

Verdad Oil & Gas Corporation

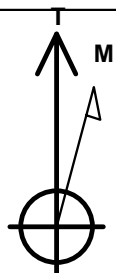
Well Name: **Pastelak 01N-64W-02-5C**

Surface Location: Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 5012.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1276066.23	3273327.13	40.087060	-104.523100	
Original Well Elev WELL @ 5025.0ft (Original Well Elev)						

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
460' Setback BHL	-1.0	-4582.8	-858.8	Polygon
460' Setback SHL	-1.0	-245.0	-858.8	Polygon
Sectionline	-1.0	215.0	-858.8	Polygon
SHL 215'FNL & 1316'FWL	1.0	0.0	0.0	Point
BHL 460'FSL & 1320'FWL	7125.0	-4582.8	109.1	Point



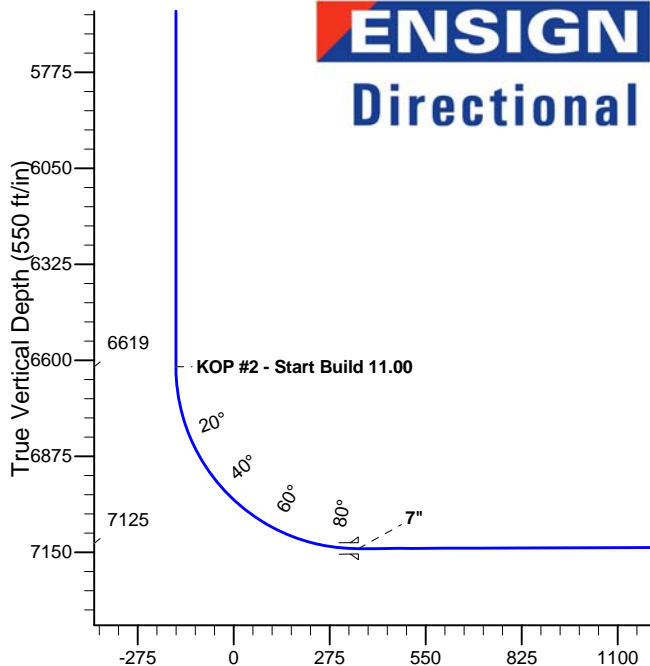
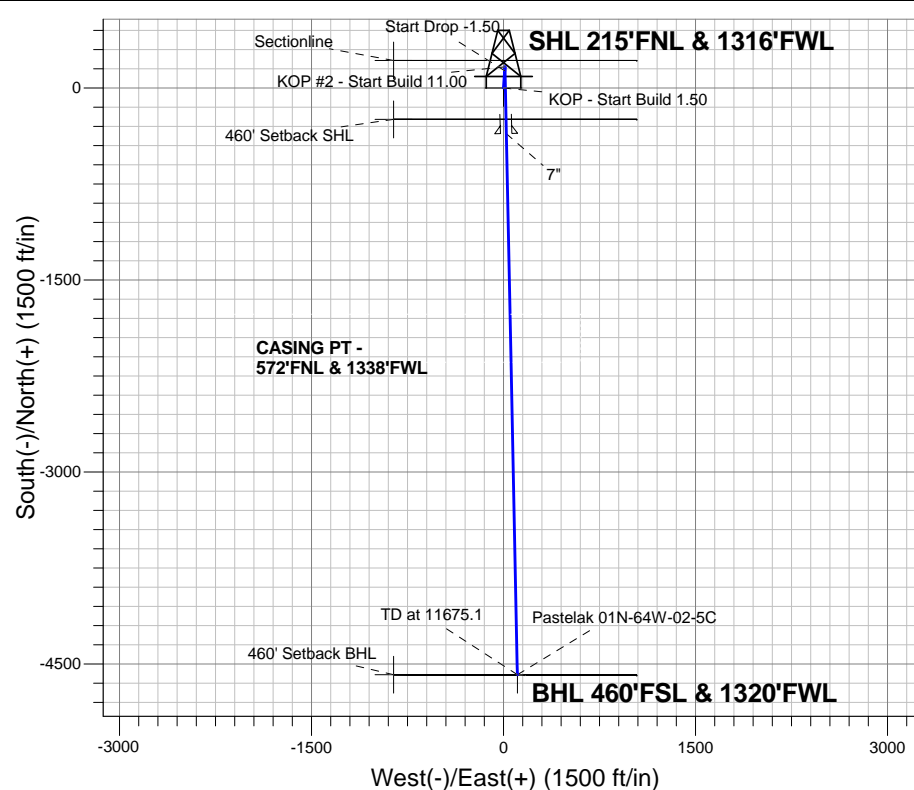
Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W
 Pastelak 01N-64W-02-5C
 Plan #1 (8-6-14)

