

Verdad Oil & Gas Corporation

Well Name: **Pastelak 01N-64W-02-7N**

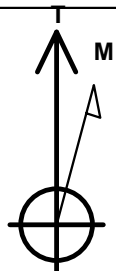
Surface Location: Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W
 North American Datum 1983, US State Plane 1983, Colorado Northern Zone

Ground Elevation: 5012.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1276066.54	3273357.91	40.087060	-104.522990	
Original Well Elev WELL @ 5025.0ft (Original Well Elev)						

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
460' Setback BHL	-1.0	-4582.8	-889.6	Polygon
460' Setback SHL	-1.0	-245.0	-889.5	Polygon
Sectionline	-1.0	215.0	-889.5	Polygon
SHL 215'FNL & 1346'FWL	1.0	0.0	0.0	Point
BHL 460'FSL & 1650'FWL	6925.0	-4586.4	408.6	Point



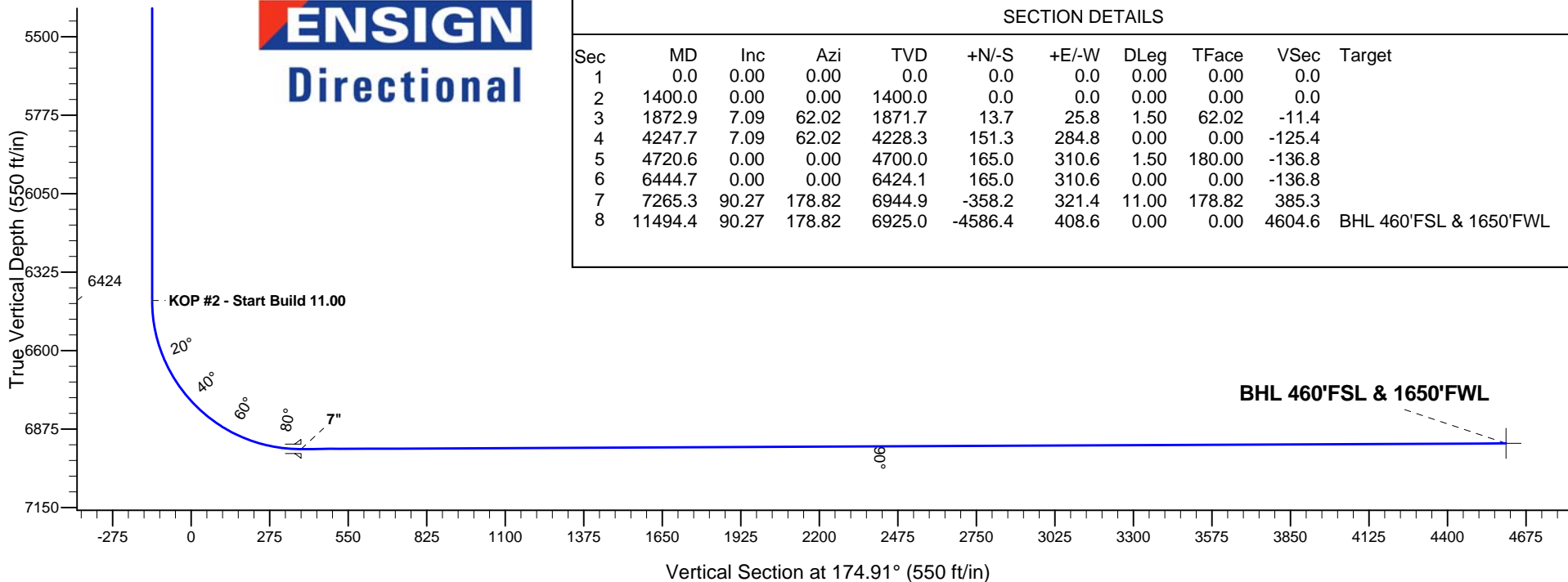
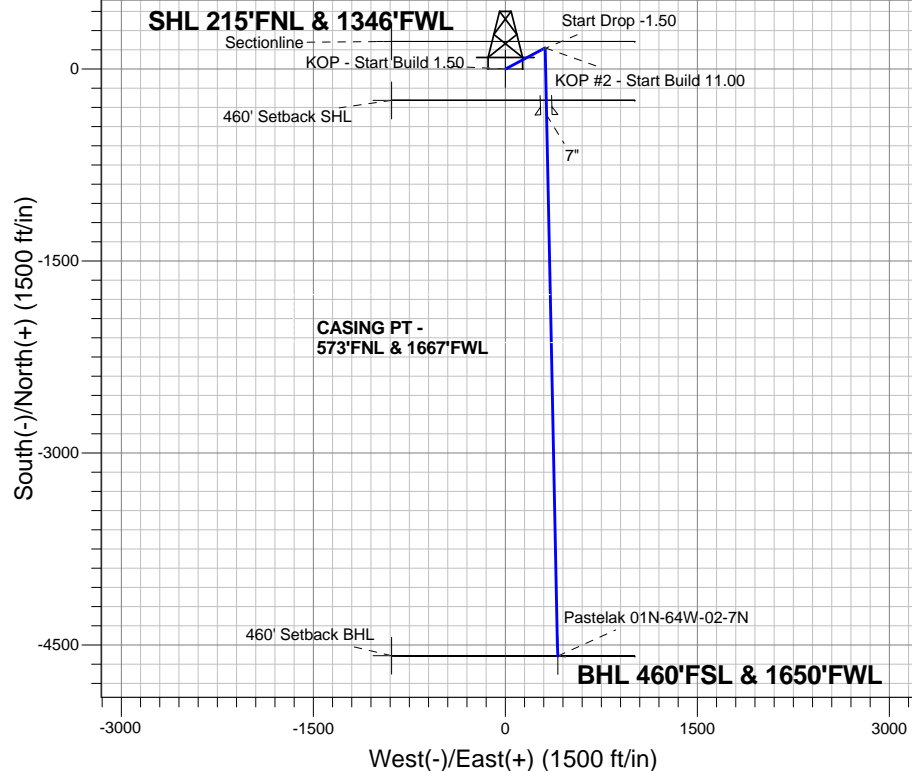
Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W
 Pastelak 01N-64W-02-7N
 Plan #1 (8-6-14)

Azimuths to True North
 Magnetic North: 8.28°

Magnetic Field
 Strength: 52659.7snT
 Dip Angle: 66.73°
 Date: 8/6/2014
 Model: IGRF2010

ANNOTATIONS

TVD	MD	Annotation
1400.0	1400.0	KOP - Start Build 1.50
4228.3	4247.7	Start Drop -1.50
6424.1	6444.7	KOP #2 - Start Build 11.00
6925.0	11494.4	TD at 11494.4



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	1400.0	0.00	0.00	1400.0	0.0	0.0	0.00	0.00	0.0	
3	1872.9	7.09	62.02	1871.7	13.7	25.8	1.50	62.02	-11.4	
4	4247.7	7.09	62.02	4228.3	151.3	284.8	0.00	0.00	-125.4	
5	4720.6	0.00	0.00	4700.0	165.0	310.6	1.50	180.00	-136.8	
6	6444.7	0.00	0.00	6424.1	165.0	310.6	0.00	0.00	-136.8	
7	7265.3	90.27	178.82	6944.9	-358.2	321.4	11.00	178.82	385.3	
8	11494.4	90.27	178.82	6925.0	-4586.4	408.6	0.00	0.00	4604.6	BHL 460'FSL & 1650'FWL



Verdad Oil & Gas Corporation

SEC.2-T1N-R64W

Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W

Pastelak 01N-64W-02-7N

Wellbore #1

Plan: Plan #1 (8-6-14)

Standard Planning Report

08 August, 2014

Database:	landmark	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Company:	Verdad Oil & Gas Corporation	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Project:	SEC.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	North Reference:	True
Well:	Pastelak 01N-64W-02-7N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (8-6-14)		

Project	SEC.2-T1N-R64W, Weld County, CO		
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	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W				
Site Position:		Northing:	1,276,065.60ft	Latitude:	40.087060
From:	Lat/Long	Easting:	3,273,268.38ft	Longitude:	-104.523310
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.63 °

Well	Pastelak 01N-64W-02-7N					
Well Position	+N/-S	0.0 ft	Northing:	1,276,066.54 ft	Latitude:	40.087060
	+E/-W	89.5 ft	Easting:	3,273,357.91 ft	Longitude:	-104.522990
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,012.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/6/2014	8.28	66.73	52,660

Design	Plan #1 (8-6-14)			
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	174.91

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	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,872.9	7.09	62.02	1,871.7	13.7	25.8	1.50	1.50	0.00	62.02	
4,247.7	7.09	62.02	4,228.3	151.3	284.8	0.00	0.00	0.00	0.00	
4,720.6	0.00	0.00	4,700.0	165.0	310.6	1.50	-1.50	0.00	180.00	
6,444.7	0.00	0.00	6,424.1	165.0	310.6	0.00	0.00	0.00	0.00	
7,265.3	90.27	178.82	6,944.9	-358.2	321.4	11.00	11.00	0.00	178.82	
11,494.4	90.27	178.82	6,925.0	-4,586.4	408.6	0.00	0.00	0.00	0.00	BHL 460'FSL & 165

Database:	landmark	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Company:	Verdad Oil & Gas Corporation	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Project:	SEC.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	North Reference:	True
Well:	Pastelak 01N-64W-02-7N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (8-6-14)		

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
100.0	0.00	0.00	100.0	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
300.0	0.00	0.00	300.0	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
500.0	0.00	0.00	500.0	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
700.0	0.00	0.00	700.0	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
900.0	0.00	0.00	900.0	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
1,100.0	0.00	0.00	1,100.0	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
1,300.0	0.00	0.00	1,300.0	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
KOP - Start Build 1.50									
1,500.0	1.50	62.02	1,500.0	0.6	1.2	-0.5	1.50	1.50	0.00
1,600.0	3.00	62.02	1,599.9	2.5	4.6	-2.0	1.50	1.50	0.00
1,700.0	4.50	62.02	1,699.7	5.5	10.4	-4.6	1.50	1.50	0.00
1,800.0	6.00	62.02	1,799.3	9.8	18.5	-8.1	1.50	1.50	0.00
1,872.9	7.09	62.02	1,871.7	13.7	25.8	-11.4	1.50	1.50	0.00
1,900.0	7.09	62.02	1,898.6	15.3	28.8	-12.7	0.00	0.00	0.00
2,000.0	7.09	62.02	1,997.8	21.1	39.7	-17.5	0.00	0.00	0.00
2,100.0	7.09	62.02	2,097.1	26.9	50.6	-22.3	0.00	0.00	0.00
2,200.0	7.09	62.02	2,196.3	32.7	61.5	-27.1	0.00	0.00	0.00
2,300.0	7.09	62.02	2,295.5	38.5	72.4	-31.9	0.00	0.00	0.00
2,400.0	7.09	62.02	2,394.8	44.3	83.3	-36.7	0.00	0.00	0.00
2,500.0	7.09	62.02	2,494.0	50.0	94.2	-41.5	0.00	0.00	0.00
2,600.0	7.09	62.02	2,593.2	55.8	105.1	-46.3	0.00	0.00	0.00
2,700.0	7.09	62.02	2,692.5	61.6	116.0	-51.1	0.00	0.00	0.00
2,800.0	7.09	62.02	2,791.7	67.4	126.9	-55.9	0.00	0.00	0.00
2,900.0	7.09	62.02	2,890.9	73.2	137.8	-60.7	0.00	0.00	0.00
3,000.0	7.09	62.02	2,990.2	79.0	148.7	-65.5	0.00	0.00	0.00
3,100.0	7.09	62.02	3,089.4	84.8	159.6	-70.3	0.00	0.00	0.00
3,200.0	7.09	62.02	3,188.6	90.6	170.5	-75.1	0.00	0.00	0.00
3,300.0	7.09	62.02	3,287.9	96.4	181.4	-79.9	0.00	0.00	0.00
3,400.0	7.09	62.02	3,387.1	102.2	192.3	-84.7	0.00	0.00	0.00
3,500.0	7.09	62.02	3,486.3	108.0	203.2	-89.5	0.00	0.00	0.00
3,600.0	7.09	62.02	3,585.6	113.8	214.2	-94.3	0.00	0.00	0.00
3,700.0	7.09	62.02	3,684.8	119.6	225.1	-99.1	0.00	0.00	0.00
3,800.0	7.09	62.02	3,784.0	125.4	236.0	-103.9	0.00	0.00	0.00
3,900.0	7.09	62.02	3,883.3	131.1	246.9	-108.7	0.00	0.00	0.00
4,000.0	7.09	62.02	3,982.5	136.9	257.8	-113.5	0.00	0.00	0.00
4,100.0	7.09	62.02	4,081.7	142.7	268.7	-118.3	0.00	0.00	0.00
4,200.0	7.09	62.02	4,181.0	148.5	279.6	-123.1	0.00	0.00	0.00
4,247.7	7.09	62.02	4,228.3	151.3	284.8	-125.4	0.00	0.00	0.00
Start Drop -1.50									
4,300.0	6.31	62.02	4,280.3	154.1	290.2	-127.8	1.50	-1.50	0.00
4,400.0	4.81	62.02	4,379.8	158.7	298.7	-131.6	1.50	-1.50	0.00
4,500.0	3.31	62.02	4,479.5	162.0	305.0	-134.3	1.50	-1.50	0.00
4,600.0	1.81	62.02	4,579.4	164.1	308.9	-136.0	1.50	-1.50	0.00
4,700.0	0.31	62.02	4,679.4	165.0	310.6	-136.8	1.50	-1.50	0.00
4,720.6	0.00	0.00	4,700.0	165.0	310.6	-136.8	1.50	-1.50	0.00
4,800.0	0.00	0.00	4,779.4	165.0	310.6	-136.8	0.00	0.00	0.00

Database:	landmark	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Company:	Verdad Oil & Gas Corporation	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Project:	SEC.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	North Reference:	True
Well:	Pastelak 01N-64W-02-7N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (8-6-14)		

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)
4,900.0	0.00	0.00	4,879.4	165.0	310.6	-136.8	0.00	0.00	0.00
5,000.0	0.00	0.00	4,979.4	165.0	310.6	-136.8	0.00	0.00	0.00
5,100.0	0.00	0.00	5,079.4	165.0	310.6	-136.8	0.00	0.00	0.00
5,200.0	0.00	0.00	5,179.4	165.0	310.6	-136.8	0.00	0.00	0.00
5,300.0	0.00	0.00	5,279.4	165.0	310.6	-136.8	0.00	0.00	0.00
5,400.0	0.00	0.00	5,379.4	165.0	310.6	-136.8	0.00	0.00	0.00
5,500.0	0.00	0.00	5,479.4	165.0	310.6	-136.8	0.00	0.00	0.00
5,600.0	0.00	0.00	5,579.4	165.0	310.6	-136.8	0.00	0.00	0.00
5,700.0	0.00	0.00	5,679.4	165.0	310.6	-136.8	0.00	0.00	0.00
5,800.0	0.00	0.00	5,779.4	165.0	310.6	-136.8	0.00	0.00	0.00
5,900.0	0.00	0.00	5,879.4	165.0	310.6	-136.8	0.00	0.00	0.00
6,000.0	0.00	0.00	5,979.4	165.0	310.6	-136.8	0.00	0.00	0.00
6,100.0	0.00	0.00	6,079.4	165.0	310.6	-136.8	0.00	0.00	0.00
6,200.0	0.00	0.00	6,179.4	165.0	310.6	-136.8	0.00	0.00	0.00
6,300.0	0.00	0.00	6,279.4	165.0	310.6	-136.8	0.00	0.00	0.00
6,400.0	0.00	0.00	6,379.4	165.0	310.6	-136.8	0.00	0.00	0.00
6,444.7	0.00	0.00	6,424.1	165.0	310.6	-136.8	0.00	0.00	0.00
KOP #2 - Start Build 11.00									
6,500.0	6.09	178.82	6,479.3	162.1	310.7	-133.9	11.01	11.01	0.00
6,600.0	17.09	178.82	6,577.1	142.0	311.1	-113.8	11.00	11.00	0.00
6,700.0	28.09	178.82	6,669.3	103.7	311.9	-75.6	11.00	11.00	0.00
6,800.0	39.09	178.82	6,752.5	48.4	313.0	-20.5	11.00	11.00	0.00
6,900.0	50.09	178.82	6,823.6	-21.6	314.4	49.5	11.00	11.00	0.00
7,000.0	61.09	178.82	6,880.0	-104.0	316.1	131.6	11.00	11.00	0.00
7,100.0	72.09	178.82	6,919.7	-195.6	318.0	223.1	11.00	11.00	0.00
7,200.0	83.09	178.82	6,941.1	-293.1	320.0	320.3	11.00	11.00	0.00
7,265.3	90.27	178.82	6,944.9	-358.2	321.4	385.3	11.00	11.00	0.00
7"									
7,300.0	90.27	178.82	6,944.8	-392.9	322.1	420.0	0.00	0.00	0.00
7,400.0	90.27	178.82	6,944.3	-492.9	324.2	519.7	0.00	0.00	0.00
7,500.0	90.27	178.82	6,943.8	-592.9	326.2	619.5	0.00	0.00	0.00
7,600.0	90.27	178.82	6,943.4	-692.9	328.3	719.2	0.00	0.00	0.00
7,700.0	90.27	178.82	6,942.9	-792.8	330.4	819.0	0.00	0.00	0.00
7,800.0	90.27	178.82	6,942.4	-892.8	332.4	918.8	0.00	0.00	0.00
7,900.0	90.27	178.82	6,941.9	-992.8	334.5	1,018.5	0.00	0.00	0.00
8,000.0	90.27	178.82	6,941.5	-1,092.8	336.5	1,118.3	0.00	0.00	0.00
8,100.0	90.27	178.82	6,941.0	-1,192.7	338.6	1,218.1	0.00	0.00	0.00
8,200.0	90.27	178.82	6,940.5	-1,292.7	340.7	1,317.8	0.00	0.00	0.00
8,300.0	90.27	178.82	6,940.1	-1,392.7	342.7	1,417.6	0.00	0.00	0.00
8,400.0	90.27	178.82	6,939.6	-1,492.7	344.8	1,517.4	0.00	0.00	0.00
8,500.0	90.27	178.82	6,939.1	-1,592.6	346.9	1,617.1	0.00	0.00	0.00
8,600.0	90.27	178.82	6,938.6	-1,692.6	348.9	1,716.9	0.00	0.00	0.00
8,700.0	90.27	178.82	6,938.2	-1,792.6	351.0	1,816.7	0.00	0.00	0.00
8,800.0	90.27	178.82	6,937.7	-1,892.6	353.0	1,916.4	0.00	0.00	0.00
8,900.0	90.27	178.82	6,937.2	-1,992.6	355.1	2,016.2	0.00	0.00	0.00
9,000.0	90.27	178.82	6,936.8	-2,092.5	357.2	2,116.0	0.00	0.00	0.00
9,100.0	90.27	178.82	6,936.3	-2,192.5	359.2	2,215.7	0.00	0.00	0.00
9,200.0	90.27	178.82	6,935.8	-2,292.5	361.3	2,315.5	0.00	0.00	0.00
9,300.0	90.27	178.82	6,935.3	-2,392.5	363.3	2,415.3	0.00	0.00	0.00
9,400.0	90.27	178.82	6,934.9	-2,492.4	365.4	2,515.0	0.00	0.00	0.00
9,500.0	90.27	178.82	6,934.4	-2,592.4	367.5	2,614.8	0.00	0.00	0.00
9,600.0	90.27	178.82	6,933.9	-2,692.4	369.5	2,714.6	0.00	0.00	0.00
9,700.0	90.27	178.82	6,933.5	-2,792.4	371.6	2,814.3	0.00	0.00	0.00
9,800.0	90.27	178.82	6,933.0	-2,892.4	373.7	2,914.1	0.00	0.00	0.00

Database:	landmark	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Company:	Verdad Oil & Gas Corporation	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Project:	SEC.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	North Reference:	True
Well:	Pastelak 01N-64W-02-7N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (8-6-14)		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
9,900.0	90.27	178.82	6,932.5	-2,992.3	375.7	3,013.9	0.00	0.00	0.00	
10,000.0	90.27	178.82	6,932.0	-3,092.3	377.8	3,113.6	0.00	0.00	0.00	
10,100.0	90.27	178.82	6,931.6	-3,192.3	379.8	3,213.4	0.00	0.00	0.00	
10,200.0	90.27	178.82	6,931.1	-3,292.3	381.9	3,313.2	0.00	0.00	0.00	
10,300.0	90.27	178.82	6,930.6	-3,392.2	384.0	3,412.9	0.00	0.00	0.00	
10,400.0	90.27	178.82	6,930.2	-3,492.2	386.0	3,512.7	0.00	0.00	0.00	
10,500.0	90.27	178.82	6,929.7	-3,592.2	388.1	3,612.5	0.00	0.00	0.00	
10,600.0	90.27	178.82	6,929.2	-3,692.2	390.2	3,712.2	0.00	0.00	0.00	
10,700.0	90.27	178.82	6,928.7	-3,792.2	392.2	3,812.0	0.00	0.00	0.00	
10,800.0	90.27	178.82	6,928.3	-3,892.1	394.3	3,911.8	0.00	0.00	0.00	
10,900.0	90.27	178.82	6,927.8	-3,992.1	396.3	4,011.5	0.00	0.00	0.00	
11,000.0	90.27	178.82	6,927.3	-4,092.1	398.4	4,111.3	0.00	0.00	0.00	
11,100.0	90.27	178.82	6,926.9	-4,192.1	400.5	4,211.1	0.00	0.00	0.00	
11,200.0	90.27	178.82	6,926.4	-4,292.0	402.5	4,310.8	0.00	0.00	0.00	
11,300.0	90.27	178.82	6,925.9	-4,392.0	404.6	4,410.6	0.00	0.00	0.00	
11,400.0	90.27	178.82	6,925.4	-4,492.0	406.6	4,510.4	0.00	0.00	0.00	
11,494.4	90.27	178.82	6,925.0	-4,586.4	408.6	4,604.5	0.00	0.00	0.00	
TD at 11494.4										

