Verdad Oil & Gas Corporation

Well Name: **Pastelak 01N-64W-02-4N**

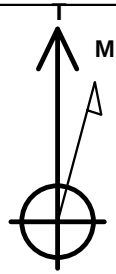
Surface Location: Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
Ground Elevation: 5013.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1276066.09	3273313.15	40.087060	-104.523150	

Original Well Elev WELL @ 5026.0ft (Original Well Elev)

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
460' Setback BHL	0.0	-4582.8	-844.8	Polygon
460' Setback SHL	0.0	-245.0	-844.8	Polygon
Sectionline	0.0	215.0	-844.8	Polygon
SHL 215'FNL & 1301'FWL	1.0	0.0	0.0	Point
BHL 460'FSL & 1155'FWL	6926.0	-4582.8	-42.0	Point



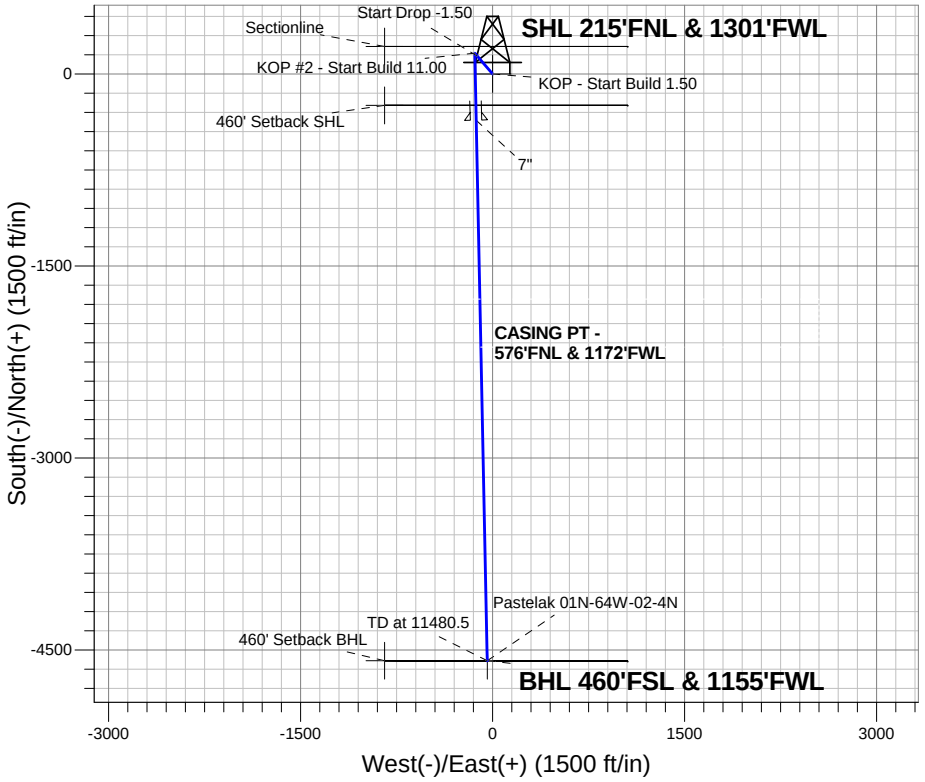
Azimuths to True North
Magnetic North: 8.28°

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

Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W
Pastelak 01N-64W-02-4N
Plan #1 (8-6-14)

ANNOTATIONS

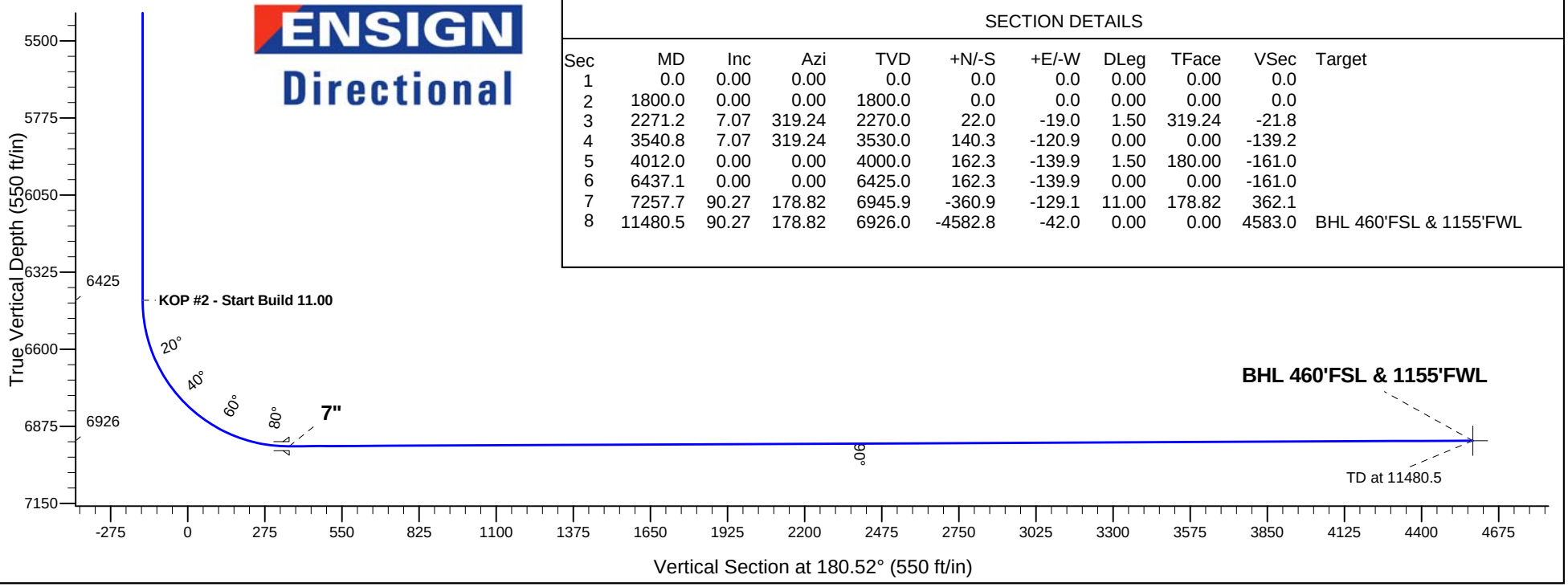
TVD	MD	Annotation
1800.0	1800.0	KOP - Start Build 1.50
3530.0	3540.8	Start Drop -1.50
6425.0	6437.1	KOP #2 - Start Build 11.00
6926.0	11480.5	TD at 11480.5



ENSIGN Directional

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1800.0	0.00	0.00	1800.0	0.0	0.0	0.00	0.00	0.0	
3	2271.2	7.07	319.24	2270.0	22.0	-19.0	1.50	319.24	-21.8	
4	3540.8	7.07	319.24	3530.0	140.3	-120.9	0.00	0.00	-139.2	
5	4012.0	0.00	0.00	4000.0	162.3	-139.9	1.50	180.00	-161.0	
6	6437.1	0.00	0.00	6425.0	162.3	-139.9	0.00	0.00	-161.0	
7	7257.7	90.27	178.82	6945.9	-360.9	-129.1	11.00	178.82	362.1	
8	11480.5	90.27	178.82	6926.0	-4582.8	-42.0	0.00	0.00	4583.0	BHL 460'FSL & 1155'FWL



Verdad Oil & Gas Corporation

SEC.2-T1N-R64W
Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W
Pastelak 01N-64W-02-4N

Wellbore #1

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

Standard Planning Report

08 August, 2014

Database:	landmark	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Company:	Verdad Oil & Gas Corporation	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Project:	SEC.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**North Reference:**	True
Well:	Pastelak 01N-64W-02-4N	**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:**	1,276,065.60 ft	**Latitude:**	40.087060
From:	Lat/Long	**Easting:**	3,273,268.38 ft	**Longitude:**	-104.523310
Position Uncertainty:	0.0 ft	**Slot Radius:**	"	**Grid Convergence:**	0.63 °

Well Pastelak 01N-64W-02-4N

Well Position	**+N/-S**	0.0 ft	**Northing:**	1,276,066.09 ft	**Latitude:**	40.087060
	+E/-W	44.8 ft	**Easting:**	3,273,313.15 ft	**Longitude:**	-104.523150
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	5,013.0 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	180.52

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	
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,271.2	7.07	319.24	2,270.0	22.0	-19.0	1.50	1.50	0.00	319.24	
3,540.8	7.07	319.24	3,530.0	140.3	-120.9	0.00	0.00	0.00	0.00	
4,012.0	0.00	0.00	4,000.0	162.3	-139.9	1.50	-1.50	0.00	180.00	
6,437.1	0.00	0.00	6,425.0	162.3	-139.9	0.00	0.00	0.00	0.00	
7,257.7	90.27	178.82	6,945.9	-360.9	-129.1	11.00	11.00	0.00	178.82	
11,480.5	90.27	178.82	6,926.0	-4,582.8	-42.0	0.00	0.00	0.00	0.00	BHL 460'FSL & 115

Database:	landmark	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Company:	Verdad Oil & Gas Corporation	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Project:	SEC.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**North Reference:**	True
Well:	Pastelak 01N-64W-02-4N	**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
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.50									
1,900.0	1.50	319.24	1,900.0	1.0	-0.9	-1.0	1.50	1.50	0.00
2,000.0	3.00	319.24	1,999.9	4.0	-3.4	-3.9	1.50	1.50	0.00
2,100.0	4.50	319.24	2,099.7	8.9	-7.7	-8.8	1.50	1.50	0.00
2,200.0	6.00	319.24	2,199.3	15.8	-13.7	-15.7	1.50	1.50	0.00
2,271.2	7.07	319.24	2,270.0	22.0	-19.0	-21.8	1.50	1.50	0.00
2,300.0	7.07	319.24	2,298.6	24.7	-21.3	-24.5	0.00	0.00	0.00
2,400.0	7.07	319.24	2,397.8	34.0	-29.3	-33.7	0.00	0.00	0.00
2,500.0	7.07	319.24	2,497.1	43.3	-37.3	-43.0	0.00	0.00	0.00
2,600.0	7.07	319.24	2,596.3	52.6	-45.4	-52.2	0.00	0.00	0.00
2,700.0	7.07	319.24	2,695.5	61.9	-53.4	-61.5	0.00	0.00	0.00
2,800.0	7.07	319.24	2,794.8	71.3	-61.4	-70.7	0.00	0.00	0.00
2,900.0	7.07	319.24	2,894.0	80.6	-69.5	-79.9	0.00	0.00	0.00
3,000.0	7.07	319.24	2,993.3	89.9	-77.5	-89.2	0.00	0.00	0.00
3,100.0	7.07	319.24	3,092.5	99.2	-85.5	-98.4	0.00	0.00	0.00
3,200.0	7.07	319.24	3,191.7	108.5	-93.6	-107.7	0.00	0.00	0.00
3,300.0	7.07	319.24	3,291.0	117.9	-101.6	-116.9	0.00	0.00	0.00
3,400.0	7.07	319.24	3,390.2	127.2	-109.6	-126.2	0.00	0.00	0.00
3,500.0	7.07	319.24	3,489.5	136.5	-117.7	-135.4	0.00	0.00	0.00
3,540.8	7.07	319.24	3,530.0	140.3	-120.9	-139.2	0.00	0.00	0.00
Start Drop -1.50									
3,600.0	6.18	319.24	3,588.8	145.5	-125.4	-144.3	1.50	-1.50	0.00
3,700.0	4.68	319.24	3,688.3	152.7	-131.6	-151.4	1.50	-1.50	0.00
3,800.0	3.18	319.24	3,788.1	157.8	-136.1	-156.6	1.50	-1.50	0.00
3,900.0	1.68	319.24	3,888.0	161.1	-138.8	-159.8	1.50	-1.50	0.00
4,000.0	0.18	319.24	3,988.0	162.3	-139.9	-161.0	1.50	-1.50	0.00
4,012.0	0.00	0.00	4,000.0	162.3	-139.9	-161.0	1.50	-1.50	0.00
4,100.0	0.00	0.00	4,088.0	162.3	-139.9	-161.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,188.0	162.3	-139.9	-161.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,288.0	162.3	-139.9	-161.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,388.0	162.3	-139.9	-161.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,488.0	162.3	-139.9	-161.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,588.0	162.3	-139.9	-161.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,688.0	162.3	-139.9	-161.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,788.0	162.3	-139.9	-161.0	0.00	0.00	0.00

Database:	landmark	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
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Project:	SEC.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**North Reference:**	True
Well:	Pastelak 01N-64W-02-4N	**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	4,888.0	162.3	-139.9	-161.0	0.00	0.00	0.00
5,000.0	0.00	0.00	4,988.0	162.3	-139.9	-161.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,088.0	162.3	-139.9	-161.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,188.0	162.3	-139.9	-161.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,288.0	162.3	-139.9	-161.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,388.0	162.3	-139.9	-161.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,488.0	162.3	-139.9	-161.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,588.0	162.3	-139.9	-161.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,688.0	162.3	-139.9	-161.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,788.0	162.3	-139.9	-161.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,888.0	162.3	-139.9	-161.0	0.00	0.00	0.00
6,000.0	0.00	0.00	5,988.0	162.3	-139.9	-161.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,088.0	162.3	-139.9	-161.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,188.0	162.3	-139.9	-161.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,288.0	162.3	-139.9	-161.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,388.0	162.3	-139.9	-161.0	0.00	0.00	0.00
6,437.1	0.00	0.00	6,425.1	162.3	-139.9	-161.0	0.00	0.00	0.00
KOP #2 - Start Build 11.00									
6,500.0	6.92	178.82	6,487.8	158.5	-139.8	-157.2	11.01	11.01	0.00
6,600.0	17.92	178.82	6,585.3	137.0	-139.4	-135.7	11.00	11.00	0.00
6,700.0	28.92	178.82	6,676.9	97.3	-138.6	-96.1	11.00	11.00	0.00
6,800.0	39.92	178.82	6,759.3	40.9	-137.4	-39.7	11.00	11.00	0.00
6,900.0	50.92	178.82	6,829.4	-30.2	-135.9	31.4	11.00	11.00	0.00
7,000.0	61.92	178.82	6,884.6	-113.4	-134.2	114.6	11.00	11.00	0.00
7,100.0	72.92	178.82	6,922.9	-205.5	-132.3	206.7	11.00	11.00	0.00
7,200.0	83.92	178.82	6,943.0	-303.3	-130.3	304.5	11.00	11.00	0.00
7,257.7	90.27	178.82	6,945.9	-360.9	-129.1	362.1	11.00	11.00	0.00
7"									
7,300.0	90.27	178.82	6,945.7	-403.2	-128.2	404.4	0.00	0.00	0.00
7,400.0	90.27	178.82	6,945.2	-503.2	-126.2	504.3	0.00	0.00	0.00
7,500.0	90.27	178.82	6,944.8	-603.2	-124.1	604.3	0.00	0.00	0.00
7,600.0	90.27	178.82	6,944.3	-703.1	-122.0	704.2	0.00	0.00	0.00
7,700.0	90.27	178.82	6,943.8	-803.1	-120.0	804.2	0.00	0.00	0.00
7,800.0	90.27	178.82	6,943.3	-903.1	-117.9	904.1	0.00	0.00	0.00
7,900.0	90.27	178.82	6,942.9	-1,003.1	-115.9	1,004.1	0.00	0.00	0.00
8,000.0	90.27	178.82	6,942.4	-1,103.0	-113.8	1,104.0	0.00	0.00	0.00
8,100.0	90.27	178.82	6,941.9	-1,203.0	-111.7	1,204.0	0.00	0.00	0.00
8,200.0	90.27	178.82	6,941.5	-1,303.0	-109.7	1,303.9	0.00	0.00	0.00
8,300.0	90.27	178.82	6,941.0	-1,403.0	-107.6	1,403.9	0.00	0.00	0.00
8,400.0	90.27	178.82	6,940.5	-1,503.0	-105.5	1,503.9	0.00	0.00	0.00
8,500.0	90.27	178.82	6,940.0	-1,602.9	-103.5	1,603.8	0.00	0.00	0.00
8,600.0	90.27	178.82	6,939.6	-1,702.9	-101.4	1,703.8	0.00	0.00	0.00
8,700.0	90.27	178.82	6,939.1	-1,802.9	-99.3	1,803.7	0.00	0.00	0.00
8,800.0	90.27	178.82	6,938.6	-1,902.9	-97.3	1,903.7	0.00	0.00	0.00
8,900.0	90.27	178.82	6,938.2	-2,002.8	-95.2	2,003.6	0.00	0.00	0.00
9,000.0	90.27	178.82	6,937.7	-2,102.8	-93.2	2,103.6	0.00	0.00	0.00
9,100.0	90.27	178.82	6,937.2	-2,202.8	-91.1	2,203.5	0.00	0.00	0.00
9,200.0	90.27	178.82	6,936.7	-2,302.8	-89.0	2,303.5	0.00	0.00	0.00
9,300.0	90.27	178.82	6,936.3	-2,402.8	-87.0	2,403.4	0.00	0.00	0.00
9,400.0	90.27	178.82	6,935.8	-2,502.7	-84.9	2,503.4	0.00	0.00	0.00
9,500.0	90.27	178.82	6,935.3	-2,602.7	-82.8	2,603.4	0.00	0.00	0.00
9,600.0	90.27	178.82	6,934.9	-2,702.7	-80.8	2,703.3	0.00	0.00	0.00
9,700.0	90.27	178.82	6,934.4	-2,802.7	-78.7	2,803.3	0.00	0.00	0.00
9,800.0	90.27	178.82	6,933.9	-2,902.6	-76.7	2,903.2	0.00	0.00	0.00

Database:	landmark	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Company:	Verdad Oil & Gas Corporation	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Project:	SEC.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**North Reference:**	True
Well:	Pastelak 01N-64W-02-4N	**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	6,933.4	-3,002.6	-74.6	3,003.2	0.00	0.00	0.00
10,000.0	90.27	178.82	6,933.0	-3,102.6	-72.5	3,103.1	0.00	0.00	0.00
10,100.0	90.27	178.82	6,932.5	-3,202.6	-70.5	3,203.1	0.00	0.00	0.00
10,200.0	90.27	178.82	6,932.0	-3,302.5	-68.4	3,303.0	0.00	0.00	0.00
10,300.0	90.27	178.82	6,931.6	-3,402.5	-66.3	3,403.0	0.00	0.00	0.00
10,400.0	90.27	178.82	6,931.1	-3,502.5	-64.3	3,502.9	0.00	0.00	0.00
10,500.0	90.27	178.82	6,930.6	-3,602.5	-62.2	3,602.9	0.00	0.00	0.00
10,600.0	90.27	178.82	6,930.1	-3,702.5	-60.1	3,702.9	0.00	0.00	0.00
10,700.0	90.27	178.82	6,929.7	-3,802.4	-58.1	3,802.8	0.00	0.00	0.00
10,800.0	90.27	178.82	6,929.2	-3,902.4	-56.0	3,902.8	0.00	0.00	0.00
10,900.0	90.27	178.82	6,928.7	-4,002.4	-54.0	4,002.7	0.00	0.00	0.00
11,000.0	90.27	178.82	6,928.3	-4,102.4	-51.9	4,102.7	0.00	0.00	0.00
11,100.0	90.27	178.82	6,927.8	-4,202.3	-49.8	4,202.6	0.00	0.00	0.00
11,200.0	90.27	178.82	6,927.3	-4,302.3	-47.8	4,302.6	0.00	0.00	0.00
11,300.0	90.27	178.82	6,926.9	-4,402.3	-45.7	4,402.5	0.00	0.00	0.00
11,400.0	90.27	178.82	6,926.4	-4,502.3	-43.6	4,502.5	0.00	0.00	0.00
11,480.5	90.27	178.82	6,926.0	-4,582.8	-42.0	4,583.0	0.00	0.00	0.00
TD at 11480.5									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,257.7	6,945.9	7"	7	7-1/2

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
1,800.0	1,800.0	0.0	0.0	KOP - Start Build 1.50
3,540.8	3,530.0	22.0	-19.0	Start Drop -1.50
6,437.1	6,425.0	140.3	-120.9	KOP #2 - Start Build 11.00
11,480.5	6,926.0	162.3	-139.9	TD at 11480.5

ENSIGN
Directional

Verdad Oil & Gas Corporation

SEC.2-T1N-R64W
Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W
Pastelak 01N-64W-02-4N

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-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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	11,480.5	Plan #1 (8-6-14) (Wellbore #1)	MWD	MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	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	7,327.6	6,945.6	485.2	329.1	3.107	CC, ES, SF
Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W						
Pastelak 01N-64W-02-1C - Wellbore #1 - Plan #1 (8-6-14	566.3	567.3	44.8	42.4	19.270	CC
Pastelak 01N-64W-02-1C - Wellbore #1 - Plan #1 (8-6-14	600.0	601.0	44.8	42.3	18.092	ES
Pastelak 01N-64W-02-1C - Wellbore #1 - Plan #1 (8-6-14	11,480.5	11,709.6	534.2	366.5	3.186	SF
Pastelak 01N-64W-02-2N - Wellbore #1 - Plan #1 (8-6-14	1,400.0	1,400.0	30.8	24.7	5.072	CC, ES
Pastelak 01N-64W-02-2N - Wellbore #1 - Plan #1 (8-6-14	11,480.5	11,502.3	330.2	150.9	1.841	SF
Pastelak 01N-64W-02-3N - Wellbore #1 - Plan #1 (8-6-14	1,600.0	1,600.0	14.0	7.0	2.008	CC
Pastelak 01N-64W-02-3N - Wellbore #1 - Plan #1 (8-6-14	11,480.5	11,489.3	165.1	-14.3	0.920	Level 1, ES, SF
Pastelak 01N-64W-02-5C - Wellbore #1 - Plan #1 (8-6-14	1,800.0	1,799.0	14.0	6.1	1.779	CC, ES, SF
Pastelak 01N-64W-02-6N - Wellbore #1 - Plan #1 (8-6-14	1,600.0	1,599.0	30.8	23.8	4.419	CC, ES
Pastelak 01N-64W-02-6N - Wellbore #1 - Plan #1 (8-6-14	11,480.5	11,476.3	330.1	150.7	1.840	SF
Pastelak 01N-64W-02-7N - Wellbore #1 - Plan #1 (8-6-14	1,400.0	1,399.0	44.8	38.7	7.380	CC, ES
Pastelak 01N-64W-02-7N - Wellbore #1 - Plan #1 (8-6-14	11,480.5	11,480.6	495.2	316.1	2.765	SF
Pastelak 01N-64W-02-8N - Wellbore #1 - Plan #1 (8-6-14	1,000.0	998.0	58.8	54.5	13.774	CC, ES
Pastelak 01N-64W-02-8N - Wellbore #1 - Plan #1 (8-6-14	11,480.5	11,486.8	660.2	480.8	3.680	SF
Pastelak 01N-64W-02-9C - Wellbore #1 - Plan #1 (8-6-14	800.0	798.0	75.5	72.2	22.438	CC, ES
Pastelak 01N-64W-02-9C - Wellbore #1 - Plan #1 (8-6-14	11,480.5	11,688.8	849.2	674.3	4.855	SF

