2.00	-2.00	0.00
5,840.0	5.10	191.02	5,745.6	-989.9	-192.8	27.9	2.00	-2.00	0.00
5,880.0	4.30	191.02	5,785.4	-993.1	-193.5	28.0	2.00	-2.00	0.00
5,920.0	3.50	191.02	5,825.3	-995.8	-194.0	28.1	2.00	-2.00	0.00
5,960.0	2.70	191.02	5,865.3	-997.9	-194.4	28.1	2.00	-2.00	0.00
6,000.0	1.90	191.02	5,905.2	-999.5	-194.7	28.2	2.00	-2.00	0.00
6,040.0	1.10	191.02	5,945.2	-1,000.5	-194.9	28.2	2.00	-2.00	0.00
6,080.0	0.30	191.02	5,985.2	-1,001.0	-195.0	28.2	2.00	-2.00	0.00
6,094.8	0.00	0.00	6,000.0	-1,001.0	-195.0	28.2	2.00	-2.00	0.00
6,120.0	0.00	0.00	6,025.2	-1,001.0	-195.0	28.2	0.00	0.00	0.00
6,160.0	0.00	0.00	6,065.2	-1,001.0	-195.0	28.2	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well LaSalle 25G-402
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Project:	SEC.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	North Reference:	True
Well:	LaSalle 25G-402	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (2-25-13)		

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)
6,200.0	0.00	0.00	6,105.2	-1,001.0	-195.0	28.2	0.00	0.00	0.00
6,240.0	0.00	0.00	6,145.2	-1,001.0	-195.0	28.2	0.00	0.00	0.00
6,276.0	0.00	0.00	6,181.2	-1,001.0	-195.0	28.2	0.00	0.00	0.00
KOP #2									
6,280.0	0.30	90.22	6,185.2	-1,001.0	-195.0	28.2	7.50	7.50	0.00
6,320.0	3.30	90.22	6,225.2	-1,001.0	-193.7	29.4	7.50	7.50	0.00
6,360.0	6.30	90.22	6,265.1	-1,001.0	-190.4	32.7	7.50	7.50	0.00
6,400.0	9.30	90.22	6,304.7	-1,001.0	-185.0	38.0	7.50	7.50	0.00
6,440.0	12.30	90.22	6,344.0	-1,001.1	-177.5	45.3	7.50	7.50	0.00
6,480.0	15.30	90.22	6,382.8	-1,001.1	-167.9	54.6	7.50	7.50	0.00
6,520.0	18.30	90.22	6,421.1	-1,001.1	-156.4	65.9	7.50	7.50	0.00
6,560.0	21.30	90.22	6,458.7	-1,001.2	-142.8	79.2	7.50	7.50	0.00
6,600.0	24.30	90.22	6,495.6	-1,001.3	-127.3	94.3	7.50	7.50	0.00
6,640.0	27.30	90.22	6,531.6	-1,001.3	-109.9	111.3	7.50	7.50	0.00
6,680.0	30.30	90.22	6,566.7	-1,001.4	-90.6	130.1	7.50	7.50	0.00
6,720.0	33.30	90.22	6,600.6	-1,001.5	-69.6	150.7	7.50	7.50	0.00
6,760.0	36.30	90.22	6,633.5	-1,001.6	-46.7	173.0	7.50	7.50	0.00
6,800.0	39.30	90.22	6,665.1	-1,001.7	-22.2	197.0	7.50	7.50	0.00
6,840.0	42.30	90.22	6,695.4	-1,001.8	3.9	222.5	7.50	7.50	0.00
6,880.0	45.30	90.22	6,724.2	-1,001.9	31.6	249.5	7.50	7.50	0.00
6,920.0	48.30	90.22	6,751.6	-1,002.0	60.7	278.0	7.50	7.50	0.00
6,960.0	51.30	90.22	6,777.4	-1,002.1	91.3	307.8	7.50	7.50	0.00
7,000.0	54.30	90.22	6,801.6	-1,002.2	123.1	338.9	7.50	7.50	0.00
7,040.0	57.30	90.22	6,824.1	-1,002.3	156.2	371.3	7.50	7.50	0.00
7,080.0	60.30	90.22	6,844.8	-1,002.5	190.4	404.7	7.50	7.50	0.00
7,120.0	63.30	90.22	6,863.7	-1,002.6	225.7	439.1	7.50	7.50	0.00
7,160.0	66.30	90.22	6,880.7	-1,002.8	261.9	474.4	7.50	7.50	0.00
7,200.0	69.30	90.22	6,895.9	-1,002.9	298.9	510.6	7.50	7.50	0.00
7,240.0	72.30	90.22	6,909.0	-1,003.0	336.7	547.5	7.50	7.50	0.00
7,280.0	75.30	90.22	6,920.2	-1,003.2	375.1	585.0	7.50	7.50	0.00
7,320.0	78.30	90.22	6,929.3	-1,003.3	414.0	623.0	7.50	7.50	0.00
7,360.0	81.30	90.22	6,936.4	-1,003.5	453.4	661.5	7.50	7.50	0.00
7,396.0	84.00	90.22	6,941.0	-1,003.6	489.1	696.4	7.50	7.50	0.00
7"									
7,400.0	84.00	90.22	6,941.4	-1,003.6	493.1	700.2	0.00	0.00	0.00
7,440.0	84.00	90.22	6,945.6	-1,003.8	532.8	739.1	0.00	0.00	0.00
7,471.0	84.00	90.22	6,948.8	-1,003.9	563.7	769.2	0.00	0.00	0.00
7,480.0	84.45	90.22	6,949.7	-1,003.9	572.6	778.0	5.00	5.00	0.00
7,520.0	86.45	90.22	6,952.9	-1,004.1	612.5	816.9	5.00	5.00	0.00
7,560.0	88.45	90.22	6,954.7	-1,004.3	652.5	855.9	5.00	5.00	0.00
7,600.0	90.45	90.23	6,955.1	-1,004.4	692.5	895.0	5.00	5.00	0.00
7,602.6	90.58	90.23	6,955.0	-1,004.4	695.1	897.5	4.97	4.97	0.00
End of Build									
7,640.0	90.58	90.23	6,954.7	-1,004.6	732.4	934.1	0.00	0.00	0.00
7,680.0	90.58	90.23	6,954.3	-1,004.7	772.4	973.1	0.00	0.00	0.00
7,720.0	90.58	90.23	6,953.9	-1,004.9	812.4	1,012.2	0.00	0.00	0.00
7,760.0	90.58	90.23	6,953.5	-1,005.0	852.4	1,051.3	0.00	0.00	0.00
7,800.0	90.58	90.23	6,953.1	-1,005.2	892.4	1,090.3	0.00	0.00	0.00
7,840.0	90.58	90.23	6,952.6	-1,005.4	932.4	1,129.4	0.00	0.00	0.00
7,880.0	90.58	90.23	6,952.2	-1,005.5	972.4	1,168.5	0.00	0.00	0.00
7,920.0	90.58	90.23	6,951.8	-1,005.7	1,012.4	1,207.5	0.00	0.00	0.00
7,960.0	90.58	90.23	6,951.4	-1,005.8	1,052.4	1,246.6	0.00	0.00	0.00
8,000.0	90.58	90.23	6,951.0	-1,006.0	1,092.4	1,285.7	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well LaSalle 25G-402
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Project:	SEC.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	North Reference:	True
Well:	LaSalle 25G-402	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (2-25-13)		