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")		
7,265.3	6,944.9	7"	7	7-1/2		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
1,400.0	1,400.0	0.0	0.0	KOP - Start Build 1.50	
4,247.7	4,228.3	13.7	25.8	Start Drop -1.50	
6,444.7	6,424.1	151.3	284.8	KOP #2 - Start Build 11.00	
11,494.4	6,925.0	165.0	310.6	TD at 11494.4	



Directional

Verdad Oil & Gas Corporation

SEC.2-T1N-R64W

Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W

Pastelak 01N-64W-02-7N

Wellbore #1

Plan #1 (8-6-14)

Anticollision Report

08 August, 2014

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	Offset TVD Reference:	Offset Datum

Reference	Plan #1 (8-6-14)		
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 1,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 8/8/2014			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,493.7	Plan #1 (8-6-14) (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
Existing Wells Sec.2-T1N-64W						
Schweitzer 11-2 (P&A) - Wellbore #1 - Wellbore #1	1,400.0	1,401.0	791.6	760.6	25.491	CC
Schweitzer 11-2 (P&A) - Wellbore #1 - Wellbore #1	1,500.0	1,501.0	792.9	759.6	23.839	ES
Schweitzer 11-2 (P&A) - Wellbore #1 - Wellbore #1	7,400.0	6,945.3	983.1	826.2	6.267	SF
Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W						
Pastelak 01N-64W-02-1C - Wellbore #1 - Plan #1 (8-6-14)	566.0	568.0	89.5	87.2	38.527	CC
Pastelak 01N-64W-02-1C - Wellbore #1 - Plan #1 (8-6-14)	600.0	601.9	89.5	87.1	36.154	ES
Pastelak 01N-64W-02-1C - Wellbore #1 - Plan #1 (8-6-14)	1,000.0	987.9	116.0	111.8	27.254	SF
Pastelak 01N-64W-02-2N - Wellbore #1 - Plan #1 (8-6-14)	1,366.3	1,367.3	75.5	69.6	12.762	CC
Pastelak 01N-64W-02-2N - Wellbore #1 - Plan #1 (8-6-14)	1,400.0	1,400.0	75.6	69.5	12.450	ES
Pastelak 01N-64W-02-2N - Wellbore #1 - Plan #1 (8-6-14)	11,494.4	11,502.3	825.6	646.3	4.606	SF
Pastelak 01N-64W-02-3N - Wellbore #1 - Plan #1 (8-6-14)	1,400.0	1,401.0	58.8	52.7	9.679	CC, ES
Pastelak 01N-64W-02-3N - Wellbore #1 - Plan #1 (8-6-14)	11,494.4	11,489.3	660.5	481.2	3.685	SF
Pastelak 01N-64W-02-4N - Wellbore #1 - Plan #1 (8-6-14)	1,400.0	1,401.0	44.8	38.7	7.374	CC, ES
Pastelak 01N-64W-02-4N - Wellbore #1 - Plan #1 (8-6-14)	11,494.4	11,480.5	495.4	316.1	2.763	SF
Pastelak 01N-64W-02-5C - Wellbore #1 - Plan #1 (8-6-14)	1,400.0	1,400.0	30.8	24.7	5.072	CC, ES
Pastelak 01N-64W-02-5C - Wellbore #1 - Plan #1 (8-6-14)	11,494.4	11,675.1	386.1	227.8	2.440	SF
Pastelak 01N-64W-02-6N - Wellbore #1 - Plan #1 (8-6-14)	1,400.0	1,400.0	14.0	7.9	2.305	CC
Pastelak 01N-64W-02-6N - Wellbore #1 - Plan #1 (8-6-14)	11,494.4	11,486.7	165.1	-14.4	0.920	Level 1, ES, SF
Pastelak 01N-64W-02-8N - Wellbore #1 - Plan #1 (8-6-14)	1,000.0	999.0	14.0	9.7	3.278	CC
Pastelak 01N-64W-02-8N - Wellbore #1 - Plan #1 (8-6-14)	11,494.4	11,500.7	165.1	-14.5	0.919	Level 1, ES, SF
Pastelak 01N-64W-02-9C - Wellbore #1 - Plan #1 (8-6-14)	800.0	799.0	30.8	27.4	9.135	CC, ES
Pastelak 01N-64W-02-9C - Wellbore #1 - Plan #1 (8-6-14)	11,494.4	11,702.7	386.0	229.6	2.468	SF

Offset Design													Offset Site Error:	0.0 ft		
Survey Program: 7690-UNKNOWN													Offset Well Error:	0.0 ft		
Reference													Distance		Warning	
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		
0.0	0.0	1.0	1.0	0.0	0.0	-123.83		-440.7	-657.6	791.6	791.6	0.02	N/A			
100.0	100.0	101.0	101.0	0.1	2.0	-123.83		-440.7	-657.6	791.6	789.5	2.13	371.196			
200.0	200.0	201.0	201.0	0.3	4.0	-123.83		-440.7	-657.6	791.6	787.2	4.36	181.671			
300.0	300.0	301.0	301.0	0.6	6.0	-123.83		-440.7	-657.6	791.6	785.0	6.58	120.266			
400.0	400.0	401.0	401.0	0.8	8.0	-123.83		-440.7	-657.6	791.6	782.8	8.81	89.885			
500.0	500.0	501.0	501.0	1.0	10.0	-123.83		-440.7	-657.6	791.6	780.6	11.03	71.758			

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Existing Wells Sec.2-T1N-64W - Schweitzer 11-2 (P&A) - Wellbore #1 - Wellbore #1													Offset Well Error:	0.0 ft
Survey Program: 7690-UNKNOWN														
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		
600.0	600.0	601.0	601.0	1.2	12.0	-123.83	-440.7	-657.6	791.6	778.3	13.26	59.715		
700.0	700.0	701.0	701.0	1.5	14.0	-123.83	-440.7	-657.6	791.6	776.1	15.48	51.133		
800.0	800.0	801.0	801.0	1.7	16.0	-123.83	-440.7	-657.6	791.6	773.9	17.71	44.708		
900.0	900.0	901.0	901.0	1.9	18.0	-123.83	-440.7	-657.6	791.6	771.7	19.93	39.718		
1,000.0	1,000.0	1,001.0	1,001.0	2.1	20.0	-123.83	-440.7	-657.6	791.6	769.4	22.16	35.730		
1,100.0	1,100.0	1,101.0	1,101.0	2.4	22.0	-123.83	-440.7	-657.6	791.6	767.2	24.38	32.469		
1,200.0	1,200.0	1,201.0	1,201.0	2.6	24.0	-123.83	-440.7	-657.6	791.6	765.0	26.60	29.754		
1,300.0	1,300.0	1,301.0	1,301.0	2.8	26.0	-123.83	-440.7	-657.6	791.6	762.8	28.83	27.458		
1,400.0	1,400.0	1,401.0	1,401.0	3.0	28.0	-123.83	-440.7	-657.6	791.6	760.6	31.05	25.491 CC		
1,500.0	1,500.0	1,501.0	1,501.0	3.3	30.0	-174.15	-440.7	-657.6	792.9	759.6	33.26	23.839 ES		
1,600.0	1,599.9	1,600.9	1,600.9	3.5	32.0	174.18	-440.7	-657.6	796.8	761.4	35.43	22.487		
1,700.0	1,699.7	1,700.7	1,700.7	3.7	34.0	174.21	-440.7	-657.6	803.3	765.7	37.58	21.377		
1,800.0	1,799.3	1,800.3	1,800.3	3.9	36.0	174.27	-440.7	-657.6	812.4	772.7	39.69	20.471		
1,900.0	1,898.6	1,899.6	1,899.6	4.2	38.0	174.33	-440.7	-657.6	824.0	782.2	41.79	19.717		
2,000.0	1,997.8	1,998.8	1,998.8	4.4	40.0	174.42	-440.7	-657.6	836.3	792.3	43.98	19.014		
2,100.0	2,097.1	2,098.1	2,098.1	4.7	42.0	174.50	-440.7	-657.6	848.6	802.4	46.18	18.378		
2,200.0	2,196.3	2,197.3	2,197.3	4.9	43.9	174.58	-440.7	-657.6	860.9	812.5	48.37	17.798		
2,300.0	2,295.5	2,296.5	2,296.5	5.2	45.9	174.65	-440.7	-657.6	873.2	822.6	50.57	17.268		
2,400.0	2,394.8	2,395.8	2,395.8	5.5	47.9	174.73	-440.7	-657.6	885.5	832.7	52.76	16.782		
2,500.0	2,494.0	2,495.0	2,495.0	5.8	49.9	174.80	-440.7	-657.6	897.8	842.8	54.96	16.334		
2,600.0	2,593.2	2,594.2	2,594.2	6.1	51.9	174.87	-440.7	-657.6	910.1	852.9	57.16	15.921		
2,700.0	2,692.5	2,693.5	2,693.5	6.4	53.9	174.94	-440.7	-657.6	922.4	863.0	59.36	15.538		
2,800.0	2,791.7	2,792.7	2,792.7	6.6	55.9	175.01	-440.7	-657.6	934.7	873.1	61.57	15.182		
2,900.0	2,890.9	2,891.9	2,891.9	6.9	57.8	175.07	-440.7	-657.6	947.0	883.2	63.77	14.850		
3,000.0	2,990.2	2,991.2	2,991.2	7.2	59.8	175.13	-440.7	-657.6	959.3	893.3	65.97	14.541		
3,100.0	3,089.4	3,090.4	3,090.4	7.5	61.8	175.20	-440.7	-657.6	971.6	903.4	68.18	14.251		
3,200.0	3,188.6	3,189.6	3,189.6	7.8	63.8	175.26	-440.7	-657.6	983.9	913.5	70.38	13.980		
3,300.0	3,287.9	3,288.9	3,288.9	8.1	65.8	175.32	-440.7	-657.6	996.2	923.6	72.58	13.725		
7,200.0	6,941.1	6,942.1	6,942.1	16.9	138.8	89.10	-440.7	-657.6	988.7	833.7	154.98	6.380		
7,300.0	6,944.8	6,945.8	6,945.8	17.6	138.9	90.01	-440.7	-657.6	980.8	824.9	155.90	6.292		
7,327.6	6,944.6	6,945.6	6,945.6	17.9	138.9	90.00	-440.7	-657.6	980.4	824.3	156.16	6.278		
7,400.0	6,944.3	6,945.3	6,945.3	18.6	138.9	89.98	-440.7	-657.6	983.1	826.2	156.87	6.267 SF		
7,500.0	6,943.8	6,944.8	6,944.8	19.7	138.9	89.95	-440.7	-657.6	995.5	837.5	157.99	6.301		

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft	
Survey Program: 0-MWD													Offset Well Error:		0.0ft
Reference				Offset			Semi Major Axis			Distance			Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.0	0.0	2.0	2.0	0.0	0.0	-89.98	0.0	-89.5	89.5	89.5	0.00	N/A			
100.0	100.0	102.0	102.0	0.1	0.1	-89.98	0.0	-89.5	89.5	89.3	0.23	390.552			
200.0	200.0	202.0	202.0	0.3	0.3	-89.98	0.0	-89.5	89.5	88.9	0.68	131.908			
300.0	300.0	302.0	302.0	0.6	0.6	-89.98	0.0	-89.5	89.5	88.4	1.13	79.355			
400.0	400.0	402.0	402.0	0.8	0.8	-89.98	0.0	-89.5	89.5	88.0	1.58	56.747			
500.0	500.0	502.0	502.0	1.0	1.0	-89.98	0.0	-89.5	89.5	87.5	2.03	44.164			
566.0	566.0	568.0	568.0	1.2	1.2	-89.98	0.0	-89.5	89.5	87.2	2.32	38.527	CC		
600.0	600.0	601.9	601.9	1.2	1.2	-89.98	0.0	-89.5	89.5	87.1	2.48	36.154	ES		
700.0	700.0	700.0	700.0	1.5	1.5	-89.69	0.5	-91.2	91.2	88.3	2.91	31.322			
800.0	800.0	795.8	795.6	1.7	1.7	-88.92	1.8	-96.0	96.2	92.9	3.34	28.774			
900.0	900.0	892.1	891.6	1.9	1.9	-87.81	4.0	-103.9	104.5	100.7	3.79	27.563			
1,000.0	1,000.0	987.9	986.7	2.1	2.1	-86.52	7.0	-114.8	116.0	111.8	4.26	27.254	SF		
1,100.0	1,100.0	1,084.6	1,082.4	2.4	2.4	-85.21	10.8	-128.6	130.6	125.8	4.75	27.466			
1,200.0	1,200.0	1,183.5	1,180.0	2.6	2.7	-84.11	14.8	-143.2	145.6	140.3	5.27	27.617			
1,300.0	1,300.0	1,282.3	1,277.7	2.8	3.0	-83.21	18.8	-157.8	160.7	154.9	5.80	27.701			
1,400.0	1,400.0	1,381.1	1,375.4	3.0	3.4	-82.47	22.8	-172.3	175.8	169.5	6.34	27.743			
1,500.0	1,500.0	1,479.8	1,472.9	3.3	3.7	-143.95	26.8	-186.9	192.0	185.6	6.47	29.677			
1,600.0	1,599.9	1,578.1	1,570.0	3.5	4.0	-143.89	30.8	-201.3	210.3	203.4	6.91	30.441			
1,700.0	1,699.7	1,676.0	1,666.8	3.7	4.4	-144.18	34.7	-215.8	230.7	223.4	7.35	31.406			
1,800.0	1,799.3	1,773.4	1,763.0	3.9	4.7	-144.72	38.7	-230.1	253.2	245.4	7.78	32.535			
1,900.0	1,898.6	1,870.2	1,858.7	4.2	5.1	-145.49	42.6	-244.4	277.7	269.5	8.22	33.775			
2,000.0	1,997.8	1,966.9	1,954.3	4.4	5.4	-146.35	46.5	-258.6	302.8	294.2	8.68	34.894			
2,100.0	2,097.1	2,063.6	2,049.9	4.7	5.7	-147.07	50.4	-272.9	328.0	318.9	9.14	35.887			
2,200.0	2,196.3	2,160.3	2,145.4	4.9	6.1	-147.69	54.4	-287.1	353.3	343.7	9.61	36.771			
2,300.0	2,295.5	2,257.0	2,241.0	5.2	6.4	-148.23	58.3	-301.4	378.5	368.5	10.08	37.564			
2,400.0	2,394.8	2,353.7	2,336.5	5.5	6.8	-148.70	62.2	-315.6	403.8	393.3	10.55	38.277			
2,500.0	2,494.0	2,450.4	2,432.1	5.8	7.1	-149.11	66.1	-329.9	429.2	418.1	11.03	38.922			
2,600.0	2,593.2	2,547.1	2,527.7	6.1	7.5	-149.48	70.0	-344.1	454.5	443.0	11.50	39.508			
2,700.0	2,692.5	2,643.8	2,623.2	6.4	7.8	-149.81	73.9	-358.4	479.9	467.9	11.98	40.041			
2,800.0	2,791.7	2,740.5	2,718.8	6.6	8.2	-150.11	77.9	-372.6	505.2	492.8	12.47	40.529			
2,900.0	2,890.9	2,837.2	2,814.3	6.9	8.5	-150.37	81.8	-386.9	530.6	517.7	12.95	40.976			
3,000.0	2,990.2	2,933.9	2,909.9	7.2	8.9	-150.62	85.7	-401.1	556.0	542.6	13.43	41.388			
3,100.0	3,089.4	3,030.6	3,005.5	7.5	9.2	-150.84	89.6	-415.4	581.4	567.5	13.92	41.768			
3,200.0	3,188.6	3,127.3	3,101.0	7.8	9.6	-151.04	93.5	-429.6	606.8	592.4	14.41	42.120			
3,300.0	3,287.9	3,224.0	3,196.6	8.1	9.9	-151.23	97.4	-443.9	632.2	617.3	14.89	42.446			
3,400.0	3,387.1	3,320.7	3,292.2	8.4	10.3	-151.40	101.4	-458.1	657.7	642.3	15.38	42.750			
3,500.0	3,486.3	3,417.4	3,387.7	8.8	10.6	-151.56	105.3	-472.4	683.1	667.2	15.87	43.033			
3,600.0	3,585.6	3,514.1	3,483.3	9.1	11.0	-151.71	109.2	-486.6	708.5	692.1	16.36	43.297			
3,700.0	3,684.8	3,610.8	3,578.8	9.4	11.3	-151.85	113.1	-500.9	733.9	717.1	16.85	43.544			
3,800.0	3,784.0	3,707.5	3,674.4	9.7	11.7	-151.98	117.0	-515.1	759.4	742.0	17.35	43.777			
3,900.0	3,883.3	3,804.2	3,770.0	10.0	12.1	-152.10	120.9	-529.4	784.8	767.0	17.84	43.995			
4,000.0	3,982.5	3,900.9	3,865.5	10.3	12.4	-152.21	124.9	-543.6	810.3	791.9	18.33	44.200			
4,100.0	4,081.7	3,997.5	3,961.1	10.6	12.8	-152.32	128.8	-557.9	835.7	816.9	18.82	44.394			
4,200.0	4,181.0	4,094.2	4,056.6	10.9	13.1	-152.42	132.7	-572.1	861.2	841.8	19.32	44.576			
4,300.0	4,280.3	4,191.0	4,152.3	11.2	13.5	-152.60	136.6	-586.4	886.3	866.5	19.83	44.697			
4,400.0	4,379.8	4,288.3	4,248.4	11.4	13.8	-152.77	140.6	-600.7	909.4	889.1	20.32	44.752			
4,500.0	4,479.5	4,386.1	4,345.1	11.6	14.2	-152.85	144.5	-615.1	930.3	909.5	20.80	44.726			
4,600.0	4,579.4	4,484.3	4,442.1	11.8	14.5	-152.84	148.5	-629.6	948.9	927.7	21.26	44.626			
4,700.0	4,679.4	4,582.9	4,539.6	12.0	14.9	-152.75	152.5	-644.1	965.2	943.5	21.71	44.459			
4,800.0	4,779.4	4,719.0	4,674.3	12.2	15.3	-90.45	157.4	-662.0	978.5	956.4	22.19	44.108			
4,900.0	4,879.4	4,867.7	4,822.5	12.4	15.6	-90.24	160.9	-674.6	987.0	964.3	22.67	43.545			
5,000.0	4,979.4	5,017.5	4,972.1	12.5	15.9	-90.16	162.3	-679.8	990.5	967.3	23.13	42.819			

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	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			
5,100.0	5,079.4	5,126.7	5,081.4	12.7	16.0	-90.15	162.3	-679.9	990.5	967.0	23.53	42.089			
5,200.0	5,179.4	5,226.7	5,181.4	12.9	16.2	-90.15	162.3	-679.9	990.5	966.6	23.93	41.390			
5,300.0	5,279.4	5,326.7	5,281.4	13.1	16.3	-90.15	162.3	-679.9	990.5	966.2	24.33	40.711			
5,400.0	5,379.4	5,426.7	5,381.4	13.3	16.5	-90.15	162.3	-679.9	990.5	965.8	24.73	40.051			
5,500.0	5,479.4	5,526.7	5,481.4	13.5	16.6	-90.15	162.3	-679.9	990.5	965.4	25.13	39.410			
5,600.0	5,579.4	5,626.7	5,581.4	13.7	16.8	-90.15	162.3	-679.9	990.5	965.0	25.54	38.786			
5,700.0	5,679.4	5,726.7	5,681.4	13.9	16.9	-90.15	162.3	-679.9	990.5	964.6	25.94	38.180			
5,800.0	5,779.4	5,826.7	5,781.4	14.1	17.1	-90.15	162.3	-679.9	990.5	964.2	26.35	37.590			
5,900.0	5,879.4	5,926.7	5,881.4	14.3	17.3	-90.15	162.3	-679.9	990.5	963.8	26.76	37.016			
6,000.0	5,979.4	6,026.7	5,981.4	14.5	17.4	-90.15	162.3	-679.9	990.5	963.4	27.17	36.458			
6,100.0	6,079.4	6,126.7	6,081.4	14.7	17.6	-90.15	162.3	-679.9	990.5	963.0	27.58	35.915			
6,200.0	6,179.4	6,226.7	6,181.4	14.9	17.7	-90.15	162.3	-679.9	990.5	962.5	27.99	35.386			
6,300.0	6,279.4	6,326.7	6,281.4	15.1	17.9	-90.15	162.3	-679.9	990.5	962.1	28.41	34.872			
6,400.0	6,379.4	6,426.7	6,381.4	15.3	18.1	-90.15	162.3	-679.9	990.5	961.7	28.82	34.370			
6,425.8	6,405.2	6,452.5	6,407.2	15.3	18.1	91.05	162.3	-679.9	990.5	961.6	28.93	34.234			
6,500.0	6,479.3	6,526.6	6,481.3	15.4	18.3	91.19	162.3	-679.9	990.6	961.4	29.22	33.905			
6,600.0	6,577.1	6,624.5	6,579.1	15.6	18.4	92.25	162.3	-679.9	991.2	961.7	29.50	33.600			
6,700.0	6,669.3	6,725.4	6,680.0	15.6	18.6	94.09	159.0	-679.9	993.3	963.6	29.70	33.447			
6,800.0	6,752.5	6,839.6	6,791.0	15.7	18.7	96.06	133.8	-679.3	996.7	966.9	29.82	33.424			