Azimuths to True North
 Magnetic North: 8.28°

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

ANNOTATIONS

TVD	MD	Annotation
2200.0	2200.0	KOP - Start Build 1.50
3523.0	3530.9	Start Drop -1.50
6618.9	6628.1	KOP #2 - Start Build 11.00
7125.0	11675.1	TD at 11675.1



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	2200.0	0.00	0.00	2200.0	0.0	0.0	0.00	0.00	0.0	
3	2678.2	7.17	3.86	2677.0	29.8	2.0	1.50	3.86	-29.8	
4	3530.9	7.17	3.86	3523.0	136.1	9.2	0.00	0.00	-135.8	
5	4009.2	0.00	0.00	4000.0	165.9	11.2	1.50	180.00	-165.6	
6	6628.1	0.00	0.00	6618.9	165.9	11.2	0.00	0.00	-165.6	
7	7448.1	90.20	178.82	7139.8	-356.7	22.0	11.00	178.82	357.1	
8	11675.1	90.20	178.82	7125.0	-4582.8	109.1	0.00	0.00	4584.1	BHL 460'FSL & 1320'FWL

BHL 460'FSL & 1320'FWL

TD at 11675.1

Vertical Section at 178.64° (550 ft/in)



Verdad Oil & Gas Corporation

SEC.2-T1N-R64W

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

Pastelak 01N-64W-02-5C

Wellbore #1

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

Standard Planning Report

08 August, 2014

Database:	landmark	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Company:	Verdad Oil & Gas Corporation	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Project:	SEC.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	North Reference:	True
Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (8-6-14)		

Project	SEC.2-T1N-R64W, Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

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

Well	Pastelak 01N-64W-02-5C					
Well Position	+N/-S	0.0 ft	Northing:	1,276,066.23 ft	Latitude:	40.087060
	+E/-W	58.8 ft	Easting:	3,273,327.13 ft	Longitude:	-104.523100
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,012.0 ft

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

Design	Plan #1 (8-6-14)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	178.64

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	
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,678.2	7.17	3.86	2,677.0	29.8	2.0	1.50	1.50	0.00	3.86	
3,530.9	7.17	3.86	3,523.0	136.1	9.2	0.00	0.00	0.00	0.00	
4,009.2	0.00	0.00	4,000.0	165.9	11.2	1.50	-1.50	0.00	180.00	
6,628.1	0.00	0.00	6,618.9	165.9	11.2	0.00	0.00	0.00	0.00	
7,448.1	90.20	178.82	7,139.8	-356.7	22.0	11.00	11.00	0.00	178.82	
11,675.1	90.20	178.82	7,125.0	-4,582.8	109.1	0.00	0.00	0.00	0.00	BHL 460'FSL & 132