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	90.58	90.23	6,950.6	-1,006.1	1,132.4	1,324.7	0.00	0.00	0.00
8,080.0	90.58	90.23	6,950.2	-1,006.3	1,172.4	1,363.8	0.00	0.00	0.00
8,120.0	90.58	90.23	6,949.8	-1,006.5	1,212.4	1,402.9	0.00	0.00	0.00
8,160.0	90.58	90.23	6,949.4	-1,006.6	1,252.4	1,441.9	0.00	0.00	0.00
8,200.0	90.58	90.23	6,949.0	-1,006.8	1,292.4	1,481.0	0.00	0.00	0.00
8,240.0	90.58	90.23	6,948.6	-1,006.9	1,332.4	1,520.1	0.00	0.00	0.00
8,280.0	90.58	90.23	6,948.2	-1,007.1	1,372.4	1,559.1	0.00	0.00	0.00
8,320.0	90.58	90.23	6,947.8	-1,007.2	1,412.4	1,598.2	0.00	0.00	0.00
8,360.0	90.58	90.23	6,947.4	-1,007.4	1,452.4	1,637.3	0.00	0.00	0.00
8,400.0	90.58	90.23	6,947.0	-1,007.6	1,492.4	1,676.3	0.00	0.00	0.00
8,440.0	90.58	90.23	6,946.6	-1,007.7	1,532.4	1,715.4	0.00	0.00	0.00
8,480.0	90.58	90.23	6,946.2	-1,007.9	1,572.4	1,754.5	0.00	0.00	0.00
8,520.0	90.58	90.23	6,945.8	-1,008.0	1,612.4	1,793.6	0.00	0.00	0.00
8,560.0	90.58	90.23	6,945.4	-1,008.2	1,652.4	1,832.6	0.00	0.00	0.00
8,600.0	90.58	90.23	6,945.0	-1,008.4	1,692.4	1,871.7	0.00	0.00	0.00
8,640.0	90.58	90.23	6,944.6	-1,008.5	1,732.4	1,910.8	0.00	0.00	0.00
8,680.0	90.58	90.23	6,944.2	-1,008.7	1,772.4	1,949.8	0.00	0.00	0.00
8,720.0	90.58	90.23	6,943.8	-1,008.8	1,812.4	1,988.9	0.00	0.00	0.00
8,760.0	90.58	90.23	6,943.3	-1,009.0	1,852.4	2,028.0	0.00	0.00	0.00
8,800.0	90.58	90.23	6,942.9	-1,009.1	1,892.4	2,067.0	0.00	0.00	0.00
8,840.0	90.58	90.23	6,942.5	-1,009.3	1,932.4	2,106.1	0.00	0.00	0.00
8,880.0	90.58	90.23	6,942.1	-1,009.5	1,972.4	2,145.2	0.00	0.00	0.00
8,920.0	90.58	90.23	6,941.7	-1,009.6	2,012.4	2,184.2	0.00	0.00	0.00
8,960.0	90.58	90.23	6,941.3	-1,009.8	2,052.4	2,223.3	0.00	0.00	0.00
9,000.0	90.58	90.23	6,940.9	-1,009.9	2,092.4	2,262.4	0.00	0.00	0.00
9,040.0	90.58	90.23	6,940.5	-1,010.1	2,132.4	2,301.4	0.00	0.00	0.00
9,080.0	90.58	90.23	6,940.1	-1,010.2	2,172.4	2,340.5	0.00	0.00	0.00
9,120.0	90.58	90.23	6,939.7	-1,010.4	2,212.4	2,379.6	0.00	0.00	0.00
9,160.0	90.58	90.23	6,939.3	-1,010.6	2,252.4	2,418.6	0.00	0.00	0.00
9,200.0	90.58	90.23	6,938.9	-1,010.7	2,292.4	2,457.7	0.00	0.00	0.00
9,240.0	90.58	90.23	6,938.5	-1,010.9	2,332.4	2,496.8	0.00	0.00	0.00
9,280.0	90.58	90.23	6,938.1	-1,011.0	2,372.4	2,535.8	0.00	0.00	0.00
9,320.0	90.58	90.23	6,937.7	-1,011.2	2,412.4	2,574.9	0.00	0.00	0.00
9,360.0	90.58	90.23	6,937.3	-1,011.3	2,452.3	2,614.0	0.00	0.00	0.00
9,400.0	90.58	90.23	6,936.9	-1,011.5	2,492.3	2,653.0	0.00	0.00	0.00
9,440.0	90.58	90.23	6,936.5	-1,011.7	2,532.3	2,692.1	0.00	0.00	0.00
9,480.0	90.58	90.23	6,936.1	-1,011.8	2,572.3	2,731.2	0.00	0.00	0.00
9,520.0	90.58	90.23	6,935.7	-1,012.0	2,612.3	2,770.2	0.00	0.00	0.00
9,560.0	90.58	90.23	6,935.3	-1,012.1	2,652.3	2,809.3	0.00	0.00	0.00
9,600.0	90.58	90.23	6,934.9	-1,012.3	2,692.3	2,848.4	0.00	0.00	0.00
9,640.0	90.58	90.23	6,934.5	-1,012.4	2,732.3	2,887.4	0.00	0.00	0.00
9,680.0	90.58	90.23	6,934.1	-1,012.6	2,772.3	2,926.5	0.00	0.00	0.00
9,720.0	90.58	90.23	6,933.6	-1,012.8	2,812.3	2,965.6	0.00	0.00	0.00
9,760.0	90.58	90.23	6,933.2	-1,012.9	2,852.3	3,004.6	0.00	0.00	0.00
9,800.0	90.58	90.23	6,932.8	-1,013.1	2,892.3	3,043.7	0.00	0.00	0.00
9,840.0	90.58	90.23	6,932.4	-1,013.2	2,932.3	3,082.8	0.00	0.00	0.00
9,880.0	90.58	90.23	6,932.0	-1,013.4	2,972.3	3,121.8	0.00	0.00	0.00
9,920.0	90.58	90.23	6,931.6	-1,013.6	3,012.3	3,160.9	0.00	0.00	0.00
9,960.0	90.58	90.23	6,931.2	-1,013.7	3,052.3	3,200.0	0.00	0.00	0.00
10,000.0	90.58	90.23	6,930.8	-1,013.9	3,092.3	3,239.1	0.00	0.00	0.00
10,040.0	90.58	90.23	6,930.4	-1,014.0	3,132.3	3,278.1	0.00	0.00	0.00
10,080.0	90.58	90.23	6,930.0	-1,014.2	3,172.3	3,317.2	0.00	0.00	0.00
10,120.0	90.58	90.23	6,929.6	-1,014.3	3,212.3	3,356.3	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well LaSalle 25G-402
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Project:	SEC.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	North Reference:	True
Well:	LaSalle 25G-402	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (2-25-13)		