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	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		
0.0	0.0	1.0	1.0	0.0	0.0	-89.99	0.0	-75.5	75.5	75.5	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-89.99	0.0	-75.5	75.5	75.3	0.23	332.791		
200.0	200.0	201.0	201.0	0.3	0.3	-89.99	0.0	-75.5	75.5	74.9	0.68	111.667		
300.0	300.0	301.0	301.0	0.6	0.6	-89.99	0.0	-75.5	75.5	74.4	1.13	67.090		
400.0	400.0	401.0	401.0	0.8	0.8	-89.99	0.0	-75.5	75.5	74.0	1.58	47.948		
500.0	500.0	501.0	501.0	1.0	1.0	-89.99	0.0	-75.5	75.5	73.5	2.03	37.305		
600.0	600.0	601.0	601.0	1.2	1.2	-89.99	0.0	-75.5	75.5	73.1	2.47	30.528		
700.0	700.0	701.0	701.0	1.5	1.5	-89.99	0.0	-75.5	75.5	72.6	2.92	25.835		
800.0	800.0	801.0	801.0	1.7	1.7	-89.99	0.0	-75.5	75.5	72.2	3.37	22.393		
900.0	900.0	901.0	901.0	1.9	1.9	-89.99	0.0	-75.5	75.5	71.7	3.82	19.760		
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-89.99	0.0	-75.5	75.5	71.3	4.27	17.681		
1,100.0	1,100.0	1,101.0	1,101.0	2.4	2.4	-89.99	0.0	-75.5	75.5	70.8	4.72	15.998		
1,200.0	1,200.0	1,201.0	1,201.0	2.6	2.6	-89.99	0.0	-75.5	75.5	70.4	5.17	14.607		
1,300.0	1,300.0	1,301.0	1,301.0	2.8	2.8	-89.99	0.0	-75.5	75.5	69.9	5.62	13.439		
1,366.3	1,366.3	1,367.3	1,367.3	3.0	3.0	-89.99	0.0	-75.5	75.5	69.6	5.92	12.762 CC		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-89.99	0.0	-75.5	75.6	69.5	6.07	12.450 ES		
1,500.0	1,500.0	1,498.5	1,498.5	3.3	3.2	-152.00	0.6	-77.1	78.3	71.8	6.50	12.056		
1,600.0	1,599.9	1,595.5	1,595.4	3.5	3.5	-151.98	2.3	-81.8	86.6	79.7	6.91	12.532		
1,700.0	1,699.7	1,691.6	1,691.1	3.7	3.7	-151.96	5.2	-89.5	100.3	93.0	7.32	13.696		
1,800.0	1,799.3	1,786.4	1,785.2	3.9	3.9	-151.91	9.0	-100.0	119.4	111.6	7.74	15.426		
1,900.0	1,898.6	1,882.3	1,880.1	4.2	4.1	-151.98	13.8	-112.9	143.0	134.8	8.16	17.520		
2,000.0	1,997.8	1,979.2	1,976.0	4.4	4.4	-152.21	18.7	-126.1	167.4	158.8	8.60	19.475		
2,100.0	2,097.1	2,076.2	2,072.0	4.7	4.7	-152.38	23.6	-139.4	191.8	182.7	9.04	21.225		
2,200.0	2,196.3	2,173.2	2,167.9	4.9	5.0	-152.51	28.5	-152.6	216.2	206.7	9.48	22.797		
2,300.0	2,295.5	2,270.2	2,263.9	5.2	5.2	-152.61	33.4	-165.9	240.6	230.6	9.93	24.215		
2,400.0	2,394.8	2,367.2	2,359.8	5.5	5.5	-152.70	38.3	-179.1	265.0	254.6	10.39	25.497		
2,500.0	2,494.0	2,464.1	2,455.8	5.8	5.8	-152.77	43.2	-192.4	289.4	278.5	10.85	26.661		
2,600.0	2,593.2	2,561.1	2,551.7	6.1	6.1	-152.83	48.1	-205.7	313.7	302.4	11.32	27.722		
2,700.0	2,692.5	2,658.1	2,647.6	6.4	6.5	-152.88	53.0	-218.9	338.1	326.4	11.79	28.690		
2,800.0	2,791.7	2,755.1	2,743.6	6.6	6.8	-152.93	57.9	-232.2	362.5	350.3	12.26	29.578		
2,900.0	2,890.9	2,852.0	2,839.5	6.9	7.1	-152.96	62.8	-245.4	386.9	374.2	12.73	30.393		
3,000.0	2,990.2	2,949.0	2,935.5	7.2	7.4	-153.00	67.7	-258.7	411.3	398.1	13.21	31.145		
3,100.0	3,089.4	3,046.0	3,031.4	7.5	7.7	-153.03	72.6	-271.9	435.7	422.0	13.69	31.840		
3,200.0	3,188.6	3,143.0	3,127.4	7.8	8.0	-153.06	77.5	-285.2	460.1	446.0	14.16	32.483		
3,300.0	3,287.9	3,240.0	3,223.3	8.1	8.4	-153.08	82.4	-298.4	484.5	469.9	14.65	33.080		
3,400.0	3,387.1	3,336.9	3,319.3	8.4	8.7	-153.10	87.3	-311.7	508.9	493.8	15.13	33.636		
3,500.0	3,486.3	3,433.9	3,415.2	8.8	9.0	-153.12	92.1	-324.9	533.3	517.7	15.61	34.155		
3,600.0	3,585.6	3,530.9	3,511.1	9.1	9.4	-153.14	97.0	-338.2	557.7	541.6	16.10	34.640		
3,700.0	3,684.8	3,627.9	3,607.1	9.4	9.7	-153.16	101.9	-351.4	582.1	565.5	16.59	35.093		
3,800.0	3,784.0	3,724.9	3,703.0	9.7	10.0	-153.17	106.8	-364.7	606.5	589.4	17.08	35.519		
3,900.0	3,883.3	3,821.8	3,799.0	10.0	10.4	-153.19	111.7	-377.9	630.9	613.3	17.56	35.919		
4,000.0	3,982.5	3,918.8	3,894.9	10.3	10.7	-153.20	116.6	-391.2	655.3	637.2	18.05	36.295		
4,100.0	4,081.7	4,015.8	3,990.9	10.6	11.0	-153.21	121.5	-404.4	679.7	661.1	18.55	36.650		
4,200.0	4,181.0	4,112.8	4,086.8	10.9	11.4	-153.22	126.4	-417.7	704.1	685.0	19.04	36.985		
4,300.0	4,280.3	4,209.8	4,182.8	11.2	11.7	-153.31	131.3	-431.0	728.2	708.6	19.54	37.266		
4,400.0	4,379.8	4,307.3	4,279.3	11.4	12.0	-153.38	136.2	-444.3	750.2	730.2	20.02	37.471		
4,500.0	4,479.5	4,405.3	4,376.3	11.6	12.4	-153.34	141.2	-457.7	770.0	749.5	20.49	37.581		
4,600.0	4,579.4	4,503.7	4,473.6	11.8	12.7	-153.22	146.2	-471.1	787.5	766.6	20.94	37.602		
4,700.0	4,679.4	4,602.5	4,571.3	12.0	13.0	-153.00	151.1	-484.6	802.7	781.4	21.38	37.543		
4,800.0	4,779.4	4,733.1	4,700.9	12.2	13.4	-90.57	156.9	-500.2	814.7	792.8	21.85	37.289		
4,900.0	4,879.4	4,869.2	4,836.5	12.4	13.7	-90.30	160.7	-510.5	822.3	799.9	22.31	36.852		
5,000.0	4,979.4	5,006.0	4,973.2	12.5	13.9	-90.19	162.3	-514.7	825.4	802.6	22.76	36.259		

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft	
Survey Program: 0-MWD													Offset Well Error:		0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,100.0	5,079.4	5,113.2	5,080.4	12.7	14.1	-90.19	162.3	-514.8	825.5	802.3	23.17	35.628			
5,200.0	5,179.4	5,213.2	5,180.4	12.9	14.3	-90.19	162.3	-514.8	825.5	801.9	23.58	35.011			
5,300.0	5,279.4	5,313.2	5,280.4	13.1	14.4	-90.19	162.3	-514.8	825.5	801.5	23.99	34.413			
5,400.0	5,379.4	5,413.2	5,380.4	13.3	14.6	-90.19	162.3	-514.8	825.5	801.1	24.40	33.834			
5,500.0	5,479.4	5,513.2	5,480.4	13.5	14.8	-90.19	162.3	-514.8	825.5	800.6	24.81	33.271			
5,600.0	5,579.4	5,613.2	5,580.4	13.7	15.0	-90.19	162.3	-514.8	825.5	800.2	25.22	32.725			
5,700.0	5,679.4	5,713.2	5,680.4	13.9	15.2	-90.19	162.3	-514.8	825.5	799.8	25.64	32.196			
5,800.0	5,779.4	5,813.2	5,780.4	14.1	15.3	-90.19	162.3	-514.8	825.5	799.4	26.05	31.682			
5,900.0	5,879.4	5,913.2	5,880.4	14.3	15.5	-90.19	162.3	-514.8	825.5	799.0	26.47	31.183			
6,000.0	5,979.4	6,013.2	5,980.4	14.5	15.7	-90.19	162.3	-514.8	825.5	798.6	26.89	30.698			
6,100.0	6,079.4	6,113.2	6,080.4	14.7	15.9	-90.19	162.3	-514.8	825.5	798.1	27.31	30.226			
6,200.0	6,179.4	6,213.2	6,180.4	14.9	16.1	-90.19	162.3	-514.8	825.5	797.7	27.73	29.768			
6,300.0	6,279.4	6,313.2	6,280.4	15.1	16.3	-90.19	162.3	-514.8	825.5	797.3	28.15	29.323			
6,400.0	6,379.4	6,413.2	6,380.4	15.3	16.4	-90.19	162.3	-514.8	825.5	796.9	28.57	28.890			
6,500.0	6,479.3	6,514.8	6,481.8	15.4	16.6	91.00	159.3	-514.8	825.5	796.5	28.95	28.513			
6,600.0	6,577.1	6,617.6	6,582.3	15.6	16.7	90.97	138.3	-514.4	825.4	796.3	29.17	28.302			
6,700.0	6,669.3	6,720.2	6,676.6	15.6	16.8	90.91	98.1	-513.5	825.4	796.1	29.30	28.172			
6,800.0	6,752.5	6,822.7	6,761.0	15.7	16.8	90.81	40.4	-512.3	825.4	796.0	29.45	28.026			
6,900.0	6,823.6	6,924.8	6,832.3	15.8	16.9	90.68	-32.5	-510.8	825.4	795.6	29.75	27.746			
7,000.0	6,880.0	7,026.4	6,887.8	16.0	17.0	90.53	-117.5	-509.1	825.4	795.1	30.31	27.232			
7,100.0	6,919.7	7,127.7	6,925.6	16.3	17.3	90.36	-211.2	-507.1	825.3	794.1	31.22	26.434			
7,200.0	6,941.1	7,228.4	6,944.6	16.9	17.7	90.17	-309.9	-505.1	825.3	792.8	32.52	25.381			
7,300.0	6,944.8	7,328.5	6,946.7	17.6	18.4	90.06	-409.9	-503.0	825.3	791.2	34.17	24.154			
7,400.0	6,944.3	7,428.5	6,946.2	18.6	19.3	90.06	-509.9	-501.0	825.3	789.2	36.14	22.840			
7,500.0	6,943.8	7,528.5	6,945.7	19.7	20.3	90.06	-609.9	-498.9	825.3	786.9	38.39	21.500			
7,600.0	6,943.4	7,628.5	6,945.3	20.9	21.5	90.06	-709.9	-496.9	825.3	784.4	40.88	20.190			
7,700.0	6,942.9	7,728.5	6,944.8	22.2	22.8	90.06	-809.9	-494.8	825.3	781.8	43.57	18.944			
7,800.0	6,942.4	7,828.5	6,944.3	23.6	24.2	90.06	-909.8	-492.7	825.3	778.9	46.42	17.780			
7,900.0	6,941.9	7,928.5	6,943.8	25.1	25.6	90.06	-1,009.8	-490.7	825.3	775.9	49.41	16.705			
8,000.0	6,941.5	8,028.5	6,943.4	26.6	27.1	90.06	-1,109.8	-488.6	825.3	772.8	52.51	15.719			
8,100.0	6,941.0	8,128.5	6,942.9	28.2	28.7	90.06	-1,209.8	-486.5	825.3	769.6	55.70	14.817			
8,200.0	6,940.5	8,228.5	6,942.4	29.8	30.3	90.06	-1,309.7	-484.5	825.3	766.4	58.97	13.995			
8,300.0	6,940.1	8,328.5	6,942.0	31.4	31.9	90.06	-1,409.7	-482.4	825.3	763.0	62.31	13.246			
8,400.0	6,939.6	8,428.5	6,941.5	33.1	33.6	90.06	-1,509.7	-480.4	825.3	759.6	65.70	12.562			
8,500.0	6,939.1	8,528.5	6,941.0	34.8	35.3	90.06	-1,609.7	-478.3	825.3	756.2	69.14	11.937			
8,600.0	6,938.6	8,628.5	6,940.5	36.5	37.0	90.06	-1,709.7	-476.2	825.3	752.7	72.62	11.364			
8,700.0	6,938.2	8,728.5	6,940.1	38.3	38.7	90.06	-1,809.6	-474.2	825.3	749.2	76.14	10.839			
8,800.0	6,937.7	8,828.5	6,939.6	40.1	40.5	90.06	-1,909.6	-472.1	825.3	745.6	79.69	10.357			
8,900.0	6,937.2	8,928.5	6,939.1	41.8	42.2	90.06	-2,009.6	-470.1	825.3	742.1	83.26	9.912			
9,000.0	6,936.8	9,028.5	6,938.7	43.6	44.0	90.06	-2,109.6	-468.0	825.3	738.5	86.86	9.502			
9,100.0	6,936.3	9,128.5	6,938.2	45.4	45.8	90.06	-2,209.5	-465.9	825.3	734.8	90.48	9.122			
9,200.0	6,935.8	9,228.5	6,937.7	47.2	47.6	90.06	-2,309.5	-463.9	825.3	731.2	94.12	8.769			
9,300.0	6,935.3	9,328.5	6,937.2	49.0	49.4	90.06	-2,409.5	-461.8	825.3	727.6	97.77	8.442			
9,400.0	6,934.9	9,428.5	6,936.8	50.9	51.2	90.06	-2,509.5	-459.7	825.3	723.9	101.43	8.137			
9,500.0	6,934.4	9,528.5	6,936.3	52.7	53.0	90.06	-2,609.4	-457.7	825.3	720.2	105.11	7.852			
9,600.0	6,933.9	9,628.5	6,935.8	54.5	54.9	90.06	-2,709.4	-455.6	825.3	716.5	108.81	7.585			
9,700.0	6,933.5	9,728.5	6,935.4	56.4	56.7	90.06	-2,809.4	-453.6	825.3	712.8	112.51	7.336			
9,800.0	6,933.0	9,828.5	6,934.9	58.2	58.6	90.06	-2,909.4	-451.5	825.3	709.1	116.22	7.101			
9,900.0	6,932.5	9,928.5	6,934.4	60.1	60.4	90.06	-3,009.4	-449.4	825.3	705.4	119.94	6.881			
10,000.0	6,932.0	10,028.5	6,933.9	62.0	62.3	90.06	-3,109.3	-447.4	825.3	701.7	123.67	6.674			
10,100.0	6,931.6	10,128.5	6,933.5	63.8	64.1	90.06	-3,209.3	-445.3	825.3	697.9	127.40	6.478			
10,200.0	6,931.1	10,228.5	6,933.0	65.7	66.0	90.06	-3,309.3	-443.2	825.3	694.2	131.14	6.293			

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	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			
10,300.0	6,930.6	10,328.5	6,932.5	67.5	67.8	90.06	-3,409.3	-441.2	825.3	690.4	134.89	6.118			
10,400.0	6,930.2	10,428.5	6,932.1	69.4	69.7	90.06	-3,509.2	-439.1	825.3	686.7	138.64	5.953			
10,500.0	6,929.7	10,528.5	6,931.6	71.3	71.6	90.06	-3,609.2	-437.1	825.3	682.9	142.40	5.796			
10,600.0	6,929.2	10,628.5	6,931.1	73.2	73.5	90.06	-3,709.2	-435.0	825.3	679.2	146.16	5.647			
10,700.0	6,928.7	10,728.5	6,930.6	75.1	75.3	90.06	-3,809.2	-432.9	825.3	675.4	149.93	5.505			
10,800.0	6,928.3	10,828.5	6,930.2	76.9	77.2	90.06	-3,909.2	-430.9	825.3	671.6	153.70	5.370			
10,900.0	6,927.8	10,928.5	6,929.7	78.8	79.1	90.06	-4,009.1	-428.8	825.3	667.8	157.48	5.241			
11,000.0	6,927.3	11,028.5	6,929.2	80.7	81.0	90.06	-4,109.1	-426.7	825.3	664.1	161.25	5.118			
11,100.0	6,926.9	11,128.5	6,928.8	82.6	82.9	90.06	-4,209.1	-424.7	825.3	660.3	165.04	5.001			
11,200.0	6,926.4	11,228.5	6,928.3	84.5	84.7	90.06	-4,309.1	-422.6	825.3	656.5	168.82	4.889			
11,300.0	6,925.9	11,328.5	6,927.8	86.4	86.6	90.06	-4,409.0	-420.6	825.3	652.7	172.61	4.781			
11,400.0	6,925.4	11,428.5	6,927.3	88.3	88.5	90.06	-4,509.0	-418.5	825.3	648.9	176.40	4.679			
11,459.1	6,925.2	11,487.6	6,927.1	89.2	89.6	90.06	-4,568.1	-417.3	825.3	646.9	178.42	4.626			
11,494.4	6,925.0	11,502.3	6,927.0	89.7	89.9	90.06	-4,582.7	-417.0	825.6	646.3	179.24	4.606 SF			

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	1.0	1.0	0.0	0.0	-89.99	0.0	-58.8	58.8	58.8	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-89.99	0.0	-58.8	58.8	58.5	0.23	258.837		
200.0	200.0	201.0	201.0	0.3	0.3	-89.99	0.0	-58.8	58.8	58.1	0.68	86.852		
300.0	300.0	301.0	301.0	0.6	0.6	-89.99	0.0	-58.8	58.8	57.6	1.13	52.181		
400.0	400.0	401.0	401.0	0.8	0.8	-89.99	0.0	-58.8	58.8	57.2	1.58	37.293		
500.0	500.0	501.0	501.0	1.0	1.0	-89.99	0.0	-58.8	58.8	56.7	2.03	29.015		
600.0	600.0	601.0	601.0	1.2	1.2	-89.99	0.0	-58.8	58.8	56.3	2.47	23.744		
700.0	700.0	701.0	701.0	1.5	1.5	-89.99	0.0	-58.8	58.8	55.8	2.92	20.094		
800.0	800.0	801.0	801.0	1.7	1.7	-89.99	0.0	-58.8	58.8	55.4	3.37	17.417		
900.0	900.0	901.0	901.0	1.9	1.9	-89.99	0.0	-58.8	58.8	54.9	3.82	15.369		
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-89.99	0.0	-58.8	58.8	54.5	4.27	13.752		
1,100.0	1,100.0	1,101.0	1,101.0	2.4	2.4	-89.99	0.0	-58.8	58.8	54.0	4.72	12.443		
1,200.0	1,200.0	1,201.0	1,201.0	2.6	2.6	-89.99	0.0	-58.8	58.8	53.6	5.17	11.361		
1,300.0	1,300.0	1,301.0	1,301.0	2.8	2.8	-89.99	0.0	-58.8	58.8	53.1	5.62	10.453		
1,400.0	1,400.0	1,401.0	1,401.0	3.0	3.0	-89.99	0.0	-58.8	58.8	52.7	6.07	9.679 CC, ES		
1,500.0	1,500.0	1,501.0	1,501.0	3.3	3.3	-152.59	0.0	-58.8	59.9	53.4	6.51	9.202		
1,600.0	1,599.9	1,600.0	1,600.0	3.5	3.5	-154.18	0.0	-58.8	63.4	56.5	6.94	9.139		
1,700.0	1,699.7	1,698.7	1,698.6	3.7	3.7	-155.70	0.8	-60.2	70.8	63.5	7.36	9.621		
1,800.0	1,799.3	1,795.7	1,795.5	3.9	3.9	-156.28	3.3	-64.6	83.5	75.7	7.77	10.736		
1,900.0	1,898.6	1,891.5	1,891.0	4.2	4.1	-156.20	7.2	-71.7	101.2	93.0	8.19	12.349		
2,000.0	1,997.8	1,986.6	1,985.4	4.4	4.3	-155.49	12.7	-81.5	122.2	113.6	8.63	14.167		
2,100.0	2,097.1	2,084.1	2,082.1	4.7	4.6	-154.70	18.9	-92.6	144.3	135.3	9.07	15.919		
2,200.0	2,196.3	2,181.6	2,178.7	4.9	4.8	-154.11	25.1	-103.8	166.5	157.0	9.51	17.502		
2,300.0	2,295.5	2,279.1	2,275.4	5.2	5.1	-153.67	31.3	-114.9	188.6	178.7	9.96	18.933		
2,400.0	2,394.8	2,376.6	2,372.0	5.5	5.4	-153.32	37.6	-126.1	210.8	200.4	10.42	20.228		
2,500.0	2,494.0	2,474.1	2,468.7	5.8	5.6	-153.03	43.8	-137.2	233.0	222.1	10.88	21.408		
2,600.0	2,593.2	2,571.6	2,565.4	6.1	5.9	-152.79	50.0	-148.4	255.2	243.8	11.35	22.483		
2,700.0	2,692.5	2,669.1	2,662.0	6.4	6.2	-152.60	56.2	-159.5	277.4	265.5	11.82	23.466		
2,800.0	2,791.7	2,766.6	2,758.7	6.6	6.5	-152.43	62.4	-170.7	299.6	287.3	12.29	24.368		
2,900.0	2,890.9	2,864.1	2,855.4	6.9	6.8	-152.28	68.6	-181.8	321.8	309.0	12.77	25.197		
3,000.0	2,990.2	2,961.6	2,952.0	7.2	7.1	-152.16	74.9	-193.0	343.9	330.7	13.25	25.962		
3,100.0	3,089.4	3,059.1	3,048.7	7.5	7.4	-152.04	81.1	-204.1	366.1	352.4	13.73	26.669		
3,200.0	3,188.6	3,156.6	3,145.4	7.8	7.7	-151.95	87.3	-215.3	388.3	374.1	14.21	27.324		
3,300.0	3,287.9	3,254.1	3,242.0	8.1	8.0	-151.86	93.5	-226.4	410.5	395.8	14.70	27.932		
3,400.0	3,387.1	3,351.6	3,338.7	8.4	8.3	-151.78	99.7	-237.6	432.7	417.5	15.18	28.499		
3,500.0	3,486.3	3,449.1	3,435.4	8.8	8.6	-151.71	105.9	-248.7	454.9	439.3	15.67	29.027		
3,600.0	3,585.6	3,546.6	3,532.0	9.1	8.9	-151.64	112.2	-259.8	477.1	461.0	16.16	29.521		
3,700.0	3,684.8	3,644.1	3,628.7	9.4	9.2	-151.58	118.4	-271.0	499.3	482.7	16.65	29.984		
3,800.0	3,784.0	3,741.6	3,725.3	9.7	9.5	-151.53	124.6	-282.1	521.5	504.4	17.15	30.418		
3,900.0	3,883.3	3,839.1	3,822.0	10.0	9.8	-151.48	130.8	-293.3	543.7	526.1	17.64	30.826		
4,000.0	3,982.5	3,936.6	3,918.7	10.3	10.1	-151.44	137.0	-304.4	565.9	547.8	18.13	31.209		
4,100.0	4,081.7	4,034.1	4,015.3	10.6	10.4	-151.39	143.3	-315.6	588.1	569.5	18.63	31.571		
4,200.0	4,181.0	4,131.6	4,112.0	10.9	10.7	-151.35	149.5	-326.7	610.3	591.2	19.12	31.913		
4,300.0	4,280.3	4,249.4	4,229.0	11.2	11.0	-151.45	156.1	-338.5	630.9	611.2	19.64	32.124		
4,400.0	4,379.8	4,372.3	4,351.5	11.4	11.3	-151.68	160.4	-346.4	645.8	625.7	20.11	32.117		
4,500.0	4,479.5	4,496.5	4,475.7	11.6	11.5	-151.95	162.3	-349.7	654.7	634.1	20.55	31.858		
4,600.0	4,579.4	4,601.3	4,580.4	11.8	11.7	-152.17	162.3	-349.8	658.7	637.7	20.95	31.448		
4,700.0	4,679.4	4,701.2	4,680.4	12.0	11.9	-152.25	162.3	-349.8	660.3	639.0	21.34	30.949		
4,800.0	4,779.4	4,801.2	4,780.4	12.2	12.1	-90.23	162.3	-349.8	660.4	638.6	21.73	30.388		
4,900.0	4,879.4	4,901.2	4,880.4	12.4	12.3	-90.23	162.3	-349.8	660.4	638.2	22.14	29.823		
5,000.0	4,979.4	5,001.2	4,980.4	12.5	12.5	-90.23	162.3	-349.8	660.4	637.8	22.56	29.276		
5,100.0	5,079.4	5,101.2	5,080.4	12.7	12.6	-90.23	162.3	-349.8	660.4	637.4	22.97	28.747		