Offset Design Existing Wells Sec.2-T1N-64W - Schweitzer 11-2 (P&A) - Wellbore #1 - Wellbore #1

Survey Program: 7690-UNKNOWN

Offset Site Error: 0.0 ft

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-125.73	-440.8	-612.8	754.9				
100.0	100.0	100.0	100.0	0.1	2.0	-125.73	-440.8	-612.8	754.9	752.7	2.11	357.312	
200.0	200.0	200.0	200.0	0.3	4.0	-125.73	-440.8	-612.8	754.9	750.5	4.34	174.035	
300.0	300.0	300.0	300.0	0.6	6.0	-125.73	-440.8	-612.8	754.9	748.3	6.56	115.032	
400.0	400.0	400.0	400.0	0.8	8.0	-125.73	-440.8	-612.8	754.9	746.1	8.79	85.907	
500.0	500.0	500.0	500.0	1.0	10.0	-125.73	-440.8	-612.8	754.9	743.8	11.01	68.550	
600.0	600.0	600.0	600.0	1.2	12.0	-125.73	-440.8	-612.8	754.9	741.6	13.24	57.028	
700.0	700.0	700.0	700.0	1.5	14.0	-125.73	-440.8	-612.8	754.9	739.4	15.46	48.822	
800.0	800.0	800.0	800.0	1.7	16.0	-125.73	-440.8	-612.8	754.9	737.2	17.69	42.681	

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

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Existing Wells Sec.2-T1N-64W - Schweitzer 11-2 (P&A) - Wellbore #1 - Wellbore #1

Offset Site Error: 0.0 ft

Survey Program: 7690-UNKNOWN

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
900.0	900.0	900.0	900.0	1.9	18.0	-125.73	-440.8	-612.8	754.9	734.9	19.91	37.912	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	20.0	-125.73	-440.8	-612.8	754.9	732.7	22.14	34.101	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	22.0	-125.73	-440.8	-612.8	754.9	730.5	24.36	30.987	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	24.0	-125.73	-440.8	-612.8	754.9	728.3	26.58	28.394	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	26.0	-125.73	-440.8	-612.8	754.9	726.0	28.81	26.201	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	28.0	-125.73	-440.8	-612.8	754.9	723.8	31.03	24.323	
1,500.0	1,500.0	1,500.0	1,500.0	3.3	30.0	-125.73	-440.8	-612.8	754.9	721.6	33.26	22.696	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	32.0	-125.73	-440.8	-612.8	754.9	719.4	35.48	21.273	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	34.0	-125.73	-440.8	-612.8	754.9	717.1	37.71	20.018	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	36.0	-125.73	-440.8	-612.8	754.9	714.9	39.93	18.903	
1,900.0	1,900.0	1,900.0	1,900.0	4.2	38.0	-85.07	-440.8	-612.8	754.7	712.6	42.15	17.904	
2,000.0	1,999.9	1,999.9	1,999.9	4.4	40.0	-85.37	-440.8	-612.8	754.4	710.0	44.37	17.002	
2,100.0	2,099.7	2,099.7	2,099.7	4.6	42.0	-85.87	-440.8	-612.8	753.9	707.3	46.59	16.182	
2,200.0	2,199.3	2,199.3	2,199.3	4.8	44.0	-86.57	-440.8	-612.8	753.3	704.5	48.81	15.434	
2,300.0	2,298.6	2,298.6	2,298.6	5.1	46.0	-87.46	-440.8	-612.8	752.7	701.7	51.03	14.749	
2,400.0	2,397.8	2,397.8	2,397.8	5.3	48.0	-88.39	-440.8	-612.8	752.2	699.0	53.27	14.122	
2,500.0	2,497.1	2,497.1	2,497.1	5.6	49.9	-89.32	-440.8	-612.8	752.0	696.5	55.51	13.548	
2,573.5	2,570.0	2,570.0	2,570.0	5.8	51.4	-90.00	-440.8	-612.8	751.9	694.8	57.16	13.155	
2,600.0	2,596.3	2,596.3	2,596.3	5.8	51.9	-90.25	-440.8	-612.8	751.9	694.2	57.76	13.020	
2,700.0	2,695.5	2,695.5	2,695.5	6.1	53.9	-91.18	-440.8	-612.8	752.1	692.1	60.01	12.533	
2,800.0	2,794.8	2,794.8	2,794.8	6.4	55.9	-92.11	-440.8	-612.8	752.5	690.2	62.27	12.085	
2,900.0	2,894.0	2,894.0	2,894.0	6.6	57.9	-93.03	-440.8	-612.8	753.0	688.5	64.53	11.670	
3,000.0	2,993.3	2,993.3	2,993.3	6.9	59.9	-93.96	-440.8	-612.8	753.8	687.0	66.79	11.285	
3,100.0	3,092.5	3,092.5	3,092.5	7.2	61.9	-94.89	-440.8	-612.8	754.7	685.7	69.06	10.929	
3,200.0	3,191.7	3,191.7	3,191.7	7.5	63.8	-95.81	-440.8	-612.8	755.9	684.6	71.33	10.597	
3,300.0	3,291.0	3,291.0	3,291.0	7.8	65.8	-96.73	-440.8	-612.8	757.2	683.6	73.60	10.288	
3,400.0	3,390.2	3,390.2	3,390.2	8.1	67.8	-97.64	-440.8	-612.8	758.8	682.9	75.88	10.000	
3,500.0	3,489.5	3,489.5	3,489.5	8.4	69.8	-98.56	-440.8	-612.8	760.5	682.4	78.15	9.732	
3,600.0	3,588.8	3,588.8	3,588.8	8.6	71.8	-99.45	-440.8	-612.8	762.4	682.0	80.41	9.482	
3,700.0	3,688.3	3,688.3	3,688.3	8.9	73.8	-100.17	-440.8	-612.8	764.0	681.4	82.62	9.248	
3,800.0	3,788.1	3,788.1	3,788.1	9.1	75.8	-100.69	-440.8	-612.8	765.3	680.4	84.82	9.023	
3,900.0	3,888.0	3,888.0	3,888.0	9.3	77.8	-101.01	-440.8	-612.8	766.1	679.1	87.01	8.805	
4,000.0	3,988.0	3,988.0	3,988.0	9.4	79.8	-101.14	-440.8	-612.8	766.4	677.2	89.18	8.594	
4,100.0	4,088.0	4,088.0	4,088.0	9.6	81.8	-141.90	-440.8	-612.8	766.4	675.0	91.37	8.388	
4,200.0	4,188.0	4,188.0	4,188.0	9.8	83.8	-141.90	-440.8	-612.8	766.4	672.8	93.57	8.190	
4,300.0	4,288.0	4,288.0	4,288.0	10.0	85.8	-141.90	-440.8	-612.8	766.4	670.6	95.78	8.002	
4,400.0	4,388.0	4,388.0	4,388.0	10.2	87.8	-141.90	-440.8	-612.8	766.4	668.4	97.98	7.822	
4,500.0	4,488.0	4,488.0	4,488.0	10.4	89.8	-141.90	-440.8	-612.8	766.4	666.2	100.19	7.649	
4,600.0	4,588.0	4,588.0	4,588.0	10.6	91.8	-141.90	-440.8	-612.8	766.4	664.0	102.40	7.484	
4,700.0	4,688.0	4,688.0	4,688.0	10.9	93.8	-141.90	-440.8	-612.8	766.4	661.8	104.60	7.326	
4,800.0	4,788.0	4,788.0	4,788.0	11.1	95.8	-141.90	-440.8	-612.8	766.4	659.6	106.81	7.175	
4,900.0	4,888.0	4,888.0	4,888.0	11.3	97.8	-141.90	-440.8	-612.8	766.4	657.4	109.02	7.030	
5,000.0	4,988.0	4,988.0	4,988.0	11.5	99.8	-141.90	-440.8	-612.8	766.4	655.1	111.23	6.890	
5,100.0	5,088.0	5,088.0	5,088.0	11.7	101.8	-141.90	-440.8	-612.8	766.4	652.9	113.44	6.756	
5,200.0	5,188.0	5,188.0	5,188.0	11.9	103.8	-141.90	-440.8	-612.8	766.4	650.7	115.65	6.626	
5,300.0	5,288.0	5,288.0	5,288.0	12.1	105.8	-141.90	-440.8	-612.8	766.4	648.5	117.87	6.502	
5,400.0	5,388.0	5,388.0	5,388.0	12.3	107.8	-141.90	-440.8	-612.8	766.4	646.3	120.08	6.382	
5,500.0	5,488.0	5,488.0	5,488.0	12.5	109.8	-141.90	-440.8	-612.8	766.4	644.1	122.29	6.267	
5,600.0	5,588.0	5,588.0	5,588.0	12.7	111.8	-141.90	-440.8	-612.8	766.4	641.9	124.50	6.155	
5,700.0	5,688.0	5,688.0	5,688.0	13.0	113.8	-141.90	-440.8	-612.8	766.4	639.7	126.72	6.048	
5,800.0	5,788.0	5,788.0	5,788.0	13.2	115.8	-141.90	-440.8	-612.8	766.4	637.4	128.93	5.944	
5,900.0	5,888.0	5,888.0	5,888.0	13.4	117.8	-141.90	-440.8	-612.8	766.4	635.2	131.14	5.844	

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Existing Wells Sec.2-T1N-64W - Schweitzer 11-2 (P&A) - Wellbore #1 - Wellbore #1

Offset Site Error: 0.0 ft

Survey Program: 7690-UNKNOWN

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
6,000.0	5,988.0	5,988.0	5,988.0	13.6	119.8	-141.90	-440.8	-612.8	766.4	633.0	133.36	5.747	
6,100.0	6,088.0	6,088.0	6,088.0	13.8	121.8	-141.90	-440.8	-612.8	766.4	630.8	135.57	5.653	
6,200.0	6,188.0	6,188.0	6,188.0	14.0	123.8	-141.90	-440.8	-612.8	766.4	628.6	137.79	5.562	
6,300.0	6,288.0	6,288.0	6,288.0	14.2	125.8	-141.90	-440.8	-612.8	766.4	626.4	140.00	5.474	
6,400.0	6,388.0	6,388.0	6,388.0	14.5	127.8	-141.90	-440.8	-612.8	766.4	624.2	142.22	5.389	
6,500.0	6,487.8	6,487.8	6,487.8	14.6	129.8	39.67	-440.8	-612.8	763.4	619.7	143.78	5.310	
6,600.0	6,585.3	6,585.3	6,585.3	14.8	131.7	41.92	-440.8	-612.8	747.0	604.4	142.63	5.237	
6,700.0	6,676.9	6,676.9	6,676.9	14.8	133.5	46.38	-440.8	-612.8	717.3	577.3	140.01	5.123	
6,800.0	6,759.3	6,759.3	6,759.3	14.9	135.2	53.29	-440.8	-612.8	676.8	538.0	138.78	4.877	
6,900.0	6,829.4	6,829.4	6,829.4	15.0	136.6	62.50	-440.8	-612.8	629.3	487.6	141.64	4.443	
7,000.0	6,884.6	6,884.6	6,884.6	15.1	137.7	72.88	-440.8	-612.8	579.9	432.2	147.68	3.926	
7,100.0	6,922.9	6,922.9	6,922.9	15.6	138.5	82.24	-440.8	-612.8	535.0	382.2	152.74	3.503	
7,200.0	6,943.0	6,943.0	6,943.0	16.2	138.9	88.41	-440.8	-612.8	501.7	346.7	154.97	3.237	
7,300.0	6,945.7	6,945.7	6,945.7	17.1	138.9	90.02	-440.8	-612.8	486.0	330.1	155.90	3.117	
7,327.6	6,945.6	6,945.6	6,945.6	17.3	138.9	90.00	-440.8	-612.8	485.2	329.1	156.17	3.107	CC, ES, SF
7,400.0	6,945.2	6,945.2	6,945.2	18.1	138.9	89.96	-440.8	-612.8	490.6	333.7	156.88	3.127	
7,500.0	6,944.8	6,944.8	6,944.8	19.2	138.9	89.90	-440.8	-612.8	515.0	356.9	158.01	3.259	
7,600.0	6,944.3	6,944.3	6,944.3	20.4	138.9	89.85	-440.8	-612.8	556.5	397.2	159.25	3.494	
7,700.0	6,943.8	6,943.8	6,943.8	21.8	138.9	89.79	-440.8	-612.8	611.7	451.1	160.59	3.809	
7,800.0	6,943.3	6,943.3	6,943.3	23.2	138.9	89.74	-440.8	-612.8	677.2	515.2	162.01	4.180	
7,900.0	6,942.9	6,942.9	6,942.9	24.7	138.9	89.68	-440.8	-612.8	750.4	586.9	163.50	4.590	
8,000.0	6,942.4	6,942.4	6,942.4	26.3	138.8	89.63	-440.8	-612.8	829.2	664.2	165.04	5.024	
8,100.0	6,941.9	6,941.9	6,941.9	27.9	138.8	89.57	-440.8	-612.8	912.2	745.5	166.63	5.474	
8,200.0	6,941.5	6,941.5	6,941.5	29.5	138.8	89.51	-440.8	-612.8	998.3	830.0	168.26	5.933	

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-1C - Wellbore #1 - Plan #1 (8-6-1 — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	1.0	1.0	0.0	0.0	-90.01	0.0	-44.8	44.8	44.8	0.00	N/A	
100.0	100.0	101.0	101.0	0.1	0.1	-90.01	0.0	-44.8	44.8	44.5	0.23	197.209	
200.0	200.0	201.0	201.0	0.3	0.3	-90.01	0.0	-44.8	44.8	44.1	0.68	66.173	
300.0	300.0	301.0	301.0	0.6	0.6	-90.01	0.0	-44.8	44.8	43.6	1.13	39.757	
400.0	400.0	401.0	401.0	0.8	0.8	-90.01	0.0	-44.8	44.8	43.2	1.58	28.414	
500.0	500.0	501.0	501.0	1.0	1.0	-90.01	0.0	-44.8	44.8	42.7	2.03	22.107	
566.3	566.3	567.3	567.3	1.2	1.2	-90.01	0.0	-44.8	44.8	42.4	2.32	19.270	CC
600.0	600.0	601.0	601.0	1.2	1.2	-90.01	0.0	-44.8	44.8	42.3	2.47	18.092	ES
700.0	700.0	700.0	700.0	1.5	1.5	-89.43	0.5	-46.5	46.5	43.6	2.91	15.950	
800.0	800.0	797.7	797.5	1.7	1.7	-87.99	1.8	-51.3	51.5	48.1	3.35	15.378	
900.0	900.0	895.5	895.0	1.9	1.9	-86.12	4.0	-59.4	59.9	56.1	3.79	15.788	
1,000.0	1,000.0	992.6	991.3	2.1	2.1	-84.25	7.1	-70.7	71.7	67.4	4.25	16.865	
1,100.0	1,100.0	1,090.2	1,087.9	2.4	2.4	-82.62	11.0	-84.7	86.4	81.7	4.72	18.294	
1,200.0	1,200.0	1,189.1	1,185.6	2.6	2.7	-81.42	15.0	-99.3	101.6	96.3	5.20	19.520	
1,300.0	1,300.0	1,287.9	1,283.3	2.8	3.1	-80.53	19.0	-113.8	116.7	111.1	5.69	20.512	
1,400.0	1,400.0	1,386.7	1,380.9	3.0	3.4	-79.85	23.0	-128.4	132.0	125.8	6.19	21.327	
1,500.0	1,500.0	1,485.5	1,478.6	3.3	3.7	-79.31	27.0	-142.9	147.2	140.5	6.69	22.004	
1,600.0	1,600.0	1,584.4	1,576.2	3.5	4.1	-78.87	31.0	-157.5	162.4	155.2	7.19	22.575	
1,700.0	1,700.0	1,683.2	1,673.9	3.7	4.4	-78.51	35.0	-172.1	177.7	170.0	7.70	23.062	
1,800.0	1,800.0	1,782.0	1,771.6	3.9	4.7	-78.20	39.0	-186.6	192.9	184.7	8.22	23.481	
1,900.0	1,900.0	1,881.0	1,869.4	4.2	5.1	-37.27	43.0	-201.2	207.1	198.8	8.33	24.879	
2,000.0	1,999.9	1,980.2	1,967.5	4.4	5.4	-37.54	47.0	-215.8	219.3	210.5	8.78	24.970	
2,100.0	2,099.7	2,079.7	2,065.7	4.6	5.8	-38.19	51.0	-230.5	229.4	220.2	9.24	24.828	
2,200.0	2,199.3	2,179.3	2,164.1	4.8	6.2	-39.19	55.1	-245.2	237.6	227.9	9.70	24.486	
2,300.0	2,298.6	2,278.9	2,262.6	5.1	6.5	-40.53	59.1	-259.8	243.9	233.7	10.17	23.975	
2,400.0	2,397.8	2,378.5	2,361.1	5.3	6.9	-41.95	63.2	-274.5	249.8	239.2	10.66	23.444	
2,500.0	2,497.1	2,478.2	2,459.5	5.6	7.2	-43.30	67.2	-289.2	255.9	244.8	11.15	22.954	
2,600.0	2,596.3	2,577.8	2,558.0	5.8	7.6	-44.59	71.2	-303.9	262.2	250.5	11.65	22.500	
2,700.0	2,695.5	2,677.4	2,656.5	6.1	8.0	-45.82	75.3	-318.6	268.5	256.3	12.16	22.079	
2,800.0	2,794.8	2,777.1	2,754.9	6.4	8.3	-46.99	79.3	-333.2	275.0	262.3	12.68	21.688	
2,900.0	2,894.0	2,876.7	2,853.4	6.6	8.7	-48.10	83.3	-347.9	281.6	268.4	13.20	21.324	
3,000.0	2,993.3	2,976.3	2,951.9	6.9	9.0	-49.17	87.4	-362.6	288.3	274.5	13.74	20.984	
3,100.0	3,092.5	3,076.0	3,050.3	7.2	9.4	-50.19	91.4	-377.3	295.0	280.8	14.28	20.666	
3,200.0	3,191.7	3,175.6	3,148.8	7.5	9.8	-51.16	95.4	-392.0	301.9	287.1	14.82	20.368	
3,300.0	3,291.0	3,275.2	3,247.3	7.8	10.1	-52.08	99.5	-406.7	308.9	293.5	15.38	20.088	
3,400.0	3,390.2	3,374.9	3,345.7	8.1	10.5	-52.97	103.5	-421.3	315.9	300.0	15.93	19.826	
3,500.0	3,489.5	3,474.5	3,444.2	8.4	10.8	-53.82	107.6	-436.0	323.0	306.5	16.50	19.580	
3,600.0	3,588.8	3,574.1	3,542.6	8.6	11.2	-54.62	111.6	-450.7	330.4	313.4	17.05	19.385	
3,700.0	3,688.3	3,673.7	3,641.1	8.9	11.6	-55.11	115.6	-465.4	339.3	321.8	17.54	19.349	
3,800.0	3,788.1	3,773.2	3,739.4	9.1	11.9	-55.24	119.6	-480.0	349.6	331.6	18.00	19.429	
3,900.0	3,888.0	3,872.5	3,837.5	9.3	12.3	-55.05	123.7	-494.7	361.5	343.1	18.42	19.619	
4,000.0	3,988.0	3,971.5	3,935.3	9.4	12.7	-54.57	127.7	-509.2	374.8	356.0	18.82	19.915	
4,100.0	4,088.0	4,070.3	4,033.0	9.6	13.0	-94.56	131.7	-523.8	389.2	370.0	19.16	20.310	
4,200.0	4,188.0	4,169.1	4,130.6	9.8	13.4	-93.82	135.7	-538.4	403.6	384.0	19.59	20.605	
4,300.0	4,288.0	4,267.9	4,228.3	10.0	13.7	-93.13	139.7	-552.9	418.1	398.1	20.02	20.887	
4,400.0	4,388.0	4,366.8	4,326.0	10.2	14.1	-92.49	143.7	-567.5	432.6	412.2	20.45	21.158	
4,500.0	4,488.0	4,465.6	4,423.6	10.4	14.5	-91.89	147.7	-582.1	447.2	426.3	20.88	21.417	
4,600.0	4,588.0	4,564.4	4,521.3	10.6	14.8	-91.33	151.7	-596.6	461.8	440.5	21.32	21.666	
4,700.0	4,688.0	4,674.2	4,629.9	10.9	15.2	-90.77	155.9	-612.0	475.8	454.1	21.76	21.867	
4,800.0	4,788.0	4,792.7	4,747.7	11.1	15.5	-90.35	159.3	-624.4	486.3	464.1	22.19	21.916	
4,900.0	4,888.0	4,912.2	4,866.9	11.3	15.7	-90.10	161.5	-632.2	492.8	470.2	22.61	21.796	
5,000.0	4,988.0	5,032.1	4,986.8	11.5	15.9	-90.00	162.3	-635.1	495.2	472.2	23.02	21.510	