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)
10,160.0	90.58	90.23	6,929.2	-1,014.5	3,252.3	3,395.3	0.00	0.00	0.00
10,200.0	90.58	90.23	6,928.8	-1,014.7	3,292.3	3,434.4	0.00	0.00	0.00
10,240.0	90.58	90.23	6,928.4	-1,014.8	3,332.3	3,473.5	0.00	0.00	0.00
10,280.0	90.58	90.23	6,928.0	-1,015.0	3,372.3	3,512.5	0.00	0.00	0.00
10,320.0	90.58	90.23	6,927.6	-1,015.1	3,412.3	3,551.6	0.00	0.00	0.00
10,360.0	90.58	90.23	6,927.2	-1,015.3	3,452.3	3,590.7	0.00	0.00	0.00
10,400.0	90.58	90.23	6,926.8	-1,015.4	3,492.3	3,629.7	0.00	0.00	0.00
10,440.0	90.58	90.23	6,926.4	-1,015.6	3,532.3	3,668.8	0.00	0.00	0.00
10,480.0	90.58	90.23	6,926.0	-1,015.8	3,572.3	3,707.9	0.00	0.00	0.00
10,520.0	90.58	90.23	6,925.6	-1,015.9	3,612.3	3,746.9	0.00	0.00	0.00
10,560.0	90.58	90.23	6,925.2	-1,016.1	3,652.3	3,786.0	0.00	0.00	0.00
10,600.0	90.58	90.23	6,924.8	-1,016.2	3,692.3	3,825.1	0.00	0.00	0.00
10,640.0	90.58	90.23	6,924.4	-1,016.4	3,732.3	3,864.1	0.00	0.00	0.00
10,680.0	90.58	90.23	6,923.9	-1,016.5	3,772.3	3,903.2	0.00	0.00	0.00
10,720.0	90.58	90.23	6,923.5	-1,016.7	3,812.3	3,942.3	0.00	0.00	0.00
10,760.0	90.58	90.23	6,923.1	-1,016.9	3,852.3	3,981.3	0.00	0.00	0.00
10,800.0	90.58	90.23	6,922.7	-1,017.0	3,892.3	4,020.4	0.00	0.00	0.00
10,840.0	90.58	90.23	6,922.3	-1,017.2	3,932.3	4,059.5	0.00	0.00	0.00
10,880.0	90.58	90.23	6,921.9	-1,017.3	3,972.3	4,098.5	0.00	0.00	0.00
10,920.0	90.58	90.23	6,921.5	-1,017.5	4,012.3	4,137.6	0.00	0.00	0.00
10,960.0	90.58	90.23	6,921.1	-1,017.6	4,052.3	4,176.7	0.00	0.00	0.00
11,000.0	90.58	90.23	6,920.7	-1,017.8	4,092.3	4,215.7	0.00	0.00	0.00
11,040.0	90.58	90.23	6,920.3	-1,018.0	4,132.2	4,254.8	0.00	0.00	0.00
11,080.0	90.58	90.23	6,919.9	-1,018.1	4,172.2	4,293.9	0.00	0.00	0.00
11,120.0	90.58	90.23	6,919.5	-1,018.3	4,212.2	4,332.9	0.00	0.00	0.00
11,160.0	90.58	90.23	6,919.1	-1,018.4	4,252.2	4,372.0	0.00	0.00	0.00
11,200.0	90.58	90.23	6,918.7	-1,018.6	4,292.2	4,411.1	0.00	0.00	0.00
11,240.0	90.58	90.23	6,918.3	-1,018.7	4,332.2	4,450.1	0.00	0.00	0.00
11,280.0	90.58	90.23	6,917.9	-1,018.9	4,372.2	4,489.2	0.00	0.00	0.00
11,320.0	90.58	90.23	6,917.5	-1,019.1	4,412.2	4,528.3	0.00	0.00	0.00
11,360.0	90.58	90.23	6,917.1	-1,019.2	4,452.2	4,567.3	0.00	0.00	0.00
11,400.0	90.58	90.23	6,916.7	-1,019.4	4,492.2	4,606.4	0.00	0.00	0.00
11,440.0	90.58	90.23	6,916.3	-1,019.5	4,532.2	4,645.5	0.00	0.00	0.00
11,466.4	90.58	90.23	6,916.0	-1,019.6	4,558.6	4,671.2	0.00	0.00	0.00

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,396.0	6,941.0	7"	7	8-3/4	

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	KOP #1
6,276.0	6,181.2	-1,001.0	-195.0	KOP #2
7,602.6	6,955.0	-1,004.4	695.1	End of Build



Directional

PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.25-T5N-R65W

LaSalle 25F-HZ Pad Sec.25-T5N-R65W

LaSalle 25G-402

Wellbore #1

Plan #1 (2-25-13)

Anticollision Report

01 March, 2013



Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well LaSalle 25G-402
Project:	SEC.25-T5N-R65W	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Reference Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	LaSalle 25G-402	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 (2-25-13)	Offset TVD Reference:	Offset Datum

Reference	Plan #1 (2-25-13)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	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 2/28/2013			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,466.4	Plan #1 (2-25-13) (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						
LaSalle 25F-HZ Pad Sec.25-T5N-R65W						
LaSalle 25F-332 - Wellbore #1 - Plan #1 (2-25-13)	200.0	200.0	61.9	61.3	91.848	CC, ES
LaSalle 25F-332 - Wellbore #1 - Plan #1 (2-25-13)	11,466.4	11,315.5	885.0	627.6	3.439	SF
LaSalle 25G-212 - Wellbore #1 - Plan #1 (2-25-13)	200.0	200.0	32.8	32.1	48.619	CC, ES
LaSalle 25G-212 - Wellbore #1 - Plan #1 (2-25-13)	11,466.4	11,250.4	434.8	199.5	1.848	SF

Offset Design												
LaSalle 25F-HZ Pad Sec.25-T5N-R65W - LaSalle 25F-332 - Wellbore #1 - Plan #1 (2-25-13)												
Survey Program: 0-MWD												
Reference	Offset	Semi Major Axis			Distance				Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
0.0	0.0	0.0	0.0	0.0	0.0	0.00	61.9	0.0	61.9			
100.0	100.0	100.0	100.0	0.1	0.1	0.00	61.9	0.0	61.9	61.7	0.22	275.543
200.0	200.0	200.0	200.0	0.3	0.3	0.00	61.9	0.0	61.9	61.3	0.67	91.848 CC, ES
300.0	300.0	300.0	300.0	0.5	0.6	169.27	61.9	0.0	63.6	62.5	1.11	57.455
400.0	399.8	399.8	399.8	0.8	0.8	170.06	61.9	0.0	68.8	67.3	1.54	44.613
500.0	499.5	499.5	499.5	1.0	1.0	171.15	61.9	0.0	77.4	75.4	1.99	38.903
600.0	598.7	598.7	598.7	1.3	1.2	172.32	61.9	0.0	89.5	87.0	2.44	36.611
700.0	697.5	697.5	697.5	1.6	1.5	173.42	61.9	0.0	105.0	102.1	2.90	36.178
800.0	795.7	795.7	795.7	2.0	1.7	174.40	61.9	0.0	123.5	120.2	3.36	36.769
900.0	893.9	893.9	893.9	2.4	1.9	175.15	61.9	0.0	142.5	138.7	3.82	37.320
1,000.0	992.0	992.0	992.0	2.8	2.1	175.72	61.9	0.0	161.5	157.3	4.28	37.717
1,100.0	1,090.2	1,090.2	1,090.2	3.2	2.3	176.17	61.9	0.0	180.6	175.8	4.75	38.016
1,200.0	1,188.4	1,188.4	1,188.4	3.6	2.6	176.54	61.9	0.0	199.6	194.4	5.22	38.246
1,300.0	1,286.5	1,286.5	1,286.5	4.1	2.8	176.84	61.9	0.0	218.7	213.0	5.69	38.428
1,400.0	1,384.7	1,384.7	1,384.7	4.5	3.0	177.09	61.9	0.0	237.7	231.5	6.16	38.574
1,500.0	1,482.9	1,482.9	1,482.9	4.9	3.2	177.31	61.9	0.0	256.8	250.1	6.64	38.694
1,600.0	1,581.0	1,581.0	1,581.0	5.3	3.4	177.49	61.9	0.0	275.8	268.7	7.11	38.795
1,700.0	1,679.2	1,679.2	1,679.2	5.8	3.7	177.66	61.9	0.0	294.9	287.3	7.58	38.879
1,800.0	1,777.4	1,777.4	1,777.4	6.2	3.9	177.80	61.9	0.0	313.9	305.9	8.06	38.951
1,900.0	1,875.5	1,875.5	1,875.5	6.6	4.1	177.92	61.9	0.0	333.0	324.4	8.54	39.013
2,000.0	1,973.7	1,973.7	1,973.7	7.0	4.3	178.04	61.9	0.0	352.0	343.0	9.01	39.067
2,100.0	2,071.8	2,071.8	2,071.8	7.5	4.5	178.14	61.9	0.0	371.1	361.6	9.49	39.114