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft	
Survey Program: 0-MWD													Offset Well Error:		0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,200.0	5,179.4	5,201.2	5,180.4	12.9	12.8	-90.23	162.3	-349.8	660.4	637.0	23.39	28.235			
5,300.0	5,279.4	5,301.2	5,280.4	13.1	13.0	-90.23	162.3	-349.8	660.4	636.6	23.81	27.740			
5,400.0	5,379.4	5,401.2	5,380.4	13.3	13.2	-90.23	162.3	-349.8	660.4	636.1	24.22	27.261			
5,500.0	5,479.4	5,501.2	5,480.4	13.5	13.4	-90.23	162.3	-349.8	660.4	635.7	24.64	26.797			
5,600.0	5,579.4	5,601.2	5,580.4	13.7	13.6	-90.23	162.3	-349.8	660.4	635.3	25.06	26.347			
5,700.0	5,679.4	5,701.2	5,680.4	13.9	13.8	-90.23	162.3	-349.8	660.4	634.9	25.49	25.911			
5,800.0	5,779.4	5,801.2	5,780.4	14.1	14.0	-90.23	162.3	-349.8	660.4	634.5	25.91	25.488			
5,900.0	5,879.4	5,901.2	5,880.4	14.3	14.2	-90.23	162.3	-349.8	660.4	634.0	26.33	25.078			
6,000.0	5,979.4	6,001.2	5,980.4	14.5	14.4	-90.23	162.3	-349.8	660.4	633.6	26.76	24.680			
6,100.0	6,079.4	6,101.2	6,080.4	14.7	14.6	-90.23	162.3	-349.8	660.4	633.2	27.18	24.294			
6,200.0	6,179.4	6,201.2	6,180.4	14.9	14.8	-90.23	162.3	-349.8	660.4	632.8	27.61	23.920			
6,300.0	6,279.4	6,301.2	6,280.4	15.1	15.0	-90.23	162.3	-349.8	660.4	632.3	28.03	23.555			
6,400.0	6,379.4	6,401.2	6,380.4	15.3	15.2	-90.23	162.3	-349.8	660.4	631.9	28.46	23.202			
6,500.0	6,479.3	6,502.4	6,481.5	15.4	15.4	90.94	159.2	-349.7	660.4	631.5	28.83	22.908			
6,600.0	6,577.1	6,604.5	6,581.2	15.6	15.5	90.90	138.3	-349.3	660.4	631.3	29.04	22.740			
6,700.0	6,669.3	6,706.5	6,674.9	15.6	15.6	90.83	98.5	-348.4	660.3	631.2	29.17	22.637			
6,800.0	6,752.5	6,808.2	6,758.9	15.7	15.7	90.73	41.3	-347.3	660.3	631.0	29.32	22.521			
6,900.0	6,823.6	6,909.7	6,830.0	15.8	15.7	90.60	-30.9	-345.8	660.3	630.7	29.61	22.298			
7,000.0	6,880.0	7,010.9	6,885.6	16.0	15.9	90.45	-115.2	-344.0	660.3	630.1	30.17	21.884			
7,100.0	6,919.7	7,111.7	6,923.8	16.3	16.1	90.28	-208.3	-342.1	660.3	629.2	31.09	21.241			
7,200.0	6,941.1	7,212.1	6,943.3	16.9	16.7	90.10	-306.6	-340.1	660.3	627.9	32.38	20.392			
7,300.0	6,944.8	7,312.1	6,945.7	17.6	17.5	89.99	-406.5	-338.0	660.3	626.2	34.03	19.405			
7,400.0	6,944.3	7,412.1	6,945.2	18.6	18.5	89.99	-506.5	-336.0	660.3	624.3	36.00	18.343			
7,500.0	6,943.8	7,512.1	6,944.7	19.7	19.6	89.99	-606.5	-333.9	660.3	622.0	38.25	17.260			
7,600.0	6,943.4	7,612.1	6,944.3	20.9	20.8	89.99	-706.5	-331.8	660.3	619.5	40.75	16.203			
7,700.0	6,942.9	7,712.1	6,943.8	22.2	22.1	89.99	-806.4	-329.8	660.3	616.8	43.44	15.198			
7,800.0	6,942.4	7,812.1	6,943.3	23.6	23.6	89.99	-906.4	-327.7	660.3	614.0	46.30	14.260			
7,900.0	6,941.9	7,912.1	6,942.9	25.1	25.0	89.99	-1,006.4	-325.6	660.3	611.0	49.29	13.395			
8,000.0	6,941.5	8,012.1	6,942.4	26.6	26.6	89.99	-1,106.4	-323.6	660.3	607.9	52.40	12.601			
8,100.0	6,941.0	8,112.1	6,941.9	28.2	28.1	89.99	-1,206.4	-321.5	660.3	604.7	55.59	11.876			
8,200.0	6,940.5	8,212.1	6,941.4	29.8	29.8	89.99	-1,306.3	-319.5	660.3	601.4	58.87	11.216			
8,300.0	6,940.1	8,312.1	6,941.0	31.4	31.4	89.99	-1,406.3	-317.4	660.3	598.1	62.21	10.613			
8,400.0	6,939.6	8,412.1	6,940.5	33.1	33.1	89.99	-1,506.3	-315.3	660.3	594.7	65.61	10.064			
8,500.0	6,939.1	8,512.1	6,940.0	34.8	34.8	89.99	-1,606.3	-313.3	660.3	591.2	69.05	9.562			
8,600.0	6,938.6	8,612.1	6,939.6	36.5	36.6	89.99	-1,706.2	-311.2	660.3	587.7	72.53	9.103			
8,700.0	6,938.2	8,712.1	6,939.1	38.3	38.3	89.99	-1,806.2	-309.1	660.3	584.2	76.05	8.681			
8,800.0	6,937.7	8,812.1	6,938.6	40.1	40.1	89.99	-1,906.2	-307.1	660.3	580.7	79.60	8.294			
8,900.0	6,937.2	8,912.1	6,938.1	41.8	41.8	89.99	-2,006.2	-305.0	660.3	577.1	83.18	7.938			
9,000.0	6,936.8	9,012.1	6,937.7	43.6	43.6	89.99	-2,106.2	-303.0	660.3	573.5	86.78	7.608			
9,100.0	6,936.3	9,112.1	6,937.2	45.4	45.4	89.99	-2,206.1	-300.9	660.3	569.9	90.40	7.304			
9,200.0	6,935.8	9,212.1	6,936.7	47.2	47.2	89.99	-2,306.1	-298.8	660.3	566.2	94.04	7.021			
9,300.0	6,935.3	9,312.1	6,936.3	49.0	49.1	89.99	-2,406.1	-296.8	660.3	562.6	97.69	6.759			
9,400.0	6,934.9	9,412.1	6,935.8	50.9	50.9	89.99	-2,506.1	-294.7	660.3	558.9	101.36	6.514			
9,500.0	6,934.4	9,512.1	6,935.3	52.7	52.7	89.99	-2,606.0	-292.6	660.3	555.2	105.04	6.286			
9,600.0	6,933.9	9,612.1	6,934.8	54.5	54.6	89.99	-2,706.0	-290.6	660.3	551.5	108.73	6.072			
9,700.0	6,933.5	9,712.1	6,934.4	56.4	56.4	89.99	-2,806.0	-288.5	660.3	547.8	112.44	5.872			
9,800.0	6,933.0	9,812.1	6,933.9	58.2	58.3	89.99	-2,906.0	-286.5	660.3	544.1	116.15	5.685			
9,900.0	6,932.5	9,912.1	6,933.4	60.1	60.1	89.99	-3,006.0	-284.4	660.3	540.4	119.87	5.508			
10,000.0	6,932.0	10,012.1	6,933.0	62.0	62.0	89.99	-3,105.9	-282.3	660.3	536.7	123.60	5.342			
10,100.0	6,931.6	10,112.1	6,932.5	63.8	63.8	89.99	-3,205.9	-280.3	660.3	532.9	127.33	5.185			
10,200.0	6,931.1	10,212.1	6,932.0	65.7	65.7	89.99	-3,305.9	-278.2	660.3	529.2	131.08	5.037			
10,300.0	6,930.6	10,312.1	6,931.5	67.5	67.6	89.99	-3,405.9	-276.1	660.2	525.4	134.83	4.897			

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	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			
10,400.0	6,930.2	10,412.1	6,931.1	69.4	69.5	89.99	-3,505.8	-274.1	660.2	521.7	138.58	4.764			
10,500.0	6,929.7	10,512.1	6,930.6	71.3	71.3	89.99	-3,605.8	-272.0	660.2	517.9	142.34	4.639			
10,600.0	6,929.2	10,612.1	6,930.1	73.2	73.2	89.99	-3,705.8	-270.0	660.2	514.1	146.10	4.519			
10,700.0	6,928.7	10,712.1	6,929.7	75.1	75.1	89.99	-3,805.8	-267.9	660.2	510.4	149.87	4.406			
10,800.0	6,928.3	10,812.1	6,929.2	76.9	77.0	89.99	-3,905.8	-265.8	660.2	506.6	153.64	4.297			
10,900.0	6,927.8	10,912.1	6,928.7	78.8	78.9	89.99	-4,005.7	-263.8	660.2	502.8	157.41	4.194			
11,000.0	6,927.3	11,012.1	6,928.2	80.7	80.7	89.99	-4,105.7	-261.7	660.2	499.1	161.19	4.096			
11,100.0	6,926.9	11,112.1	6,927.8	82.6	82.6	89.99	-4,205.7	-259.6	660.2	495.3	164.98	4.002			
11,200.0	6,926.4	11,212.1	6,927.3	84.5	84.5	89.99	-4,305.7	-257.6	660.2	491.5	168.76	3.912			
11,300.0	6,925.9	11,312.1	6,926.8	86.4	86.4	89.99	-4,405.6	-255.5	660.2	487.7	172.55	3.826			
11,400.0	6,925.4	11,412.1	6,926.4	88.3	88.3	89.99	-4,505.6	-253.5	660.2	483.9	176.34	3.744			
11,460.9	6,925.2	11,473.1	6,926.1	89.2	89.5	89.99	-4,566.5	-252.2	660.2	481.8	178.43	3.700			
11,494.4	6,925.0	11,489.3	6,926.0	89.7	89.8	89.99	-4,582.7	-251.9	660.5	481.2	179.25	3.685 SF			

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	1.0	1.0	0.0	0.0	-89.95	0.0	-44.8	44.8	44.8	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-89.95	0.0	-44.8	44.8	44.5	0.23	197.209		
200.0	200.0	201.0	201.0	0.3	0.3	-89.95	0.0	-44.8	44.8	44.1	0.68	66.173		
300.0	300.0	301.0	301.0	0.6	0.6	-89.95	0.0	-44.8	44.8	43.6	1.13	39.757		
400.0	400.0	401.0	401.0	0.8	0.8	-89.95	0.0	-44.8	44.8	43.2	1.58	28.414		
500.0	500.0	501.0	501.0	1.0	1.0	-89.95	0.0	-44.8	44.8	42.7	2.03	22.107		
600.0	600.0	601.0	601.0	1.2	1.2	-89.95	0.0	-44.8	44.8	42.3	2.47	18.091		
700.0	700.0	701.0	701.0	1.5	1.5	-89.95	0.0	-44.8	44.8	41.8	2.92	15.310		
800.0	800.0	801.0	801.0	1.7	1.7	-89.95	0.0	-44.8	44.8	41.4	3.37	13.270		
900.0	900.0	901.0	901.0	1.9	1.9	-89.95	0.0	-44.8	44.8	40.9	3.82	11.710		
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-89.95	0.0	-44.8	44.8	40.5	4.27	10.478		
1,100.0	1,100.0	1,101.0	1,101.0	2.4	2.4	-89.95	0.0	-44.8	44.8	40.0	4.72	9.480		
1,200.0	1,200.0	1,201.0	1,201.0	2.6	2.6	-89.95	0.0	-44.8	44.8	39.6	5.17	8.656		
1,300.0	1,300.0	1,301.0	1,301.0	2.8	2.8	-89.95	0.0	-44.8	44.8	39.1	5.62	7.964		
1,400.0	1,400.0	1,401.0	1,401.0	3.0	3.0	-89.95	0.0	-44.8	44.8	38.7	6.07	7.374 CC, ES		
1,500.0	1,500.0	1,501.0	1,501.0	3.3	3.3	-152.73	0.0	-44.8	45.9	39.4	6.51	7.053		
1,600.0	1,599.9	1,600.9	1,600.9	3.5	3.5	-154.79	0.0	-44.8	49.5	42.5	6.94	7.123		
1,700.0	1,699.7	1,700.7	1,700.7	3.7	3.7	-157.64	0.0	-44.8	55.4	48.1	7.37	7.521		
1,800.0	1,799.3	1,800.0	1,800.0	3.9	3.9	-160.70	0.0	-44.8	64.0	56.2	7.80	8.208		
1,900.0	1,898.6	1,898.6	1,898.6	4.2	4.2	-162.74	1.0	-45.6	75.7	67.5	8.22	9.214		
2,000.0	1,997.8	1,996.6	1,996.5	4.4	4.4	-162.94	3.9	-48.1	89.5	80.8	8.65	10.337		
2,100.0	2,097.1	2,094.2	2,093.9	4.7	4.6	-161.88	8.6	-52.2	104.4	95.3	9.09	11.486		
2,200.0	2,196.3	2,191.3	2,190.6	4.9	4.8	-160.07	15.2	-57.8	120.8	111.2	9.54	12.664		
2,300.0	2,295.5	2,288.1	2,286.8	5.2	5.0	-157.85	23.6	-65.1	138.6	128.6	9.99	13.872		
2,400.0	2,394.8	2,386.3	2,384.2	5.5	5.3	-155.85	32.7	-73.0	157.1	146.7	10.46	15.024		
2,500.0	2,494.0	2,484.4	2,481.6	5.8	5.5	-154.28	41.9	-80.8	175.8	164.8	10.93	16.082		
2,600.0	2,593.2	2,582.5	2,579.0	6.1	5.8	-153.01	51.0	-88.7	194.5	183.1	11.41	17.052		
2,700.0	2,692.5	2,680.7	2,676.4	6.4	6.0	-151.96	60.2	-96.6	213.3	201.4	11.89	17.944		
2,800.0	2,791.7	2,778.8	2,773.8	6.6	6.3	-151.08	69.3	-104.5	232.2	219.8	12.37	18.764		
2,900.0	2,890.9	2,877.0	2,871.2	6.9	6.6	-150.34	78.5	-112.4	251.1	238.3	12.87	19.519		
3,000.0	2,990.2	2,975.1	2,968.6	7.2	6.9	-149.69	87.6	-120.3	270.1	256.7	13.36	20.216		
3,100.0	3,089.4	3,073.3	3,066.0	7.5	7.1	-149.14	96.8	-128.2	289.1	275.2	13.86	20.860		
3,200.0	3,188.6	3,171.4	3,163.4	7.8	7.4	-148.65	105.9	-136.0	308.1	293.7	14.36	21.457		
3,300.0	3,287.9	3,269.6	3,260.8	8.1	7.7	-148.22	115.1	-143.9	327.1	312.2	14.86	22.011		
3,400.0	3,387.1	3,367.7	3,358.2	8.4	8.0	-147.83	124.2	-151.8	346.2	330.8	15.37	22.527		
3,500.0	3,486.3	3,465.8	3,455.6	8.8	8.3	-147.49	133.4	-159.7	365.2	349.3	15.87	23.008		
3,600.0	3,585.6	3,565.8	3,554.8	9.1	8.6	-147.18	142.6	-167.7	384.2	367.8	16.38	23.458		
3,700.0	3,684.8	3,672.0	3,660.4	9.4	8.8	-147.10	150.9	-174.8	401.9	385.0	16.86	23.837		
3,800.0	3,784.0	3,778.9	3,767.0	9.7	9.0	-147.31	156.9	-180.0	417.6	400.3	17.32	24.106		
3,900.0	3,883.3	3,886.3	3,874.3	10.0	9.2	-147.80	160.8	-183.3	431.3	413.5	17.78	24.264		
4,000.0	3,982.5	3,994.1	3,982.1	10.3	9.4	-148.53	162.3	-184.6	443.1	424.9	18.22	24.324		
4,100.0	4,081.7	4,094.8	4,082.7	10.6	9.6	-149.35	162.3	-184.7	453.8	435.1	18.65	24.325		
4,200.0	4,181.0	4,194.0	4,182.0	10.9	9.8	-150.13	162.3	-184.7	464.5	445.3	19.11	24.307		
4,300.0	4,280.3	4,293.3	4,281.3	11.2	10.0	-150.89	162.3	-184.7	474.9	455.3	19.57	24.272		
4,400.0	4,379.8	4,392.8	4,380.8	11.4	10.2	-151.50	162.3	-184.7	483.4	463.4	20.00	24.175		
4,500.0	4,479.5	4,492.6	4,480.5	11.6	10.4	-151.94	162.3	-184.7	489.6	469.2	20.41	23.987		
4,600.0	4,579.4	4,592.5	4,580.4	11.8	10.6	-152.22	162.3	-184.7	493.6	472.8	20.82	23.712		
4,700.0	4,679.4	4,692.4	4,680.4	12.0	10.8	-152.33	162.3	-184.7	495.2	474.0	21.20	23.355		
4,800.0	4,779.4	4,792.4	4,780.4	12.2	11.0	-90.31	162.3	-184.7	495.3	473.7	21.62	22.911		
4,900.0	4,879.4	4,892.4	4,880.4	12.4	11.3	-90.31	162.3	-184.7	495.3	473.2	22.04	22.477		
5,000.0	4,979.4	4,992.4	4,980.4	12.5	11.5	-90.31	162.3	-184.7	495.3	472.8	22.45	22.057		
5,100.0	5,079.4	5,092.4	5,080.4	12.7	11.7	-90.31	162.3	-184.7	495.3	472.4	22.87	21.652		