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

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-1C - Wellbore #1 - Plan #1 (8-6-1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,088.0	5,134.3	5,089.0	11.7	16.0	-90.00	162.3	-635.2	495.3	471.8	23.43	21.142	
5,200.0	5,188.0	5,234.3	5,189.0	11.9	16.2	-90.00	162.3	-635.2	495.3	471.4	23.83	20.782	
5,300.0	5,288.0	5,334.3	5,289.0	12.1	16.3	-90.00	162.3	-635.2	495.3	471.0	24.24	20.433	
5,400.0	5,388.0	5,434.3	5,389.0	12.3	16.5	-90.00	162.3	-635.2	495.3	470.6	24.65	20.094	
5,500.0	5,488.0	5,534.3	5,489.0	12.5	16.6	-90.00	162.3	-635.2	495.3	470.2	25.06	19.765	
5,600.0	5,588.0	5,634.3	5,589.0	12.7	16.8	-90.00	162.3	-635.2	495.3	469.8	25.47	19.446	
5,700.0	5,688.0	5,734.3	5,689.0	13.0	16.9	-90.00	162.3	-635.2	495.3	469.4	25.88	19.135	
5,800.0	5,788.0	5,834.3	5,789.0	13.2	17.1	-90.00	162.3	-635.2	495.3	469.0	26.30	18.834	
5,900.0	5,888.0	5,934.3	5,889.0	13.4	17.3	-90.00	162.3	-635.2	495.3	468.6	26.71	18.542	
6,000.0	5,988.0	6,034.3	5,989.0	13.6	17.4	-90.00	162.3	-635.2	495.3	468.1	27.13	18.257	
6,100.0	6,088.0	6,134.3	6,089.0	13.8	17.6	-90.00	162.3	-635.2	495.3	467.7	27.54	17.981	
6,200.0	6,188.0	6,234.3	6,189.0	14.0	17.8	-90.00	162.3	-635.2	495.3	467.3	27.96	17.712	
6,300.0	6,288.0	6,334.3	6,289.0	14.2	17.9	-90.00	162.3	-635.2	495.3	466.9	28.38	17.450	
6,400.0	6,388.0	6,434.3	6,389.0	14.5	18.1	-90.00	162.3	-635.2	495.3	466.5	28.80	17.196	
6,421.2	6,409.2	6,455.5	6,410.2	14.5	18.1	91.21	162.3	-635.2	495.3	466.3	28.93	17.121	
6,500.0	6,487.8	6,534.1	6,488.8	14.6	18.3	91.61	162.3	-635.2	495.4	466.2	29.21	16.960	
6,600.0	6,585.3	6,631.7	6,586.3	14.8	18.4	93.90	162.3	-635.2	496.4	467.0	29.40	16.886	
6,700.0	6,676.9	6,732.5	6,687.0	14.8	18.6	97.65	158.1	-635.1	500.3	470.9	29.45	16.986	
6,800.0	6,759.3	6,845.4	6,796.5	14.9	18.7	101.50	131.8	-634.5	506.7	477.3	29.41	17.228	
6,900.0	6,829.4	6,969.5	6,907.4	15.0	18.8	105.08	76.5	-633.4	514.6	485.2	29.33	17.546	
7,000.0	6,884.6	7,106.3	7,010.4	15.1	18.8	108.15	-12.8	-631.6	522.5	493.2	29.33	17.816	
7,100.0	6,922.9	7,255.1	7,092.1	15.6	19.0	110.38	-136.5	-629.0	528.9	499.2	29.66	17.833	
7,200.0	6,943.0	7,412.4	7,136.8	16.2	19.4	111.45	-286.7	-625.9	532.1	501.5	30.60	17.386	
7,300.0	6,945.7	7,540.0	7,141.6	17.1	20.1	111.48	-414.1	-623.3	532.1	500.0	32.11	16.571	
7,400.0	6,945.2	7,640.0	7,141.2	18.1	20.9	111.49	-514.1	-621.2	532.2	498.3	33.90	15.697	
7,500.0	6,944.8	7,740.0	7,140.9	19.2	21.8	111.50	-614.0	-619.2	532.2	496.3	35.97	14.796	
7,600.0	6,944.3	7,840.0	7,140.5	20.4	22.9	111.52	-714.0	-617.1	532.3	494.0	38.27	13.909	
7,700.0	6,943.8	7,940.0	7,140.2	21.8	24.1	111.53	-814.0	-615.0	532.3	491.6	40.76	13.060	
7,800.0	6,943.3	8,040.0	7,139.8	23.2	25.4	111.54	-914.0	-613.0	532.4	489.0	43.41	12.265	
7,900.0	6,942.9	8,140.0	7,139.5	24.7	26.8	111.55	-1,014.0	-610.9	532.4	486.2	46.19	11.527	
8,000.0	6,942.4	8,240.0	7,139.1	26.3	28.2	111.57	-1,113.9	-608.9	532.5	483.4	49.08	10.850	
8,100.0	6,941.9	8,340.0	7,138.8	27.9	29.7	111.58	-1,213.9	-606.8	532.5	480.4	52.05	10.230	
8,200.0	6,941.5	8,440.0	7,138.4	29.5	31.3	111.59	-1,313.9	-604.7	532.5	477.4	55.11	9.663	
8,300.0	6,941.0	8,540.0	7,138.1	31.2	32.9	111.60	-1,413.9	-602.7	532.6	474.4	58.23	9.147	
8,400.0	6,940.5	8,640.0	7,137.7	32.9	34.5	111.61	-1,513.8	-600.6	532.6	471.2	61.40	8.675	
8,500.0	6,940.0	8,740.0	7,137.4	34.6	36.1	111.63	-1,613.8	-598.5	532.7	468.1	64.62	8.243	
8,600.0	6,939.6	8,840.0	7,137.0	36.3	37.8	111.64	-1,713.8	-596.5	532.7	464.9	67.88	7.848	
8,700.0	6,939.1	8,940.0	7,136.7	38.1	39.5	111.65	-1,813.8	-594.4	532.8	461.6	71.17	7.486	
8,800.0	6,938.6	9,040.0	7,136.3	39.9	41.2	111.66	-1,913.8	-592.4	532.8	458.3	74.49	7.153	
8,900.0	6,938.2	9,140.0	7,136.0	41.6	43.0	111.67	-2,013.7	-590.3	532.9	455.0	77.84	6.846	
9,000.0	6,937.7	9,240.0	7,135.6	43.4	44.7	111.69	-2,113.7	-588.2	532.9	451.7	81.21	6.562	
9,100.0	6,937.2	9,340.0	7,135.3	45.3	46.5	111.70	-2,213.7	-586.2	533.0	448.4	84.60	6.300	
9,200.0	6,936.7	9,440.0	7,134.9	47.1	48.2	111.71	-2,313.7	-584.1	533.0	445.0	88.01	6.057	
9,300.0	6,936.3	9,540.0	7,134.6	48.9	50.0	111.72	-2,413.6	-582.1	533.1	441.6	91.43	5.830	
9,400.0	6,935.8	9,640.0	7,134.2	50.7	51.8	111.74	-2,513.6	-580.0	533.1	438.2	94.86	5.620	
9,500.0	6,935.3	9,740.0	7,133.9	52.6	53.6	111.75	-2,613.6	-577.9	533.2	434.8	98.31	5.423	
9,600.0	6,934.9	9,840.0	7,133.5	54.4	55.5	111.76	-2,713.6	-575.9	533.2	431.4	101.77	5.239	
9,700.0	6,934.4	9,940.0	7,133.2	56.3	57.3	111.77	-2,813.6	-573.8	533.2	428.0	105.23	5.067	
9,800.0	6,933.9	10,040.0	7,132.8	58.1	59.1	111.78	-2,913.5	-571.7	533.3	424.6	108.71	4.906	
9,900.0	6,933.4	10,140.0	7,132.5	60.0	60.9	111.80	-3,013.5	-569.7	533.3	421.1	112.19	4.754	
10,000.0	6,933.0	10,240.0	7,132.1	61.8	62.8	111.81	-3,113.5	-567.6	533.4	417.7	115.68	4.611	
10,100.0	6,932.5	10,340.0	7,131.8	63.7	64.6	111.82	-3,213.5	-565.6	533.4	414.3	119.18	4.476	

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-1C - Wellbore #1 - Plan #1 (8-6-1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,200.0	6,932.0	10,440.0	7,131.4	65.6	66.5	111.83	-3,313.5	-563.5	533.5	410.8	122.68	4.348	
10,300.0	6,931.6	10,540.0	7,131.1	67.5	68.3	111.84	-3,413.4	-561.4	533.5	407.3	126.19	4.228	
10,400.0	6,931.1	10,640.0	7,130.7	69.3	70.2	111.86	-3,513.4	-559.4	533.6	403.9	129.71	4.114	
10,500.0	6,930.6	10,740.0	7,130.4	71.2	72.0	111.87	-3,613.4	-557.3	533.6	400.4	133.22	4.005	
10,600.0	6,930.1	10,840.0	7,130.0	73.1	73.9	111.88	-3,713.4	-555.2	533.7	396.9	136.75	3.903	
10,700.0	6,929.7	10,940.0	7,129.7	75.0	75.8	111.89	-3,813.3	-553.2	533.7	393.4	140.27	3.805	
10,800.0	6,929.2	11,040.0	7,129.3	76.9	77.6	111.91	-3,913.3	-551.1	533.8	390.0	143.80	3.712	
10,900.0	6,928.7	11,140.0	7,129.0	78.8	79.5	111.92	-4,013.3	-549.1	533.8	386.5	147.33	3.623	
11,000.0	6,928.3	11,240.0	7,128.6	80.6	81.4	111.93	-4,113.3	-547.0	533.9	383.0	150.86	3.539	
11,100.0	6,927.8	11,340.0	7,128.3	82.5	83.3	111.94	-4,213.3	-544.9	533.9	379.5	154.40	3.458	
11,200.0	6,927.3	11,440.0	7,127.9	84.4	85.1	111.95	-4,313.2	-542.9	534.0	376.0	157.94	3.381	
11,300.0	6,926.9	11,540.0	7,127.6	86.3	87.0	111.97	-4,413.2	-540.8	534.0	372.5	161.48	3.307	
11,400.0	6,926.4	11,640.0	7,127.2	88.2	88.9	111.98	-4,513.2	-538.8	534.0	369.0	165.03	3.236	
11,442.7	6,926.2	11,682.8	7,127.1	89.0	89.7	111.98	-4,555.9	-537.9	534.1	367.5	166.54	3.207	
11,480.5	6,926.0	11,709.6	7,127.0	89.7	90.2	111.99	-4,582.8	-537.3	534.2	366.5	167.69	3.186	SF

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-2N - Wellbore #1 - Plan #1 (8-6-1 — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.04	0.0	-30.8	30.8				
100.0	100.0	100.0	100.0	0.1	0.1	-90.04	0.0	-30.8	30.8	30.6	0.22	136.937	
200.0	200.0	200.0	200.0	0.3	0.3	-90.04	0.0	-30.8	30.8	30.1	0.67	45.646	
300.0	300.0	300.0	300.0	0.6	0.6	-90.04	0.0	-30.8	30.8	29.7	1.12	27.387	
400.0	400.0	400.0	400.0	0.8	0.8	-90.04	0.0	-30.8	30.8	29.2	1.57	19.562	
500.0	500.0	500.0	500.0	1.0	1.0	-90.04	0.0	-30.8	30.8	28.8	2.02	15.215	
600.0	600.0	600.0	600.0	1.2	1.2	-90.04	0.0	-30.8	30.8	28.3	2.47	12.449	
700.0	700.0	700.0	700.0	1.5	1.5	-90.04	0.0	-30.8	30.8	27.9	2.92	10.534	
800.0	800.0	800.0	800.0	1.7	1.7	-90.04	0.0	-30.8	30.8	27.4	3.37	9.129	
900.0	900.0	900.0	900.0	1.9	1.9	-90.04	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	-90.04	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	-90.04	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	-90.04	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	-90.04	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	-90.04	0.0	-30.8	30.8	24.7	6.07	5.072	CC, ES
1,500.0	1,500.0	1,499.0	1,498.9	3.3	3.2	-88.99	0.6	-32.4	32.4	25.9	6.51	4.980	
1,600.0	1,600.0	1,597.7	1,597.5	3.5	3.5	-86.40	2.3	-37.2	37.3	30.4	6.94	5.378	
1,700.0	1,700.0	1,696.0	1,695.4	3.7	3.7	-83.33	5.3	-45.1	45.6	38.3	7.38	6.185	
1,800.0	1,800.0	1,793.5	1,792.3	3.9	3.9	-80.56	9.3	-56.1	57.4	49.6	7.82	7.335	
1,900.0	1,900.0	1,892.1	1,889.8	4.2	4.2	-38.16	14.3	-69.5	70.6	62.4	8.24	8.566	
2,000.0	1,999.9	1,991.5	1,988.1	4.4	4.4	-38.12	19.3	-83.0	81.9	73.3	8.67	9.448	
2,100.0	2,099.7	2,091.0	2,086.6	4.6	4.7	-39.10	24.3	-96.6	91.2	82.1	9.10	10.019	
2,200.0	2,199.3	2,190.7	2,185.2	4.8	5.0	-40.88	29.3	-110.3	98.5	89.0	9.54	10.327	
2,300.0	2,298.6	2,290.4	2,283.9	5.1	5.3	-43.36	34.4	-123.9	104.1	94.1	9.99	10.418	
2,400.0	2,397.8	2,390.2	2,382.6	5.3	5.6	-45.87	39.4	-137.5	109.4	99.0	10.47	10.452	
2,500.0	2,497.1	2,489.9	2,481.3	5.6	5.9	-48.15	44.5	-151.2	114.9	104.0	10.96	10.488	
2,600.0	2,596.3	2,589.7	2,580.0	5.8	6.2	-50.22	49.5	-164.8	120.6	109.1	11.46	10.525	
2,700.0	2,695.5	2,689.4	2,678.7	6.1	6.6	-52.10	54.5	-178.4	126.4	114.4	11.97	10.560	
2,800.0	2,794.8	2,789.2	2,777.3	6.4	6.9	-53.81	59.6	-192.0	132.3	119.8	12.49	10.594	
2,900.0	2,894.0	2,888.9	2,876.0	6.6	7.2	-55.37	64.6	-205.7	138.3	125.3	13.02	10.624	
3,000.0	2,993.3	2,988.7	2,974.7	6.9	7.5	-56.81	69.6	-219.3	144.4	130.9	13.56	10.653	
3,100.0	3,092.5	3,088.4	3,073.4	7.2	7.9	-58.13	74.7	-232.9	150.7	136.5	14.11	10.678	
3,200.0	3,191.7	3,188.2	3,172.1	7.5	8.2	-59.34	79.7	-246.6	156.9	142.3	14.67	10.701	
3,300.0	3,291.0	3,287.9	3,270.8	7.8	8.5	-60.46	84.7	-260.2	163.3	148.1	15.23	10.722	
3,400.0	3,390.2	3,387.7	3,369.5	8.1	8.9	-61.49	89.8	-273.8	169.7	153.9	15.80	10.741	
3,500.0	3,489.5	3,487.4	3,468.1	8.4	9.2	-62.45	94.8	-287.5	176.1	159.8	16.37	10.757	
3,600.0	3,588.8	3,587.2	3,566.8	8.6	9.5	-63.27	99.8	-301.1	182.8	165.9	16.93	10.798	
3,700.0	3,688.3	3,686.9	3,665.5	8.9	9.9	-63.43	104.9	-314.7	190.6	173.2	17.42	10.941	
3,800.0	3,788.1	3,786.4	3,764.0	9.1	10.2	-62.93	109.9	-328.3	199.6	181.7	17.88	11.167	
3,900.0	3,888.0	3,885.8	3,862.3	9.3	10.6	-61.86	114.9	-341.9	209.8	191.5	18.29	11.474	
4,000.0	3,988.0	3,984.9	3,960.4	9.4	10.9	-60.34	119.9	-355.5	221.4	202.8	18.66	11.865	
4,100.0	4,088.0	4,083.9	4,058.2	9.6	11.3	-99.27	124.9	-369.0	234.0	215.0	18.98	12.327	
4,200.0	4,188.0	4,182.8	4,156.1	9.8	11.6	-97.60	129.9	-382.5	246.8	227.4	19.38	12.736	
4,300.0	4,288.0	4,281.8	4,254.0	10.0	11.9	-96.10	134.9	-396.0	259.8	240.0	19.78	13.134	
4,400.0	4,388.0	4,380.7	4,351.9	10.2	12.3	-94.75	139.9	-409.5	273.0	252.8	20.19	13.520	
4,500.0	4,488.0	4,479.6	4,449.7	10.4	12.6	-93.52	144.9	-423.1	286.2	265.6	20.60	13.894	
4,600.0	4,588.0	4,578.6	4,547.6	10.6	13.0	-92.39	149.9	-436.6	299.7	278.6	21.02	14.257	
4,700.0	4,688.0	4,684.7	4,652.7	10.9	13.3	-91.36	155.0	-450.3	312.4	291.0	21.44	14.574	
4,800.0	4,788.0	4,795.6	4,763.1	11.1	13.6	-90.61	158.9	-460.9	322.0	300.1	21.84	14.739	
4,900.0	4,888.0	4,907.3	4,874.5	11.3	13.8	-90.17	161.3	-467.5	327.9	305.6	22.25	14.737	
5,000.0	4,988.0	5,019.3	4,986.5	11.5	14.0	-90.01	162.3	-470.0	330.2	307.5	22.66	14.573	
5,100.0	5,088.0	5,120.8	5,088.0	11.7	14.1	-90.00	162.3	-470.1	330.2	307.1	23.06	14.317	

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-2N - Wellbore #1 - Plan #1 (8-6-1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,188.0	5,220.8	5,188.0	11.9	14.3	-90.00	162.3	-470.1	330.2	306.7	23.48	14.063	
5,300.0	5,288.0	5,320.8	5,288.0	12.1	14.5	-90.00	162.3	-470.1	330.2	306.3	23.90	13.817	
5,400.0	5,388.0	5,420.8	5,388.0	12.3	14.6	-90.00	162.3	-470.1	330.2	305.9	24.31	13.579	
5,500.0	5,488.0	5,520.8	5,488.0	12.5	14.8	-90.00	162.3	-470.1	330.2	305.4	24.74	13.349	
5,600.0	5,588.0	5,620.8	5,588.0	12.7	15.0	-90.00	162.3	-470.1	330.2	305.0	25.16	13.125	
5,700.0	5,688.0	5,720.8	5,688.0	13.0	15.2	-90.00	162.3	-470.1	330.2	304.6	25.58	12.909	
5,800.0	5,788.0	5,820.8	5,788.0	13.2	15.3	-90.00	162.3	-470.1	330.2	304.2	26.00	12.699	
5,900.0	5,888.0	5,920.8	5,888.0	13.4	15.5	-90.00	162.3	-470.1	330.2	303.8	26.42	12.495	
6,000.0	5,988.0	6,020.8	5,988.0	13.6	15.7	-90.00	162.3	-470.1	330.2	303.3	26.85	12.297	
6,100.0	6,088.0	6,120.8	6,088.0	13.8	15.9	-90.00	162.3	-470.1	330.2	302.9	27.27	12.106	
6,200.0	6,188.0	6,220.8	6,188.0	14.0	16.1	-90.00	162.3	-470.1	330.2	302.5	27.70	11.919	
6,300.0	6,288.0	6,320.8	6,288.0	14.2	16.3	-90.00	162.3	-470.1	330.2	302.1	28.13	11.738	
6,400.0	6,388.0	6,420.8	6,388.0	14.5	16.5	-90.00	162.3	-470.1	330.2	301.6	28.56	11.563	
6,500.0	6,487.8	6,521.6	6,488.6	14.6	16.6	91.19	158.5	-470.0	330.2	301.2	28.95	11.405	
6,600.0	6,585.3	6,622.9	6,587.4	14.8	16.7	91.17	136.7	-469.6	330.2	301.0	29.15	11.327	
6,700.0	6,676.9	6,724.2	6,680.1	14.8	16.8	91.11	96.1	-468.7	330.2	300.9	29.28	11.278	
6,800.0	6,759.3	6,825.4	6,763.1	14.9	16.8	91.01	38.6	-467.5	330.2	300.7	29.43	11.219	
6,900.0	6,829.4	6,926.4	6,833.3	15.0	16.9	90.87	-33.9	-466.0	330.1	300.4	29.73	11.106	
7,000.0	6,884.6	7,027.3	6,888.2	15.1	17.0	90.70	-118.3	-464.3	330.1	299.8	30.29	10.898	
7,100.0	6,922.9	7,128.0	6,925.7	15.6	17.3	90.51	-211.5	-462.4	330.1	298.9	31.21	10.577	
7,200.0	6,943.0	7,228.4	6,944.6	16.2	17.7	90.29	-310.0	-460.3	330.1	297.6	32.51	10.154	
7,271.5	6,947.7	7,300.0	6,946.8	16.8	18.2	89.84	-381.5	-458.9	330.1	296.4	33.68	9.802	
7,300.0	6,945.7	7,328.6	6,946.7	17.1	18.4	90.17	-410.0	-458.3	330.1	295.9	34.17	9.661	
7,400.0	6,945.2	7,428.6	6,946.2	18.1	19.3	90.17	-510.0	-456.2	330.1	294.0	36.14	9.134	
7,500.0	6,944.8	7,528.6	6,945.7	19.2	20.3	90.17	-610.0	-454.2	330.1	291.7	38.40	8.597	
7,600.0	6,944.3	7,628.6	6,945.3	20.4	21.5	90.17	-709.9	-452.1	330.1	289.2	40.90	8.072	
7,700.0	6,943.8	7,728.6	6,944.8	21.8	22.8	90.17	-809.9	-450.0	330.1	286.5	43.59	7.574	
7,800.0	6,943.3	7,828.6	6,944.3	23.2	24.2	90.17	-909.9	-448.0	330.1	283.7	46.44	7.108	
7,900.0	6,942.9	7,928.6	6,943.8	24.7	25.6	90.17	-1,009.9	-445.9	330.1	280.7	49.43	6.678	
8,000.0	6,942.4	8,028.6	6,943.4	26.3	27.1	90.17	-1,109.9	-443.8	330.1	277.6	52.54	6.284	
8,100.0	6,941.9	8,128.6	6,942.9	27.9	28.7	90.17	-1,209.8	-441.8	330.1	274.4	55.73	5.923	
8,200.0	6,941.5	8,228.6	6,942.4	29.5	30.3	90.17	-1,309.8	-439.7	330.1	271.1	59.01	5.595	
8,300.0	6,941.0	8,328.6	6,942.0	31.2	31.9	90.17	-1,409.8	-437.7	330.1	267.8	62.34	5.295	
8,400.0	6,940.5	8,428.6	6,941.5	32.9	33.6	90.17	-1,509.8	-435.6	330.1	264.4	65.74	5.022	
8,500.0	6,940.0	8,528.6	6,941.0	34.6	35.3	90.17	-1,609.7	-433.5	330.1	260.9	69.18	4.772	
8,600.0	6,939.6	8,628.6	6,940.5	36.3	37.0	90.17	-1,709.7	-431.5	330.1	257.5	72.66	4.543	
8,700.0	6,939.1	8,728.6	6,940.1	38.1	38.7	90.17	-1,809.7	-429.4	330.1	253.9	76.18	4.333	
8,800.0	6,938.6	8,828.6	6,939.6	39.9	40.5	90.17	-1,909.7	-427.3	330.1	250.4	79.73	4.141	
8,900.0	6,938.2	8,928.6	6,939.1	41.6	42.2	90.17	-2,009.7	-425.3	330.1	246.8	83.31	3.963	
9,000.0	6,937.7	9,028.6	6,938.7	43.4	44.0	90.17	-2,109.6	-423.2	330.1	243.2	86.90	3.799	
9,100.0	6,937.2	9,128.6	6,938.2	45.3	45.8	90.17	-2,209.6	-421.2	330.1	239.6	90.52	3.647	
9,200.0	6,936.7	9,228.6	6,937.7	47.1	47.6	90.17	-2,309.6	-419.1	330.1	236.0	94.16	3.506	
9,300.0	6,936.3	9,328.6	6,937.2	48.9	49.4	90.17	-2,409.6	-417.0	330.1	232.3	97.81	3.375	
9,400.0	6,935.8	9,428.6	6,936.8	50.7	51.2	90.17	-2,509.5	-415.0	330.1	228.7	101.48	3.253	
9,500.0	6,935.3	9,528.6	6,936.3	52.6	53.0	90.17	-2,609.5	-412.9	330.1	225.0	105.16	3.139	
9,600.0	6,934.9	9,628.6	6,935.8	54.4	54.9	90.17	-2,709.5	-410.8	330.1	221.3	108.85	3.033	
9,700.0	6,934.4	9,728.6	6,935.4	56.3	56.7	90.17	-2,809.5	-408.8	330.1	217.6	112.56	2.933	
9,800.0	6,933.9	9,828.6	6,934.9	58.1	58.6	90.17	-2,909.5	-406.7	330.1	213.9	116.27	2.840	
9,900.0	6,933.4	9,928.6	6,934.4	60.0	60.4	90.17	-3,009.4	-404.7	330.1	210.2	119.99	2.751	
10,000.0	6,933.0	10,028.6	6,933.9	61.8	62.3	90.17	-3,109.4	-402.6	330.1	206.4	123.72	2.669	
10,100.0	6,932.5	10,128.6	6,933.5	63.7	64.1	90.17	-3,209.4	-400.5	330.1	202.7	127.45	2.590	
10,200.0	6,932.0	10,228.6	6,933.0	65.6	66.0	90.17	-3,309.4	-398.5	330.1	199.0	131.19	2.517	