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 LaSalle 25G-402
Project:	SEC.25-T5N-R65W	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Reference Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	LaSalle 25G-402	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 (2-25-13)	Offset TVD Reference:	Offset Datum

Offset Design LaSalle 25F-HZ Pad Sec.25-T5N-R65W - LaSalle 25F-332 - Wellbore #1 - Plan #1 (2-25-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
2,200.0	2,170.0	2,170.0	2,170.0	7.9	4.8	178.23		61.9	0.0	390.2	380.2	9.96	39.155	
2,300.0	2,268.2	2,268.2	2,268.2	8.3	5.0	178.31		61.9	0.0	409.2	398.8	10.44	39.192	
2,400.0	2,366.3	2,366.3	2,366.3	8.8	5.2	178.39		61.9	0.0	428.3	417.4	10.92	39.225	
2,500.0	2,464.5	2,464.5	2,464.5	9.2	5.4	178.45		61.9	0.0	447.4	436.0	11.40	39.254	
2,600.0	2,562.7	2,562.7	2,562.7	9.6	5.6	178.52		61.9	0.0	466.4	454.6	11.87	39.281	
2,700.0	2,660.8	2,660.8	2,660.8	10.0	5.9	178.58		61.9	0.0	485.5	473.2	12.35	39.305	
2,800.0	2,759.0	2,759.0	2,759.0	10.5	6.1	178.63		61.9	0.0	504.6	491.7	12.83	39.326	
2,900.0	2,857.2	2,857.2	2,857.2	10.9	6.3	178.68		61.9	0.0	523.6	510.3	13.31	39.346	
3,000.0	2,955.3	2,955.3	2,955.3	11.3	6.5	178.73		61.9	0.0	542.7	528.9	13.79	39.364	
3,100.0	3,053.5	3,063.5	3,063.4	11.8	6.8	178.73		61.4	-0.5	561.3	547.0	14.27	39.329	
3,200.0	3,151.6	3,180.9	3,180.7	12.2	7.0	178.48		58.0	-4.1	577.0	562.3	14.75	39.127	
3,300.0	3,249.8	3,299.2	3,298.6	12.6	7.2	177.96		51.2	-11.3	589.5	574.3	15.22	38.719	
3,400.0	3,348.0	3,402.3	3,401.1	13.0	7.4	177.35		43.3	-19.7	599.8	584.1	15.69	38.239	
3,500.0	3,446.1	3,501.6	3,499.8	13.5	7.6	176.78		35.6	-27.8	610.1	594.0	16.15	37.785	
3,600.0	3,544.3	3,600.9	3,598.4	13.9	7.8	176.23		27.9	-35.8	620.5	603.9	16.61	37.346	
3,700.0	3,642.5	3,700.2	3,697.1	14.3	8.0	175.70		20.2	-43.9	630.9	613.8	17.09	36.921	
3,800.0	3,740.6	3,799.5	3,795.8	14.8	8.2	175.19		12.6	-52.0	641.4	623.8	17.57	36.510	
3,900.0	3,838.8	3,898.7	3,894.4	15.2	8.5	174.69		4.9	-60.1	651.9	633.9	18.05	36.114	
4,000.0	3,937.0	3,998.0	3,993.1	15.6	8.7	174.21		-2.8	-68.2	662.5	643.9	18.54	35.730	
4,100.0	4,035.1	4,097.3	4,091.7	16.1	8.9	173.75		-10.5	-76.3	673.1	654.1	19.04	35.360	
4,200.0	4,133.3	4,196.6	4,190.4	16.5	9.2	173.29		-18.1	-84.4	683.8	664.2	19.54	35.001	
4,300.0	4,231.5	4,295.9	4,289.0	16.9	9.4	172.86		-25.8	-92.5	694.5	674.4	20.04	34.655	
4,400.0	4,329.6	4,395.2	4,387.7	17.3	9.7	172.43		-33.5	-100.6	705.2	684.7	20.55	34.321	
4,500.0	4,427.8	4,494.5	4,486.4	17.8	9.9	172.02		-41.2	-108.7	716.0	694.9	21.06	33.998	
4,600.0	4,525.9	4,593.8	4,585.0	18.2	10.2	171.62		-48.9	-116.8	726.8	705.2	21.58	33.686	
4,700.0	4,624.1	4,693.0	4,683.7	18.6	10.4	171.23		-56.5	-124.9	737.6	715.5	22.10	33.384	
4,800.0	4,722.3	4,792.3	4,782.3	19.1	10.7	170.86		-64.2	-133.0	748.5	725.9	22.62	33.092	
4,900.0	4,820.4	4,891.6	4,881.0	19.5	11.0	170.49		-71.9	-141.1	759.4	736.3	23.15	32.810	
5,000.0	4,918.6	4,990.9	4,979.7	19.9	11.2	170.14		-79.6	-149.2	770.4	746.7	23.68	32.537	
5,100.0	5,016.8	5,090.2	5,078.3	20.4	11.5	169.79		-87.2	-157.2	781.3	757.1	24.21	32.273	
5,200.0	5,114.9	5,189.5	5,177.0	20.8	11.8	169.45		-94.9	-165.3	792.3	767.6	24.75	32.018	
5,300.0	5,213.1	5,288.8	5,275.6	21.2	12.0	169.13		-102.6	-173.4	803.3	778.1	25.29	31.771	
5,400.0	5,311.3	5,388.1	5,374.3	21.6	12.3	168.81		-110.3	-181.5	814.4	788.6	25.83	31.532	
5,500.0	5,409.4	5,471.6	5,457.4	22.1	12.5	168.60		-116.0	-187.5	826.4	800.1	26.30	31.416	
5,600.0	5,507.7	5,554.2	5,539.8	22.5	12.7	168.55		-120.0	-191.7	839.8	813.0	26.77	31.369	
5,700.0	5,606.5	5,636.8	5,622.3	22.7	12.9	168.60		-122.3	-194.2	852.2	825.0	27.18	31.354	
5,800.0	5,705.7	5,720.2	5,705.7	22.9	13.0	168.73		-123.1	-195.0	863.1	835.5	27.54	31.343	
5,900.0	5,805.4	5,819.8	5,805.4	23.1	13.2	168.87		-123.1	-195.0	871.4	843.6	27.88	31.254	
6,000.0	5,905.2	5,919.7	5,905.2	23.3	13.4	168.95		-123.1	-195.0	876.4	848.2	28.20	31.073	
6,100.0	6,005.2	6,019.7	6,005.2	23.4	13.6	0.00		-123.1	-195.0	877.9	841.7	36.28	24.200	
6,200.0	6,105.2	6,119.7	6,105.2	23.5	13.8	0.00		-123.1	-195.0	877.9	841.4	36.58	24.001	
6,279.9	6,185.2	6,199.8	6,185.2	23.6	14.0	-90.04		-123.1	-191.2	877.9	848.8	29.12	30.147	
6,300.0	6,205.2	6,219.7	6,204.9	23.6	14.0	-89.85		-123.1	-189.0	877.9	848.8	29.16	30.102	
6,400.0	6,304.7	6,318.3	6,301.8	23.7	14.1	-89.25		-123.2	-170.4	878.0	848.6	29.37	29.896	
6,500.0	6,402.0	6,415.9	6,394.3	23.7	14.2	-88.66		-123.3	-139.8	878.2	848.6	29.52	29.752	
6,600.0	6,495.6	6,512.3	6,481.3	23.8	14.3	-88.09		-123.4	-98.3	878.4	848.7	29.67	29.603	
6,700.0	6,583.8	6,607.8	6,561.6	23.8	14.4	-87.56		-123.6	-46.7	878.7	848.8	29.93	29.360	
6,800.0	6,665.1	6,702.4	6,634.2	23.9	14.5	-87.07		-123.9	13.9	879.1	848.7	30.40	28.916	
6,900.0	6,738.1	6,796.2	6,698.2	23.9	15.0	-86.63		-124.2	82.4	879.4	848.2	31.22	28.165	
7,000.0	6,801.6	6,889.4	6,753.0	24.0	15.8	-86.25		-124.4	157.6	879.8	847.3	32.52	27.053	
7,100.0	6,854.5	6,982.0	6,798.0	24.2	16.8	-85.92		-124.8	238.5	880.1	845.8	34.37	25.607	