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft	
Survey Program: 0-MWD													Offset Well Error:		0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,200.0	5,179.4	5,192.4	5,180.4	12.9	11.9	-90.31	162.3	-184.7	495.3	472.0	23.30	21.260			
5,300.0	5,279.4	5,292.4	5,280.4	13.1	12.1	-90.31	162.3	-184.7	495.3	471.6	23.72	20.881			
5,400.0	5,379.4	5,392.4	5,380.4	13.3	12.3	-90.31	162.3	-184.7	495.3	471.1	24.14	20.515			
5,500.0	5,479.4	5,492.4	5,480.4	13.5	12.5	-90.31	162.3	-184.7	495.3	470.7	24.57	20.160			
5,600.0	5,579.4	5,592.4	5,580.4	13.7	12.7	-90.31	162.3	-184.7	495.3	470.3	24.99	19.817			
5,700.0	5,679.4	5,692.4	5,680.4	13.9	12.9	-90.31	162.3	-184.7	495.3	469.9	25.42	19.485			
5,800.0	5,779.4	5,792.4	5,780.4	14.1	13.2	-90.31	162.3	-184.7	495.3	469.4	25.85	19.163			
5,900.0	5,879.4	5,892.4	5,880.4	14.3	13.4	-90.31	162.3	-184.7	495.3	469.0	26.27	18.851			
6,000.0	5,979.4	5,992.4	5,980.4	14.5	13.6	-90.31	162.3	-184.7	495.3	468.6	26.70	18.549			
6,100.0	6,079.4	6,092.4	6,080.4	14.7	13.8	-90.31	162.3	-184.7	495.3	468.1	27.13	18.256			
6,200.0	6,179.4	6,192.4	6,180.4	14.9	14.0	-90.31	162.3	-184.7	495.3	467.7	27.56	17.971			
6,300.0	6,279.4	6,292.4	6,280.4	15.1	14.2	-90.31	162.3	-184.7	495.3	467.3	27.99	17.695			
6,400.0	6,379.4	6,392.4	6,380.4	15.3	14.4	-90.31	162.3	-184.7	495.3	466.9	28.42	17.426			
6,500.0	6,479.3	6,493.3	6,481.1	15.4	14.6	90.87	159.3	-184.6	495.3	466.5	28.78	17.210			
6,600.0	6,577.1	6,594.7	6,580.3	15.6	14.7	90.83	138.7	-184.2	495.3	466.3	28.99	17.084			
6,700.0	6,669.3	6,696.0	6,673.5	15.6	14.8	90.77	99.3	-183.4	495.3	466.1	29.12	17.007			
6,800.0	6,752.5	6,797.3	6,757.2	15.7	14.9	90.67	42.7	-182.2	495.3	466.0	29.27	16.920			
6,900.0	6,823.6	6,898.3	6,828.3	15.8	15.0	90.55	-28.8	-180.7	495.2	465.7	29.56	16.753			
7,000.0	6,880.0	6,999.1	6,884.2	16.0	15.1	90.41	-112.5	-179.0	495.2	465.1	30.12	16.443			
7,100.0	6,919.7	7,099.6	6,922.8	16.3	15.6	90.26	-205.2	-177.1	495.2	464.2	31.03	15.959			
7,200.0	6,941.1	7,199.9	6,943.0	16.9	16.2	90.10	-303.2	-175.1	495.2	462.9	32.32	15.320			
7,300.0	6,944.8	7,300.0	6,945.7	17.6	17.1	89.99	-403.1	-173.0	495.2	461.2	33.97	14.579			
7,400.0	6,944.3	7,400.0	6,945.2	18.6	18.1	89.99	-503.1	-170.9	495.2	459.3	35.94	13.779			
7,500.0	6,943.8	7,500.0	6,944.8	19.7	19.2	89.99	-603.1	-168.9	495.2	457.0	38.20	12.963			
7,600.0	6,943.4	7,600.0	6,944.3	20.9	20.4	89.99	-703.1	-166.8	495.2	454.5	40.70	12.167			
7,700.0	6,942.9	7,700.0	6,943.8	22.2	21.8	89.99	-803.0	-164.7	495.2	451.8	43.40	11.411			
7,800.0	6,942.4	7,800.0	6,943.3	23.6	23.2	89.99	-903.0	-162.7	495.2	448.9	46.26	10.706			
7,900.0	6,941.9	7,900.0	6,942.9	25.1	24.7	89.99	-1,003.0	-160.6	495.2	446.0	49.25	10.055			
8,000.0	6,941.5	8,000.0	6,942.4	26.6	26.3	89.99	-1,103.0	-158.6	495.2	442.8	52.36	9.458			
8,100.0	6,941.0	8,100.0	6,941.9	28.2	27.9	89.99	-1,203.0	-156.5	495.2	439.6	55.56	8.913			
8,200.0	6,940.5	8,200.0	6,941.5	29.8	29.5	89.99	-1,302.9	-154.4	495.2	436.4	58.83	8.417			
8,300.0	6,940.1	8,300.0	6,941.0	31.4	31.2	89.99	-1,402.9	-152.4	495.2	433.0	62.18	7.964			
8,400.0	6,939.6	8,400.0	6,940.5	33.1	32.9	89.99	-1,502.9	-150.3	495.2	429.6	65.57	7.552			
8,500.0	6,939.1	8,500.0	6,940.0	34.8	34.6	89.99	-1,602.9	-148.2	495.2	426.2	69.02	7.175			
8,600.0	6,938.6	8,600.0	6,939.6	36.5	36.3	89.99	-1,702.8	-146.2	495.2	422.7	72.50	6.830			
8,700.0	6,938.2	8,700.0	6,939.1	38.3	38.1	89.99	-1,802.8	-144.1	495.2	419.2	76.02	6.514			
8,800.0	6,937.7	8,800.0	6,938.6	40.1	39.9	89.99	-1,902.8	-142.1	495.2	415.6	79.58	6.223			
8,900.0	6,937.2	8,900.0	6,938.2	41.8	41.6	89.99	-2,002.8	-140.0	495.2	412.0	83.15	5.955			
9,000.0	6,936.8	9,000.0	6,937.7	43.6	43.4	89.99	-2,102.8	-137.9	495.2	408.4	86.75	5.708			
9,100.0	6,936.3	9,100.0	6,937.2	45.4	45.3	89.99	-2,202.7	-135.9	495.2	404.8	90.37	5.479			
9,200.0	6,935.8	9,200.0	6,936.7	47.2	47.1	89.99	-2,302.7	-133.8	495.2	401.2	94.01	5.267			
9,300.0	6,935.3	9,300.0	6,936.3	49.0	48.9	89.99	-2,402.7	-131.7	495.2	397.5	97.67	5.070			
9,400.0	6,934.9	9,400.0	6,935.8	50.9	50.7	89.99	-2,502.7	-129.7	495.2	393.9	101.34	4.887			
9,500.0	6,934.4	9,500.0	6,935.3	52.7	52.6	89.99	-2,602.6	-127.6	495.2	390.2	105.02	4.715			
9,600.0	6,933.9	9,600.0	6,934.9	54.5	54.4	89.99	-2,702.6	-125.5	495.2	386.5	108.71	4.555			
9,700.0	6,933.5	9,700.0	6,934.4	56.4	56.3	89.99	-2,802.6	-123.5	495.2	382.8	112.41	4.405			
9,800.0	6,933.0	9,800.0	6,933.9	58.2	58.1	89.99	-2,902.6	-121.4	495.2	379.1	116.13	4.264			
9,900.0	6,932.5	9,900.0	6,933.4	60.1	60.0	89.99	-3,002.6	-119.4	495.2	375.3	119.85	4.132			
10,000.0	6,932.0	10,000.0	6,933.0	62.0	61.8	89.99	-3,102.5	-117.3	495.2	371.6	123.58	4.007			
10,100.0	6,931.6	10,100.0	6,932.5	63.8	63.7	89.99	-3,202.5	-115.2	495.2	367.9	127.31	3.889			
10,200.0	6,931.1	10,200.0	6,932.0	65.7	65.6	89.99	-3,302.5	-113.2	495.2	364.1	131.06	3.778			
10,300.0	6,930.6	10,300.0	6,931.6	67.5	67.5	89.99	-3,402.5	-111.1	495.2	360.4	134.80	3.673			

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	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			
10,400.0	6,930.2	10,400.0	6,931.1	69.4	69.3	89.99	-3,502.4	-109.0	495.2	356.6	138.56	3.574			
10,500.0	6,929.7	10,500.0	6,930.6	71.3	71.2	89.99	-3,602.4	-107.0	495.2	352.9	142.32	3.479			
10,600.0	6,929.2	10,600.0	6,930.1	73.2	73.1	89.99	-3,702.4	-104.9	495.2	349.1	146.08	3.390			
10,700.0	6,928.7	10,700.0	6,929.7	75.1	75.0	89.99	-3,802.4	-102.9	495.2	345.3	149.85	3.304			
10,800.0	6,928.3	10,800.0	6,929.2	76.9	76.9	89.99	-3,902.4	-100.8	495.2	341.5	153.62	3.223			
10,900.0	6,927.8	10,900.0	6,928.7	78.8	78.8	89.99	-4,002.3	-98.7	495.2	337.8	157.40	3.146			
11,000.0	6,927.3	11,000.0	6,928.3	80.7	80.6	89.99	-4,102.3	-96.7	495.2	334.0	161.18	3.072			
11,100.0	6,926.9	11,100.0	6,927.8	82.6	82.5	89.99	-4,202.3	-94.6	495.2	330.2	164.96	3.002			
11,200.0	6,926.4	11,200.0	6,927.3	84.5	84.4	89.99	-4,302.3	-92.5	495.2	326.4	168.74	2.934			
11,300.0	6,925.9	11,300.0	6,926.9	86.4	86.3	89.99	-4,402.2	-90.5	495.2	322.6	172.53	2.870			
11,400.0	6,925.4	11,400.0	6,926.4	88.3	88.2	89.99	-4,502.2	-88.4	495.2	318.8	176.32	2.808			
11,462.5	6,925.2	11,462.5	6,926.1	89.2	89.4	89.99	-4,564.8	-87.1	495.2	316.7	178.47	2.775			
11,494.4	6,925.0	11,480.5	6,926.0	89.7	89.7	89.99	-4,582.7	-86.7	495.4	316.1	179.30	2.763 SF			

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
Reference				Offset			Semi Major Axis			Distance				Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.95	0.0	-30.8	30.8					
100.0	100.0	100.0	100.0	0.1	0.1	-89.95	0.0	-30.8	30.8	30.6	0.22	136.937		
200.0	200.0	200.0	200.0	0.3	0.3	-89.95	0.0	-30.8	30.8	30.1	0.67	45.646		
300.0	300.0	300.0	300.0	0.6	0.6	-89.95	0.0	-30.8	30.8	29.7	1.12	27.387		
400.0	400.0	400.0	400.0	0.8	0.8	-89.95	0.0	-30.8	30.8	29.2	1.57	19.562		
500.0	500.0	500.0	500.0	1.0	1.0	-89.95	0.0	-30.8	30.8	28.8	2.02	15.215		
600.0	600.0	600.0	600.0	1.2	1.2	-89.95	0.0	-30.8	30.8	28.3	2.47	12.449		
700.0	700.0	700.0	700.0	1.5	1.5	-89.95	0.0	-30.8	30.8	27.9	2.92	10.534		
800.0	800.0	800.0	800.0	1.7	1.7	-89.95	0.0	-30.8	30.8	27.4	3.37	9.129		
900.0	900.0	900.0	900.0	1.9	1.9	-89.95	0.0	-30.8	30.8	27.0	3.82	8.055		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-89.95	0.0	-30.8	30.8	26.5	4.27	7.207		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-89.95	0.0	-30.8	30.8	26.1	4.72	6.521		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-89.95	0.0	-30.8	30.8	25.6	5.17	5.954		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-89.95	0.0	-30.8	30.8	25.2	5.62	5.477		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-89.95	0.0	-30.8	30.8	24.7	6.07	5.072 CC, ES		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-153.06	0.0	-30.8	31.9	25.4	6.51	4.907		
1,600.0	1,599.9	1,599.9	1,599.9	3.5	3.5	-155.91	0.0	-30.8	35.5	28.5	6.94	5.113		
1,700.0	1,699.7	1,699.7	1,699.7	3.7	3.7	-159.56	0.0	-30.8	41.5	34.2	7.37	5.637		
1,800.0	1,799.3	1,799.3	1,799.3	3.9	3.9	-163.17	0.0	-30.8	50.2	42.4	7.79	6.443		
1,900.0	1,898.6	1,898.6	1,898.6	4.2	4.2	-166.29	0.0	-30.8	61.5	53.3	8.22	7.478		
2,000.0	1,997.8	1,997.8	1,997.8	4.4	4.4	-168.57	0.0	-30.8	73.5	64.9	8.66	8.490		
2,100.0	2,097.1	2,097.1	2,097.1	4.7	4.6	-170.21	0.0	-30.8	85.7	76.6	9.10	9.411		
2,200.0	2,196.3	2,196.3	2,196.3	4.9	4.8	-171.44	0.0	-30.8	97.9	88.3	9.55	10.249		
2,300.0	2,295.5	2,296.6	2,296.6	5.2	5.0	-171.82	1.2	-30.7	109.6	99.6	10.00	10.964		
2,400.0	2,394.8	2,397.3	2,397.2	5.5	5.3	-170.97	5.1	-30.4	120.3	109.9	10.45	11.516		
2,500.0	2,494.0	2,497.9	2,497.6	5.8	5.5	-169.17	11.6	-30.0	130.1	119.2	10.90	11.932		
2,600.0	2,593.2	2,598.6	2,597.8	6.1	5.7	-166.60	20.8	-29.4	139.1	127.7	11.36	12.240		
2,700.0	2,692.5	2,698.8	2,697.4	6.4	6.0	-163.39	32.4	-28.6	147.6	135.8	11.84	12.471		
2,800.0	2,791.7	2,798.0	2,795.9	6.6	6.2	-160.27	44.8	-27.8	156.4	144.1	12.32	12.689		
2,900.0	2,890.9	2,897.3	2,894.3	6.9	6.4	-157.49	57.2	-26.9	165.6	152.7	12.82	12.911		
3,000.0	2,990.2	2,996.6	2,992.8	7.2	6.7	-155.00	69.5	-26.1	175.1	161.8	13.33	13.131		
3,100.0	3,089.4	3,095.9	3,091.3	7.5	7.0	-152.78	81.9	-25.3	184.9	171.1	13.85	13.347		
3,200.0	3,188.6	3,195.1	3,189.8	7.8	7.2	-150.78	94.3	-24.4	195.0	180.6	14.38	13.556		
3,300.0	3,287.9	3,294.4	3,288.3	8.1	7.5	-148.98	106.6	-23.6	205.3	190.4	14.92	13.758		
3,400.0	3,387.1	3,393.7	3,386.8	8.4	7.8	-147.35	119.0	-22.7	215.7	200.3	15.46	13.951		
3,500.0	3,486.3	3,492.9	3,485.3	8.8	8.0	-145.87	131.4	-21.9	226.4	210.4	16.01	14.137		
3,600.0	3,585.6	3,592.4	3,584.1	9.1	8.3	-144.64	143.3	-21.1	237.1	220.6	16.55	14.330		
3,700.0	3,684.8	3,692.2	3,683.4	9.4	8.5	-144.07	152.8	-20.5	247.8	230.7	17.03	14.551		
3,800.0	3,784.0	3,792.1	3,783.1	9.7	8.7	-144.14	159.8	-20.0	258.3	240.8	17.49	14.768		
3,900.0	3,883.3	3,892.0	3,882.8	10.0	8.9	-144.75	164.1	-19.7	268.6	250.7	17.92	14.985		
4,000.0	3,982.5	3,991.6	3,982.5	10.3	9.1	-145.86	165.9	-19.6	278.9	260.5	18.34	15.207		
4,100.0	4,081.7	4,090.9	4,081.7	10.6	9.3	-147.22	165.9	-19.6	289.2	270.4	18.75	15.422		
4,200.0	4,181.0	4,190.2	4,181.0	10.9	9.5	-148.50	165.9	-19.6	299.7	280.5	19.19	15.618		
4,300.0	4,280.3	4,289.4	4,280.3	11.2	9.7	-149.69	165.9	-19.6	310.0	290.4	19.62	15.796		
4,400.0	4,379.8	4,389.0	4,379.8	11.4	9.9	-150.63	165.9	-19.6	318.4	298.4	20.03	15.892		
4,500.0	4,479.5	4,488.7	4,479.5	11.6	10.1	-151.29	165.9	-19.6	324.6	304.1	20.44	15.883		
4,600.0	4,579.4	4,588.6	4,579.4	11.8	10.3	-151.69	165.9	-19.6	328.5	307.7	20.83	15.773		
4,700.0	4,679.4	4,688.6	4,679.4	12.0	10.5	-151.86	165.9	-19.6	330.1	308.9	21.21	15.566		
4,800.0	4,779.4	4,788.6	4,779.4	12.2	10.7	-89.84	165.9	-19.6	330.2	308.5	21.64	15.261		
4,900.0	4,879.4	4,888.6	4,879.4	12.4	11.0	-89.84	165.9	-19.6	330.2	308.1	22.05	14.971		
5,000.0	4,979.4	4,988.6	4,979.4	12.5	11.2	-89.84	165.9	-19.6	330.2	307.7	22.47	14.691		
5,100.0	5,079.4	5,088.6	5,079.4	12.7	11.4	-89.84	165.9	-19.6	330.2	307.3	22.90	14.421		

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft	
Survey Program: 0-MWD													Offset Well Error:		0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,200.0	5,179.4	5,188.6	5,179.4	12.9	11.6	-89.84	165.9	-19.6	330.2	306.9	23.32	14.159			
5,300.0	5,279.4	5,288.6	5,279.4	13.1	11.8	-89.84	165.9	-19.6	330.2	306.4	23.74	13.907			
5,400.0	5,379.4	5,388.6	5,379.4	13.3	12.0	-89.84	165.9	-19.6	330.2	306.0	24.17	13.662			
5,500.0	5,479.4	5,488.6	5,479.4	13.5	12.3	-89.84	165.9	-19.6	330.2	305.6	24.59	13.426			
5,600.0	5,579.4	5,588.6	5,579.4	13.7	12.5	-89.84	165.9	-19.6	330.2	305.2	25.02	13.197			
5,700.0	5,679.4	5,688.6	5,679.4	13.9	12.7	-89.84	165.9	-19.6	330.2	304.7	25.45	12.976			
5,800.0	5,779.4	5,788.6	5,779.4	14.1	12.9	-89.84	165.9	-19.6	330.2	304.3	25.87	12.762			
5,900.0	5,879.4	5,888.6	5,879.4	14.3	13.1	-89.84	165.9	-19.6	330.2	303.9	26.30	12.554			
6,000.0	5,979.4	5,988.6	5,979.4	14.5	13.3	-89.84	165.9	-19.6	330.2	303.4	26.73	12.352			
6,100.0	6,079.4	6,088.6	6,079.4	14.7	13.6	-89.84	165.9	-19.6	330.2	303.0	27.16	12.157			
6,200.0	6,179.4	6,188.6	6,179.4	14.9	13.8	-89.84	165.9	-19.6	330.2	302.6	27.59	11.967			
6,300.0	6,279.4	6,288.6	6,279.4	15.1	14.0	-89.84	165.9	-19.6	330.2	302.2	28.02	11.783			
6,400.0	6,379.4	6,388.6	6,379.4	15.3	14.2	-89.84	165.9	-19.6	330.2	301.7	28.45	11.604			
6,430.6	6,410.0	6,419.2	6,410.0	15.3	14.3	91.43	165.9	-19.6	330.2	301.6	28.56	11.563			
6,500.0	6,479.3	6,488.5	6,479.3	15.4	14.4	91.84	165.9	-19.6	330.3	301.4	28.84	11.450			
6,600.0	6,577.1	6,586.3	6,577.1	15.6	14.6	95.09	165.9	-19.6	331.5	302.3	29.22	11.346			
6,700.0	6,669.3	6,685.9	6,676.7	15.6	14.8	100.57	162.7	-19.5	336.7	307.2	29.47	11.423			
6,800.0	6,752.5	6,797.3	6,785.2	15.7	14.9	106.21	138.7	-19.0	345.6	316.2	29.43	11.744			
6,900.0	6,823.6	6,919.8	6,895.6	15.8	15.0	111.33	86.4	-17.9	356.8	327.7	29.10	12.263			
7,000.0	6,880.0	7,054.7	6,999.4	16.0	15.2	115.64	0.8	-16.2	368.3	339.6	28.70	12.835			
7,100.0	6,919.7	7,201.9	7,083.5	16.3	15.5	118.79	-119.4	-13.7	377.7	349.1	28.67	13.174			
7,200.0	6,941.1	7,358.3	7,132.3	16.9	16.3	120.41	-267.3	-10.6	382.9	353.3	29.55	12.956			
7,300.0	6,944.8	7,491.8	7,139.6	17.6	17.4	120.55	-400.4	-7.9	383.3	352.1	31.24	12.269			
7,400.0	6,944.3	7,591.8	7,139.3	18.6	18.4	120.57	-500.4	-5.8	383.4	350.4	32.98	11.625			
7,500.0	6,943.8	7,691.8	7,138.9	19.7	19.5	120.58	-600.4	-3.8	383.4	348.5	34.95	10.970			
7,600.0	6,943.4	7,791.8	7,138.6	20.9	20.7	120.60	-700.3	-1.7	383.5	346.4	37.13	10.327			
7,700.0	6,942.9	7,891.8	7,138.2	22.2	22.0	120.61	-800.3	0.4	383.6	344.1	39.49	9.713			
7,800.0	6,942.4	7,991.8	7,137.9	23.6	23.4	120.63	-900.3	2.4	383.6	341.6	41.98	9.138			
7,900.0	6,941.9	8,091.8	7,137.5	25.1	24.9	120.65	-1,000.3	4.5	383.7	339.1	44.59	8.604			
8,000.0	6,941.5	8,191.8	7,137.2	26.6	26.5	120.66	-1,100.3	6.5	383.7	336.4	47.30	8.112			
8,100.0	6,941.0	8,291.8	7,136.8	28.2	28.0	120.68	-1,200.2	8.6	383.8	333.7	50.10	7.661			
8,200.0	6,940.5	8,391.8	7,136.5	29.8	29.7	120.69	-1,300.2	10.7	383.9	330.9	52.96	7.248			
8,300.0	6,940.1	8,491.8	7,136.1	31.4	31.3	120.71	-1,400.2	12.7	383.9	328.0	55.88	6.871			
8,400.0	6,939.6	8,591.8	7,135.8	33.1	33.0	120.72	-1,500.2	14.8	384.0	325.1	58.85	6.525			
8,500.0	6,939.1	8,691.8	7,135.4	34.8	34.7	120.74	-1,600.1	16.8	384.0	322.2	61.86	6.209			
8,600.0	6,938.6	8,791.8	7,135.1	36.5	36.5	120.76	-1,700.1	18.9	384.1	319.2	64.91	5.918			
8,700.0	6,938.2	8,891.8	7,134.7	38.3	38.2	120.77	-1,800.1	21.0	384.2	316.2	67.98	5.651			
8,800.0	6,937.7	8,991.8	7,134.4	40.1	40.0	120.79	-1,900.1	23.0	384.2	313.1	71.09	5.405			
8,900.0	6,937.2	9,091.8	7,134.0	41.8	41.8	120.80	-2,000.1	25.1	384.3	310.1	74.22	5.178			
9,000.0	6,936.8	9,191.8	7,133.7	43.6	43.6	120.82	-2,100.0	27.2	384.4	307.0	77.37	4.968			
9,100.0	6,936.3	9,291.8	7,133.3	45.4	45.4	120.83	-2,200.0	29.2	384.4	303.9	80.54	4.773			
9,200.0	6,935.8	9,391.8	7,133.0	47.2	47.2	120.85	-2,300.0	31.3	384.5	300.8	83.72	4.593			
9,300.0	6,935.3	9,491.8	7,132.6	49.0	49.0	120.87	-2,400.0	33.3	384.5	297.6	86.92	4.424			
9,400.0	6,934.9	9,591.8	7,132.3	50.9	50.8	120.88	-2,499.9	35.4	384.6	294.5	90.13	4.268			
9,500.0	6,934.4	9,691.8	7,131.9	52.7	52.7	120.90	-2,599.9	37.5	384.7	291.3	93.35	4.121			
9,600.0	6,933.9	9,791.8	7,131.6	54.5	54.5	120.91	-2,699.9	39.5	384.7	288.2	96.58	3.984			
9,700.0	6,933.5	9,891.8	7,131.2	56.4	56.4	120.93	-2,799.9	41.6	384.8	285.0	99.82	3.855			
9,800.0	6,933.0	9,991.8	7,130.9	58.2	58.2	120.94	-2,899.9	43.7	384.9	281.8	103.06	3.734			
9,900.0	6,932.5	10,091.8	7,130.5	60.1	60.1	120.96	-2,999.8	45.7	384.9	278.6	106.32	3.621			
10,000.0	6,932.0	10,191.8	7,130.2	62.0	61.9	120.97	-3,099.8	47.8	385.0	275.4	109.58	3.513			
10,100.0	6,931.6	10,291.8	7,129.8	63.8	63.8	120.99	-3,199.8	49.8	385.0	272.2	112.84	3.412			
10,200.0	6,931.1	10,391.8	7,129.5	65.7	65.7	121.01	-3,299.8	51.9	385.1	269.0	116.11	3.317			