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-2N - Wellbore #1 - Plan #1 (8-6-1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,300.0	6,931.6	10,328.6	6,932.5	67.5	67.8	90.17	-3,409.3	-396.4	330.1	195.2	134.94	2.447	
10,400.0	6,931.1	10,428.6	6,932.1	69.3	69.7	90.17	-3,509.3	-394.3	330.1	191.5	138.69	2.380	
10,500.0	6,930.6	10,528.6	6,931.6	71.2	71.6	90.17	-3,609.3	-392.3	330.1	187.7	142.45	2.318	
10,600.0	6,930.1	10,628.6	6,931.1	73.1	73.5	90.17	-3,709.3	-390.2	330.2	183.9	146.21	2.258	
10,700.0	6,929.7	10,728.6	6,930.6	75.0	75.3	90.17	-3,809.2	-388.2	330.2	180.2	149.98	2.201	
10,800.0	6,929.2	10,828.6	6,930.2	76.9	77.2	90.17	-3,909.2	-386.1	330.2	176.4	153.75	2.147	
10,900.0	6,928.7	10,928.6	6,929.7	78.8	79.1	90.17	-4,009.2	-384.0	330.2	172.6	157.53	2.096	
11,000.0	6,928.3	11,028.6	6,929.2	80.6	81.0	90.17	-4,109.2	-382.0	330.2	168.8	161.31	2.047	
11,100.0	6,927.8	11,128.6	6,928.8	82.5	82.9	90.17	-4,209.2	-379.9	330.2	165.1	165.09	2.000	
11,200.0	6,927.3	11,228.6	6,928.3	84.4	84.7	90.17	-4,309.1	-377.9	330.2	161.3	168.87	1.955	
11,300.0	6,926.9	11,328.6	6,927.8	86.3	86.6	90.17	-4,409.1	-375.8	330.2	157.5	172.66	1.912	
11,400.0	6,926.4	11,428.6	6,927.3	88.2	88.5	90.17	-4,509.1	-373.7	330.2	153.7	176.45	1.871	
11,445.6	6,926.2	11,474.2	6,927.1	89.1	89.4	90.17	-4,554.7	-372.8	330.2	152.0	178.18	1.853	
11,480.5	6,926.0	11,502.3	6,927.0	89.7	89.9	90.17	-4,582.8	-372.2	330.2	150.9	179.37	1.841	SF

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-3N - Wellbore #1 - Plan #1 (8-6-1 — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.10	0.0	-14.0	14.0	14.0	0.00	N/A	
100.0	100.0	100.0	100.0	0.1	0.1	-90.10	0.0	-14.0	14.0	13.8	0.22	62.244	
200.0	200.0	200.0	200.0	0.3	0.3	-90.10	0.0	-14.0	14.0	13.3	0.67	20.748	
300.0	300.0	300.0	300.0	0.6	0.6	-90.10	0.0	-14.0	14.0	12.9	1.12	12.449	
400.0	400.0	400.0	400.0	0.8	0.8	-90.10	0.0	-14.0	14.0	12.4	1.57	8.892	
500.0	500.0	500.0	500.0	1.0	1.0	-90.10	0.0	-14.0	14.0	12.0	2.02	6.916	
600.0	600.0	600.0	600.0	1.2	1.2	-90.10	0.0	-14.0	14.0	11.5	2.47	5.659	
700.0	700.0	700.0	700.0	1.5	1.5	-90.10	0.0	-14.0	14.0	11.1	2.92	4.788	
800.0	800.0	800.0	800.0	1.7	1.7	-90.10	0.0	-14.0	14.0	10.6	3.37	4.150	
900.0	900.0	900.0	900.0	1.9	1.9	-90.10	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	-90.10	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	-90.10	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	-90.10	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	-90.10	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	-90.10	0.0	-14.0	14.0	7.9	6.07	2.305	
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-90.10	0.0	-14.0	14.0	7.5	6.52	2.146	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-90.10	0.0	-14.0	14.0	7.0	6.97	2.008	CC
1,700.0	1,700.0	1,699.5	1,699.5	3.7	3.7	-86.98	0.8	-15.5	15.5	8.1	7.41	2.096	
1,800.0	1,800.0	1,798.8	1,798.7	3.9	3.9	-80.54	3.3	-20.0	20.3	12.5	7.85	2.591	
1,900.0	1,900.0	1,897.8	1,897.2	4.2	4.1	-35.42	7.5	-27.5	27.6	19.3	8.28	3.330	
2,000.0	1,999.9	1,996.6	1,995.3	4.4	4.4	-33.91	13.3	-37.9	36.0	27.3	8.70	4.134	
2,100.0	2,099.7	2,096.3	2,094.2	4.6	4.6	-34.53	19.6	-49.3	43.3	34.2	9.13	4.742	
2,200.0	2,199.3	2,196.2	2,193.2	4.8	4.9	-36.74	26.0	-60.7	48.5	38.9	9.56	5.072	
2,300.0	2,298.6	2,296.1	2,292.2	5.1	5.1	-40.26	32.4	-72.1	51.8	41.8	10.01	5.178	
2,400.0	2,397.8	2,396.0	2,391.3	5.3	5.4	-43.84	38.8	-83.5	54.8	44.4	10.48	5.233	
2,500.0	2,497.1	2,495.9	2,490.3	5.6	5.7	-47.04	45.1	-94.9	58.0	47.1	10.96	5.294	
2,600.0	2,596.3	2,595.8	2,589.3	5.8	6.0	-49.90	51.5	-106.4	61.4	49.9	11.46	5.358	
2,700.0	2,695.5	2,695.7	2,688.4	6.1	6.3	-52.46	57.9	-117.8	64.9	52.9	11.97	5.422	
2,800.0	2,794.8	2,795.6	2,787.4	6.4	6.6	-54.74	64.2	-129.2	68.5	56.0	12.50	5.484	
2,900.0	2,894.0	2,895.5	2,886.5	6.6	6.9	-56.80	70.6	-140.6	72.3	59.2	13.03	5.544	
3,000.0	2,993.3	2,995.4	2,985.5	6.9	7.2	-58.65	77.0	-152.1	76.1	62.5	13.58	5.601	
3,100.0	3,092.5	3,095.3	3,084.5	7.2	7.5	-60.33	83.3	-163.5	79.9	65.8	14.13	5.656	
3,200.0	3,191.7	3,195.2	3,183.6	7.5	7.8	-61.85	89.7	-174.9	83.9	69.2	14.70	5.707	
3,300.0	3,291.0	3,295.0	3,282.6	7.8	8.1	-63.23	96.1	-186.3	87.9	72.6	15.27	5.756	
3,400.0	3,390.2	3,394.9	3,381.7	8.1	8.4	-64.49	102.5	-197.7	91.9	76.1	15.84	5.802	
3,500.0	3,489.5	3,494.8	3,480.7	8.4	8.7	-65.64	108.8	-209.2	96.0	79.6	16.42	5.844	
3,600.0	3,588.8	3,594.7	3,579.7	8.6	9.0	-66.50	115.2	-220.6	100.3	83.3	16.99	5.904	
3,700.0	3,688.3	3,694.6	3,678.7	8.9	9.3	-66.12	121.6	-232.0	105.6	88.1	17.47	6.043	
3,800.0	3,788.1	3,794.3	3,777.6	9.1	9.7	-64.58	127.9	-243.4	111.9	94.0	17.90	6.254	
3,900.0	3,888.0	3,893.9	3,876.3	9.3	10.0	-62.11	134.3	-254.8	119.6	101.3	18.28	6.543	
4,000.0	3,988.0	3,993.2	3,974.8	9.4	10.3	-58.97	140.6	-266.1	128.8	110.2	18.61	6.920	
4,100.0	4,088.0	4,092.4	4,073.1	9.6	10.6	-96.38	146.9	-277.5	139.2	120.3	18.89	7.369	
4,200.0	4,188.0	4,193.7	4,173.6	9.8	10.9	-93.50	153.2	-288.7	149.8	130.5	19.25	7.780	
4,300.0	4,288.0	4,298.0	4,277.4	10.0	11.2	-91.54	158.1	-297.4	157.9	138.3	19.60	8.058	
4,400.0	4,388.0	4,402.9	4,382.1	10.2	11.4	-90.42	161.1	-302.9	163.1	143.1	19.97	8.166	
4,500.0	4,488.0	4,508.1	4,487.3	10.4	11.5	-90.01	162.3	-305.0	165.1	144.7	20.36	8.109	
4,600.0	4,588.0	4,608.8	4,588.0	10.6	11.7	-90.01	162.3	-305.0	165.1	144.3	20.76	7.953	
4,700.0	4,688.0	4,708.8	4,688.0	10.9	11.9	-90.01	162.3	-305.0	165.1	143.9	21.18	7.795	
4,800.0	4,788.0	4,808.8	4,788.0	11.1	12.1	-90.01	162.3	-305.0	165.1	143.5	21.60	7.643	
4,900.0	4,888.0	4,908.8	4,888.0	11.3	12.3	-90.01	162.3	-305.0	165.1	143.1	22.02	7.497	
5,000.0	4,988.0	5,008.8	4,988.0	11.5	12.5	-90.01	162.3	-305.0	165.1	142.6	22.44	7.356	
5,100.0	5,088.0	5,108.8	5,088.0	11.7	12.7	-90.01	162.3	-305.0	165.1	142.2	22.87	7.220	

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

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-3N - Wellbore #1 - Plan #1 (8-6-1 — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,188.0	5,208.8	5,188.0	11.9	12.9	-90.01	162.3	-305.0	165.1	141.8	23.29	7.088	
5,300.0	5,288.0	5,308.8	5,288.0	12.1	13.0	-90.01	162.3	-305.0	165.1	141.4	23.72	6.961	
5,400.0	5,388.0	5,408.8	5,388.0	12.3	13.2	-90.01	162.3	-305.0	165.1	140.9	24.14	6.838	
5,500.0	5,488.0	5,508.8	5,488.0	12.5	13.4	-90.01	162.3	-305.0	165.1	140.5	24.57	6.719	
5,600.0	5,588.0	5,608.8	5,588.0	12.7	13.6	-90.01	162.3	-305.0	165.1	140.1	25.00	6.604	
5,700.0	5,688.0	5,708.8	5,688.0	13.0	13.8	-90.01	162.3	-305.0	165.1	139.7	25.43	6.492	
5,800.0	5,788.0	5,808.8	5,788.0	13.2	14.0	-90.01	162.3	-305.0	165.1	139.2	25.86	6.385	
5,900.0	5,888.0	5,908.8	5,888.0	13.4	14.2	-90.01	162.3	-305.0	165.1	138.8	26.29	6.280	
6,000.0	5,988.0	6,008.8	5,988.0	13.6	14.4	-90.01	162.3	-305.0	165.1	138.4	26.72	6.179	
6,100.0	6,088.0	6,108.8	6,088.0	13.8	14.6	-90.01	162.3	-305.0	165.1	137.9	27.15	6.081	
6,200.0	6,188.0	6,208.8	6,188.0	14.0	14.8	-90.01	162.3	-305.0	165.1	137.5	27.58	5.986	
6,300.0	6,288.0	6,308.8	6,288.0	14.2	15.0	-90.01	162.3	-305.0	165.1	137.1	28.01	5.893	
6,400.0	6,388.0	6,408.8	6,388.0	14.5	15.2	-90.01	162.3	-305.0	165.1	136.6	28.45	5.803	
6,500.0	6,487.8	6,509.2	6,488.2	14.6	15.4	91.16	158.4	-304.9	165.1	136.3	28.83	5.726	
6,600.0	6,585.3	6,609.8	6,586.3	14.8	15.5	91.12	136.7	-304.5	165.1	136.1	29.03	5.687	
6,700.0	6,676.9	6,710.4	6,678.4	14.8	15.6	91.03	96.5	-303.6	165.1	135.9	29.15	5.663	
6,800.0	6,759.3	6,811.0	6,761.0	14.9	15.7	90.90	39.5	-302.5	165.1	135.8	29.30	5.634	
6,900.0	6,829.4	6,911.4	6,831.0	15.0	15.7	90.74	-32.3	-301.0	165.1	135.5	29.60	5.577	
7,000.0	6,884.6	7,011.8	6,886.0	15.1	15.9	90.55	-116.0	-299.2	165.1	134.9	30.16	5.473	
7,100.0	6,922.9	7,112.0	6,923.9	15.6	16.1	90.34	-208.7	-297.3	165.1	134.0	31.08	5.311	
7,200.0	6,943.0	7,212.1	6,943.3	16.2	16.7	90.12	-306.7	-295.3	165.1	132.7	32.38	5.098	
7,227.4	6,945.5	7,239.6	6,945.3	16.5	16.9	89.95	-334.0	-294.8	165.1	132.2	32.82	5.030	
7,300.0	6,945.7	7,312.2	6,945.7	17.1	17.5	89.99	-406.6	-293.3	165.1	131.0	34.03	4.850	
7,400.0	6,945.2	7,412.2	6,945.2	18.1	18.5	89.99	-506.6	-291.2	165.1	129.0	36.01	4.584	
7,500.0	6,944.8	7,512.2	6,944.7	19.2	19.6	89.99	-606.6	-289.1	165.1	126.8	38.27	4.313	
7,600.0	6,944.3	7,612.2	6,944.3	20.4	20.8	89.99	-706.5	-287.1	165.1	124.3	40.77	4.048	
7,700.0	6,943.8	7,712.2	6,943.8	21.8	22.1	89.99	-806.5	-285.0	165.1	121.6	43.47	3.797	
7,800.0	6,943.3	7,812.2	6,943.3	23.2	23.6	89.99	-906.5	-282.9	165.1	118.7	46.33	3.563	
7,900.0	6,942.9	7,912.2	6,942.9	24.7	25.0	89.99	-1,006.5	-280.9	165.1	115.7	49.33	3.346	
8,000.0	6,942.4	8,012.2	6,942.4	26.3	26.6	89.99	-1,106.4	-278.8	165.1	112.6	52.43	3.148	
8,100.0	6,941.9	8,112.2	6,941.9	27.9	28.1	89.99	-1,206.4	-276.8	165.1	109.4	55.63	2.967	
8,200.0	6,941.5	8,212.2	6,941.4	29.5	29.8	89.99	-1,306.4	-274.7	165.1	106.2	58.91	2.802	
8,300.0	6,941.0	8,312.2	6,941.0	31.2	31.4	89.99	-1,406.4	-272.6	165.1	102.8	62.25	2.652	
8,400.0	6,940.5	8,412.2	6,940.5	32.9	33.1	89.99	-1,506.4	-270.6	165.1	99.4	65.65	2.514	
8,500.0	6,940.0	8,512.2	6,940.0	34.6	34.8	89.99	-1,606.3	-268.5	165.1	96.0	69.10	2.389	
8,600.0	6,939.6	8,612.2	6,939.6	36.3	36.6	89.99	-1,706.3	-266.4	165.1	92.5	72.58	2.274	
8,700.0	6,939.1	8,712.2	6,939.1	38.1	38.3	89.99	-1,806.3	-264.4	165.1	89.0	76.10	2.169	
8,800.0	6,938.6	8,812.2	6,938.6	39.9	40.1	89.99	-1,906.3	-262.3	165.1	85.4	79.65	2.072	
8,900.0	6,938.2	8,912.2	6,938.1	41.6	41.8	89.99	-2,006.2	-260.3	165.1	81.8	83.23	1.983	
9,000.0	6,937.7	9,012.2	6,937.7	43.4	43.6	89.99	-2,106.2	-258.2	165.1	78.2	86.83	1.901	
9,100.0	6,937.2	9,112.2	6,937.2	45.3	45.4	89.99	-2,206.2	-256.1	165.1	74.6	90.45	1.825	
9,200.0	6,936.7	9,212.2	6,936.7	47.1	47.3	89.99	-2,306.2	-254.1	165.1	71.0	94.09	1.754	
9,300.0	6,936.3	9,312.2	6,936.3	48.9	49.1	89.99	-2,406.2	-252.0	165.1	67.3	97.74	1.689	
9,400.0	6,935.8	9,412.2	6,935.8	50.7	50.9	89.99	-2,506.1	-249.9	165.1	63.7	101.41	1.628	
9,500.0	6,935.3	9,512.2	6,935.3	52.6	52.7	89.99	-2,606.1	-247.9	165.1	60.0	105.09	1.571	
9,600.0	6,934.9	9,612.2	6,934.8	54.4	54.6	89.99	-2,706.1	-245.8	165.1	56.3	108.79	1.517	
9,700.0	6,934.4	9,712.2	6,934.4	56.3	56.4	89.99	-2,806.1	-243.7	165.1	52.6	112.49	1.467	Level 3
9,800.0	6,933.9	9,812.2	6,933.9	58.1	58.3	89.99	-2,906.0	-241.7	165.1	48.9	116.20	1.421	Level 3
9,900.0	6,933.4	9,912.2	6,933.4	60.0	60.1	89.99	-3,006.0	-239.6	165.1	45.1	119.92	1.376	Level 3
10,000.0	6,933.0	10,012.2	6,933.0	61.8	62.0	89.99	-3,106.0	-237.6	165.1	41.4	123.65	1.335	Level 3
10,100.0	6,932.5	10,112.2	6,932.5	63.7	63.9	89.99	-3,206.0	-235.5	165.1	37.7	127.39	1.296	Level 3
10,200.0	6,932.0	10,212.2	6,932.0	65.6	65.7	89.99	-3,306.0	-233.4	165.1	33.9	131.13	1.259	Level 3

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-3N - Wellbore #1 - Plan #1 (8-6-1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,300.0	6,931.6	10,312.2	6,931.5	67.5	67.6	89.99	-3,405.9	-231.4	165.1	30.2	134.88	1.224	Level 2
10,400.0	6,931.1	10,412.2	6,931.1	69.3	69.5	89.99	-3,505.9	-229.3	165.1	26.4	138.63	1.191	Level 2
10,500.0	6,930.6	10,512.2	6,930.6	71.2	71.3	89.99	-3,605.9	-227.2	165.1	22.7	142.39	1.159	Level 2
10,600.0	6,930.1	10,612.2	6,930.1	73.1	73.2	89.99	-3,705.9	-225.2	165.1	18.9	146.16	1.129	Level 2
10,700.0	6,929.7	10,712.2	6,929.7	75.0	75.1	89.99	-3,805.8	-223.1	165.1	15.2	149.92	1.101	Level 2
10,800.0	6,929.2	10,812.2	6,929.2	76.9	77.0	89.99	-3,905.8	-221.1	165.1	11.4	153.70	1.074	Level 2
10,900.0	6,928.7	10,912.2	6,928.7	78.8	78.9	89.99	-4,005.8	-219.0	165.1	7.6	157.47	1.048	Level 2
11,000.0	6,928.3	11,012.2	6,928.2	80.6	80.8	89.99	-4,105.8	-216.9	165.1	3.8	161.25	1.024	Level 2
11,100.0	6,927.8	11,112.2	6,927.8	82.5	82.6	89.99	-4,205.8	-214.9	165.1	0.0	165.03	1.000	Level 2
11,200.0	6,927.3	11,212.2	6,927.3	84.4	84.5	89.99	-4,305.7	-212.8	165.1	-3.7	168.82	0.978	Level 1
11,300.0	6,926.9	11,312.2	6,926.8	86.3	86.4	89.99	-4,405.7	-210.7	165.1	-7.5	172.60	0.956	Level 1
11,400.0	6,926.4	11,412.2	6,926.4	88.2	88.3	89.99	-4,505.7	-208.7	165.1	-11.3	176.39	0.936	Level 1
11,446.9	6,926.2	11,459.1	6,926.1	89.1	89.2	89.99	-4,552.6	-207.7	165.1	-13.1	178.17	0.927	Level 1
11,480.5	6,926.0	11,489.3	6,926.0	89.7	89.8	89.99	-4,582.8	-207.1	165.1	-14.3	179.38	0.920	Level 1, ES, SF