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 LaSalle 25G-402
Project:	SEC.25-T5N-R65W	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Reference Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	LaSalle 25G-402	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 (2-25-13)	Offset TVD Reference:	Offset Datum

Offset Design		LaSalle 25F-HZ Pad Sec.25-T5N-R65W - LaSalle 25F-332 - Wellbore #1 - Plan #1 (2-25-13)											Offset Site Error:		0.0 ft	
Survey Program: 0-MWD														Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance									
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)					
7,200.0	6,895.9	7,074.1	6,832.8	24.5	18.1	-85.66	-125.1	323.7	880.4	843.6	36.79	23.928				
7,300.0	6,925.0	7,165.9	6,857.0	25.0	19.7	-85.47	-125.4	412.2	880.6	840.9	39.75	22.153				
7,400.0	6,941.4	7,257.4	6,870.3	25.9	21.4	-85.36	-125.8	502.7	880.8	837.6	43.15	20.410				
7,500.0	6,951.5	7,349.4	6,872.9	27.1	23.3	-84.91	-126.2	594.6	881.4	834.5	46.92	18.783				
7,600.0	6,955.1	7,449.3	6,871.2	28.7	25.5	-84.54	-126.5	694.4	881.9	830.8	51.09	17.262				
7,700.0	6,954.1	7,549.3	6,869.5	30.6	27.8	-84.50	-126.9	794.4	881.9	826.4	55.56	15.873				
7,800.0	6,953.1	7,649.3	6,867.8	32.6	30.1	-84.45	-127.3	894.4	882.0	821.8	60.23	14.645				
7,900.0	6,952.0	7,749.3	6,866.1	34.8	32.6	-84.41	-127.7	994.4	882.1	817.0	65.04	13.563				
8,000.0	6,951.0	7,849.3	6,864.4	37.1	35.1	-84.36	-128.1	1,094.4	882.2	812.2	69.96	12.609				
8,100.0	6,950.0	7,949.3	6,862.6	39.5	37.6	-84.32	-128.5	1,194.4	882.2	807.3	74.98	11.766				
8,200.0	6,949.0	8,049.3	6,860.9	41.9	40.2	-84.27	-128.9	1,294.3	882.3	802.2	80.07	11.019				
8,300.0	6,948.0	8,149.3	6,859.2	44.4	42.8	-84.22	-129.3	1,394.3	882.4	797.2	85.22	10.354				
8,400.0	6,947.0	8,249.3	6,857.5	46.9	45.5	-84.18	-129.7	1,494.3	882.5	792.0	90.43	9.759				
8,500.0	6,946.0	8,349.3	6,855.8	49.5	48.1	-84.13	-130.1	1,594.3	882.5	786.9	95.67	9.224				
8,600.0	6,945.0	8,449.3	6,854.1	52.0	50.8	-84.09	-130.4	1,694.3	882.6	781.6	100.95	8.743				
8,700.0	6,944.0	8,549.2	6,852.4	54.7	53.5	-84.04	-130.8	1,794.2	882.7	776.4	106.26	8.306				
8,800.0	6,942.9	8,649.2	6,850.7	57.3	56.2	-84.00	-131.2	1,894.2	882.8	771.2	111.60	7.910				
8,900.0	6,941.9	8,749.2	6,849.0	59.9	58.9	-83.95	-131.6	1,994.2	882.8	765.9	116.96	7.548				
9,000.0	6,940.9	8,849.2	6,847.2	62.6	61.6	-83.91	-132.0	2,094.2	882.9	760.6	122.33	7.217				
9,100.0	6,939.9	8,949.2	6,845.5	65.2	64.3	-83.86	-132.4	2,194.2	883.0	755.3	127.73	6.913				
9,200.0	6,938.9	9,049.2	6,843.8	67.9	67.0	-83.82	-132.8	2,294.2	883.1	749.9	133.13	6.633				
9,300.0	6,937.9	9,149.2	6,842.1	70.6	69.8	-83.77	-133.2	2,394.1	883.1	744.6	138.55	6.374				
9,400.0	6,936.9	9,249.2	6,840.4	73.3	72.5	-83.73	-133.6	2,494.1	883.2	739.2	143.98	6.134				
9,500.0	6,935.9	9,349.2	6,838.7	76.0	75.3	-83.68	-134.0	2,594.1	883.3	733.9	149.42	5.911				
9,600.0	6,934.9	9,449.2	6,837.0	78.7	78.0	-83.64	-134.3	2,694.1	883.4	728.5	154.87	5.704				
9,700.0	6,933.9	9,549.2	6,835.3	81.5	80.8	-83.59	-134.7	2,794.1	883.5	723.1	160.33	5.510				
9,800.0	6,932.8	9,649.2	6,833.6	84.2	83.5	-83.55	-135.1	2,894.1	883.5	717.8	165.79	5.329				
9,900.0	6,931.8	9,749.2	6,831.9	86.9	86.3	-83.50	-135.5	2,994.0	883.6	712.4	171.26	5.160				
10,000.0	6,930.8	9,849.2	6,830.1	89.7	89.0	-83.46	-135.9	3,094.0	883.7	707.0	176.73	5.000				
10,100.0	6,929.8	9,949.2	6,828.4	92.4	91.8	-83.41	-136.3	3,194.0	883.8	701.6	182.21	4.850				
10,200.0	6,928.8	10,049.2	6,826.7	95.2	94.6	-83.37	-136.7	3,294.0	883.9	696.2	187.70	4.709				
10,300.0	6,927.8	10,149.2	6,825.0	97.9	97.3	-83.32	-137.1	3,394.0	884.0	690.8	193.18	4.576				
10,400.0	6,926.8	10,249.2	6,823.3	100.7	100.1	-83.28	-137.5	3,493.9	884.0	685.4	198.67	4.450				
10,500.0	6,925.8	10,349.2	6,821.6	103.4	102.9	-83.23	-137.9	3,593.9	884.1	680.0	204.17	4.330				
10,600.0	6,924.8	10,449.2	6,819.9	106.2	105.7	-83.19	-138.3	3,693.9	884.2	674.6	209.66	4.217				
10,700.0	6,923.7	10,549.2	6,818.2	108.9	108.5	-83.14	-138.6	3,793.9	884.3	669.1	215.16	4.110				
10,800.0	6,922.7	10,649.2	6,816.5	111.7	111.2	-83.10	-139.0	3,893.9	884.4	663.7	220.66	4.008				
10,900.0	6,921.7	10,749.2	6,814.8	114.5	114.0	-83.05	-139.4	3,993.9	884.5	658.3	226.16	3.911				
11,000.0	6,920.7	10,849.2	6,813.0	117.2	116.8	-83.01	-139.8	4,093.8	884.6	652.9	231.66	3.818				
11,100.0	6,919.7	10,949.2	6,811.3	120.0	119.6	-82.96	-140.2	4,193.8	884.7	647.5	237.17	3.730				
11,200.0	6,918.7	11,049.2	6,809.6	122.8	122.4	-82.92	-140.6	4,293.8	884.7	642.1	242.67	3.646				
11,300.0	6,917.7	11,149.2	6,807.9	125.5	125.2	-82.87	-141.0	4,393.8	884.8	636.7	248.18	3.565				
11,400.0	6,916.7	11,249.2	6,806.2	128.3	127.9	-82.83	-141.4	4,493.8	884.9	631.2	253.69	3.488				
11,466.4	6,916.0	11,315.5	6,805.1	130.2	129.8	-82.80	-141.6	4,560.1	885.0	627.6	257.35	3.439 SF				