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	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			
10,300.0	6,930.6	10,491.8	7,129.1	67.5	67.5	121.02	-3,399.7	54.0	385.2	265.8	119.39	3.226			
10,400.0	6,930.2	10,591.8	7,128.8	69.4	69.4	121.04	-3,499.7	56.0	385.2	262.6	122.67	3.140			
10,500.0	6,929.7	10,691.8	7,128.4	71.3	71.3	121.05	-3,599.7	58.1	385.3	259.3	125.95	3.059			
10,600.0	6,929.2	10,791.8	7,128.1	73.2	73.2	121.07	-3,699.7	60.2	385.4	256.1	129.24	2.982			
10,700.0	6,928.7	10,891.8	7,127.7	75.1	75.0	121.08	-3,799.7	62.2	385.4	252.9	132.53	2.908			
10,800.0	6,928.3	10,991.8	7,127.4	76.9	76.9	121.10	-3,899.6	64.3	385.5	249.7	135.82	2.838			
10,900.0	6,927.8	11,091.8	7,127.0	78.8	78.8	121.11	-3,999.6	66.3	385.6	246.4	139.12	2.771			
11,000.0	6,927.3	11,191.8	7,126.7	80.7	80.7	121.13	-4,099.6	68.4	385.6	243.2	142.42	2.708			
11,100.0	6,926.9	11,291.8	7,126.3	82.6	82.6	121.15	-4,199.6	70.5	385.7	240.0	145.72	2.647			
11,200.0	6,926.4	11,391.8	7,126.0	84.5	84.5	121.16	-4,299.5	72.5	385.7	236.7	149.02	2.589			
11,300.0	6,925.9	11,491.8	7,125.6	86.4	86.4	121.18	-4,399.5	74.6	385.8	233.5	152.32	2.533			
11,400.0	6,925.4	11,591.8	7,125.3	88.3	88.3	121.19	-4,499.5	76.6	385.9	230.2	155.63	2.479			
11,451.9	6,925.2	11,643.7	7,125.1	89.1	89.3	121.20	-4,551.4	77.7	385.9	228.7	157.17	2.455			
11,494.4	6,925.0	11,675.1	7,125.0	89.7	89.8	121.21	-4,582.7	78.4	386.1	227.8	158.24	2.440 SF			

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft	
Survey Program: 0-MWD													Offset Well Error:		0.0ft
Reference				Offset			Semi Major Axis			Distance			Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	-89.93	0.0	-14.0	14.0	14.0	0.00	N/A			
100.0	100.0	100.0	100.0	0.1	0.1	-89.93	0.0	-14.0	14.0	13.8	0.22	62.244			
200.0	200.0	200.0	200.0	0.3	0.3	-89.93	0.0	-14.0	14.0	13.3	0.67	20.748			
300.0	300.0	300.0	300.0	0.6	0.6	-89.93	0.0	-14.0	14.0	12.9	1.12	12.449			
400.0	400.0	400.0	400.0	0.8	0.8	-89.93	0.0	-14.0	14.0	12.4	1.57	8.892			
500.0	500.0	500.0	500.0	1.0	1.0	-89.93	0.0	-14.0	14.0	12.0	2.02	6.916			
600.0	600.0	600.0	600.0	1.2	1.2	-89.93	0.0	-14.0	14.0	11.5	2.47	5.659			
700.0	700.0	700.0	700.0	1.5	1.5	-89.93	0.0	-14.0	14.0	11.1	2.92	4.788			
800.0	800.0	800.0	800.0	1.7	1.7	-89.93	0.0	-14.0	14.0	10.6	3.37	4.150			
900.0	900.0	900.0	900.0	1.9	1.9	-89.93	0.0	-14.0	14.0	10.2	3.82	3.661			
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-89.93	0.0	-14.0	14.0	9.7	4.27	3.276			
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-89.93	0.0	-14.0	14.0	9.3	4.72	2.964			
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-89.93	0.0	-14.0	14.0	8.8	5.17	2.706			
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-89.93	0.0	-14.0	14.0	8.4	5.62	2.490			
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-89.93	0.0	-14.0	14.0	7.9	6.07	2.305 CC			
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-154.27	0.0	-14.0	15.2	8.6	6.51	2.329			
1,600.0	1,599.9	1,599.9	1,599.9	3.5	3.5	-159.46	0.0	-14.0	18.8	11.8	6.94	2.705			
1,700.0	1,699.7	1,700.2	1,700.2	3.7	3.7	-162.99	1.0	-13.1	23.9	16.6	7.36	3.248			
1,800.0	1,799.3	1,800.6	1,800.5	3.9	3.9	-163.77	3.8	-10.3	29.5	21.7	7.78	3.786			
1,900.0	1,898.6	1,901.2	1,900.9	4.2	4.1	-163.03	8.6	-5.8	35.3	27.1	8.20	4.298			
2,000.0	1,997.8	2,001.9	2,001.1	4.4	4.4	-160.58	15.2	0.6	39.6	31.0	8.65	4.580			
2,100.0	2,097.1	2,101.9	2,100.6	4.7	4.6	-157.11	23.2	8.2	42.7	33.5	9.10	4.686			
2,200.0	2,196.3	2,201.9	2,199.9	4.9	4.9	-154.07	31.1	15.9	45.8	36.2	9.57	4.786			
2,300.0	2,295.5	2,301.8	2,299.2	5.2	5.1	-151.43	39.0	23.5	49.0	39.0	10.05	4.882			
2,400.0	2,394.8	2,401.7	2,398.5	5.5	5.4	-149.12	47.0	31.1	52.4	41.9	10.54	4.973			
2,500.0	2,494.0	2,501.6	2,497.9	5.8	5.6	-147.10	54.9	38.7	55.8	44.8	11.03	5.058			
2,600.0	2,593.2	2,601.6	2,597.2	6.1	5.9	-145.30	62.8	46.4	59.3	47.8	11.54	5.137			
2,700.0	2,692.5	2,701.5	2,696.5	6.4	6.2	-143.71	70.8	54.0	62.8	50.8	12.06	5.210			
2,800.0	2,791.7	2,801.4	2,795.8	6.6	6.4	-142.29	78.7	61.6	66.4	53.8	12.58	5.278			
2,900.0	2,890.9	2,901.3	2,895.1	6.9	6.7	-141.02	86.6	69.2	70.0	56.9	13.11	5.340			
3,000.0	2,990.2	3,001.3	2,994.4	7.2	7.0	-139.87	94.6	76.8	73.7	60.0	13.65	5.397			
3,100.0	3,089.4	3,101.2	3,093.8	7.5	7.3	-138.82	102.5	84.5	77.3	63.1	14.19	5.449			
3,200.0	3,188.6	3,201.1	3,193.1	7.8	7.5	-137.88	110.4	92.1	81.0	66.3	14.74	5.498			
3,300.0	3,287.9	3,301.0	3,292.4	8.1	7.8	-137.01	118.4	99.7	84.7	69.5	15.29	5.543			
3,400.0	3,387.1	3,400.9	3,391.7	8.4	8.1	-136.22	126.3	107.3	88.5	72.6	15.84	5.584			
3,500.0	3,486.3	3,500.9	3,491.0	8.8	8.4	-135.50	134.2	115.0	92.2	75.8	16.40	5.623			
3,600.0	3,585.6	3,600.8	3,590.3	9.1	8.7	-134.83	142.2	122.6	96.0	79.0	16.96	5.659			
3,700.0	3,684.8	3,700.6	3,689.5	9.4	9.0	-134.22	150.1	130.2	99.8	82.2	17.52	5.693			
3,800.0	3,784.0	3,799.3	3,787.8	9.7	9.2	-134.41	156.8	136.7	104.2	86.2	18.00	5.790			
3,900.0	3,883.3	3,897.9	3,886.1	10.0	9.4	-135.78	161.7	141.4	109.9	91.5	18.43	5.962			
4,000.0	3,982.5	3,996.1	3,984.3	10.3	9.6	-138.10	164.8	144.3	116.8	98.0	18.81	6.214			
4,100.0	4,081.7	4,093.9	4,082.1	10.6	9.7	-141.13	166.0	145.5	125.4	106.2	19.14	6.552			
4,200.0	4,181.0	4,192.8	4,181.0	10.9	9.9	-144.38	166.0	145.5	135.2	115.7	19.46	6.948			
4,300.0	4,280.3	4,292.1	4,280.3	11.2	10.1	-147.17	166.0	145.5	145.1	125.3	19.81	7.326			
4,400.0	4,379.8	4,391.6	4,379.8	11.4	10.3	-149.20	166.0	145.5	153.4	133.2	20.16	7.609			
4,500.0	4,479.5	4,491.4	4,479.5	11.6	10.5	-150.54	166.0	145.5	159.5	139.0	20.52	7.775			
4,600.0	4,579.4	4,591.3	4,579.4	11.8	10.7	-151.34	166.0	145.5	163.4	142.5	20.88	7.827			
4,700.0	4,679.4	4,691.3	4,679.4	12.0	10.9	-151.66	166.0	145.5	165.0	143.8	21.24	7.770			
4,800.0	4,779.4	4,791.3	4,779.4	12.2	11.1	-89.65	166.0	145.5	165.1	143.4	21.68	7.615			
4,900.0	4,879.4	4,891.3	4,879.4	12.4	11.3	-89.65	166.0	145.5	165.1	143.0	22.09	7.472			
5,000.0	4,979.4	4,991.3	4,979.4	12.5	11.5	-89.65	166.0	145.5	165.1	142.6	22.51	7.334			
5,100.0	5,079.4	5,091.3	5,079.4	12.7	11.7	-89.65	166.0	145.5	165.1	142.2	22.93	7.200			

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft	
Survey Program: 0-MWD													Offset Well Error:		0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,200.0	5,179.4	5,191.3	5,179.4	12.9	12.0	-89.65	166.0	145.5	165.1	141.7	23.35	7.070			
5,300.0	5,279.4	5,291.3	5,279.4	13.1	12.2	-89.65	166.0	145.5	165.1	141.3	23.77	6.945			
5,400.0	5,379.4	5,391.3	5,379.4	13.3	12.4	-89.65	166.0	145.5	165.1	140.9	24.19	6.824			
5,500.0	5,479.4	5,491.3	5,479.4	13.5	12.6	-89.65	166.0	145.5	165.1	140.5	24.61	6.707			
5,600.0	5,579.4	5,591.3	5,579.4	13.7	12.8	-89.65	166.0	145.5	165.1	140.1	25.04	6.594			
5,700.0	5,679.4	5,691.3	5,679.4	13.9	13.0	-89.65	166.0	145.5	165.1	139.6	25.46	6.484			
5,800.0	5,779.4	5,791.3	5,779.4	14.1	13.2	-89.65	166.0	145.5	165.1	139.2	25.89	6.377			
5,900.0	5,879.4	5,891.3	5,879.4	14.3	13.4	-89.65	166.0	145.5	165.1	138.8	26.31	6.274			
6,000.0	5,979.4	5,991.3	5,979.4	14.5	13.6	-89.65	166.0	145.5	165.1	138.4	26.74	6.174			
6,100.0	6,079.4	6,091.3	6,079.4	14.7	13.9	-89.65	166.0	145.5	165.1	137.9	27.17	6.077			
6,200.0	6,179.4	6,191.3	6,179.4	14.9	14.1	-89.65	166.0	145.5	165.1	137.5	27.60	5.982			
6,300.0	6,279.4	6,291.3	6,279.4	15.1	14.3	-89.65	166.0	145.5	165.1	137.1	28.03	5.891			
6,400.0	6,379.4	6,391.3	6,379.4	15.3	14.5	-89.65	166.0	145.5	165.1	136.6	28.46	5.802			
6,500.0	6,479.3	6,491.7	6,479.8	15.4	14.7	91.53	163.0	145.6	165.1	136.3	28.79	5.734			
6,600.0	6,577.1	6,592.6	6,578.4	15.6	14.8	91.47	142.6	146.0	165.1	136.1	29.00	5.692			
6,700.0	6,669.3	6,693.4	6,671.2	15.6	14.9	91.35	103.7	146.8	165.1	135.9	29.13	5.667			
6,800.0	6,752.5	6,794.1	6,754.7	15.7	15.0	91.19	47.7	147.9	165.1	135.8	29.28	5.638			
6,900.0	6,823.6	6,894.7	6,825.8	15.8	15.1	90.98	-23.2	149.4	165.1	135.5	29.56	5.583			
7,000.0	6,880.0	6,995.2	6,881.9	16.0	15.2	90.74	-106.4	151.1	165.1	134.9	30.12	5.481			
7,100.0	6,919.7	7,095.5	6,921.0	16.3	15.7	90.47	-198.6	153.0	165.0	134.0	31.02	5.320			
7,200.0	6,941.1	7,195.7	6,941.7	16.9	16.3	90.18	-296.4	155.0	165.0	132.7	32.31	5.108			
7,231.7	6,944.3	7,227.4	6,944.3	17.1	16.5	89.97	-328.0	155.7	165.0	132.2	32.81	5.029			
7,300.0	6,944.8	7,295.7	6,944.7	17.6	17.1	89.99	-396.3	157.1	165.0	131.1	33.95	4.861			
7,400.0	6,944.3	7,395.7	6,944.3	18.6	18.1	89.99	-496.3	159.2	165.0	129.1	35.92	4.594			
7,500.0	6,943.8	7,495.7	6,943.8	19.7	19.2	89.99	-596.3	161.2	165.0	126.9	38.18	4.327			
7,600.0	6,943.4	7,595.7	6,943.3	20.9	20.5	89.99	-696.3	163.3	165.0	124.4	40.68	4.052			
7,700.0	6,942.9	7,695.7	6,942.9	22.2	21.8	89.99	-796.2	165.3	165.0	121.7	43.38	3.805			
7,800.0	6,942.4	7,795.7	6,942.4	23.6	23.2	89.99	-896.2	167.4	165.0	118.8	46.23	3.570			
7,900.0	6,941.9	7,895.7	6,941.9	25.1	24.7	89.99	-996.2	169.5	165.0	115.8	49.23	3.353			
8,000.0	6,941.5	7,995.7	6,941.5	26.6	26.3	89.99	-1,096.2	171.5	165.0	112.7	52.33	3.154			
8,100.0	6,941.0	8,095.7	6,941.0	28.2	27.9	89.99	-1,196.1	173.6	165.0	109.5	55.53	2.972			
8,200.0	6,940.5	8,195.7	6,940.5	29.8	29.5	89.99	-1,296.1	175.7	165.0	106.2	58.81	2.807			
8,300.0	6,940.1	8,295.7	6,940.0	31.4	31.2	89.99	-1,396.1	177.7	165.0	102.9	62.15	2.656			
8,400.0	6,939.6	8,395.7	6,939.6	33.1	32.9	89.99	-1,496.1	179.8	165.1	99.5	65.55	2.518			
8,500.0	6,939.1	8,495.7	6,939.1	34.8	34.6	89.99	-1,596.1	181.8	165.1	96.1	68.99	2.392			
8,600.0	6,938.6	8,595.7	6,938.6	36.5	36.3	89.99	-1,696.0	183.9	165.1	92.6	72.48	2.277			
8,700.0	6,938.2	8,695.7	6,938.2	38.3	38.1	89.99	-1,796.0	186.0	165.1	89.1	76.00	2.172			
8,800.0	6,937.7	8,795.7	6,937.7	40.1	39.9	89.99	-1,896.0	188.0	165.1	85.5	79.55	2.075			
8,900.0	6,937.2	8,895.7	6,937.2	41.8	41.6	89.99	-1,996.0	190.1	165.1	81.9	83.12	1.986			
9,000.0	6,936.8	8,995.7	6,936.7	43.6	43.4	89.99	-2,095.9	192.1	165.1	78.3	86.72	1.903			
9,100.0	6,936.3	9,095.7	6,936.3	45.4	45.2	89.99	-2,195.9	194.2	165.1	74.7	90.35	1.827			
9,200.0	6,935.8	9,195.7	6,935.8	47.2	47.1	89.99	-2,295.9	196.3	165.1	71.1	93.98	1.756			
9,300.0	6,935.3	9,295.7	6,935.3	49.0	48.9	89.99	-2,395.9	198.3	165.1	67.4	97.64	1.691			
9,400.0	6,934.9	9,395.7	6,934.9	50.9	50.7	89.99	-2,495.9	200.4	165.1	63.8	101.31	1.629			
9,500.0	6,934.4	9,495.7	6,934.4	52.7	52.6	89.99	-2,595.8	202.4	165.1	60.1	104.99	1.572			
9,600.0	6,933.9	9,595.7	6,933.9	54.5	54.4	89.99	-2,695.8	204.5	165.1	56.4	108.68	1.519			
9,700.0	6,933.5	9,695.7	6,933.4	56.4	56.3	89.99	-2,795.8	206.6	165.1	52.7	112.39	1.469 Level 3			
9,800.0	6,933.0	9,795.7	6,933.0	58.2	58.1	89.99	-2,895.8	208.6	165.1	49.0	116.10	1.422 Level 3			
9,900.0	6,932.5	9,895.7	6,932.5	60.1	60.0	89.99	-2,995.7	210.7	165.1	45.2	119.82	1.378 Level 3			
10,000.0	6,932.0	9,995.7	6,932.0	62.0	61.8	89.99	-3,095.7	212.7	165.1	41.5	123.55	1.336 Level 3			
10,100.0	6,931.6	10,095.7	6,931.6	63.8	63.7	89.99	-3,195.7	214.8	165.1	37.8	127.29	1.297 Level 3			
10,200.0	6,931.1	10,195.7	6,931.1	65.7	65.6	89.99	-3,295.7	216.9	165.1	34.0	131.03	1.260 Level 3			

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	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			
10,300.0	6,930.6	10,295.7	6,930.6	67.5	67.4	89.99	-3,395.6	218.9	165.1	30.3	134.78	1.225	Level 2		
10,400.0	6,930.2	10,395.7	6,930.1	69.4	69.3	89.99	-3,495.6	221.0	165.1	26.5	138.53	1.192	Level 2		
10,500.0	6,929.7	10,495.7	6,929.7	71.3	71.2	89.99	-3,595.6	223.1	165.1	22.8	142.29	1.160	Level 2		
10,600.0	6,929.2	10,595.7	6,929.2	73.2	73.1	89.99	-3,695.6	225.1	165.1	19.0	146.05	1.130	Level 2		
10,700.0	6,928.7	10,695.7	6,928.7	75.1	75.0	89.99	-3,795.6	227.2	165.1	15.3	149.82	1.102	Level 2		
10,800.0	6,928.3	10,795.7	6,928.3	76.9	76.8	89.99	-3,895.5	229.2	165.1	11.5	153.59	1.075	Level 2		
10,900.0	6,927.8	10,895.7	6,927.8	78.8	78.7	89.99	-3,995.5	231.3	165.1	7.7	157.37	1.049	Level 2		
11,000.0	6,927.3	10,995.7	6,927.3	80.7	80.6	89.99	-4,095.5	233.4	165.1	3.9	161.15	1.024	Level 2		
11,100.0	6,926.9	11,095.7	6,926.8	82.6	82.5	89.99	-4,195.5	235.4	165.1	0.1	164.93	1.001	Level 2		
11,200.0	6,926.4	11,195.7	6,926.4	84.5	84.4	89.99	-4,295.4	237.5	165.1	-3.6	168.71	0.978	Level 1		
11,300.0	6,925.9	11,295.7	6,925.9	86.4	86.3	89.99	-4,395.4	239.5	165.1	-7.4	172.50	0.957	Level 1		
11,400.0	6,925.4	11,395.7	6,925.4	88.3	88.2	89.99	-4,495.4	241.6	165.1	-11.2	176.29	0.936	Level 1		
11,456.2	6,925.2	11,451.9	6,925.2	89.1	89.3	89.99	-4,551.6	242.8	165.1	-13.1	178.22	0.926	Level 1		
11,494.4	6,925.0	11,486.7	6,925.0	89.7	89.9	89.99	-4,586.4	243.5	165.1	-14.4	179.47	0.920	Level 1, ES, SF		