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-5C - Wellbore #1 - Plan #1 (8-6-1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.03	0.0	14.0	14.0	14.0	0.00	N/A	
100.0	100.0	99.0	99.0	0.1	0.1	90.03	0.0	14.0	14.0	13.8	0.22	62.556	
200.0	200.0	199.0	199.0	0.3	0.3	90.03	0.0	14.0	14.0	13.3	0.67	20.817	
300.0	300.0	299.0	299.0	0.6	0.6	90.03	0.0	14.0	14.0	12.9	1.12	12.474	
400.0	400.0	399.0	399.0	0.8	0.8	90.03	0.0	14.0	14.0	12.4	1.57	8.905	
500.0	500.0	499.0	499.0	1.0	1.0	90.03	0.0	14.0	14.0	12.0	2.02	6.924	
600.0	600.0	599.0	599.0	1.2	1.2	90.03	0.0	14.0	14.0	11.5	2.47	5.664	
700.0	700.0	699.0	699.0	1.5	1.5	90.03	0.0	14.0	14.0	11.1	2.92	4.792	
800.0	800.0	799.0	799.0	1.7	1.7	90.03	0.0	14.0	14.0	10.6	3.37	4.152	
900.0	900.0	899.0	899.0	1.9	1.9	90.03	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	90.03	0.0	14.0	14.0	9.7	4.27	3.278	
1,100.0	1,100.0	1,099.0	1,099.0	2.4	2.4	90.03	0.0	14.0	14.0	9.3	4.72	2.965	
1,200.0	1,200.0	1,199.0	1,199.0	2.6	2.6	90.03	0.0	14.0	14.0	8.8	5.17	2.707	
1,300.0	1,300.0	1,299.0	1,299.0	2.8	2.8	90.03	0.0	14.0	14.0	8.4	5.62	2.491	
1,400.0	1,400.0	1,399.0	1,399.0	3.0	3.0	90.03	0.0	14.0	14.0	7.9	6.07	2.306	
1,500.0	1,500.0	1,499.0	1,499.0	3.3	3.3	90.03	0.0	14.0	14.0	7.5	6.52	2.147	
1,600.0	1,600.0	1,599.0	1,599.0	3.5	3.5	90.03	0.0	14.0	14.0	7.0	6.97	2.009	
1,700.0	1,700.0	1,699.0	1,699.0	3.7	3.7	90.03	0.0	14.0	14.0	6.6	7.42	1.887	
1,800.0	1,800.0	1,799.0	1,799.0	3.9	3.9	90.03	0.0	14.0	14.0	6.1	7.86	1.779	CC, ES, SF
1,900.0	1,900.0	1,899.0	1,899.0	4.2	4.2	134.60	0.0	14.0	14.9	6.6	8.31	1.791	
2,000.0	1,999.9	1,998.9	1,998.9	4.4	4.4	143.58	0.0	14.0	17.9	9.1	8.75	2.042	
2,100.0	2,099.7	2,098.7	2,098.7	4.6	4.6	153.07	0.0	14.0	23.4	14.3	9.18	2.554	
2,200.0	2,199.3	2,198.3	2,198.3	4.8	4.8	160.49	0.0	14.0	31.9	22.3	9.60	3.319	
2,300.0	2,298.6	2,298.1	2,298.1	5.1	5.1	164.20	1.2	14.1	42.4	32.4	10.03	4.228	
2,400.0	2,397.8	2,398.3	2,398.2	5.3	5.3	164.18	5.1	14.3	52.3	41.9	10.47	4.997	
2,500.0	2,497.1	2,498.6	2,498.3	5.6	5.5	162.01	11.6	14.8	61.0	50.1	10.92	5.587	
2,600.0	2,596.3	2,598.9	2,598.2	5.8	5.7	158.40	20.8	15.4	68.7	57.3	11.38	6.034	
2,700.0	2,695.5	2,699.1	2,697.7	6.1	6.0	153.71	32.4	16.2	75.7	63.8	11.85	6.382	
2,800.0	2,794.8	2,798.6	2,796.4	6.4	6.2	149.31	44.8	17.0	82.8	70.5	12.34	6.711	
2,900.0	2,894.0	2,898.2	2,895.2	6.6	6.4	145.63	57.2	17.9	90.4	77.6	12.84	7.040	
3,000.0	2,993.3	2,997.7	2,994.0	6.9	6.7	142.53	69.6	18.7	98.3	85.0	13.36	7.361	
3,100.0	3,092.5	3,097.3	3,092.8	7.2	7.0	139.89	82.0	19.5	106.5	92.6	13.88	7.670	
3,200.0	3,191.7	3,196.9	3,191.6	7.5	7.2	137.64	94.4	20.4	114.8	100.4	14.41	7.966	
3,300.0	3,291.0	3,296.4	3,290.3	7.8	7.5	135.69	106.8	21.2	123.3	108.3	14.95	8.246	
3,400.0	3,390.2	3,396.0	3,389.1	8.1	7.8	133.99	119.2	22.0	131.9	116.4	15.50	8.511	
3,500.0	3,489.5	3,495.5	3,487.9	8.4	8.0	132.50	131.6	22.9	140.6	124.6	16.05	8.761	
3,600.0	3,588.8	3,595.2	3,586.9	8.6	8.3	131.32	143.5	23.7	149.1	132.5	16.58	8.993	
3,700.0	3,688.3	3,695.2	3,686.4	8.9	8.5	130.51	153.0	24.3	155.9	138.9	17.02	9.160	
3,800.0	3,788.1	3,795.4	3,786.3	9.1	8.7	129.96	159.9	24.8	160.9	143.4	17.44	9.226	
3,900.0	3,888.0	3,895.7	3,886.6	9.3	8.9	129.64	164.2	25.1	163.9	146.1	17.82	9.199	
4,000.0	3,988.0	3,996.1	3,986.9	9.4	9.1	129.52	165.9	25.2	165.1	146.9	18.18	9.083	
4,100.0	4,088.0	4,096.1	4,087.0	9.6	9.3	88.75	165.9	25.2	165.1	146.6	18.54	8.906	
4,200.0	4,188.0	4,196.1	4,187.0	9.8	9.5	88.75	165.9	25.2	165.1	146.2	18.96	8.708	
4,300.0	4,288.0	4,296.1	4,287.0	10.0	9.7	88.75	165.9	25.2	165.1	145.7	19.38	8.519	
4,400.0	4,388.0	4,396.1	4,387.0	10.2	9.9	88.75	165.9	25.2	165.1	145.3	19.81	8.337	
4,500.0	4,488.0	4,496.1	4,487.0	10.4	10.1	88.75	165.9	25.2	165.1	144.9	20.23	8.162	
4,600.0	4,588.0	4,596.1	4,587.0	10.6	10.3	88.75	165.9	25.2	165.1	144.5	20.66	7.993	
4,700.0	4,688.0	4,696.1	4,687.0	10.9	10.5	88.75	165.9	25.2	165.1	144.0	21.08	7.832	
4,800.0	4,788.0	4,796.1	4,787.0	11.1	10.8	88.75	165.9	25.2	165.1	143.6	21.51	7.676	
4,900.0	4,888.0	4,896.1	4,887.0	11.3	11.0	88.75	165.9	25.2	165.1	143.2	21.94	7.526	
5,000.0	4,988.0	4,996.1	4,987.0	11.5	11.2	88.75	165.9	25.2	165.1	142.8	22.37	7.382	
5,100.0	5,088.0	5,096.1	5,087.0	11.7	11.4	88.75	165.9	25.2	165.1	142.3	22.80	7.242	

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

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-5C - Wellbore #1 - Plan #1 (8-6-1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,188.0	5,196.1	5,187.0	11.9	11.6	88.75	165.9	25.2	165.1	141.9	23.23	7.108	
5,300.0	5,288.0	5,296.1	5,287.0	12.1	11.8	88.75	165.9	25.2	165.1	141.5	23.66	6.979	
5,400.0	5,388.0	5,396.1	5,387.0	12.3	12.1	88.75	165.9	25.2	165.1	141.0	24.09	6.853	
5,500.0	5,488.0	5,496.1	5,487.0	12.5	12.3	88.75	165.9	25.2	165.1	140.6	24.53	6.732	
5,600.0	5,588.0	5,596.1	5,587.0	12.7	12.5	88.75	165.9	25.2	165.1	140.2	24.96	6.616	
5,700.0	5,688.0	5,696.1	5,687.0	13.0	12.7	88.75	165.9	25.2	165.1	139.7	25.39	6.503	
5,800.0	5,788.0	5,796.1	5,787.0	13.2	12.9	88.75	165.9	25.2	165.1	139.3	25.83	6.393	
5,900.0	5,888.0	5,896.1	5,887.0	13.4	13.1	88.75	165.9	25.2	165.1	138.9	26.26	6.287	
6,000.0	5,988.0	5,996.1	5,987.0	13.6	13.4	88.75	165.9	25.2	165.1	138.4	26.70	6.185	
6,100.0	6,088.0	6,096.1	6,087.0	13.8	13.6	88.75	165.9	25.2	165.1	138.0	27.14	6.085	
6,200.0	6,188.0	6,196.1	6,187.0	14.0	13.8	88.75	165.9	25.2	165.1	137.6	27.57	5.989	
6,300.0	6,288.0	6,296.1	6,287.0	14.2	14.0	88.75	165.9	25.2	165.1	137.1	28.01	5.896	
6,400.0	6,388.0	6,396.1	6,387.0	14.5	14.2	88.75	165.9	25.2	165.1	136.7	28.45	5.805	
6,444.7	6,432.7	6,440.8	6,431.7	14.5	14.3	-90.48	165.9	25.2	165.1	136.5	28.64	5.767	
6,500.0	6,487.8	6,496.0	6,486.8	14.6	14.5	-91.37	165.9	25.2	165.2	136.3	28.86	5.723	
6,600.0	6,585.3	6,593.5	6,584.3	14.8	14.7	-98.35	165.9	25.2	167.1	137.9	29.20	5.723	
6,700.0	6,676.9	6,692.9	6,683.6	14.8	14.8	-109.10	161.9	25.3	176.2	147.0	29.20	6.036	
6,800.0	6,759.3	6,803.0	6,790.6	14.9	14.9	-119.03	136.8	25.8	192.0	163.5	28.52	6.731	
6,900.0	6,829.4	6,924.0	6,899.2	15.0	15.0	-127.09	84.1	26.9	211.1	183.9	27.23	7.754	
7,000.0	6,884.6	7,057.3	7,001.2	15.1	15.2	-133.18	-1.2	28.6	230.1	204.4	25.70	8.952	
7,100.0	6,922.9	7,203.0	7,084.0	15.6	15.5	-137.29	-120.4	31.1	245.4	220.8	24.58	9.984	
7,200.0	6,943.0	7,358.5	7,132.4	16.2	16.3	-139.42	-267.5	34.1	254.1	229.6	24.55	10.350	
7,300.0	6,945.7	7,491.9	7,139.6	17.1	17.4	-139.73	-400.5	36.9	255.4	229.7	25.72	9.930	
7,400.0	6,945.2	7,591.9	7,139.3	18.1	18.4	-139.75	-500.5	38.9	255.5	228.5	27.09	9.434	
7,500.0	6,944.8	7,691.9	7,138.9	19.2	19.5	-139.76	-600.4	41.0	255.6	227.0	28.64	8.925	
7,600.0	6,944.3	7,791.9	7,138.6	20.4	20.7	-139.78	-700.4	43.1	255.7	225.4	30.36	8.423	
7,700.0	6,943.8	7,891.9	7,138.2	21.8	22.0	-139.80	-800.4	45.1	255.8	223.6	32.22	7.940	
7,800.0	6,943.3	7,991.9	7,137.9	23.2	23.4	-139.82	-900.4	47.2	255.9	221.7	34.19	7.485	
7,900.0	6,942.9	8,091.9	7,137.5	24.7	24.9	-139.84	-1,000.3	49.2	256.0	219.7	36.25	7.061	
8,000.0	6,942.4	8,191.9	7,137.2	26.3	26.5	-139.85	-1,100.3	51.3	256.1	217.7	38.40	6.669	
8,100.0	6,941.9	8,291.9	7,136.8	27.9	28.0	-139.87	-1,200.3	53.4	256.2	215.6	40.61	6.308	
8,200.0	6,941.5	8,391.9	7,136.5	29.5	29.7	-139.89	-1,300.3	55.4	256.3	213.4	42.88	5.977	
8,300.0	6,941.0	8,491.9	7,136.1	31.2	31.3	-139.91	-1,400.3	57.5	256.4	211.2	45.20	5.672	
8,400.0	6,940.5	8,591.9	7,135.8	32.9	33.0	-139.92	-1,500.2	59.6	256.5	208.9	47.55	5.393	
8,500.0	6,940.0	8,691.9	7,135.4	34.6	34.7	-139.94	-1,600.2	61.6	256.6	206.6	49.94	5.137	
8,600.0	6,939.6	8,791.9	7,135.1	36.3	36.5	-139.96	-1,700.2	63.7	256.7	204.3	52.36	4.901	
8,700.0	6,939.1	8,891.9	7,134.7	38.1	38.2	-139.98	-1,800.2	65.7	256.7	201.9	54.81	4.684	
8,800.0	6,938.6	8,991.9	7,134.4	39.9	40.0	-140.00	-1,900.1	67.8	256.8	199.6	57.28	4.484	
8,900.0	6,938.2	9,091.9	7,134.0	41.6	41.8	-140.01	-2,000.1	69.9	256.9	197.2	59.76	4.299	
9,000.0	6,937.7	9,191.9	7,133.7	43.4	43.6	-140.03	-2,100.1	71.9	257.0	194.8	62.27	4.128	
9,100.0	6,937.2	9,291.9	7,133.3	45.3	45.4	-140.05	-2,200.1	74.0	257.1	192.3	64.78	3.969	
9,200.0	6,936.7	9,391.9	7,133.0	47.1	47.2	-140.07	-2,300.1	76.1	257.2	189.9	67.31	3.821	
9,300.0	6,936.3	9,491.9	7,132.6	48.9	49.0	-140.08	-2,400.0	78.1	257.3	187.4	69.86	3.683	
9,400.0	6,935.8	9,591.9	7,132.3	50.7	50.8	-140.10	-2,500.0	80.2	257.4	185.0	72.41	3.555	
9,500.0	6,935.3	9,691.9	7,131.9	52.6	52.7	-140.12	-2,600.0	82.2	257.5	182.5	74.97	3.435	
9,600.0	6,934.9	9,791.9	7,131.6	54.4	54.5	-140.14	-2,700.0	84.3	257.6	180.0	77.53	3.322	
9,700.0	6,934.4	9,891.9	7,131.2	56.3	56.4	-140.15	-2,799.9	86.4	257.7	177.6	80.11	3.217	
9,800.0	6,933.9	9,991.9	7,130.9	58.1	58.2	-140.17	-2,899.9	88.4	257.8	175.1	82.69	3.117	
9,900.0	6,933.4	10,091.9	7,130.5	60.0	60.1	-140.19	-2,999.9	90.5	257.9	172.6	85.27	3.024	
10,000.0	6,933.0	10,191.9	7,130.2	61.8	61.9	-140.21	-3,099.9	92.5	258.0	170.1	87.86	2.936	
10,100.0	6,932.5	10,291.9	7,129.8	63.7	63.8	-140.22	-3,199.9	94.6	258.0	167.6	90.46	2.853	
10,200.0	6,932.0	10,391.9	7,129.5	65.6	65.7	-140.24	-3,299.8	96.7	258.1	165.1	93.06	2.774	

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-5C - Wellbore #1 - Plan #1 (8-6-1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,300.0	6,931.6	10,491.9	7,129.1	67.5	67.5	-140.26	-3,399.8	98.7	258.2	162.6	95.66	2.700	
10,400.0	6,931.1	10,591.9	7,128.8	69.3	69.4	-140.28	-3,499.8	100.8	258.3	160.1	98.26	2.629	
10,500.0	6,930.6	10,691.9	7,128.4	71.2	71.3	-140.29	-3,599.8	102.9	258.4	157.6	100.87	2.562	
10,600.0	6,930.1	10,791.9	7,128.1	73.1	73.2	-140.31	-3,699.7	104.9	258.5	155.0	103.48	2.498	
10,700.0	6,929.7	10,891.9	7,127.7	75.0	75.0	-140.33	-3,799.7	107.0	258.6	152.5	106.09	2.438	
10,800.0	6,929.2	10,991.9	7,127.4	76.9	76.9	-140.35	-3,899.7	109.0	258.7	150.0	108.70	2.380	
10,900.0	6,928.7	11,091.9	7,127.0	78.8	78.8	-140.36	-3,999.7	111.1	258.8	147.5	111.32	2.325	
11,000.0	6,928.3	11,191.9	7,126.7	80.6	80.7	-140.38	-4,099.7	113.2	258.9	145.0	113.93	2.272	
11,100.0	6,927.8	11,291.9	7,126.3	82.5	82.6	-140.40	-4,199.6	115.2	259.0	142.4	116.55	2.222	
11,200.0	6,927.3	11,391.9	7,126.0	84.4	84.5	-140.42	-4,299.6	117.3	259.1	139.9	119.17	2.174	
11,300.0	6,926.9	11,491.9	7,125.6	86.3	86.4	-140.43	-4,399.6	119.4	259.2	137.4	121.79	2.128	
11,400.0	6,926.4	11,591.9	7,125.3	88.2	88.3	-140.45	-4,499.6	121.4	259.3	134.9	124.41	2.084	
11,480.5	6,926.0	11,672.4	7,125.0	89.7	89.8	-140.47	-4,580.1	123.1	259.3	132.8	126.52	2.050	

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-6N - Wellbore #1 - Plan #1 (8-6-1 — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.04	0.0	30.8	30.8				
100.0	100.0	99.0	99.0	0.1	0.1	90.04	0.0	30.8	30.8	30.6	0.22	137.624	
200.0	200.0	199.0	199.0	0.3	0.3	90.04	0.0	30.8	30.8	30.1	0.67	45.798	
300.0	300.0	299.0	299.0	0.6	0.6	90.04	0.0	30.8	30.8	29.7	1.12	27.442	
400.0	400.0	399.0	399.0	0.8	0.8	90.04	0.0	30.8	30.8	29.2	1.57	19.590	
500.0	500.0	499.0	499.0	1.0	1.0	90.04	0.0	30.8	30.8	28.8	2.02	15.232	
600.0	600.0	599.0	599.0	1.2	1.2	90.04	0.0	30.8	30.8	28.3	2.47	12.460	
700.0	700.0	699.0	699.0	1.5	1.5	90.04	0.0	30.8	30.8	27.9	2.92	10.542	
800.0	800.0	799.0	799.0	1.7	1.7	90.04	0.0	30.8	30.8	27.4	3.37	9.135	
900.0	900.0	899.0	899.0	1.9	1.9	90.04	0.0	30.8	30.8	27.0	3.82	8.060	
1,000.0	1,000.0	999.0	999.0	2.1	2.1	90.04	0.0	30.8	30.8	26.5	4.27	7.211	
1,100.0	1,100.0	1,099.0	1,099.0	2.4	2.4	90.04	0.0	30.8	30.8	26.1	4.72	6.524	
1,200.0	1,200.0	1,199.0	1,199.0	2.6	2.6	90.04	0.0	30.8	30.8	25.6	5.17	5.956	
1,300.0	1,300.0	1,299.0	1,299.0	2.8	2.8	90.04	0.0	30.8	30.8	25.2	5.62	5.480	
1,400.0	1,400.0	1,399.0	1,399.0	3.0	3.0	90.04	0.0	30.8	30.8	24.7	6.07	5.074	
1,500.0	1,500.0	1,499.0	1,499.0	3.3	3.3	90.04	0.0	30.8	30.8	24.3	6.52	4.724	
1,600.0	1,600.0	1,599.0	1,599.0	3.5	3.5	90.04	0.0	30.8	30.8	23.8	6.97	4.419	CC, ES
1,700.0	1,700.0	1,698.4	1,698.4	3.7	3.7	88.38	0.9	31.7	31.7	24.3	7.41	4.275	
1,800.0	1,800.0	1,797.7	1,797.6	3.9	3.9	83.90	3.7	34.3	34.5	26.7	7.85	4.401	
1,900.0	1,900.0	1,896.7	1,896.4	4.2	4.1	120.24	8.3	38.8	40.4	32.1	8.29	4.870	
2,000.0	1,999.9	1,995.3	1,994.6	4.4	4.4	117.96	14.7	44.9	49.7	41.0	8.72	5.701	
2,100.0	2,099.7	2,094.3	2,093.0	4.6	4.6	117.58	22.5	52.4	61.9	52.7	9.16	6.756	
2,200.0	2,199.3	2,193.4	2,191.5	4.8	4.8	118.99	30.4	60.0	75.4	65.8	9.60	7.848	
2,300.0	2,298.6	2,292.2	2,289.7	5.1	5.1	121.36	38.2	67.5	90.2	80.1	10.06	8.967	
2,400.0	2,397.8	2,391.0	2,387.9	5.3	5.3	123.45	46.1	75.1	105.4	94.9	10.52	10.023	
2,500.0	2,497.1	2,489.7	2,486.0	5.6	5.6	125.02	53.9	82.6	120.8	109.8	10.99	10.990	
2,600.0	2,596.3	2,588.5	2,584.2	5.8	5.9	126.23	61.7	90.1	136.3	124.8	11.47	11.876	
2,700.0	2,695.5	2,687.2	2,682.3	6.1	6.1	127.20	69.6	97.7	151.7	139.8	11.96	12.687	
2,800.0	2,794.8	2,786.0	2,780.5	6.4	6.4	127.99	77.4	105.2	167.3	154.8	12.45	13.432	
2,900.0	2,894.0	2,884.8	2,878.7	6.6	6.7	128.64	85.3	112.7	182.8	169.9	12.95	14.117	
3,000.0	2,993.3	2,983.5	2,976.8	6.9	6.9	129.19	93.1	120.3	198.4	184.9	13.45	14.748	
3,100.0	3,092.5	3,082.3	3,075.0	7.2	7.2	129.66	101.0	127.8	214.0	200.0	13.96	15.331	
3,200.0	3,191.7	3,181.1	3,173.2	7.5	7.5	130.07	108.8	135.3	229.6	215.1	14.47	15.870	
3,300.0	3,291.0	3,279.8	3,271.3	7.8	7.8	130.42	116.6	142.9	245.2	230.2	14.98	16.370	
3,400.0	3,390.2	3,378.6	3,369.5	8.1	8.0	130.74	124.5	150.4	260.8	245.3	15.49	16.834	
3,500.0	3,489.5	3,477.4	3,467.7	8.4	8.3	131.01	132.3	157.9	276.4	260.4	16.01	17.266	
3,600.0	3,588.8	3,576.2	3,565.9	8.6	8.6	131.29	140.2	165.5	291.7	275.2	16.52	17.657	
3,700.0	3,688.3	3,675.2	3,664.3	8.9	8.9	131.27	148.0	173.0	305.5	288.5	17.00	17.970	
3,800.0	3,788.1	3,779.5	3,768.1	9.1	9.1	130.99	155.6	180.3	316.9	299.5	17.44	18.175	
3,900.0	3,888.0	3,885.4	3,873.6	9.3	9.3	130.68	161.1	185.6	324.7	306.9	17.84	18.200	
4,000.0	3,988.0	3,991.6	3,979.7	9.4	9.6	130.35	164.6	189.0	328.9	310.7	18.22	18.049	
4,100.0	4,088.0	4,098.0	4,086.1	9.6	9.7	89.36	166.0	190.3	330.2	311.6	18.60	17.747	
4,200.0	4,188.0	4,198.8	4,187.0	9.8	9.9	89.36	166.0	190.3	330.2	311.2	19.00	17.376	
4,300.0	4,288.0	4,298.8	4,287.0	10.0	10.1	89.36	166.0	190.3	330.2	310.8	19.42	17.002	
4,400.0	4,388.0	4,398.8	4,387.0	10.2	10.3	89.36	166.0	190.3	330.2	310.4	19.84	16.642	
4,500.0	4,488.0	4,498.8	4,487.0	10.4	10.5	89.36	166.0	190.3	330.2	309.9	20.26	16.296	
4,600.0	4,588.0	4,598.8	4,587.0	10.6	10.7	89.36	166.0	190.3	330.2	309.5	20.69	15.963	
4,700.0	4,688.0	4,698.8	4,687.0	10.9	10.9	89.36	166.0	190.3	330.2	309.1	21.11	15.643	
4,800.0	4,788.0	4,798.8	4,787.0	11.1	11.1	89.36	166.0	190.3	330.2	308.7	21.53	15.335	
4,900.0	4,888.0	4,898.8	4,887.0	11.3	11.4	89.36	166.0	190.3	330.2	308.2	21.96	15.037	
5,000.0	4,988.0	4,998.8	4,987.0	11.5	11.6	89.36	166.0	190.3	330.2	307.8	22.38	14.751	
5,100.0	5,088.0	5,098.8	5,087.0	11.7	11.8	89.36	166.0	190.3	330.2	307.4	22.81	14.475	