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well LaSalle 25G-402
Project:	SEC.25-T5N-R65W	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Reference Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	LaSalle 25G-402	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 (2-25-13)	Offset TVD Reference:	Offset Datum

Offset Design LaSalle 25F-HZ Pad Sec.25-T5N-R65W - LaSalle 25G-212 - Wellbore #1 - Plan #1 (2-25-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis (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	0.00	0.00	32.8	0.0	32.8				
100.0	100.0	100.0	100.0	0.1	0.1	0.00	0.00	32.8	0.0	32.8	32.6	0.22	145.858	
200.0	200.0	200.0	200.0	0.3	0.3	0.00	0.00	32.8	0.0	32.8	32.1	0.67	48.619 CC, ES	
300.0	300.0	300.0	300.0	0.5	0.6	169.52	0.00	32.8	0.0	34.5	33.4	1.11	31.142	
400.0	399.8	399.8	399.8	0.8	0.8	170.88	0.00	32.8	0.0	39.7	38.1	1.54	25.715	
500.0	499.5	499.5	499.5	1.0	1.0	172.50	0.00	32.8	0.0	48.3	46.3	1.99	24.270	
600.0	598.7	598.7	598.7	1.3	1.2	173.98	0.00	32.8	0.0	60.4	57.9	2.44	24.718	
700.0	697.5	697.5	697.5	1.6	1.5	175.19	0.00	32.8	0.0	76.0	73.1	2.90	26.187	
800.0	795.7	795.7	795.7	2.0	1.7	176.13	0.00	32.8	0.0	94.6	91.2	3.36	28.161	
900.0	893.9	893.9	893.9	2.4	1.9	176.78	0.00	32.8	0.0	113.6	109.8	3.82	29.761	
1,000.0	992.0	992.0	992.0	2.8	2.1	177.24	0.00	32.8	0.0	132.6	128.4	4.28	30.988	
1,100.0	1,090.2	1,095.2	1,095.1	3.2	2.3	177.51	0.00	31.3	-0.5	150.2	145.5	4.73	31.778	
1,200.0	1,188.4	1,199.9	1,199.7	3.6	2.5	177.54	0.00	26.1	-2.0	164.3	159.1	5.15	31.869	
1,300.0	1,286.5	1,305.5	1,304.9	4.1	2.7	177.38	0.00	17.2	-4.7	174.7	169.1	5.60	31.207	
1,400.0	1,384.7	1,411.8	1,410.4	4.5	2.9	177.05	0.00	4.5	-8.6	181.5	175.4	6.06	29.960	
1,500.0	1,482.9	1,513.2	1,510.6	4.9	3.2	176.63	0.00	-10.1	-13.1	185.7	179.2	6.52	28.472	
1,600.0	1,581.0	1,613.1	1,609.4	5.3	3.5	176.24	0.00	-24.6	-17.5	189.8	182.9	6.99	27.145	
1,700.0	1,679.2	1,713.0	1,708.1	5.8	3.8	175.85	0.00	-39.1	-21.9	194.0	186.5	7.47	25.961	
1,800.0	1,777.4	1,812.9	1,806.9	6.2	4.1	175.49	0.00	-53.5	-26.3	198.2	190.2	7.96	24.900	
1,900.0	1,875.5	1,912.8	1,905.6	6.6	4.4	175.14	0.00	-68.0	-30.7	202.3	193.9	8.45	23.955	
2,000.0	1,973.7	2,012.7	2,004.4	7.0	4.7	174.80	0.00	-82.5	-35.1	206.5	197.6	8.94	23.097	
2,100.0	2,071.8	2,112.6	2,103.1	7.5	5.0	174.48	0.00	-97.0	-39.5	210.7	201.3	9.44	22.321	
2,200.0	2,170.0	2,212.6	2,201.9	7.9	5.4	174.16	0.00	-111.5	-44.0	214.9	204.9	9.94	21.615	
2,300.0	2,268.2	2,312.5	2,300.7	8.3	5.7	173.87	0.00	-126.0	-48.4	219.1	208.6	10.45	20.972	
2,400.0	2,366.3	2,412.4	2,399.4	8.8	6.0	173.58	0.00	-140.4	-52.8	223.3	212.3	10.95	20.383	
2,500.0	2,464.5	2,512.3	2,498.2	9.2	6.4	173.30	0.00	-154.9	-57.2	227.5	216.0	11.46	19.842	
2,600.0	2,562.7	2,612.2	2,596.9	9.6	6.7	173.03	0.00	-169.4	-61.6	231.7	219.7	11.98	19.344	
2,700.0	2,660.8	2,712.1	2,695.7	10.0	7.1	172.78	0.00	-183.9	-66.0	235.9	223.4	12.49	18.884	
2,800.0	2,759.0	2,812.0	2,794.4	10.5	7.4	172.53	0.00	-198.4	-70.4	240.1	227.1	13.01	18.458	
2,900.0	2,857.2	2,911.9	2,893.2	10.9	7.8	172.29	0.00	-212.9	-74.8	244.4	230.8	13.53	18.062	
3,000.0	2,955.3	3,011.8	2,991.9	11.3	8.1	172.06	0.00	-227.4	-79.3	248.6	234.5	14.05	17.693	
3,100.0	3,053.5	3,111.7	3,090.7	11.8	8.5	171.83	0.00	-241.8	-83.7	252.8	238.3	14.57	17.349	
3,200.0	3,151.6	3,211.6	3,189.4	12.2	8.8	171.62	0.00	-256.3	-88.1	257.1	242.0	15.10	17.028	
3,300.0	3,249.8	3,311.5	3,288.2	12.6	9.2	171.41	0.00	-270.8	-92.5	261.3	245.7	15.62	16.727	
3,400.0	3,348.0	3,411.4	3,386.9	13.0	9.6	171.20	0.00	-285.3	-96.9	265.6	249.4	16.15	16.444	
3,500.0	3,446.1	3,511.3	3,485.7	13.5	9.9	171.01	0.00	-299.8	-101.3	269.8	253.1	16.68	16.177	
3,600.0	3,544.3	3,611.2	3,584.4	13.9	10.3	170.82	0.00	-314.3	-105.7	274.0	256.8	17.21	15.927	
3,700.0	3,642.5	3,711.1	3,683.2	14.3	10.6	170.63	0.00	-328.8	-110.2	278.3	260.6	17.74	15.690	
3,800.0	3,740.6	3,811.0	3,781.9	14.8	11.0	170.45	0.00	-343.2	-114.6	282.6	264.3	18.27	15.466	
3,900.0	3,838.8	3,910.9	3,880.7	15.2	11.4	170.28	0.00	-357.7	-119.0	286.8	268.0	18.80	15.255	
4,000.0	3,937.0	4,010.9	3,979.4	15.6	11.7	170.11	0.00	-372.2	-123.4	291.1	271.7	19.34	15.054	
4,100.0	4,035.1	4,110.8	4,078.2	16.1	12.1	169.95	0.00	-386.7	-127.8	295.3	275.5	19.87	14.864	
4,200.0	4,133.3	4,210.7	4,176.9	16.5	12.5	169.79	0.00	-401.2	-132.2	299.6	279.2	20.41	14.682	
4,300.0	4,231.5	4,310.6	4,275.7	16.9	12.8	169.63	0.00	-415.7	-136.6	303.9	282.9	20.94	14.510	
4,400.0	4,329.6	4,410.5	4,374.4	17.3	13.2	169.48	0.00	-430.1	-141.0	308.2	286.7	21.48	14.346	
4,500.0	4,427.8	4,510.4	4,473.2	17.8	13.5	169.34	0.00	-444.6	-145.5	312.4	290.4	22.02	14.189	
4,600.0	4,525.9	4,610.3	4,571.9	18.2	13.9	169.19	0.00	-459.1	-149.9	316.7	294.1	22.56	14.040	
4,700.0	4,624.1	4,710.2	4,670.7	18.6	14.3	169.06	0.00	-473.6	-154.3	321.0	297.9	23.10	13.897	
4,800.0	4,722.3	4,810.1	4,769.4	19.1	14.6	168.92	0.00	-488.1	-158.7	325.3	301.6	23.64	13.760	
4,900.0	4,820.4	4,910.0	4,868.2	19.5	15.0	168.79	0.00	-502.6	-163.1	329.5	305.4	24.18	13.630	
5,000.0	4,918.6	5,009.9	4,966.9	19.9	15.4	168.66	0.00	-517.1	-167.5	333.8	309.1	24.72	13.504	