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	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			
0.0	0.0	0.0	0.0	0.0	0.0	90.07	0.0	14.0	14.0	14.0	0.00	N/A			
100.0	100.0	99.0	99.0	0.1	0.1	90.07	0.0	14.0	14.0	13.8	0.22	62.556			
200.0	200.0	199.0	199.0	0.3	0.3	90.07	0.0	14.0	14.0	13.3	0.67	20.817			
300.0	300.0	299.0	299.0	0.6	0.6	90.07	0.0	14.0	14.0	12.9	1.12	12.474			
400.0	400.0	399.0	399.0	0.8	0.8	90.07	0.0	14.0	14.0	12.4	1.57	8.905			
500.0	500.0	499.0	499.0	1.0	1.0	90.07	0.0	14.0	14.0	12.0	2.02	6.924			
600.0	600.0	599.0	599.0	1.2	1.2	90.07	0.0	14.0	14.0	11.5	2.47	5.664			
700.0	700.0	699.0	699.0	1.5	1.5	90.07	0.0	14.0	14.0	11.1	2.92	4.792			
800.0	800.0	799.0	799.0	1.7	1.7	90.07	0.0	14.0	14.0	10.6	3.37	4.152			
900.0	900.0	899.0	899.0	1.9	1.9	90.07	0.0	14.0	14.0	10.2	3.82	3.664			
1,000.0	1,000.0	999.0	999.0	2.1	2.1	90.07	0.0	14.0	14.0	9.7	4.27	3.278 CC			
1,100.0	1,100.0	1,098.5	1,098.5	2.4	2.3	87.96	0.6	15.6	15.6	10.9	4.71	3.313			
1,200.0	1,200.0	1,197.8	1,197.6	2.6	2.6	83.59	2.3	20.4	20.6	15.4	5.15	4.001			
1,300.0	1,300.0	1,296.6	1,296.0	2.8	2.8	79.69	5.2	28.4	29.0	23.4	5.59	5.193			
1,400.0	1,400.0	1,395.1	1,393.9	3.0	3.0	76.96	9.1	39.4	40.8	34.8	6.05	6.741			
1,500.0	1,500.0	1,494.4	1,492.4	3.3	3.3	13.64	13.4	51.3	52.2	45.7	6.45	8.084			
1,600.0	1,599.9	1,594.0	1,591.2	3.5	3.5	13.34	17.7	63.2	61.0	54.1	6.88	8.871			
1,700.0	1,699.7	1,693.8	1,690.2	3.7	3.8	13.63	22.0	75.1	67.3	60.0	7.30	9.216			
1,800.0	1,799.3	1,793.8	1,789.3	3.9	4.1	14.39	26.2	87.0	71.1	63.3	7.73	9.192			
1,900.0	1,898.6	1,893.7	1,888.5	4.2	4.4	15.59	30.5	99.0	72.4	64.3	8.17	8.867			
2,000.0	1,997.8	1,993.7	1,987.6	4.4	4.7	16.91	34.8	110.9	73.1	64.5	8.62	8.483			
2,100.0	2,097.1	2,093.7	2,086.8	4.7	5.0	18.21	39.1	122.9	73.9	64.8	9.08	8.137			
2,200.0	2,196.3	2,193.7	2,186.0	4.9	5.3	19.47	43.4	134.8	74.7	65.1	9.54	7.824			
2,300.0	2,295.5	2,293.7	2,285.2	5.2	5.6	20.72	47.7	146.7	75.5	65.5	10.02	7.539			
2,400.0	2,394.8	2,393.7	2,384.3	5.5	5.9	21.93	52.0	158.7	76.4	65.9	10.49	7.279			
2,500.0	2,494.0	2,493.6	2,483.5	5.8	6.2	23.11	56.3	170.6	77.3	66.3	10.97	7.040			
2,600.0	2,593.2	2,593.6	2,582.7	6.1	6.5	24.27	60.6	182.6	78.2	66.7	11.46	6.821			
2,700.0	2,692.5	2,693.6	2,681.9	6.4	6.9	25.40	64.9	194.5	79.1	67.2	11.96	6.620			
2,800.0	2,791.7	2,793.6	2,781.0	6.6	7.2	26.51	69.2	206.4	80.1	67.7	12.46	6.433			
2,900.0	2,890.9	2,893.6	2,880.2	6.9	7.5	27.58	73.5	218.4	81.1	68.2	12.96	6.261			
3,000.0	2,990.2	2,993.6	2,979.4	7.2	7.8	28.63	77.8	230.3	82.2	68.7	13.47	6.101			
3,100.0	3,089.4	3,093.5	3,078.6	7.5	8.1	29.65	82.1	242.3	83.3	69.3	13.99	5.952			
3,200.0	3,188.6	3,193.5	3,177.7	7.8	8.4	30.65	86.3	254.2	84.4	69.8	14.51	5.814			
3,300.0	3,287.9	3,293.5	3,276.9	8.1	8.8	31.62	90.6	266.1	85.5	70.4	15.04	5.684			
3,400.0	3,387.1	3,393.5	3,376.1	8.4	9.1	32.56	94.9	278.1	86.6	71.1	15.57	5.563			
3,500.0	3,486.3	3,493.5	3,475.3	8.8	9.4	33.48	99.2	290.0	87.8	71.7	16.11	5.450			
3,600.0	3,585.6	3,593.5	3,574.4	9.1	9.7	34.38	103.5	302.0	89.0	72.3	16.65	5.344			
3,700.0	3,684.8	3,693.4	3,673.6	9.4	10.0	35.25	107.8	313.9	90.2	73.0	17.20	5.244			
3,800.0	3,784.0	3,793.4	3,772.8	9.7	10.4	36.10	112.1	325.8	91.4	73.7	17.75	5.151			
3,900.0	3,883.3	3,893.4	3,872.0	10.0	10.7	36.92	116.4	337.8	92.7	74.4	18.31	5.062			
4,000.0	3,982.5	3,993.4	3,971.1	10.3	11.0	37.73	120.7	349.7	93.9	75.1	18.87	4.979			
4,100.0	4,081.7	4,093.4	4,070.3	10.6	11.3	38.51	125.0	361.7	95.2	75.8	19.43	4.901			
4,200.0	4,181.0	4,193.4	4,169.5	10.9	11.6	39.27	129.3	373.6	96.5	76.5	20.00	4.827			
4,300.0	4,280.3	4,293.3	4,268.7	11.2	12.0	39.99	133.6	385.5	98.1	77.6	20.56	4.774			
4,400.0	4,379.8	4,393.3	4,367.8	11.4	12.3	39.66	137.9	397.5	101.5	80.5	21.01	4.831			
4,500.0	4,479.5	4,493.1	4,466.8	11.6	12.6	38.57	142.1	409.4	106.9	85.5	21.40	4.997			
4,600.0	4,579.4	4,592.8	4,565.7	11.8	12.9	36.81	146.4	421.3	114.5	92.8	21.72	5.270			
4,700.0	4,679.4	4,692.2	4,664.3	12.0	13.3	34.60	150.7	433.2	124.3	102.3	21.99	5.649			
4,800.0	4,779.4	4,791.4	4,762.7	12.2	13.6	94.27	155.0	445.0	135.7	113.4	22.35	6.071			
4,900.0	4,879.4	4,891.8	4,862.3	12.4	13.9	92.26	159.2	456.9	147.3	124.6	22.68	6.494			
5,000.0	4,979.4	4,996.5	4,966.5	12.5	14.1	90.82	162.8	466.7	156.6	133.6	23.01	6.805			
5,100.0	5,079.4	5,101.8	5,071.6	12.7	14.3	90.00	165.0	473.0	162.5	139.2	23.37	6.955			

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft	
Survey Program: 0-MWD													Offset Well Error:		0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,200.0	5,179.4	5,207.4	5,177.2	12.9	14.5	89.67	166.0	475.6	165.0	141.3	23.74	6.951			
5,300.0	5,279.4	5,308.7	5,278.4	13.1	14.7	89.66	166.0	475.7	165.1	141.0	24.13	6.841			
5,400.0	5,379.4	5,408.7	5,378.4	13.3	14.8	89.66	166.0	475.7	165.1	140.6	24.54	6.728			
5,500.0	5,479.4	5,508.7	5,478.4	13.5	15.0	89.66	166.0	475.7	165.1	140.1	24.95	6.618			
5,600.0	5,579.4	5,608.7	5,578.4	13.7	15.2	89.66	166.0	475.7	165.1	139.7	25.36	6.511			
5,700.0	5,679.4	5,708.7	5,678.4	13.9	15.4	89.66	166.0	475.7	165.1	139.3	25.77	6.407			
5,800.0	5,779.4	5,808.7	5,778.4	14.1	15.5	89.66	166.0	475.7	165.1	138.9	26.18	6.307			
5,900.0	5,879.4	5,908.7	5,878.4	14.3	15.7	89.66	166.0	475.7	165.1	138.5	26.59	6.209			
6,000.0	5,979.4	6,008.7	5,978.4	14.5	15.9	89.66	166.0	475.7	165.1	138.1	27.00	6.113			
6,100.0	6,079.4	6,108.7	6,078.4	14.7	16.1	89.66	166.0	475.7	165.1	137.7	27.42	6.021			
6,200.0	6,179.4	6,208.7	6,178.4	14.9	16.2	89.66	166.0	475.7	165.1	137.3	27.84	5.931			
6,300.0	6,279.4	6,308.7	6,278.4	15.1	16.4	89.66	166.0	475.7	165.1	136.8	28.25	5.843			
6,400.0	6,379.4	6,408.7	6,378.4	15.3	16.6	89.66	166.0	475.7	165.1	136.4	28.67	5.758			
6,500.0	6,479.3	6,508.4	6,478.1	15.4	16.8	-89.16	163.1	475.8	165.1	136.1	28.99	5.695			
6,600.0	6,577.1	6,608.0	6,575.4	15.6	16.9	-89.20	143.2	476.2	165.1	135.9	29.21	5.652			
6,700.0	6,669.3	6,707.5	6,667.3	15.6	17.0	-89.26	105.2	476.9	165.1	135.7	29.35	5.625			
6,800.0	6,752.5	6,807.2	6,750.3	15.7	17.0	-89.35	50.4	478.1	165.1	135.6	29.51	5.594			
6,900.0	6,823.6	6,906.8	6,821.4	15.8	17.1	-89.46	-19.2	479.5	165.1	135.3	29.80	5.539			
7,000.0	6,880.0	7,006.6	6,878.0	16.0	17.3	-89.59	-101.2	481.2	165.1	134.7	30.36	5.438			
7,100.0	6,919.7	7,106.4	6,918.0	16.3	17.6	-89.74	-192.4	483.1	165.1	133.8	31.26	5.281			
7,200.0	6,941.1	7,206.3	6,939.9	16.9	18.0	-89.90	-289.7	485.1	165.1	132.5	32.54	5.073			
7,265.4	6,946.4	7,271.6	6,943.9	17.3	18.5	-89.51	-354.8	486.4	165.1	131.5	33.60	4.914			
7,300.0	6,944.8	7,306.3	6,943.8	17.6	18.7	-90.01	-389.5	487.1	165.1	130.9	34.17	4.832			
7,400.0	6,944.3	7,406.3	6,943.3	18.6	19.6	-90.01	-489.5	489.2	165.1	129.0	36.12	4.570			
7,500.0	6,943.8	7,506.3	6,942.8	19.7	20.6	-90.01	-589.5	491.3	165.1	126.7	38.37	4.302			
7,600.0	6,943.4	7,606.3	6,942.4	20.9	21.8	-90.01	-689.4	493.3	165.1	124.2	40.85	4.041			
7,700.0	6,942.9	7,706.3	6,941.9	22.2	23.0	-90.01	-789.4	495.4	165.1	121.5	43.54	3.792			
7,800.0	6,942.4	7,806.3	6,941.4	23.6	24.4	-90.01	-889.4	497.5	165.1	118.7	46.38	3.559			
7,900.0	6,941.9	7,906.3	6,941.0	25.1	25.8	-90.01	-989.4	499.5	165.1	115.7	49.37	3.344			
8,000.0	6,941.5	8,006.3	6,940.5	26.6	27.3	-90.01	-1,089.4	501.6	165.1	112.6	52.46	3.147			
8,100.0	6,941.0	8,106.3	6,940.0	28.2	28.8	-90.01	-1,189.3	503.6	165.1	109.4	55.65	2.966			
8,200.0	6,940.5	8,206.3	6,939.5	29.8	30.4	-90.01	-1,289.3	505.7	165.1	106.2	58.92	2.802			
8,300.0	6,940.1	8,306.3	6,939.1	31.4	32.0	-90.01	-1,389.3	507.8	165.1	102.8	62.25	2.652			
8,400.0	6,939.6	8,406.3	6,938.6	33.1	33.7	-90.01	-1,489.3	509.8	165.1	99.4	65.65	2.515			
8,500.0	6,939.1	8,506.3	6,938.1	34.8	35.4	-90.01	-1,589.2	511.9	165.1	96.0	69.08	2.390			
8,600.0	6,938.6	8,606.3	6,937.7	36.5	37.1	-90.01	-1,689.2	514.0	165.1	92.5	72.56	2.275			
8,700.0	6,938.2	8,706.3	6,937.2	38.3	38.8	-90.01	-1,789.2	516.0	165.1	89.0	76.08	2.170			
8,800.0	6,937.7	8,806.3	6,936.7	40.1	40.5	-90.01	-1,889.2	518.1	165.1	85.5	79.62	2.073			
8,900.0	6,937.2	8,906.3	6,936.2	41.8	42.3	-90.01	-1,989.2	520.1	165.1	81.9	83.20	1.984			
9,000.0	6,936.8	9,006.3	6,935.8	43.6	44.0	-90.01	-2,089.1	522.2	165.1	78.3	86.79	1.902			
9,100.0	6,936.3	9,106.3	6,935.3	45.4	45.8	-90.01	-2,189.1	524.3	165.1	74.7	90.41	1.826			
9,200.0	6,935.8	9,206.3	6,934.8	47.2	47.6	-90.01	-2,289.1	526.3	165.1	71.0	94.05	1.755			
9,300.0	6,935.3	9,306.3	6,934.4	49.0	49.4	-90.01	-2,389.1	528.4	165.1	67.4	97.70	1.690			
9,400.0	6,934.9	9,406.3	6,933.9	50.9	51.2	-90.01	-2,489.0	530.5	165.1	63.7	101.36	1.629			
9,500.0	6,934.4	9,506.3	6,933.4	52.7	53.1	-90.01	-2,589.0	532.5	165.1	60.0	105.04	1.572			
9,600.0	6,933.9	9,606.3	6,932.9	54.5	54.9	-90.01	-2,689.0	534.6	165.1	56.3	108.73	1.518			
9,700.0	6,933.5	9,706.3	6,932.5	56.4	56.7	-90.01	-2,789.0	536.6	165.1	52.6	112.43	1.468 Level 3			
9,800.0	6,933.0	9,806.3	6,932.0	58.2	58.6	-90.01	-2,889.0	538.7	165.1	48.9	116.14	1.421 Level 3			
9,900.0	6,932.5	9,906.3	6,931.5	60.1	60.4	-90.01	-2,988.9	540.8	165.1	45.2	119.86	1.377 Level 3			
10,000.0	6,932.0	10,006.3	6,931.1	62.0	62.3	-90.01	-3,088.9	542.8	165.1	41.5	123.59	1.336 Level 3			
10,100.0	6,931.6	10,106.3	6,930.6	63.8	64.1	-90.01	-3,188.9	544.9	165.1	37.8	127.33	1.297 Level 3			
10,200.0	6,931.1	10,206.3	6,930.1	65.7	66.0	-90.01	-3,288.9	546.9	165.1	34.0	131.07	1.260 Level 3			

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	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			
10,300.0	6,930.6	10,306.3	6,929.6	67.5	67.8	-90.01	-3,388.8	549.0	165.1	30.3	134.81	1.224	Level 2		
10,400.0	6,930.2	10,406.3	6,929.2	69.4	69.7	-90.01	-3,488.8	551.1	165.1	26.5	138.57	1.191	Level 2		
10,500.0	6,929.7	10,506.3	6,928.7	71.3	71.6	-90.01	-3,588.8	553.1	165.1	22.8	142.32	1.160	Level 2		
10,600.0	6,929.2	10,606.3	6,928.2	73.2	73.4	-90.01	-3,688.8	555.2	165.1	19.0	146.09	1.130	Level 2		
10,700.0	6,928.7	10,706.3	6,927.8	75.1	75.3	-90.01	-3,788.8	557.3	165.1	15.2	149.85	1.102	Level 2		
10,800.0	6,928.3	10,806.3	6,927.3	76.9	77.2	-90.01	-3,888.7	559.3	165.1	11.5	153.62	1.075	Level 2		
10,900.0	6,927.8	10,906.3	6,926.8	78.8	79.1	-90.01	-3,988.7	561.4	165.1	7.7	157.40	1.049	Level 2		
11,000.0	6,927.3	11,006.3	6,926.3	80.7	80.9	-90.01	-4,088.7	563.4	165.1	3.9	161.17	1.024	Level 2		
11,100.0	6,926.9	11,106.3	6,925.9	82.6	82.8	-90.01	-4,188.7	565.5	165.1	0.1	164.96	1.001	Level 2		
11,200.0	6,926.4	11,206.3	6,925.4	84.5	84.7	-90.01	-4,288.6	567.6	165.1	-3.7	168.74	0.978	Level 1		
11,300.0	6,925.9	11,306.3	6,924.9	86.4	86.6	-90.01	-4,388.6	569.6	165.1	-7.4	172.53	0.957	Level 1		
11,400.0	6,925.4	11,406.3	6,924.5	88.3	88.5	-90.01	-4,488.6	571.7	165.1	-11.2	176.32	0.936	Level 1		
11,494.4	6,925.0	11,500.7	6,924.0	89.7	90.3	-90.01	-4,583.0	573.6	165.1	-14.5	179.55	0.919	Level 1, ES, SF		

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.03	0.0	30.8	30.8					
100.0	100.0	99.0	99.0	0.1	0.1	90.03	0.0	30.8	30.8	30.6	0.22	137.624		
200.0	200.0	199.0	199.0	0.3	0.3	90.03	0.0	30.8	30.8	30.1	0.67	45.798		
300.0	300.0	299.0	299.0	0.6	0.6	90.03	0.0	30.8	30.8	29.7	1.12	27.442		
400.0	400.0	399.0	399.0	0.8	0.8	90.03	0.0	30.8	30.8	29.2	1.57	19.590		
500.0	500.0	499.0	499.0	1.0	1.0	90.03	0.0	30.8	30.8	28.8	2.02	15.232		
600.0	600.0	599.0	599.0	1.2	1.2	90.03	0.0	30.8	30.8	28.3	2.47	12.460		
700.0	700.0	699.0	699.0	1.5	1.5	90.03	0.0	30.8	30.8	27.9	2.92	10.542		
800.0	800.0	799.0	799.0	1.7	1.7	90.03	0.0	30.8	30.8	27.4	3.37	9.135 CC, ES		
900.0	900.0	897.9	897.9	1.9	1.9	89.25	0.4	32.4	32.4	28.6	3.81	8.513		
1,000.0	1,000.0	996.6	996.5	2.1	2.1	87.31	1.8	37.3	37.4	33.2	4.24	8.817		
1,100.0	1,100.0	1,094.9	1,094.4	2.4	2.3	85.01	4.0	45.4	45.8	41.1	4.69	9.771		
1,200.0	1,200.0	1,192.8	1,191.6	2.6	2.6	82.93	7.0	56.7	57.6	52.4	5.15	11.175		
1,300.0	1,300.0	1,292.0	1,289.9	2.8	2.8	81.43	10.4	69.1	70.5	64.8	5.63	12.513		
1,400.0	1,400.0	1,391.1	1,388.2	3.0	3.1	80.40	13.8	81.5	83.4	77.2	6.12	13.625		
1,500.0	1,500.0	1,490.4	1,486.7	3.3	3.4	78.81	17.2	94.0	95.1	88.6	6.44	14.752		
1,600.0	1,599.9	1,590.0	1,585.4	3.5	3.7	77.79	20.6	106.4	104.3	97.4	6.88	15.166		
1,700.0	1,699.7	1,689.8	1,684.3	3.7	4.0	77.20	24.0	118.9	111.0	103.7	7.31	15.187		
1,800.0	1,799.3	1,789.7	1,783.4	3.9	4.3	76.62	27.4	131.5	115.3	107.6	7.75	14.882		
1,900.0	1,898.6	1,889.6	1,882.5	4.2	4.6	76.04	30.8	144.0	117.2	109.0	8.19	14.311		
2,000.0	1,997.8	1,989.6	1,981.6	4.4	4.9	75.46	34.2	156.5	118.5	109.9	8.65	13.703		
2,100.0	2,097.1	2,089.5	2,080.7	4.7	5.2	74.88	37.6	169.0	119.9	110.8	9.12	13.153		
2,200.0	2,196.3	2,189.5	2,179.8	4.9	5.6	74.30	41.0	181.6	121.4	111.8	9.59	12.655		
2,300.0	2,295.5	2,289.4	2,278.9	5.2	5.9	73.72	44.4	194.1	122.8	112.8	10.07	12.201		
2,400.0	2,394.8	2,389.4	2,378.0	5.5	6.2	73.14	47.8	206.6	124.4	113.8	10.55	11.786		
2,500.0	2,494.0	2,489.4	2,477.2	5.8	6.5	72.56	51.2	219.1	125.9	114.9	11.04	11.406		
2,600.0	2,593.2	2,589.3	2,576.3	6.1	6.8	71.98	54.7	231.7	127.6	116.0	11.54	11.056		
2,700.0	2,692.5	2,689.3	2,675.4	6.4	7.2	71.40	58.1	244.2	129.2	117.2	12.04	10.734		
2,800.0	2,791.7	2,789.2	2,774.5	6.6	7.5	70.82	61.5	256.7	130.9	118.4	12.55	10.436		
2,900.0	2,890.9	2,889.2	2,873.6	6.9	7.8	70.24	64.9	269.2	132.7	119.6	13.06	10.160		
3,000.0	2,990.2	2,989.2	2,972.7	7.2	8.1	69.66	68.3	281.8	134.5	120.9	13.58	9.904		
3,100.0	3,089.4	3,089.1	3,071.8	7.5	8.5	69.08	71.7	294.3	136.3	122.2	14.10	9.665		
3,200.0	3,188.6	3,189.1	3,170.9	7.8	8.8	68.50	75.1	306.8	138.2	123.6	14.63	9.443		
3,300.0	3,287.9	3,289.0	3,270.1	8.1	9.1	67.92	78.5	319.4	140.1	124.9	15.17	9.236		
3,400.0	3,387.1	3,389.0	3,369.2	8.4	9.4	67.34	81.9	331.9	142.0	126.3	15.71	9.041		
3,500.0	3,486.3	3,488.9	3,468.3	8.8	9.8	66.76	85.3	344.4	144.0	127.7	16.25	8.859		
3,600.0	3,585.6	3,588.9	3,567.4	9.1	10.1	66.18	88.7	356.9	146.0	129.2	16.80	8.689		
3,700.0	3,684.8	3,688.9	3,666.5	9.4	10.4	65.60	92.1	369.5	148.0	130.6	17.35	8.528		
3,800.0	3,784.0	3,788.8	3,765.6	9.7	10.7	65.02	95.6	382.0	150.1	132.1	17.91	8.377		
3,900.0	3,883.3	3,888.8	3,864.7	10.0	11.1	64.44	99.0	394.5	152.1	133.7	18.47	8.235		
4,000.0	3,982.5	3,988.7	3,963.8	10.3	11.4	63.86	102.4	407.0	154.2	135.2	19.04	8.101		
4,100.0	4,081.7	4,088.7	4,062.9	10.6	11.7	63.28	105.8	419.6	156.4	136.8	19.61	7.975		
4,200.0	4,181.0	4,188.7	4,162.1	10.9	12.1	62.70	109.2	432.1	158.5	138.3	20.18	7.855		
4,300.0	4,280.3	4,288.6	4,261.2	11.2	12.4	62.12	112.6	444.6	161.0	140.2	20.74	7.761		
4,400.0	4,379.8	4,388.5	4,360.2	11.4	12.7	61.54	116.0	457.1	165.1	143.9	21.22	7.782		
4,500.0	4,479.5	4,488.3	4,459.2	11.6	13.0	60.96	119.4	469.6	171.2	149.6	21.64	7.912		
4,600.0	4,579.4	4,587.9	4,558.0	11.8	13.4	60.38	122.8	482.1	179.2	157.2	22.00	8.147		
4,700.0	4,679.4	4,687.3	4,656.5	12.0	13.7	59.80	126.2	494.6	189.3	167.0	22.32	8.485		
4,800.0	4,779.4	4,786.5	4,754.8	12.2	14.0	59.22	129.6	507.0	201.0	178.3	22.72	8.847		
4,900.0	4,879.4	4,885.6	4,853.1	12.4	14.3	58.64	133.0	519.4	212.8	189.7	23.07	9.226		
5,000.0	4,979.4	4,984.8	4,951.4	12.5	14.7	58.06	136.3	531.9	224.7	201.3	23.43	9.593		
5,100.0	5,079.4	5,083.9	5,049.7	12.7	15.0	57.48	139.7	544.3	236.8	213.0	23.80	9.949		