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

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-6N - Wellbore #1 - Plan #1 (8-6-1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,188.0	5,198.8	5,187.0	11.9	12.0	89.36	166.0	190.3	330.2	307.0	23.24	14.208	
5,300.0	5,288.0	5,298.8	5,287.0	12.1	12.2	89.36	166.0	190.3	330.2	306.5	23.67	13.950	
5,400.0	5,388.0	5,398.8	5,387.0	12.3	12.4	89.36	166.0	190.3	330.2	306.1	24.10	13.702	
5,500.0	5,488.0	5,498.8	5,487.0	12.5	12.6	89.36	166.0	190.3	330.2	305.7	24.53	13.461	
5,600.0	5,588.0	5,598.8	5,587.0	12.7	12.8	89.36	166.0	190.3	330.2	305.2	24.96	13.229	
5,700.0	5,688.0	5,698.8	5,687.0	13.0	13.0	89.36	166.0	190.3	330.2	304.8	25.39	13.004	
5,800.0	5,788.0	5,798.8	5,787.0	13.2	13.2	89.36	166.0	190.3	330.2	304.4	25.82	12.786	
5,900.0	5,888.0	5,898.8	5,887.0	13.4	13.4	89.36	166.0	190.3	330.2	303.9	26.26	12.575	
6,000.0	5,988.0	5,998.8	5,987.0	13.6	13.7	89.36	166.0	190.3	330.2	303.5	26.69	12.371	
6,100.0	6,088.0	6,098.8	6,087.0	13.8	13.9	89.36	166.0	190.3	330.2	303.1	27.13	12.173	
6,200.0	6,188.0	6,198.8	6,187.0	14.0	14.1	89.36	166.0	190.3	330.2	302.6	27.56	11.981	
6,300.0	6,288.0	6,298.8	6,287.0	14.2	14.3	89.36	166.0	190.3	330.2	302.2	27.99	11.795	
6,400.0	6,388.0	6,398.8	6,387.0	14.5	14.5	89.36	166.0	190.3	330.2	301.8	28.43	11.614	
6,500.0	6,487.8	6,498.4	6,486.4	14.6	14.7	-89.46	162.2	190.4	330.2	301.4	28.79	11.471	
6,600.0	6,585.3	6,597.9	6,583.4	14.8	14.8	-89.48	141.0	190.8	330.2	301.2	28.98	11.393	
6,700.0	6,676.9	6,697.3	6,674.6	14.8	14.9	-89.53	101.8	191.6	330.2	301.1	29.11	11.344	
6,800.0	6,759.3	6,796.8	6,756.8	14.9	15.0	-89.59	45.9	192.8	330.2	300.9	29.25	11.287	
6,900.0	6,829.4	6,896.4	6,826.9	15.0	15.1	-89.66	-24.6	194.2	330.2	300.6	29.54	11.176	
7,000.0	6,884.6	6,996.1	6,882.3	15.1	15.2	-89.75	-107.2	195.9	330.2	300.1	30.10	10.969	
7,100.0	6,922.9	7,095.9	6,921.1	15.6	15.7	-89.84	-199.0	197.8	330.2	299.2	31.01	10.646	
7,200.0	6,943.0	7,195.7	6,941.7	16.2	16.3	-89.95	-296.6	199.8	330.2	297.9	32.31	10.219	
7,300.0	6,945.7	7,295.7	6,944.7	17.1	17.1	-90.01	-396.4	201.9	330.2	296.2	33.96	9.723	
7,400.0	6,945.2	7,395.7	6,944.3	18.1	18.1	-90.01	-496.4	203.9	330.2	294.2	35.94	9.188	
7,500.0	6,944.8	7,495.7	6,943.8	19.2	19.2	-90.01	-596.3	206.0	330.2	292.0	38.20	8.643	
7,600.0	6,944.3	7,595.7	6,943.3	20.4	20.5	-90.01	-696.3	208.1	330.2	289.5	40.70	8.112	
7,700.0	6,943.8	7,695.7	6,942.9	21.8	21.8	-90.01	-796.3	210.1	330.2	286.8	43.40	7.607	
7,800.0	6,943.3	7,795.7	6,942.4	23.2	23.2	-90.01	-896.3	212.2	330.2	283.9	46.26	7.136	
7,900.0	6,942.9	7,895.7	6,941.9	24.7	24.7	-90.01	-996.3	214.2	330.2	280.9	49.26	6.702	
8,000.0	6,942.4	7,995.7	6,941.5	26.3	26.3	-90.01	-1,096.2	216.3	330.2	277.8	52.37	6.304	
8,100.0	6,941.9	8,095.7	6,941.0	27.9	27.9	-90.01	-1,196.2	218.4	330.2	274.6	55.57	5.941	
8,200.0	6,941.5	8,195.7	6,940.5	29.5	29.5	-90.01	-1,296.2	220.4	330.2	271.3	58.85	5.610	
8,300.0	6,941.0	8,295.7	6,940.0	31.2	31.2	-90.01	-1,396.2	222.5	330.2	268.0	62.19	5.309	
8,400.0	6,940.5	8,395.7	6,939.6	32.9	32.9	-90.01	-1,496.1	224.5	330.1	264.6	65.59	5.033	
8,500.0	6,940.0	8,495.7	6,939.1	34.6	34.6	-90.01	-1,596.1	226.6	330.1	261.1	69.04	4.782	
8,600.0	6,939.6	8,595.7	6,938.6	36.3	36.3	-90.01	-1,696.1	228.7	330.1	257.6	72.52	4.552	
8,700.0	6,939.1	8,695.7	6,938.2	38.1	38.1	-90.01	-1,796.1	230.7	330.1	254.1	76.04	4.341	
8,800.0	6,938.6	8,795.7	6,937.7	39.9	39.9	-90.01	-1,896.1	232.8	330.1	250.5	79.60	4.148	
8,900.0	6,938.2	8,895.7	6,937.2	41.6	41.6	-90.01	-1,996.0	234.8	330.1	247.0	83.17	3.969	
9,000.0	6,937.7	8,995.7	6,936.7	43.4	43.4	-90.01	-2,096.0	236.9	330.1	243.4	86.77	3.805	
9,100.0	6,937.2	9,095.7	6,936.3	45.3	45.2	-90.01	-2,196.0	239.0	330.1	239.7	90.40	3.652	
9,200.0	6,936.7	9,195.7	6,935.8	47.1	47.1	-90.01	-2,296.0	241.0	330.1	236.1	94.03	3.511	
9,300.0	6,936.3	9,295.7	6,935.3	48.9	48.9	-90.01	-2,395.9	243.1	330.1	232.4	97.69	3.379	
9,400.0	6,935.8	9,395.7	6,934.9	50.7	50.7	-90.01	-2,495.9	245.2	330.1	228.8	101.36	3.257	
9,500.0	6,935.3	9,495.7	6,934.4	52.6	52.6	-90.01	-2,595.9	247.2	330.1	225.1	105.04	3.143	
9,600.0	6,934.9	9,595.7	6,933.9	54.4	54.4	-90.01	-2,695.9	249.3	330.1	221.4	108.73	3.036	
9,700.0	6,934.4	9,695.7	6,933.4	56.3	56.3	-90.01	-2,795.9	251.3	330.1	217.7	112.44	2.936	
9,800.0	6,933.9	9,795.7	6,933.0	58.1	58.1	-90.01	-2,895.8	253.4	330.1	214.0	116.15	2.842	
9,900.0	6,933.4	9,895.7	6,932.5	60.0	60.0	-90.01	-2,995.8	255.5	330.1	210.2	119.87	2.754	
10,000.0	6,933.0	9,995.7	6,932.0	61.8	61.8	-90.01	-3,095.8	257.5	330.1	206.5	123.60	2.671	
10,100.0	6,932.5	10,095.7	6,931.6	63.7	63.7	-90.01	-3,195.8	259.6	330.1	202.8	127.34	2.592	
10,200.0	6,932.0	10,195.7	6,931.1	65.6	65.6	-90.01	-3,295.7	261.6	330.1	199.0	131.08	2.518	
10,300.0	6,931.6	10,295.7	6,930.6	67.5	67.4	-90.01	-3,395.7	263.7	330.1	195.3	134.83	2.448	

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-6N - Wellbore #1 - Plan #1 (8-6-1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,400.0	6,931.1	10,395.7	6,930.1	69.3	69.3	-90.01	-3,495.7	265.8	330.1	191.5	138.59	2.382	
10,500.0	6,930.6	10,495.7	6,929.7	71.2	71.2	-90.01	-3,595.7	267.8	330.1	187.8	142.34	2.319	
10,600.0	6,930.1	10,595.7	6,929.2	73.1	73.1	-90.01	-3,695.7	269.9	330.1	184.0	146.11	2.259	
10,700.0	6,929.7	10,695.7	6,928.7	75.0	75.0	-90.01	-3,795.6	271.9	330.1	180.2	149.88	2.202	
10,800.0	6,929.2	10,795.7	6,928.3	76.9	76.8	-90.01	-3,895.6	274.0	330.1	176.4	153.65	2.148	
10,900.0	6,928.7	10,895.7	6,927.8	78.8	78.7	-90.01	-3,995.6	276.1	330.1	172.7	157.42	2.097	
11,000.0	6,928.3	10,995.7	6,927.3	80.6	80.6	-90.01	-4,095.6	278.1	330.1	168.9	161.20	2.048	
11,100.0	6,927.8	11,095.7	6,926.8	82.5	82.5	-90.01	-4,195.5	280.2	330.1	165.1	164.99	2.001	
11,200.0	6,927.3	11,195.7	6,926.4	84.4	84.4	-90.01	-4,295.5	282.3	330.1	161.3	168.77	1.956	
11,300.0	6,926.9	11,295.7	6,925.9	86.3	86.3	-90.01	-4,395.5	284.3	330.1	157.5	172.56	1.913	
11,400.0	6,926.4	11,395.7	6,925.4	88.2	88.2	-90.01	-4,495.5	286.4	330.1	153.7	176.35	1.872	
11,480.5	6,926.0	11,476.3	6,925.0	89.7	89.7	-90.01	-4,576.0	288.0	330.1	150.7	179.40	1.840 SF	

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-7N - Wellbore #1 - Plan #1 (8-6-1 — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.05	0.0	44.8	44.8				
100.0	100.0	99.0	99.0	0.1	0.1	90.05	0.0	44.8	44.8	44.5	0.22	200.181	
200.0	200.0	199.0	199.0	0.3	0.3	90.05	0.0	44.8	44.8	44.1	0.67	66.616	
300.0	300.0	299.0	299.0	0.6	0.6	90.05	0.0	44.8	44.8	43.6	1.12	39.916	
400.0	400.0	399.0	399.0	0.8	0.8	90.05	0.0	44.8	44.8	43.2	1.57	28.495	
500.0	500.0	499.0	499.0	1.0	1.0	90.05	0.0	44.8	44.8	42.7	2.02	22.156	
600.0	600.0	599.0	599.0	1.2	1.2	90.05	0.0	44.8	44.8	42.3	2.47	18.124	
700.0	700.0	699.0	699.0	1.5	1.5	90.05	0.0	44.8	44.8	41.8	2.92	15.333	
800.0	800.0	799.0	799.0	1.7	1.7	90.05	0.0	44.8	44.8	41.4	3.37	13.288	
900.0	900.0	899.0	899.0	1.9	1.9	90.05	0.0	44.8	44.8	41.0	3.82	11.723	
1,000.0	1,000.0	999.0	999.0	2.1	2.1	90.05	0.0	44.8	44.8	40.5	4.27	10.489	
1,100.0	1,100.0	1,099.0	1,099.0	2.4	2.4	90.05	0.0	44.8	44.8	40.1	4.72	9.489	
1,200.0	1,200.0	1,199.0	1,199.0	2.6	2.6	90.05	0.0	44.8	44.8	39.6	5.17	8.664	
1,300.0	1,300.0	1,299.0	1,299.0	2.8	2.8	90.05	0.0	44.8	44.8	39.2	5.62	7.970	
1,400.0	1,400.0	1,399.0	1,399.0	3.0	3.0	90.05	0.0	44.8	44.8	38.7	6.07	7.380	CC, ES
1,500.0	1,500.0	1,498.0	1,498.0	3.3	3.2	89.31	0.6	45.9	45.9	39.4	6.51	7.054	
1,600.0	1,600.0	1,596.8	1,596.7	3.5	3.5	87.28	2.3	49.2	49.4	42.4	6.94	7.111	
1,700.0	1,700.0	1,695.3	1,695.1	3.7	3.7	84.46	5.3	54.8	55.2	47.9	7.38	7.488	
1,800.0	1,800.0	1,793.5	1,792.8	3.9	3.9	81.41	9.5	62.7	63.7	55.8	7.82	8.141	
1,900.0	1,900.0	1,891.5	1,890.1	4.2	4.1	119.99	14.8	72.6	75.3	67.0	8.25	9.123	
2,000.0	1,999.9	1,990.5	1,988.4	4.4	4.4	119.64	20.5	83.4	89.0	80.3	8.68	10.250	
2,100.0	2,099.7	2,089.4	2,086.5	4.6	4.6	120.59	26.2	94.2	104.1	94.9	9.12	11.411	
2,200.0	2,199.3	2,187.9	2,184.3	4.8	4.9	122.31	31.9	104.9	120.5	110.9	9.56	12.607	
2,300.0	2,298.6	2,286.2	2,281.8	5.1	5.2	124.48	37.6	115.7	138.4	128.4	10.00	13.837	
2,400.0	2,397.8	2,384.3	2,379.2	5.3	5.4	126.48	43.3	126.4	156.9	146.5	10.47	14.995	
2,500.0	2,497.1	2,482.4	2,476.6	5.6	5.7	128.06	49.0	137.1	175.6	164.6	10.93	16.058	
2,600.0	2,596.3	2,580.6	2,574.0	5.8	6.0	129.33	54.7	147.8	194.3	182.9	11.41	17.033	
2,700.0	2,695.5	2,678.7	2,671.4	6.1	6.3	130.38	60.4	158.5	213.1	201.2	11.89	17.928	
2,800.0	2,794.8	2,776.9	2,768.8	6.4	6.6	131.26	66.0	169.2	232.0	219.6	12.37	18.751	
2,900.0	2,894.0	2,875.0	2,866.1	6.6	6.9	132.01	71.7	179.9	250.9	238.1	12.86	19.509	
3,000.0	2,993.3	2,973.2	2,963.5	6.9	7.2	132.65	77.4	190.6	269.9	256.5	13.36	20.208	
3,100.0	3,092.5	3,071.3	3,060.9	7.2	7.5	133.21	83.1	201.3	288.9	275.0	13.85	20.854	
3,200.0	3,191.7	3,169.5	3,158.3	7.5	7.7	133.70	88.8	212.0	307.9	293.5	14.35	21.453	
3,300.0	3,291.0	3,267.6	3,255.7	7.8	8.0	134.13	94.5	222.7	326.9	312.1	14.85	22.009	
3,400.0	3,390.2	3,365.7	3,353.1	8.1	8.3	134.52	100.2	233.4	346.0	330.6	15.36	22.526	
3,500.0	3,489.5	3,463.9	3,450.5	8.4	8.6	134.86	105.8	244.1	365.0	349.2	15.86	23.009	
3,600.0	3,588.8	3,562.1	3,548.0	8.6	8.9	135.24	111.5	254.8	383.8	367.4	16.37	23.442	
3,700.0	3,688.3	3,660.6	3,645.7	8.9	9.2	135.42	117.2	265.5	400.9	384.0	16.85	23.796	
3,800.0	3,788.1	3,759.4	3,743.8	9.1	9.6	135.32	123.0	276.3	416.1	398.8	17.31	24.041	
3,900.0	3,888.0	3,858.5	3,842.1	9.3	9.9	134.97	128.7	287.1	429.5	411.8	17.76	24.190	
4,000.0	3,988.0	3,957.6	3,940.5	9.4	10.2	134.39	134.4	297.9	441.1	423.0	18.19	24.254	
4,100.0	4,088.0	4,056.9	4,039.0	9.6	10.5	92.82	140.2	308.7	451.7	433.1	18.63	24.243	
4,200.0	4,188.0	4,156.1	4,137.4	9.8	10.8	92.04	145.9	319.6	462.4	443.3	19.09	24.222	
4,300.0	4,288.0	4,256.3	4,236.8	10.0	11.1	91.29	151.7	330.5	473.2	453.6	19.55	24.208	
4,400.0	4,388.0	4,367.9	4,347.9	10.2	11.4	90.59	157.3	341.0	482.5	462.5	19.99	24.142	
4,500.0	4,488.0	4,480.2	4,459.8	10.4	11.6	90.10	161.4	348.7	489.3	468.9	20.41	23.974	
4,600.0	4,588.0	4,592.9	4,572.4	10.6	11.8	89.81	164.0	353.5	493.6	472.8	20.83	23.695	
4,700.0	4,688.0	4,705.9	4,685.3	10.9	12.0	89.69	164.9	355.3	495.3	474.0	21.24	23.313	
4,800.0	4,788.0	4,807.6	4,787.0	11.1	12.2	89.69	165.0	355.4	495.3	473.6	21.65	22.878	
4,900.0	4,888.0	4,907.6	4,887.0	11.3	12.4	89.69	165.0	355.4	495.3	473.2	22.07	22.444	
5,000.0	4,988.0	5,007.6	4,987.0	11.5	12.6	89.69	165.0	355.4	495.3	472.8	22.49	22.026	
5,100.0	5,088.0	5,107.6	5,087.0	11.7	12.7	89.69	165.0	355.4	495.3	472.4	22.91	21.621	

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-7N - Wellbore #1 - Plan #1 (8-6-1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,188.0	5,207.6	5,187.0	11.9	12.9	89.69	165.0	355.4	495.3	471.9	23.33	21.231	
5,300.0	5,288.0	5,307.6	5,287.0	12.1	13.1	89.69	165.0	355.4	495.3	471.5	23.75	20.853	
5,400.0	5,388.0	5,407.6	5,387.0	12.3	13.3	89.69	165.0	355.4	495.3	471.1	24.17	20.488	
5,500.0	5,488.0	5,507.6	5,487.0	12.5	13.5	89.69	165.0	355.4	495.3	470.7	24.60	20.134	
5,600.0	5,588.0	5,607.6	5,587.0	12.7	13.7	89.69	165.0	355.4	495.3	470.3	25.02	19.792	
5,700.0	5,688.0	5,707.6	5,687.0	13.0	13.9	89.69	165.0	355.4	495.3	469.8	25.45	19.460	
5,800.0	5,788.0	5,807.6	5,787.0	13.2	14.1	89.69	165.0	355.4	495.3	469.4	25.88	19.139	
5,900.0	5,888.0	5,907.6	5,887.0	13.4	14.3	89.69	165.0	355.4	495.3	469.0	26.31	18.828	
6,000.0	5,988.0	6,007.6	5,987.0	13.6	14.5	89.69	165.0	355.4	495.3	468.5	26.73	18.526	
6,100.0	6,088.0	6,107.6	6,087.0	13.8	14.7	89.69	165.0	355.4	495.3	468.1	27.16	18.234	
6,200.0	6,188.0	6,207.6	6,187.0	14.0	14.9	89.69	165.0	355.4	495.3	467.7	27.59	17.950	
6,300.0	6,288.0	6,307.6	6,287.0	14.2	15.1	89.69	165.0	355.4	495.3	467.3	28.02	17.674	
6,400.0	6,388.0	6,407.6	6,387.0	14.5	15.3	89.69	165.0	355.4	495.3	466.8	28.45	17.406	
6,500.0	6,487.8	6,506.7	6,485.9	14.6	15.5	-89.13	161.3	355.4	495.3	466.5	28.80	17.199	
6,600.0	6,585.3	6,605.3	6,582.1	14.8	15.6	-89.17	140.4	355.9	495.3	466.3	29.00	17.079	
6,700.0	6,676.9	6,703.9	6,672.8	14.8	15.7	-89.24	101.8	356.7	495.3	466.1	29.13	17.004	
6,800.0	6,759.3	6,802.8	6,754.6	14.9	15.7	-89.33	46.7	357.8	495.3	466.0	29.28	16.917	
6,900.0	6,829.4	6,901.8	6,824.7	15.0	15.8	-89.45	-23.0	359.2	495.2	465.7	29.57	16.749	
7,000.0	6,884.6	7,001.0	6,880.5	15.1	16.0	-89.59	-104.9	360.9	495.2	465.1	30.13	16.439	
7,100.0	6,922.9	7,100.4	6,919.8	15.6	16.3	-89.74	-196.0	362.8	495.2	464.2	31.03	15.957	
7,200.0	6,943.0	7,200.1	6,941.2	16.2	16.9	-89.90	-293.2	364.8	495.2	462.9	32.33	15.320	
7,300.0	6,945.7	7,300.0	6,944.8	17.1	17.6	-90.01	-393.0	366.9	495.2	461.2	33.97	14.579	
7,400.0	6,945.2	7,400.0	6,944.3	18.1	18.6	-90.01	-493.0	368.9	495.2	459.3	35.94	13.778	
7,500.0	6,944.8	7,500.0	6,943.8	19.2	19.7	-90.01	-592.9	371.0	495.2	457.0	38.20	12.963	
7,600.0	6,944.3	7,600.0	6,943.4	20.4	20.9	-90.01	-692.9	373.1	495.2	454.5	40.70	12.167	
7,700.0	6,943.8	7,700.0	6,942.9	21.8	22.2	-90.01	-792.9	375.1	495.2	451.8	43.40	11.411	
7,800.0	6,943.3	7,800.0	6,942.4	23.2	23.6	-90.01	-892.9	377.2	495.2	448.9	46.26	10.705	
7,900.0	6,942.9	7,900.0	6,941.9	24.7	25.1	-90.01	-992.9	379.2	495.2	446.0	49.25	10.054	
8,000.0	6,942.4	8,000.0	6,941.5	26.3	26.6	-90.01	-1,092.8	381.3	495.2	442.8	52.36	9.458	
8,100.0	6,941.9	8,100.0	6,941.0	27.9	28.2	-90.01	-1,192.8	383.4	495.2	439.6	55.56	8.913	
8,200.0	6,941.5	8,200.0	6,940.5	29.5	29.8	-90.01	-1,292.8	385.4	495.2	436.4	58.83	8.417	
8,300.0	6,941.0	8,300.0	6,940.1	31.2	31.4	-90.01	-1,392.8	387.5	495.2	433.0	62.18	7.964	
8,400.0	6,940.5	8,400.0	6,939.6	32.9	33.1	-90.01	-1,492.7	389.6	495.2	429.6	65.57	7.552	
8,500.0	6,940.0	8,500.0	6,939.1	34.6	34.8	-90.01	-1,592.7	391.6	495.2	426.2	69.02	7.175	
8,600.0	6,939.6	8,600.0	6,938.6	36.3	36.5	-90.01	-1,692.7	393.7	495.2	422.7	72.51	6.830	
8,700.0	6,939.1	8,700.0	6,938.2	38.1	38.3	-90.01	-1,792.7	395.7	495.2	419.2	76.03	6.514	
8,800.0	6,938.6	8,800.0	6,937.7	39.9	40.1	-90.01	-1,892.7	397.8	495.2	415.6	79.58	6.223	
8,900.0	6,938.2	8,900.0	6,937.2	41.6	41.8	-90.01	-1,992.6	399.9	495.2	412.0	83.15	5.955	
9,000.0	6,937.7	9,000.0	6,936.8	43.4	43.6	-90.01	-2,092.6	401.9	495.2	408.4	86.75	5.708	
9,100.0	6,937.2	9,100.0	6,936.3	45.3	45.4	-90.01	-2,192.6	404.0	495.2	404.8	90.37	5.479	
9,200.0	6,936.7	9,200.0	6,935.8	47.1	47.2	-90.01	-2,292.6	406.1	495.2	401.2	94.01	5.267	
9,300.0	6,936.3	9,300.0	6,935.3	48.9	49.0	-90.01	-2,392.5	408.1	495.2	397.5	97.67	5.070	
9,400.0	6,935.8	9,400.0	6,934.9	50.7	50.9	-90.01	-2,492.5	410.2	495.2	393.9	101.34	4.887	
9,500.0	6,935.3	9,500.0	6,934.4	52.6	52.7	-90.01	-2,592.5	412.2	495.2	390.2	105.02	4.715	
9,600.0	6,934.9	9,600.0	6,933.9	54.4	54.5	-90.01	-2,692.5	414.3	495.2	386.5	108.71	4.555	
9,700.0	6,934.4	9,700.0	6,933.5	56.3	56.4	-90.01	-2,792.5	416.4	495.2	382.8	112.41	4.405	
9,800.0	6,933.9	9,800.0	6,933.0	58.1	58.2	-90.01	-2,892.4	418.4	495.2	379.1	116.13	4.264	
9,900.0	6,933.4	9,900.0	6,932.5	60.0	60.1	-90.01	-2,992.4	420.5	495.2	375.3	119.85	4.132	
10,000.0	6,933.0	10,000.0	6,932.0	61.8	62.0	-90.01	-3,092.4	422.5	495.2	371.6	123.58	4.007	
10,100.0	6,932.5	10,100.0	6,931.6	63.7	63.8	-90.01	-3,192.4	424.6	495.2	367.9	127.31	3.889	
10,200.0	6,932.0	10,200.0	6,931.1	65.6	65.7	-90.01	-3,292.3	426.7	495.2	364.1	131.06	3.778	
10,300.0	6,931.6	10,300.0	6,930.6	67.5	67.6	-90.01	-3,392.3	428.7	495.2	360.4	134.81	3.673	