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 LaSalle 25G-402
Project:	SEC.25-T5N-R65W	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Reference Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	LaSalle 25G-402	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 (2-25-13)	Offset TVD Reference:	Offset Datum

Offset Design LaSalle 25F-HZ Pad Sec.25-T5N-R65W - LaSalle 25G-212 - Wellbore #1 - Plan #1 (2-25-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,016.8	5,109.8	5,065.7	20.4	15.7	168.54		-531.5	-171.9	338.1	312.8	25.26	13.384	
5,200.0	5,114.9	5,209.7	5,164.4	20.8	16.1	168.42		-546.0	-176.4	342.4	316.6	25.81	13.268	
5,300.0	5,213.1	5,309.6	5,263.2	21.2	16.5	168.30		-560.5	-180.8	346.7	320.3	26.35	13.157	
5,400.0	5,311.3	5,409.5	5,361.9	21.6	16.8	168.18		-575.0	-185.2	351.0	324.1	26.89	13.051	
5,500.0	5,409.4	5,500.0	5,451.6	22.1	17.1	168.14		-586.9	-188.8	356.6	329.2	27.38	13.025	
5,600.0	5,507.7	5,588.3	5,539.3	22.5	17.3	168.24		-595.8	-191.5	364.7	336.9	27.81	13.113	
5,700.0	5,606.5	5,677.0	5,627.8	22.7	17.5	168.39		-602.3	-193.5	372.7	344.5	28.18	13.228	
5,800.0	5,705.7	5,765.6	5,716.3	22.9	17.6	168.57		-606.0	-194.6	380.2	351.7	28.49	13.348	
5,900.0	5,805.4	5,854.7	5,805.4	23.1	17.8	168.76		-607.2	-195.0	387.3	358.5	28.76	13.468	
6,000.0	5,905.2	5,954.6	5,905.2	23.3	17.9	168.93		-607.2	-195.0	392.2	363.2	29.00	13.524	
6,100.0	6,005.2	6,054.5	6,005.2	23.4	18.0	0.00		-607.2	-195.0	393.8	353.0	40.81	9.650	
6,155.3	6,060.5	6,109.9	6,060.5	23.4	18.1	0.23		-607.2	-193.4	393.8	352.8	40.96	9.615	
6,200.0	6,105.2	6,154.3	6,104.7	23.5	18.1	0.83		-607.2	-189.3	393.8	352.7	41.11	9.579	
6,300.0	6,205.2	6,251.0	6,199.7	23.6	18.2	-86.83		-607.3	-171.5	394.4	364.9	29.46	13.386	
6,400.0	6,304.7	6,344.7	6,288.9	23.7	18.3	-83.83		-607.4	-142.9	396.2	366.7	29.45	13.451	
6,500.0	6,402.0	6,436.2	6,372.0	23.7	18.3	-80.98		-607.6	-104.7	398.9	369.4	29.51	13.516	
6,600.0	6,495.6	6,525.8	6,448.3	23.8	18.4	-78.32		-607.8	-57.9	402.4	372.7	29.68	13.555	
6,700.0	6,583.8	6,613.7	6,517.4	23.8	18.4	-75.90		-608.0	-3.6	406.3	376.4	29.99	13.551	
6,800.0	6,665.1	6,700.0	6,578.7	23.9	18.5	-73.73		-608.2	57.1	410.5	380.1	30.44	13.488	
6,900.0	6,738.1	6,785.4	6,632.3	23.9	18.6	-71.83		-608.5	123.5	414.7	383.6	31.11	13.333	
7,000.0	6,801.6	6,869.6	6,677.5	24.0	18.8	-70.23		-608.8	194.5	418.7	386.7	32.03	13.071	
7,100.0	6,854.5	6,950.0	6,713.1	24.2	19.1	-68.95		-609.1	266.5	422.2	389.0	33.23	12.707	
7,200.0	6,895.9	7,035.7	6,742.6	24.5	19.9	-67.90		-609.4	347.0	425.0	390.2	34.87	12.189	
7,300.0	6,925.0	7,118.0	6,762.2	25.0	21.0	-67.20		-609.7	426.9	427.1	390.3	36.87	11.585	
7,400.0	6,941.4	7,200.0	6,773.1	25.9	22.4	-66.79		-610.0	508.1	428.3	389.1	39.27	10.907	
7,500.0	6,951.5	7,284.1	6,775.3	27.1	24.0	-65.98		-610.4	592.2	431.3	389.0	42.30	10.195	
7,600.0	6,955.1	7,384.0	6,774.2	28.7	26.1	-65.32		-610.8	692.0	433.2	387.7	45.56	9.508	
7,700.0	6,954.1	7,484.0	6,773.1	30.6	28.3	-65.31		-611.2	792.0	433.3	383.6	49.66	8.724	
7,800.0	6,953.1	7,584.0	6,772.0	32.6	30.6	-65.30		-611.6	892.0	433.3	379.3	53.95	8.031	
7,900.0	6,952.0	7,684.0	6,770.9	34.8	33.0	-65.28		-611.9	992.0	433.3	375.0	58.38	7.423	
8,000.0	6,951.0	7,784.0	6,769.8	37.1	35.5	-65.27		-612.3	1,092.0	433.4	370.5	62.91	6.889	
8,100.0	6,950.0	7,884.0	6,768.6	39.5	38.0	-65.26		-612.7	1,192.0	433.4	365.9	67.53	6.418	
8,200.0	6,949.0	7,984.0	6,767.5	41.9	40.5	-65.25		-613.1	1,292.0	433.5	361.2	72.22	6.002	
8,300.0	6,948.0	8,084.0	6,766.4	44.4	43.1	-65.23		-613.5	1,392.0	433.5	356.5	76.96	5.632	
8,400.0	6,947.0	8,184.0	6,765.3	46.9	45.7	-65.22		-613.9	1,491.9	433.5	351.8	81.76	5.303	
8,500.0	6,946.0	8,284.0	6,764.2	49.5	48.3	-65.21		-614.3	1,591.9	433.6	347.0	86.58	5.008	
8,600.0	6,945.0	8,384.0	6,763.1	52.0	51.0	-65.19		-614.7	1,691.9	433.6	342.2	91.45	4.742	
8,700.0	6,944.0	8,484.0	6,761.9	54.7	53.6	-65.18		-615.1	1,791.9	433.7	337.3	96.33	4.502	
8,800.0	6,942.9	8,584.0	6,760.8	57.3	56.3	-65.17		-615.5	1,891.9	433.7	332.4	101.25	4.284	