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.0	5,179.4	5,183.1	5,148.1	12.9	15.3	95.08	143.1	556.7	248.9	224.8	24.18	10.294		
5,300.0	5,279.4	5,282.2	5,246.4	13.1	15.7	94.10	146.5	569.1	261.2	236.6	24.57	10.628		
5,400.0	5,379.4	5,381.4	5,344.7	13.3	16.0	93.20	149.9	581.6	273.5	248.5	24.97	10.951		
5,500.0	5,479.4	5,480.5	5,443.0	13.5	16.3	92.37	153.3	594.0	285.8	260.5	25.38	11.264		
5,600.0	5,579.4	5,579.7	5,541.3	13.7	16.6	91.62	156.6	606.4	298.3	272.5	25.79	11.566		
5,700.0	5,679.4	5,680.2	5,641.0	13.9	17.0	90.92	160.1	619.0	310.7	284.5	26.20	11.858		
5,800.0	5,779.4	5,791.5	5,751.6	14.1	17.2	90.33	163.2	630.4	320.9	294.3	26.60	12.065		
5,900.0	5,879.4	5,903.5	5,863.3	14.3	17.4	89.98	165.1	637.6	327.4	300.4	26.99	12.128		
6,000.0	5,979.4	6,015.9	5,975.7	14.5	17.6	89.83	166.0	640.7	330.1	302.7	27.39	12.051		
6,100.0	6,079.4	6,118.6	6,078.4	14.7	17.8	89.83	166.0	640.8	330.2	302.4	27.79	11.881		
6,200.0	6,179.4	6,218.6	6,178.4	14.9	17.9	89.83	166.0	640.8	330.2	302.0	28.20	11.710		
6,300.0	6,279.4	6,318.6	6,278.4	15.1	18.1	89.83	166.0	640.8	330.2	301.6	28.60	11.543		
6,400.0	6,379.4	6,418.6	6,378.4	15.3	18.3	89.83	166.0	640.8	330.2	301.2	29.01	11.380		
6,500.0	6,479.3	6,518.5	6,478.3	15.4	18.4	-89.50	166.0	640.8	330.1	300.8	29.31	11.264		
6,522.6	6,501.7	6,540.9	6,500.7	15.5	18.5	-90.00	166.0	640.8	330.1	300.8	29.36	11.246		
6,600.0	6,577.1	6,616.3	6,576.1	15.6	18.6	-92.85	166.0	640.8	330.6	301.1	29.45	11.223		
6,700.0	6,669.3	6,714.3	6,674.0	15.6	18.7	-98.44	163.0	640.8	334.3	304.9	29.45	11.352		
6,800.0	6,752.5	6,822.1	6,779.2	15.7	18.9	-104.21	140.4	641.3	342.1	312.7	29.34	11.659		
6,900.0	6,823.6	6,940.3	6,886.5	15.8	18.9	-109.55	91.4	642.3	352.6	323.6	29.08	12.126		
7,000.0	6,880.0	7,070.6	6,988.7	16.0	19.0	-114.19	11.0	644.0	364.3	335.6	28.74	12.676		
7,100.0	6,919.7	7,213.6	7,073.9	16.3	19.3	-117.80	-103.1	646.3	374.7	346.3	28.46	13.168		
7,200.0	6,941.1	7,367.1	7,127.4	16.9	19.7	-120.01	-246.5	649.3	381.6	352.9	28.66	13.313		
7,300.0	6,944.8	7,508.3	7,138.7	17.6	20.5	-120.56	-386.8	652.2	383.4	353.6	29.73	12.895		
7,400.0	6,944.3	7,608.3	7,138.3	18.6	21.3	-120.57	-486.8	654.2	383.4	352.1	31.35	12.229		
7,500.0	6,943.8	7,708.3	7,138.0	19.7	22.2	-120.59	-586.7	656.3	383.5	350.3	33.24	11.536		
7,600.0	6,943.4	7,808.3	7,137.6	20.9	23.3	-120.60	-686.7	658.4	383.6	348.2	35.36	10.848		
7,700.0	6,942.9	7,908.3	7,137.3	22.2	24.5	-120.62	-786.7	660.4	383.6	346.0	37.66	10.187		
7,800.0	6,942.4	8,008.3	7,136.9	23.6	25.7	-120.63	-886.7	662.5	383.7	343.6	40.11	9.565		
7,900.0	6,941.9	8,108.3	7,136.6	25.1	27.1	-120.65	-986.7	664.6	383.7	341.1	42.70	8.988		
8,000.0	6,941.5	8,208.3	7,136.2	26.6	28.5	-120.67	-1,086.6	666.6	383.8	338.4	45.38	8.457		
8,100.0	6,941.0	8,308.3	7,135.9	28.2	30.0	-120.68	-1,186.6	668.7	383.9	335.7	48.16	7.971		
8,200.0	6,940.5	8,408.3	7,135.5	29.8	31.5	-120.70	-1,286.6	670.7	383.9	332.9	51.01	7.527		
8,300.0	6,940.1	8,508.3	7,135.2	31.4	33.1	-120.71	-1,386.6	672.8	384.0	330.1	53.92	7.122		
8,400.0	6,939.6	8,608.3	7,134.8	33.1	34.7	-120.73	-1,486.5	674.9	384.1	327.2	56.88	6.753		
8,500.0	6,939.1	8,708.3	7,134.5	34.8	36.3	-120.74	-1,586.5	676.9	384.1	324.2	59.88	6.415		
8,600.0	6,938.6	8,808.3	7,134.1	36.5	38.0	-120.76	-1,686.5	679.0	384.2	321.3	62.92	6.106		
8,700.0	6,938.2	8,908.3	7,133.8	38.3	39.6	-120.78	-1,786.5	681.1	384.2	318.3	66.00	5.822		
8,800.0	6,937.7	9,008.3	7,133.4	40.1	41.3	-120.79	-1,886.5	683.1	384.3	315.2	69.10	5.562		
8,900.0	6,937.2	9,108.3	7,133.1	41.8	43.1	-120.81	-1,986.4	685.2	384.4	312.1	72.23	5.322		
9,000.0	6,936.8	9,208.3	7,132.7	43.6	44.8	-120.82	-2,086.4	687.2	384.4	309.1	75.38	5.100		
9,100.0	6,936.3	9,308.3	7,132.4	45.4	46.6	-120.84	-2,186.4	689.3	384.5	306.0	78.54	4.896		
9,200.0	6,935.8	9,408.3	7,132.0	47.2	48.3	-120.85	-2,286.4	691.4	384.6	302.8	81.72	4.706		
9,300.0	6,935.3	9,508.3	7,131.7	49.0	50.1	-120.87	-2,386.3	693.4	384.6	299.7	84.92	4.529		
9,400.0	6,934.9	9,608.3	7,131.3	50.9	51.9	-120.88	-2,486.3	695.5	384.7	296.6	88.13	4.365		
9,500.0	6,934.4	9,708.3	7,131.0	52.7	53.7	-120.90	-2,586.3	697.6	384.8	293.4	91.35	4.212		
9,600.0	6,933.9	9,808.3	7,130.6	54.5	55.5	-120.92	-2,686.3	699.6	384.8	290.2	94.58	4.069		
9,700.0	6,933.5	9,908.3	7,130.3	56.4	57.3	-120.93	-2,786.3	701.7	384.9	287.1	97.81	3.935		
9,800.0	6,933.0	10,008.3	7,129.9	58.2	59.1	-120.95	-2,886.2	703.7	384.9	283.9	101.06	3.809		
9,900.0	6,932.5	10,108.3	7,129.6	60.1	61.0	-120.96	-2,986.2	705.8	385.0	280.7	104.31	3.691		
10,000.0	6,932.0	10,208.3	7,129.2	62.0	62.8	-120.98	-3,086.2	707.9	385.1	277.5	107.57	3.580		
10,100.0	6,931.6	10,308.3	7,128.9	63.8	64.7	-120.99	-3,186.2	709.9	385.1	274.3	110.84	3.475		
10,200.0	6,931.1	10,408.3	7,128.5	65.7	66.5	-121.01	-3,286.2	712.0	385.2	271.1	114.11	3.376		

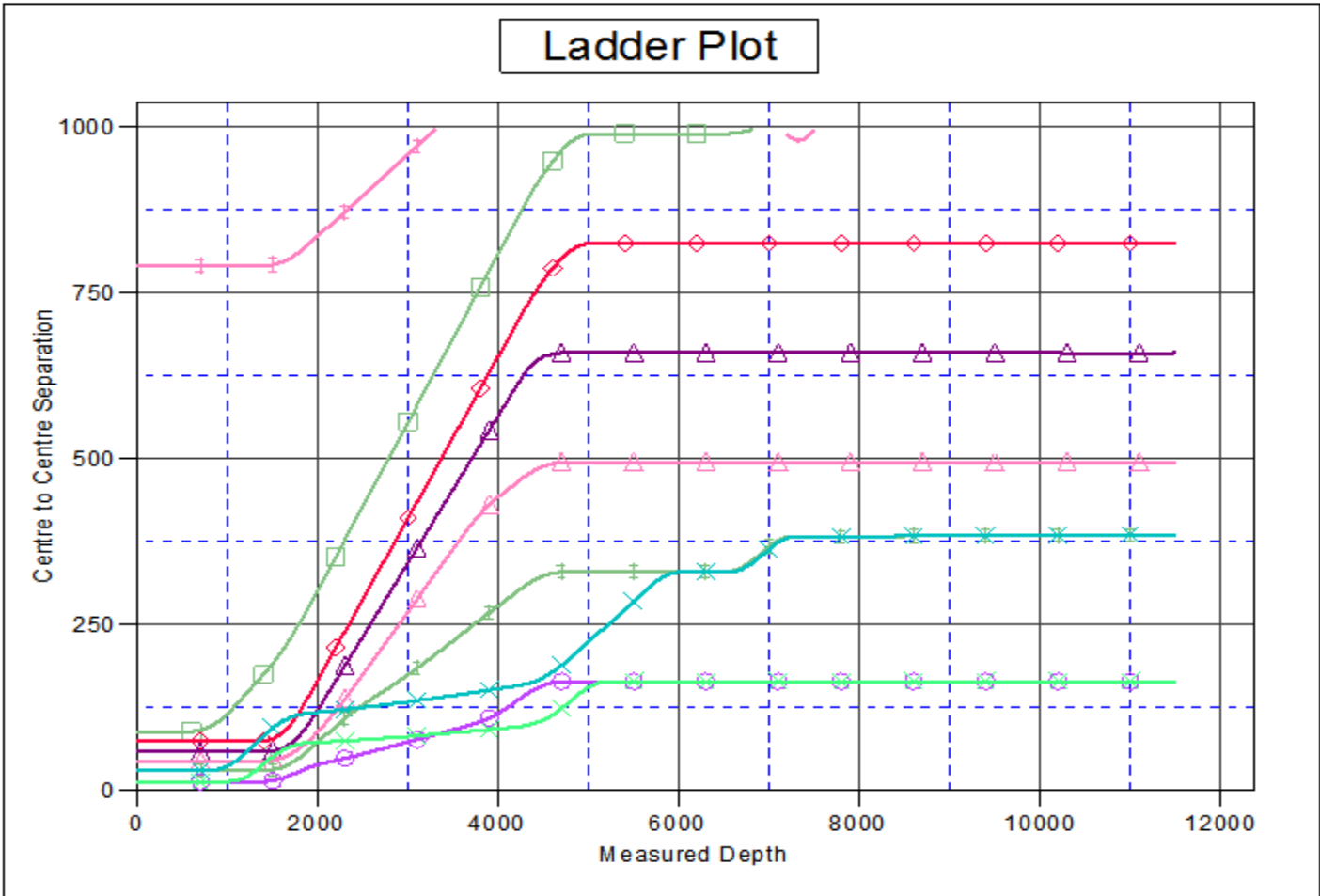
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	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			
10,300.0	6,930.6	10,508.3	7,128.2	67.5	68.3	-121.02	-3,386.1	714.1	385.3	267.9	117.38	3.282			
10,400.0	6,930.2	10,608.3	7,127.8	69.4	70.2	-121.04	-3,486.1	716.1	385.3	264.7	120.66	3.193			
10,500.0	6,929.7	10,708.3	7,127.5	71.3	72.1	-121.06	-3,586.1	718.2	385.4	261.4	123.95	3.109			
10,600.0	6,929.2	10,808.3	7,127.1	73.2	73.9	-121.07	-3,686.1	720.2	385.5	258.2	127.23	3.030			
10,700.0	6,928.7	10,908.3	7,126.8	75.1	75.8	-121.09	-3,786.0	722.3	385.5	255.0	130.52	2.954			
10,800.0	6,928.3	11,008.3	7,126.4	76.9	77.6	-121.10	-3,886.0	724.4	385.6	251.8	133.81	2.881			
10,900.0	6,927.8	11,108.3	7,126.1	78.8	79.5	-121.12	-3,986.0	726.4	385.6	248.5	137.11	2.813			
11,000.0	6,927.3	11,208.3	7,125.7	80.7	81.4	-121.13	-4,086.0	728.5	385.7	245.3	140.40	2.747			
11,100.0	6,926.9	11,308.3	7,125.4	82.6	83.3	-121.15	-4,186.0	730.6	385.8	242.1	143.70	2.685			
11,200.0	6,926.4	11,408.3	7,125.0	84.5	85.1	-121.16	-4,285.9	732.6	385.8	238.8	147.00	2.625			
11,300.0	6,925.9	11,508.3	7,124.7	86.4	87.0	-121.18	-4,385.9	734.7	385.9	235.6	150.31	2.567			
11,400.0	6,925.4	11,608.3	7,124.4	88.3	88.9	-121.19	-4,485.9	736.7	386.0	232.4	153.61	2.513			
11,494.4	6,925.0	11,702.7	7,124.0	89.7	90.7	-121.21	-4,580.3	738.7	386.0	229.6	156.41	2.468 SF			

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5025.0ft (Original Well Elev) Coordinates are relative to: Pastelak 01N-64W-02-7N
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
 Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.63°

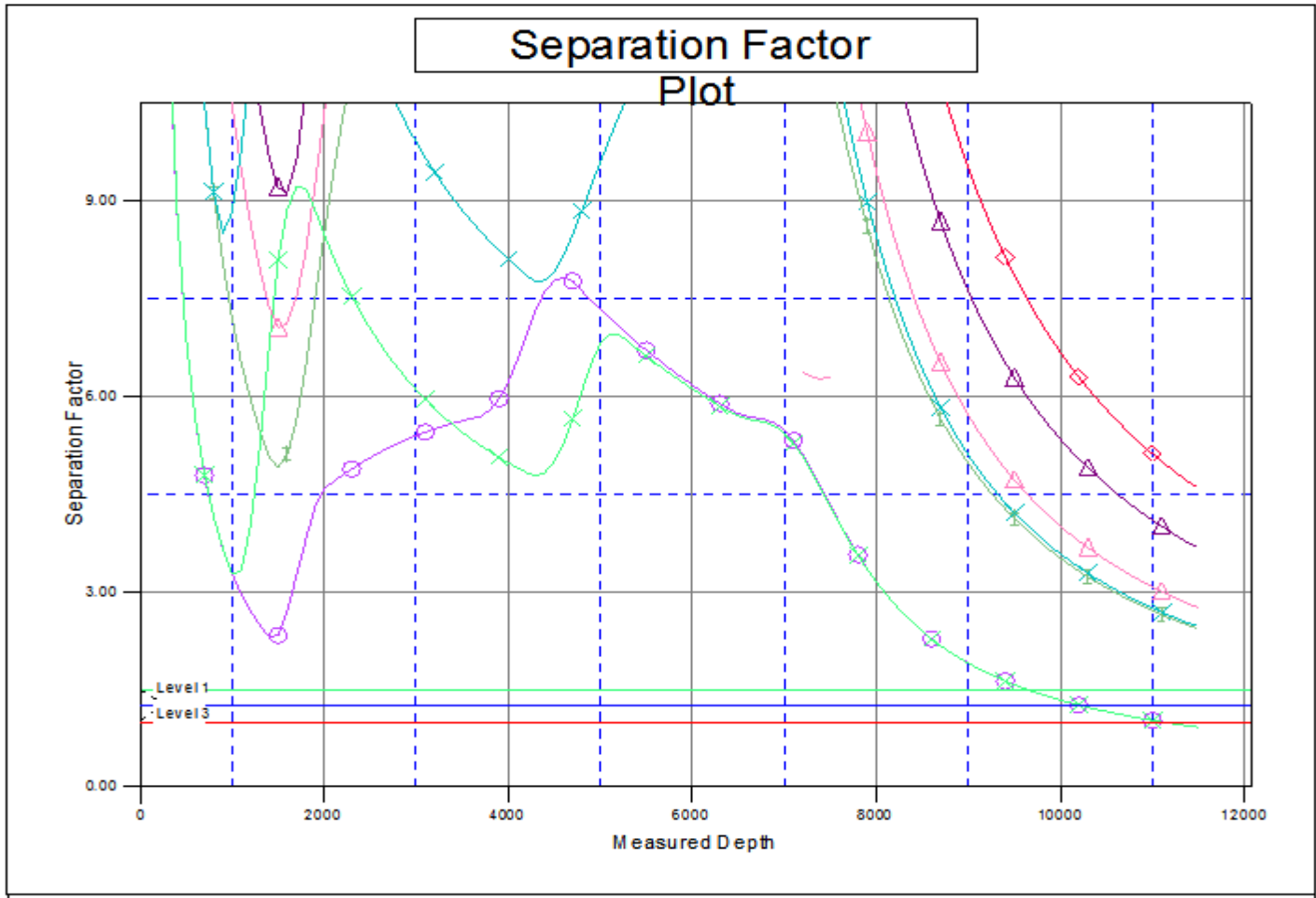


LEGEND

- 64W-02-1C, Wellbore #1, Plan #1 (8-8-14) ▽ Pastelak 01N-64W-02-4N, Wellbore #1, Plan #1 (8-8-14) ▽ Pastelak 01N-64W-02-8N, Wellbore
- 64W-02-2N, Wellbore #1, Plan #1 (8-8-14) ▽ Pastelak 01N-64W-02-5C, Wellbore #1, Plan #1 (8-8-14) ▽ Pastelak 01N-64W-02-9C, Wellbore
- 64W-02-3N, Wellbore #1, Plan #1 (8-8-14) ▽ Pastelak 01N-64W-02-6N, Wellbore #1, Plan #1 (8-8-14) ▽ Schweitzer 11-2 (P&A), Wellbore #1

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-7N
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-7N	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 (8-6-14)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5025.0ft (Original Well Elev) Coordinates are relative to: Pastelak 01N-64W-02-7N
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
 Central Meridian is -105.500000° Grid Convergence at Surface is: 0.63°



LEGEND

- 84W-02-1C, Wellbore #1, Plan #1 (8-6-14) V Pastelak 01N-64W-02-4N, Wellbore #1, Plan #1 (8-6-14) V Pastelak 01N-64W-02-8N, Wellbore
- 84W-02-2N, Wellbore #1, Plan #1 (8-6-14) V Pastelak 01N-64W-02-5C, Wellbore #1, Plan #1 (8-6-14) V Pastelak 01N-64W-02-9C, Wellbore
- 84W-02-3N, Wellbore #1, Plan #1 (8-6-14) V Pastelak 01N-64W-02-6N, Wellbore #1, Plan #1 (8-6-14) V Schweitzer 11-2 (P&A), Wellbore #1