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-7N - Wellbore #1 - Plan #1 (8-6-1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,400.0	6,931.1	10,400.0	6,930.2	69.3	69.4	-90.01	-3,492.3	430.8	495.2	356.6	138.56	3.574	
10,500.0	6,930.6	10,500.0	6,929.7	71.2	71.3	-90.01	-3,592.3	432.9	495.2	352.9	142.32	3.479	
10,600.0	6,930.1	10,600.0	6,929.2	73.1	73.2	-90.01	-3,692.2	434.9	495.2	349.1	146.08	3.390	
10,700.0	6,929.7	10,700.0	6,928.7	75.0	75.1	-90.01	-3,792.2	437.0	495.2	345.3	149.85	3.304	
10,800.0	6,929.2	10,800.0	6,928.3	76.9	76.9	-90.01	-3,892.2	439.0	495.2	341.5	153.62	3.223	
10,900.0	6,928.7	10,900.0	6,927.8	78.8	78.8	-90.01	-3,992.2	441.1	495.2	337.8	157.40	3.146	
11,000.0	6,928.3	11,000.0	6,927.3	80.6	80.7	-90.01	-4,092.2	443.2	495.2	334.0	161.18	3.072	
11,100.0	6,927.8	11,100.0	6,926.9	82.5	82.6	-90.01	-4,192.1	445.2	495.2	330.2	164.96	3.002	
11,200.0	6,927.3	11,200.0	6,926.4	84.4	84.5	-90.01	-4,292.1	447.3	495.2	326.4	168.74	2.934	
11,300.0	6,926.9	11,300.0	6,925.9	86.3	86.4	-90.01	-4,392.1	449.4	495.2	322.6	172.53	2.870	
11,400.0	6,926.4	11,400.0	6,925.4	88.2	88.3	-90.01	-4,492.1	451.4	495.2	318.8	176.32	2.808	
11,480.5	6,926.0	11,480.6	6,925.1	89.7	89.5	-90.01	-4,572.6	453.1	495.2	316.1	179.08	2.765	SF

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-8N - Wellbore #1 - Plan #1 (8-6-1 — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.05	-0.1	58.8	58.8				
100.0	100.0	98.0	98.0	0.1	0.1	90.05	-0.1	58.8	58.8	58.5	0.22	264.062	
200.0	200.0	198.0	198.0	0.3	0.3	90.05	-0.1	58.8	58.8	58.1	0.67	87.727	
300.0	300.0	298.0	298.0	0.6	0.6	90.05	-0.1	58.8	58.8	57.6	1.12	52.495	
400.0	400.0	398.0	398.0	0.8	0.8	90.05	-0.1	58.8	58.8	57.2	1.57	37.454	
500.0	500.0	498.0	498.0	1.0	1.0	90.05	-0.1	58.8	58.8	56.7	2.02	29.112	
600.0	600.0	598.0	598.0	1.2	1.2	90.05	-0.1	58.8	58.8	56.3	2.47	23.809	
700.0	700.0	698.0	698.0	1.5	1.5	90.05	-0.1	58.8	58.8	55.8	2.92	20.141	
800.0	800.0	798.0	798.0	1.7	1.7	90.05	-0.1	58.8	58.8	55.4	3.37	17.452	
900.0	900.0	898.0	898.0	1.9	1.9	90.05	-0.1	58.8	58.8	54.9	3.82	15.396	
1,000.0	1,000.0	998.0	998.0	2.1	2.1	90.05	-0.1	58.8	58.8	54.5	4.27	13.774	CC, ES
1,100.0	1,100.0	1,096.1	1,096.1	2.4	2.3	89.53	0.5	60.3	60.3	55.6	4.70	12.824	
1,200.0	1,200.0	1,194.0	1,193.8	2.6	2.6	88.09	2.2	64.9	65.1	60.0	5.13	12.680	
1,300.0	1,300.0	1,291.4	1,290.8	2.8	2.8	86.10	5.0	72.7	73.2	67.6	5.57	13.135	
1,400.0	1,400.0	1,388.8	1,387.6	3.0	3.0	83.97	8.8	83.4	84.6	78.5	6.02	14.037	
1,500.0	1,500.0	1,487.9	1,486.0	3.3	3.3	82.18	13.1	95.3	96.9	90.5	6.49	14.946	
1,600.0	1,600.0	1,587.1	1,584.4	3.5	3.5	80.81	17.3	107.1	109.4	102.4	6.95	15.731	
1,700.0	1,700.0	1,686.3	1,682.7	3.7	3.8	79.71	21.6	119.0	121.9	114.5	7.43	16.412	
1,800.0	1,800.0	1,785.5	1,781.1	3.9	4.1	78.82	25.9	130.8	134.4	126.5	7.90	17.008	
1,900.0	1,900.0	1,884.6	1,879.4	4.2	4.4	119.12	30.1	142.7	147.6	139.4	8.23	17.934	
2,000.0	1,999.9	1,983.6	1,977.6	4.4	4.7	119.50	34.4	154.5	162.1	153.4	8.67	18.690	
2,100.0	2,099.7	2,082.3	2,075.5	4.6	5.0	120.51	38.6	166.3	177.9	168.7	9.11	19.515	
2,200.0	2,199.3	2,180.6	2,173.0	4.8	5.3	121.97	42.8	178.0	195.1	185.5	9.56	20.408	
2,300.0	2,298.6	2,278.6	2,270.2	5.1	5.6	123.78	47.0	189.7	213.8	203.8	10.01	21.355	
2,400.0	2,397.8	2,376.5	2,367.3	5.3	5.9	125.57	51.2	201.4	233.1	222.6	10.48	22.246	
2,500.0	2,497.1	2,474.3	2,464.4	5.6	6.2	127.09	55.4	213.1	252.6	241.6	10.95	23.064	
2,600.0	2,596.3	2,572.2	2,561.5	5.8	6.5	128.39	59.6	224.8	272.2	260.8	11.43	23.814	
2,700.0	2,695.5	2,670.1	2,658.6	6.1	6.8	129.51	63.8	236.5	292.0	280.1	11.92	24.505	
2,800.0	2,794.8	2,768.0	2,755.7	6.4	7.1	130.50	68.0	248.2	311.8	299.4	12.40	25.140	
2,900.0	2,894.0	2,865.9	2,852.7	6.6	7.4	131.36	72.2	259.8	331.7	318.9	12.90	25.727	
3,000.0	2,993.3	2,963.7	2,949.8	6.9	7.7	132.13	76.4	271.5	351.7	338.3	13.39	26.269	
3,100.0	3,092.5	3,061.6	3,046.9	7.2	8.0	132.81	80.6	283.2	371.8	357.9	13.89	26.772	
3,200.0	3,191.7	3,159.5	3,144.0	7.5	8.3	133.43	84.9	294.9	391.9	377.5	14.39	27.238	
3,300.0	3,291.0	3,257.4	3,241.1	7.8	8.6	133.98	89.1	306.6	412.0	397.1	14.89	27.672	
3,400.0	3,390.2	3,355.3	3,338.2	8.1	9.0	134.49	93.3	318.3	432.2	416.8	15.39	28.077	
3,500.0	3,489.5	3,453.1	3,435.3	8.4	9.3	134.95	97.5	330.0	452.4	436.5	15.90	28.455	
3,600.0	3,588.8	3,551.1	3,532.4	8.6	9.6	135.45	101.7	341.7	472.3	455.9	16.41	28.787	
3,700.0	3,688.3	3,649.4	3,629.9	8.9	9.9	135.80	105.9	353.4	490.5	473.6	16.88	29.056	
3,800.0	3,788.1	3,748.0	3,727.8	9.1	10.2	135.90	110.1	365.2	506.9	489.5	17.34	29.225	
3,900.0	3,888.0	3,847.0	3,825.9	9.3	10.5	135.78	114.4	377.0	521.4	503.6	17.79	29.305	
4,000.0	3,988.0	3,946.1	3,924.2	9.4	10.8	135.47	118.6	388.8	534.1	515.9	18.23	29.305	
4,100.0	4,088.0	4,045.2	4,022.6	9.6	11.2	94.17	122.9	400.7	545.7	527.0	18.67	29.222	
4,200.0	4,188.0	4,144.4	4,121.0	9.8	11.5	93.64	127.1	412.5	557.3	538.2	19.13	29.138	
4,300.0	4,288.0	4,243.6	4,219.4	10.0	11.8	93.13	131.4	424.4	569.0	549.4	19.58	29.061	
4,400.0	4,388.0	4,342.8	4,317.8	10.2	12.1	92.65	135.7	436.2	580.8	560.7	20.03	28.989	
4,500.0	4,488.0	4,442.0	4,416.1	10.4	12.4	92.18	139.9	448.1	592.5	572.0	20.49	28.922	
4,600.0	4,588.0	4,541.2	4,514.5	10.6	12.8	91.73	144.2	459.9	604.3	583.4	20.94	28.860	
4,700.0	4,688.0	4,640.4	4,612.9	10.9	13.1	91.30	148.4	471.8	616.2	594.8	21.39	28.802	
4,800.0	4,788.0	4,739.6	4,711.3	11.1	13.4	90.88	152.7	483.6	628.0	606.2	21.85	28.748	
4,900.0	4,888.0	4,838.8	4,809.7	11.3	13.7	90.48	157.0	495.4	639.9	617.6	22.30	28.698	
5,000.0	4,988.0	4,957.6	4,927.8	11.5	14.0	90.07	161.6	508.3	650.8	628.0	22.76	28.591	
5,100.0	5,088.0	5,084.7	5,054.5	11.7	14.3	89.79	164.7	517.0	657.6	634.4	23.21	28.335	

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-8N - Wellbore #1 - Plan #1 (8-6-1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,188.0	5,212.3	5,182.1	11.9	14.5	89.69	165.9	520.4	660.3	636.7	23.65	27.924	
5,300.0	5,288.0	5,316.2	5,286.0	12.1	14.7	89.68	165.9	520.5	660.4	636.3	24.06	27.452	
5,400.0	5,388.0	5,416.2	5,386.0	12.3	14.8	89.68	165.9	520.5	660.4	635.9	24.47	26.988	
5,500.0	5,488.0	5,516.2	5,486.0	12.5	15.0	89.68	165.9	520.5	660.4	635.5	24.88	26.538	
5,600.0	5,588.0	5,616.2	5,586.0	12.7	15.2	89.68	165.9	520.5	660.4	635.1	25.30	26.101	
5,700.0	5,688.0	5,716.2	5,686.0	13.0	15.4	89.68	165.9	520.5	660.4	634.7	25.72	25.678	
5,800.0	5,788.0	5,816.2	5,786.0	13.2	15.5	89.68	165.9	520.5	660.4	634.2	26.14	25.267	
5,900.0	5,888.0	5,916.2	5,886.0	13.4	15.7	89.68	165.9	520.5	660.4	633.8	26.56	24.868	
6,000.0	5,988.0	6,016.2	5,986.0	13.6	15.9	89.68	165.9	520.5	660.4	633.4	26.98	24.481	
6,100.0	6,088.0	6,116.2	6,086.0	13.8	16.1	89.68	165.9	520.5	660.4	633.0	27.40	24.104	
6,200.0	6,188.0	6,216.2	6,186.0	14.0	16.3	89.68	165.9	520.5	660.4	632.6	27.82	23.739	
6,300.0	6,288.0	6,316.2	6,286.0	14.2	16.4	89.68	165.9	520.5	660.4	632.1	28.24	23.383	
6,400.0	6,388.0	6,416.2	6,386.0	14.5	16.6	89.68	165.9	520.5	660.4	631.7	28.67	23.037	
6,500.0	6,487.8	6,515.1	6,484.6	14.6	16.8	-89.14	162.3	520.5	660.4	631.4	29.00	22.770	
6,600.0	6,585.3	6,613.2	6,580.5	14.8	16.9	-89.18	141.6	521.0	660.4	631.2	29.21	22.609	
6,700.0	6,676.9	6,711.5	6,670.8	14.8	17.0	-89.24	103.3	521.8	660.4	631.0	29.34	22.507	
6,800.0	6,759.3	6,809.9	6,752.5	14.9	17.0	-89.33	48.6	522.9	660.3	630.8	29.49	22.389	
6,900.0	6,829.4	6,908.6	6,822.5	15.0	17.1	-89.45	-20.6	524.3	660.3	630.5	29.79	22.166	
7,000.0	6,884.6	7,007.5	6,878.5	15.1	17.3	-89.59	-102.0	526.0	660.3	630.0	30.35	21.758	
7,100.0	6,922.9	7,106.8	6,918.1	15.6	17.6	-89.74	-192.8	527.9	660.3	629.0	31.25	21.127	
7,200.0	6,943.0	7,206.4	6,939.9	16.2	18.0	-89.90	-289.8	529.9	660.3	627.8	32.54	20.293	
7,300.0	6,945.7	7,306.3	6,943.8	17.1	18.7	-90.01	-389.6	531.9	660.3	626.1	34.17	19.322	
7,400.0	6,945.2	7,406.3	6,943.3	18.1	19.6	-90.01	-489.6	534.0	660.3	624.2	36.14	18.272	
7,500.0	6,944.8	7,506.3	6,942.8	19.2	20.6	-90.01	-589.5	536.0	660.3	621.9	38.39	17.201	
7,600.0	6,944.3	7,606.3	6,942.4	20.4	21.8	-90.01	-689.5	538.1	660.3	619.4	40.88	16.154	
7,700.0	6,943.8	7,706.3	6,941.9	21.8	23.0	-90.01	-789.5	540.2	660.3	616.7	43.56	15.157	
7,800.0	6,943.3	7,806.3	6,941.4	23.2	24.4	-90.01	-889.5	542.2	660.3	613.9	46.41	14.226	
7,900.0	6,942.9	7,906.3	6,941.0	24.7	25.8	-90.01	-989.4	544.3	660.3	610.9	49.40	13.366	
8,000.0	6,942.4	8,006.3	6,940.5	26.3	27.3	-90.01	-1,089.4	546.4	660.3	607.8	52.50	12.577	
8,100.0	6,941.9	8,106.3	6,940.0	27.9	28.8	-90.01	-1,189.4	548.4	660.3	604.6	55.69	11.856	
8,200.0	6,941.5	8,206.3	6,939.5	29.5	30.4	-90.01	-1,289.4	550.5	660.3	601.3	58.96	11.199	
8,300.0	6,941.0	8,306.3	6,939.1	31.2	32.0	-90.01	-1,389.4	552.5	660.3	598.0	62.30	10.599	
8,400.0	6,940.5	8,406.3	6,938.6	32.9	33.7	-90.01	-1,489.3	554.6	660.3	594.6	65.69	10.052	
8,500.0	6,940.0	8,506.3	6,938.1	34.6	35.4	-90.01	-1,589.3	556.7	660.3	591.1	69.13	9.551	
8,600.0	6,939.6	8,606.3	6,937.7	36.3	37.1	-90.01	-1,689.3	558.7	660.3	587.7	72.61	9.094	
8,700.0	6,939.1	8,706.3	6,937.2	38.1	38.8	-90.01	-1,789.3	560.8	660.3	584.1	76.13	8.673	
8,800.0	6,938.6	8,806.3	6,936.7	39.9	40.5	-90.01	-1,889.2	562.8	660.3	580.6	79.67	8.287	
8,900.0	6,938.2	8,906.3	6,936.2	41.6	42.3	-90.01	-1,989.2	564.9	660.3	577.0	83.25	7.932	
9,000.0	6,937.7	9,006.3	6,935.8	43.4	44.0	-90.01	-2,089.2	567.0	660.3	573.4	86.84	7.603	
9,100.0	6,937.2	9,106.3	6,935.3	45.3	45.8	-90.01	-2,189.2	569.0	660.3	569.8	90.46	7.299	
9,200.0	6,936.7	9,206.3	6,934.8	47.1	47.6	-90.01	-2,289.2	571.1	660.3	566.2	94.10	7.017	
9,300.0	6,936.3	9,306.3	6,934.4	48.9	49.4	-90.01	-2,389.1	573.2	660.3	562.5	97.75	6.755	
9,400.0	6,935.8	9,406.3	6,933.9	50.7	51.2	-90.01	-2,489.1	575.2	660.3	558.8	101.41	6.511	
9,500.0	6,935.3	9,506.3	6,933.4	52.6	53.1	-90.01	-2,589.1	577.3	660.3	555.2	105.09	6.283	
9,600.0	6,934.9	9,606.3	6,932.9	54.4	54.9	-90.01	-2,689.1	579.3	660.3	551.5	108.79	6.069	
9,700.0	6,934.4	9,706.3	6,932.5	56.3	56.7	-90.01	-2,789.0	581.4	660.3	547.8	112.49	5.870	
9,800.0	6,933.9	9,806.3	6,932.0	58.1	58.6	-90.01	-2,889.0	583.5	660.3	544.1	116.20	5.682	
9,900.0	6,933.4	9,906.3	6,931.5	60.0	60.4	-90.01	-2,989.0	585.5	660.3	540.3	119.92	5.506	
10,000.0	6,933.0	10,006.3	6,931.1	61.8	62.3	-90.01	-3,089.0	587.6	660.3	536.6	123.65	5.340	
10,100.0	6,932.5	10,106.3	6,930.6	63.7	64.1	-90.01	-3,189.0	589.7	660.3	532.9	127.38	5.183	
10,200.0	6,932.0	10,206.3	6,930.1	65.6	66.0	-90.01	-3,288.9	591.7	660.3	529.1	131.12	5.035	
10,300.0	6,931.6	10,306.3	6,929.6	67.5	67.8	-90.01	-3,388.9	593.8	660.3	525.4	134.87	4.896	

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-8N - Wellbore #1 - Plan #1 (8-6-1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,400.0	6,931.1	10,406.3	6,929.2	69.3	69.7	-90.01	-3,488.9	595.8	660.3	521.6	138.62	4.763	
10,500.0	6,930.6	10,506.3	6,928.7	71.2	71.6	-90.01	-3,588.9	597.9	660.3	517.9	142.38	4.637	
10,600.0	6,930.1	10,606.3	6,928.2	73.1	73.4	-90.01	-3,688.8	600.0	660.3	514.1	146.14	4.518	
10,700.0	6,929.7	10,706.3	6,927.8	75.0	75.3	-90.01	-3,788.8	602.0	660.3	510.3	149.91	4.404	
10,800.0	6,929.2	10,806.3	6,927.3	76.9	77.2	-90.01	-3,888.8	604.1	660.2	506.6	153.68	4.296	
10,900.0	6,928.7	10,906.3	6,926.8	78.8	79.1	-90.01	-3,988.8	606.2	660.2	502.8	157.45	4.193	
11,000.0	6,928.3	11,006.3	6,926.3	80.6	80.9	-90.01	-4,088.8	608.2	660.2	499.0	161.23	4.095	
11,100.0	6,927.8	11,106.3	6,925.9	82.5	82.8	-90.01	-4,188.7	610.3	660.2	495.2	165.01	4.001	
11,200.0	6,927.3	11,206.3	6,925.4	84.4	84.7	-90.01	-4,288.7	612.3	660.2	491.4	168.80	3.911	
11,300.0	6,926.9	11,306.3	6,924.9	86.3	86.6	-90.01	-4,388.7	614.4	660.2	487.7	172.58	3.826	
11,400.0	6,926.4	11,406.3	6,924.5	88.2	88.5	-90.01	-4,488.7	616.5	660.2	483.9	176.37	3.743	
11,480.5	6,926.0	11,486.8	6,924.1	89.7	90.0	-90.01	-4,569.2	618.1	660.2	480.8	179.43	3.680 SF	