8,900.0	6,941.9	8,684.0	6,759.7	59.9	59.0	-65.15		-615.9	1,991.9	433.7	327.6	106.18	4.085	
9,000.0	6,940.9	8,784.0	6,758.6	62.6	61.7	-65.14		-616.3	2,091.9	433.8	322.7	111.13	3.903	
9,100.0	6,939.9	8,884.0	6,757.5	65.2	64.4	-65.13		-616.7	2,191.9	433.8	317.7	116.09	3.737	
9,200.0	6,938.9	8,984.0	6,756.4	67.9	67.1	-65.12		-617.1	2,291.9	433.9	312.8	121.06	3.584	
9,300.0	6,937.9	9,084.0	6,755.2	70.6	69.9	-65.10		-617.5	2,391.9	433.9	307.8	126.05	3.442	
9,400.0	6,936.9	9,184.0	6,754.1	73.3	72.6	-65.09		-617.9	2,491.9	433.9	302.9	131.05	3.311	
9,500.0	6,935.9	9,284.0	6,753.0	76.0	75.3	-65.08		-618.3	2,591.9	434.0	297.9	136.05	3.190	
9,600.0	6,934.9	9,384.0	6,751.9	78.7	78.1	-65.06		-618.7	2,691.9	434.0	293.0	141.06	3.077	
9,700.0	6,933.9	9,484.0	6,750.8	81.5	80.8	-65.05		-619.1	2,791.9	434.1	288.0	146.08	2.971	
9,800.0	6,932.8	9,584.0	6,749.6	84.2	83.6	-65.04		-619.5	2,891.8	434.1	283.0	151.11	2.873	
9,900.0	6,931.8	9,684.0	6,748.5	86.9	86.3	-65.02		-619.9	2,991.8	434.1	278.0	156.14	2.781	
10,000.0	6,930.8	9,784.0	6,747.4	89.7	89.1	-65.01		-620.3	3,091.8	434.2	273.0	161.17	2.694	

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 LaSalle 25G-402
Project:	SEC.25-T5N-R65W	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Reference Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	LaSalle 25G-402	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 (2-25-13)	Offset TVD Reference:	Offset Datum

Offset Design LaSalle 25F-HZ Pad Sec.25-T5N-R65W - LaSalle 25G-212 - Wellbore #1 - Plan #1 (2-25-13)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,100.0	6,929.8	9,884.0	6,746.3	92.4	91.8	-65.00	-620.7	3,191.8	434.2	268.0	166.21	2.612	
10,200.0	6,928.8	9,984.0	6,745.2	95.2	94.6	-64.99	-621.1	3,291.8	434.3	263.0	171.25	2.536	
10,300.0	6,927.8	10,084.0	6,744.1	97.9	97.4	-64.97	-621.5	3,391.8	434.3	258.0	176.30	2.463	
10,400.0	6,926.8	10,184.0	6,742.9	100.7	100.1	-64.96	-621.9	3,491.8	434.3	253.0	181.35	2.395	
10,500.0	6,925.8	10,284.0	6,741.8	103.4	102.9	-64.95	-622.3	3,591.8	434.4	248.0	186.40	2.330	
10,600.0	6,924.8	10,384.0	6,740.7	106.2	105.7	-64.93	-622.7	3,691.8	434.4	243.0	191.45	2.269	
10,700.0	6,923.7	10,484.0	6,739.6	108.9	108.5	-64.92	-623.1	3,791.8	434.5	238.0	196.50	2.211	
10,800.0	6,922.7	10,584.0	6,738.5	111.7	111.2	-64.91	-623.5	3,891.8	434.5	232.9	201.56	2.156	
10,900.0	6,921.7	10,684.0	6,737.4	114.5	114.0	-64.89	-623.9	3,991.8	434.5	227.9	206.62	2.103	
11,000.0	6,920.7	10,784.0	6,736.2	117.2	116.8	-64.88	-624.3	4,091.8	434.6	222.9	211.68	2.053	
11,100.0	6,919.7	10,884.0	6,735.1	120.0	119.6	-64.87	-624.7	4,191.8	434.6	217.9	216.74	2.005	
11,200.0	6,918.7	10,984.0	6,734.0	122.8	122.4	-64.86	-625.1	4,291.7	434.7	212.9	221.80	1.960	
11,300.0	6,917.7	11,084.0	6,732.9	125.5	125.1	-64.84	-625.5	4,391.7	434.7	207.8	226.87	1.916	
11,400.0	6,916.7	11,184.0	6,731.8	128.3	127.9	-64.83	-625.9	4,491.7	434.7	202.8	231.93	1.874	
11,466.4	6,916.0	11,250.4	6,731.0	130.2	129.8	-64.82	-626.2	4,558.1	434.8	199.5	235.29	1.848 SF	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well LaSalle 25G-402
Project:	SEC.25-T5N-R65W	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Reference Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	LaSalle 25G-402	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 (2-25-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4655.0ft (RKB - 15')
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000 °

Coordinates are relative to: LaSalle 25G-402
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.57°



Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well LaSalle 25G-402
Project:	SEC.25-T5N-R65W	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Reference Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	LaSalle 25G-402	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 (2-25-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4655.0ft (RKB - 15')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: LaSalle 25G-402
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.57°