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-9C - Wellbore #1 - Plan #1 (8-6-1 — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.04	-0.1	75.5	75.6				
100.0	100.0	98.0	98.0	0.1	0.1	90.04	-0.1	75.5	75.5	75.3	0.22	339.508	
200.0	200.0	198.0	198.0	0.3	0.3	90.04	-0.1	75.5	75.5	74.9	0.67	112.791	
300.0	300.0	298.0	298.0	0.6	0.6	90.04	-0.1	75.5	75.5	74.4	1.12	67.494	
400.0	400.0	398.0	398.0	0.8	0.8	90.04	-0.1	75.5	75.5	74.0	1.57	48.155	
500.0	500.0	498.0	498.0	1.0	1.0	90.04	-0.1	75.5	75.5	73.5	2.02	37.430	
600.0	600.0	598.0	598.0	1.2	1.2	90.04	-0.1	75.5	75.5	73.1	2.47	30.612	
700.0	700.0	698.0	698.0	1.5	1.5	90.04	-0.1	75.5	75.5	72.6	2.92	25.895	
800.0	800.0	798.0	798.0	1.7	1.7	90.04	-0.1	75.5	75.5	72.2	3.37	22.438	CC, ES
900.0	900.0	895.5	895.5	1.9	1.9	89.73	0.4	77.1	77.1	73.3	3.80	20.287	
1,000.0	1,000.0	992.8	992.7	2.1	2.1	88.85	1.6	81.8	82.0	77.8	4.23	19.374	
1,100.0	1,100.0	1,089.6	1,089.1	2.4	2.3	87.58	3.8	89.7	90.2	85.5	4.67	19.306	
1,200.0	1,200.0	1,186.2	1,185.1	2.6	2.6	86.15	6.8	100.6	101.7	96.5	5.12	19.846	
1,300.0	1,300.0	1,285.4	1,283.4	2.8	2.8	84.87	10.1	113.0	114.4	108.8	5.59	20.474	
1,400.0	1,400.0	1,384.5	1,381.7	3.0	3.1	83.85	13.5	125.5	127.2	121.2	6.06	20.990	
1,500.0	1,500.0	1,483.7	1,480.0	3.3	3.4	83.01	16.9	137.9	140.1	133.5	6.54	21.418	
1,600.0	1,600.0	1,582.8	1,578.3	3.5	3.7	82.31	20.3	150.3	152.9	145.9	7.02	21.779	
1,700.0	1,700.0	1,682.0	1,676.6	3.7	4.0	81.72	23.7	162.7	165.8	158.3	7.51	22.087	
1,800.0	1,800.0	1,781.1	1,774.9	3.9	4.3	81.22	27.1	175.2	178.7	170.7	8.00	22.353	
1,900.0	1,900.0	1,880.2	1,873.2	4.2	4.6	121.71	30.4	187.6	192.3	184.1	8.24	23.338	
2,000.0	1,999.9	1,979.1	1,971.2	4.4	4.9	122.05	33.8	200.0	207.3	198.6	8.68	23.869	
2,100.0	2,099.7	2,077.6	2,068.9	4.6	5.2	122.87	37.2	212.3	223.7	214.5	9.13	24.504	
2,200.0	2,199.3	2,175.9	2,166.3	4.8	5.5	124.06	40.5	224.6	241.5	232.0	9.57	25.233	
2,300.0	2,298.6	2,273.7	2,263.3	5.1	5.8	125.56	43.8	236.9	261.0	251.0	10.02	26.034	
2,400.0	2,397.8	2,371.4	2,360.2	5.3	6.1	127.12	47.2	249.1	281.0	270.5	10.49	26.782	
2,500.0	2,497.1	2,469.1	2,457.1	5.6	6.4	128.46	50.5	261.4	301.2	290.2	10.97	27.466	
2,600.0	2,596.3	2,566.8	2,553.9	5.8	6.8	129.64	53.8	273.6	321.5	310.1	11.45	28.092	
2,700.0	2,695.5	2,664.5	2,650.8	6.1	7.1	130.67	57.2	285.9	342.0	330.0	11.93	28.667	
2,800.0	2,794.8	2,762.2	2,747.7	6.4	7.4	131.59	60.5	298.1	362.5	350.1	12.42	29.196	
2,900.0	2,894.0	2,859.9	2,844.6	6.6	7.7	132.42	63.8	310.4	383.1	370.2	12.91	29.683	
3,000.0	2,993.3	2,957.7	2,941.5	6.9	8.0	133.15	67.2	322.6	403.8	390.4	13.40	30.134	
3,100.0	3,092.5	3,055.4	3,038.4	7.2	8.3	133.82	70.5	334.8	424.6	410.7	13.90	30.551	
3,200.0	3,191.7	3,153.1	3,135.2	7.5	8.7	134.42	73.8	347.1	445.4	431.0	14.39	30.939	
3,300.0	3,291.0	3,250.8	3,232.1	7.8	9.0	134.97	77.2	359.3	466.2	451.3	14.89	31.300	
3,400.0	3,390.2	3,348.5	3,329.0	8.1	9.3	135.48	80.5	371.6	487.1	471.7	15.40	31.636	
3,500.0	3,489.5	3,446.2	3,425.9	8.4	9.6	135.94	83.8	383.8	508.0	492.1	15.90	31.950	
3,600.0	3,588.8	3,544.0	3,522.9	8.6	9.9	136.46	87.2	396.1	528.6	512.2	16.41	32.219	
3,700.0	3,688.3	3,642.2	3,620.2	8.9	10.3	136.84	90.5	408.4	547.5	530.6	16.88	32.431	
3,800.0	3,788.1	3,740.7	3,717.9	9.1	10.6	137.01	93.9	420.7	564.6	547.2	17.35	32.546	
3,900.0	3,888.0	3,839.5	3,815.9	9.3	10.9	136.97	97.2	433.1	579.7	561.9	17.80	32.575	
4,000.0	3,988.0	3,938.6	3,914.1	9.4	11.2	136.76	100.6	445.5	593.0	574.8	18.23	32.527	
4,100.0	4,088.0	4,037.7	4,012.4	9.6	11.6	95.57	104.0	457.9	605.2	586.5	18.68	32.393	
4,200.0	4,188.0	4,136.9	4,110.7	9.8	11.9	95.14	107.4	470.4	617.3	598.2	19.13	32.263	
4,300.0	4,288.0	4,236.0	4,209.0	10.0	12.2	94.73	110.8	482.8	629.5	610.0	19.59	32.140	
4,400.0	4,388.0	4,335.2	4,307.3	10.2	12.5	94.34	114.2	495.2	641.8	621.7	20.04	32.023	
4,500.0	4,488.0	4,434.3	4,405.7	10.4	12.9	93.95	117.5	507.7	654.0	633.6	20.49	31.913	
4,600.0	4,588.0	4,533.5	4,504.0	10.6	13.2	93.59	120.9	520.1	666.3	645.4	20.95	31.809	
4,700.0	4,688.0	4,632.6	4,602.3	10.9	13.5	93.23	124.3	532.5	678.7	657.3	21.40	31.711	
4,800.0	4,788.0	4,731.8	4,700.6	11.1	13.8	92.89	127.7	544.9	691.0	669.1	21.86	31.617	
4,900.0	4,888.0	4,830.9	4,798.9	11.3	14.2	92.57	131.1	557.4	703.4	681.1	22.31	31.528	
5,000.0	4,988.0	4,930.1	4,897.2	11.5	14.5	92.25	134.4	569.8	715.8	693.0	22.76	31.443	
5,100.0	5,088.0	5,029.3	4,995.5	11.7	14.8	91.94	137.8	582.2	728.2	704.9	23.22	31.363	

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

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-9C - Wellbore #1 - Plan #1 (8-6-1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,188.0	5,128.4	5,093.9	11.9	15.1	91.65	141.2	594.6	740.6	716.9	23.67	31.286	
5,300.0	5,288.0	5,227.6	5,192.2	12.1	15.5	91.36	144.6	607.1	753.0	728.9	24.13	31.212	
5,400.0	5,388.0	5,326.7	5,290.5	12.3	15.8	91.08	148.0	619.5	765.5	740.9	24.58	31.142	
5,500.0	5,488.0	5,425.9	5,388.8	12.5	16.1	90.81	151.3	631.9	778.0	752.9	25.04	31.075	
5,600.0	5,588.0	5,525.0	5,487.1	12.7	16.5	90.55	154.7	644.3	790.5	765.0	25.49	31.010	
5,700.0	5,688.0	5,624.2	5,585.4	13.0	16.8	90.30	158.1	656.8	803.0	777.0	25.95	30.948	
5,800.0	5,788.0	5,744.6	5,705.0	13.2	17.1	90.03	161.9	670.9	814.8	788.4	26.42	30.839	
5,900.0	5,888.0	5,882.3	5,842.2	13.4	17.4	89.83	164.8	681.4	822.4	795.5	26.89	30.584	
6,000.0	5,988.0	6,020.7	5,980.6	13.6	17.6	89.75	165.9	685.5	825.4	798.1	27.35	30.183	
6,100.0	6,088.0	6,126.1	6,086.0	13.8	17.8	89.75	165.9	685.5	825.5	797.7	27.76	29.736	
6,200.0	6,188.0	6,226.1	6,186.0	14.0	17.9	89.75	165.9	685.5	825.5	797.3	28.17	29.301	
6,300.0	6,288.0	6,326.1	6,286.0	14.2	18.1	89.75	165.9	685.5	825.5	796.9	28.58	28.877	
6,400.0	6,388.0	6,426.1	6,386.0	14.5	18.3	89.75	165.9	685.5	825.5	796.5	29.00	28.465	
6,500.0	6,487.8	6,526.0	6,485.8	14.6	18.4	-89.34	165.9	685.5	825.4	796.1	29.34	28.132	
6,555.4	6,542.3	6,580.5	6,540.3	14.7	18.5	-90.00	165.9	685.5	825.3	795.9	29.49	27.990	
6,600.0	6,585.3	6,623.5	6,583.3	14.8	18.6	-90.79	165.9	685.5	825.4	795.8	29.60	27.889	
6,700.0	6,676.9	6,721.1	6,680.7	14.8	18.7	-93.09	162.1	685.6	826.7	797.0	29.77	27.775	
6,800.0	6,759.3	6,827.7	6,784.5	14.9	18.9	-95.49	138.6	686.1	829.7	799.8	29.88	27.770	
6,900.0	6,829.4	6,944.5	6,890.1	15.0	18.9	-97.81	89.2	687.1	834.0	804.0	30.02	27.786	
7,000.0	6,884.6	7,073.3	6,990.5	15.1	19.1	-99.95	9.1	688.8	839.0	808.7	30.31	27.679	
7,100.0	6,922.9	7,214.8	7,074.5	15.6	19.3	-101.74	-104.2	691.1	843.7	812.8	30.92	27.287	
7,200.0	6,943.0	7,367.4	7,127.4	16.2	19.7	-102.94	-246.8	694.1	847.1	815.0	32.07	26.411	
7,300.0	6,945.7	7,508.3	7,138.7	17.1	20.5	-103.29	-386.9	697.0	848.1	814.3	33.77	25.111	
7,400.0	6,945.2	7,608.3	7,138.3	18.1	21.3	-103.30	-486.8	699.0	848.1	812.4	35.64	23.794	
7,500.0	6,944.8	7,708.3	7,138.0	19.2	22.2	-103.31	-586.8	701.1	848.1	810.3	37.79	22.440	
7,600.0	6,944.3	7,808.3	7,137.6	20.4	23.3	-103.31	-686.8	703.1	848.1	808.0	40.18	21.107	
7,700.0	6,943.8	7,908.3	7,137.3	21.8	24.5	-103.32	-786.8	705.2	848.2	805.4	42.77	19.831	
7,800.0	6,943.3	8,008.3	7,136.9	23.2	25.7	-103.33	-886.7	707.3	848.2	802.7	45.52	18.634	
7,900.0	6,942.9	8,108.3	7,136.6	24.7	27.1	-103.34	-986.7	709.3	848.2	799.8	48.40	17.524	
8,000.0	6,942.4	8,208.3	7,136.2	26.3	28.5	-103.35	-1,086.7	711.4	848.3	796.9	51.40	16.503	
8,100.0	6,941.9	8,308.3	7,135.9	27.9	30.0	-103.36	-1,186.7	713.5	848.3	793.8	54.49	15.567	
8,200.0	6,941.5	8,408.3	7,135.5	29.5	31.5	-103.36	-1,286.7	715.5	848.3	790.6	57.66	14.712	
8,300.0	6,941.0	8,508.3	7,135.2	31.2	33.1	-103.37	-1,386.6	717.6	848.3	787.4	60.90	13.930	
8,400.0	6,940.5	8,608.3	7,134.8	32.9	34.7	-103.38	-1,486.6	719.6	848.4	784.2	64.19	13.216	
8,500.0	6,940.0	8,708.3	7,134.5	34.6	36.3	-103.39	-1,586.6	721.7	848.4	780.9	67.53	12.562	
8,600.0	6,939.6	8,808.3	7,134.1	36.3	38.0	-103.40	-1,686.6	723.8	848.4	777.5	70.92	11.963	
8,700.0	6,939.1	8,908.3	7,133.8	38.1	39.6	-103.40	-1,786.5	725.8	848.4	774.1	74.34	11.414	
8,800.0	6,938.6	9,008.3	7,133.4	39.9	41.3	-103.41	-1,886.5	727.9	848.5	770.7	77.79	10.908	
8,900.0	6,938.2	9,108.3	7,133.1	41.6	43.1	-103.42	-1,986.5	730.0	848.5	767.2	81.26	10.442	
9,000.0	6,937.7	9,208.3	7,132.7	43.4	44.8	-103.43	-2,086.5	732.0	848.5	763.8	84.76	10.011	
9,100.0	6,937.2	9,308.3	7,132.4	45.3	46.6	-103.44	-2,186.5	734.1	848.6	760.3	88.28	9.612	
9,200.0	6,936.7	9,408.3	7,132.0	47.1	48.3	-103.44	-2,286.4	736.1	848.6	756.8	91.82	9.242	
9,300.0	6,936.3	9,508.3	7,131.7	48.9	50.1	-103.45	-2,386.4	738.2	848.6	753.2	95.38	8.897	
9,400.0	6,935.8	9,608.3	7,131.3	50.7	51.9	-103.46	-2,486.4	740.3	848.6	749.7	98.95	8.577	
9,500.0	6,935.3	9,708.3	7,131.0	52.6	53.7	-103.47	-2,586.4	742.3	848.7	746.1	102.53	8.277	
9,600.0	6,934.9	9,808.3	7,130.6	54.4	55.5	-103.48	-2,686.3	744.4	848.7	742.6	106.12	7.997	
9,700.0	6,934.4	9,908.3	7,130.3	56.3	57.3	-103.48	-2,786.3	746.5	848.7	739.0	109.73	7.735	
9,800.0	6,933.9	10,008.3	7,129.9	58.1	59.1	-103.49	-2,886.3	748.5	848.8	735.4	113.34	7.488	
9,900.0	6,933.4	10,108.3	7,129.6	60.0	61.0	-103.50	-2,986.3	750.6	848.8	731.8	116.97	7.257	
10,000.0	6,933.0	10,208.3	7,129.2	61.8	62.8	-103.51	-3,086.3	752.6	848.8	728.2	120.60	7.038	
10,100.0	6,932.5	10,308.3	7,128.9	63.7	64.7	-103.52	-3,186.2	754.7	848.8	724.6	124.23	6.833	
10,200.0	6,932.0	10,408.3	7,128.5	65.6	66.5	-103.52	-3,286.2	756.8	848.9	721.0	127.88	6.638	

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W - Pastelak 01N-64W-02-9C - Wellbore #1 - Plan #1 (8-6-1

Offset Site Error: 0.0 ft

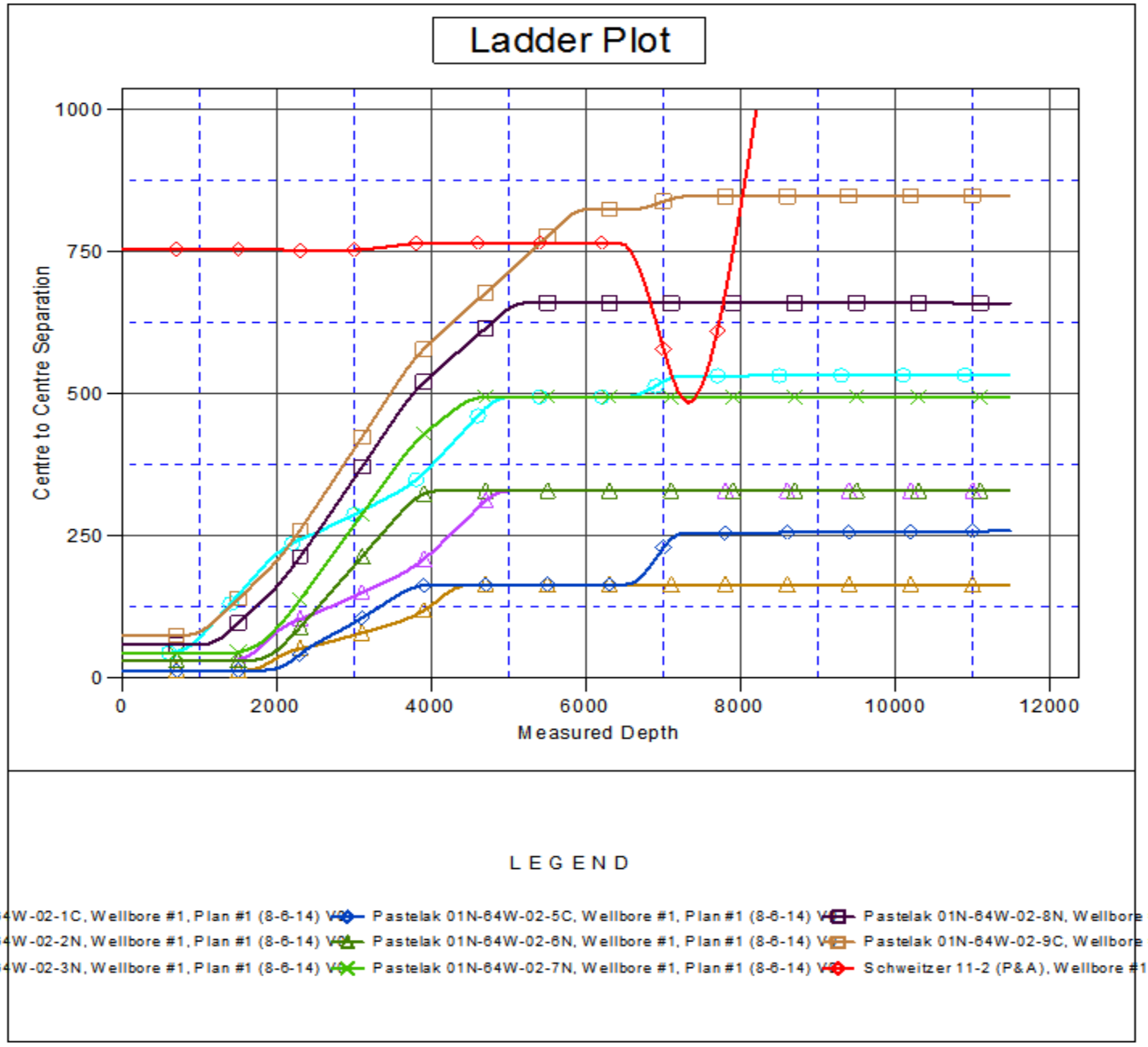
Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,300.0	6,931.6	10,508.3	7,128.2	67.5	68.3	-103.53	-3,386.2	758.8	848.9	717.4	131.53	6.454	
10,400.0	6,931.1	10,608.3	7,127.8	69.3	70.2	-103.54	-3,486.2	760.9	848.9	713.7	135.18	6.280	
10,500.0	6,930.6	10,708.3	7,127.5	71.2	72.1	-103.55	-3,586.2	763.0	848.9	710.1	138.84	6.114	
10,600.0	6,930.1	10,808.3	7,127.1	73.1	73.9	-103.56	-3,686.1	765.0	849.0	706.5	142.51	5.957	
10,700.0	6,929.7	10,908.3	7,126.8	75.0	75.8	-103.56	-3,786.1	767.1	849.0	702.8	146.18	5.808	
10,800.0	6,929.2	11,008.3	7,126.4	76.9	77.6	-103.57	-3,886.1	769.1	849.0	699.2	149.85	5.666	
10,900.0	6,928.7	11,108.3	7,126.1	78.8	79.5	-103.58	-3,986.1	771.2	849.1	695.5	153.53	5.530	
11,000.0	6,928.3	11,208.3	7,125.7	80.6	81.4	-103.59	-4,086.0	773.3	849.1	691.9	157.21	5.401	
11,100.0	6,927.8	11,308.3	7,125.4	82.5	83.3	-103.60	-4,186.0	775.3	849.1	688.2	160.89	5.278	
11,200.0	6,927.3	11,408.3	7,125.0	84.4	85.1	-103.60	-4,286.0	777.4	849.1	684.6	164.57	5.160	
11,300.0	6,926.9	11,508.3	7,124.7	86.3	87.0	-103.61	-4,386.0	779.5	849.2	680.9	168.26	5.047	
11,400.0	6,926.4	11,608.3	7,124.4	88.2	88.9	-103.62	-4,486.0	781.5	849.2	677.2	171.95	4.939	
11,480.5	6,926.0	11,688.8	7,124.1	89.7	90.4	-103.63	-4,566.5	783.2	849.2	674.3	174.93	4.855	SF

Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 @ 5026.0ft (Original Well Elev) Coordinates are relative to: Pastelak 01N-64W-02-4N
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°



Company:	Verdad Oil & Gas Corporation	**Local Co-ordinate Reference:**	Well Pastelak 01N-64W-02-4N
Project:	SEC.2-T1N-R64W	**TVD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	**MD Reference:**	WELL @ 5026.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Pastelak 01N-64W-02-4N	**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 @ 5026.0ft (Original Well Elev) Coordinates are relative to: Pastelak 01N-64W-02-4N
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°