Database:	landmark	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Company:	Verdad Oil & Gas Corporation	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Project:	SEC.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	North Reference:	True
Well:	Pastelak 01N-64W-02-5C	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
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.50									
2,300.0	1.50	3.86	2,300.0	1.3	0.1	-1.3	1.50	1.50	0.00
2,400.0	3.00	3.86	2,399.9	5.2	0.4	-5.2	1.50	1.50	0.00
2,500.0	4.50	3.86	2,499.7	11.7	0.8	-11.7	1.50	1.50	0.00
2,600.0	6.00	3.86	2,599.3	20.9	1.4	-20.8	1.50	1.50	0.00
2,678.2	7.17	3.86	2,677.0	29.8	2.0	-29.8	1.50	1.50	0.00
2,700.0	7.17	3.86	2,698.6	32.5	2.2	-32.5	0.00	0.00	0.00
2,800.0	7.17	3.86	2,797.8	45.0	3.0	-44.9	0.00	0.00	0.00
2,900.0	7.17	3.86	2,897.0	57.5	3.9	-57.4	0.00	0.00	0.00
3,000.0	7.17	3.86	2,996.2	69.9	4.7	-69.8	0.00	0.00	0.00
3,100.0	7.17	3.86	3,095.5	82.4	5.6	-82.2	0.00	0.00	0.00
3,200.0	7.17	3.86	3,194.7	94.8	6.4	-94.7	0.00	0.00	0.00
3,300.0	7.17	3.86	3,293.9	107.3	7.2	-107.1	0.00	0.00	0.00
3,400.0	7.17	3.86	3,393.1	119.8	8.1	-119.5	0.00	0.00	0.00
3,500.0	7.17	3.86	3,492.3	132.2	8.9	-132.0	0.00	0.00	0.00
3,530.9	7.17	3.86	3,523.0	136.1	9.2	-135.8	0.00	0.00	0.00
Start Drop -1.50									
3,600.0	6.14	3.86	3,591.6	144.1	9.7	-143.8	1.50	-1.50	0.00
3,700.0	4.64	3.86	3,691.2	153.4	10.4	-153.1	1.50	-1.50	0.00
3,800.0	3.14	3.86	3,790.9	160.2	10.8	-159.9	1.50	-1.50	0.00
3,900.0	1.64	3.86	3,890.8	164.3	11.1	-164.0	1.50	-1.50	0.00
4,000.0	0.14	3.86	3,990.8	165.9	11.2	-165.6	1.50	-1.50	0.00
4,009.2	0.00	0.00	4,000.0	165.9	11.2	-165.6	1.50	-1.50	0.00
4,100.0	0.00	0.00	4,090.8	165.9	11.2	-165.6	0.00	0.00	0.00
4,200.0	0.00	0.00	4,190.8	165.9	11.2	-165.6	0.00	0.00	0.00
4,300.0	0.00	0.00	4,290.8	165.9	11.2	-165.6	0.00	0.00	0.00
4,400.0	0.00	0.00	4,390.8	165.9	11.2	-165.6	0.00	0.00	0.00
4,500.0	0.00	0.00	4,490.8	165.9	11.2	-165.6	0.00	0.00	0.00
4,600.0	0.00	0.00	4,590.8	165.9	11.2	-165.6	0.00	0.00	0.00
4,700.0	0.00	0.00	4,690.8	165.9	11.2	-165.6	0.00	0.00	0.00
4,800.0	0.00	0.00	4,790.8	165.9	11.2	-165.6	0.00	0.00	0.00

Database:	landmark	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Company:	Verdad Oil & Gas Corporation	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Project:	SEC.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	North Reference:	True
Well:	Pastelak 01N-64W-02-5C	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	4,890.8	165.9	11.2	-165.6	0.00	0.00	0.00	
5,000.0	0.00	0.00	4,990.8	165.9	11.2	-165.6	0.00	0.00	0.00	
5,100.0	0.00	0.00	5,090.8	165.9	11.2	-165.6	0.00	0.00	0.00	
5,200.0	0.00	0.00	5,190.8	165.9	11.2	-165.6	0.00	0.00	0.00	
5,300.0	0.00	0.00	5,290.8	165.9	11.2	-165.6	0.00	0.00	0.00	
5,400.0	0.00	0.00	5,390.8	165.9	11.2	-165.6	0.00	0.00	0.00	
5,500.0	0.00	0.00	5,490.8	165.9	11.2	-165.6	0.00	0.00	0.00	
5,600.0	0.00	0.00	5,590.8	165.9	11.2	-165.6	0.00	0.00	0.00	
5,700.0	0.00	0.00	5,690.8	165.9	11.2	-165.6	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,790.8	165.9	11.2	-165.6	0.00	0.00	0.00	
5,900.0	0.00	0.00	5,890.8	165.9	11.2	-165.6	0.00	0.00	0.00	
6,000.0	0.00	0.00	5,990.8	165.9	11.2	-165.6	0.00	0.00	0.00	
6,100.0	0.00	0.00	6,090.8	165.9	11.2	-165.6	0.00	0.00	0.00	
6,200.0	0.00	0.00	6,190.8	165.9	11.2	-165.6	0.00	0.00	0.00	
6,300.0	0.00	0.00	6,290.8	165.9	11.2	-165.6	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,390.8	165.9	11.2	-165.6	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,490.8	165.9	11.2	-165.6	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,590.8	165.9	11.2	-165.6	0.00	0.00	0.00	
6,628.1	0.00	0.00	6,618.9	165.9	11.2	-165.6	0.00	0.00	0.00	
KOP #2 - Start Build 11.00										
6,700.0	7.91	178.82	6,690.6	160.9	11.3	-160.6	11.01	11.01	0.00	
6,800.0	18.91	178.82	6,787.7	137.8	11.8	-137.5	11.00	11.00	0.00	
6,900.0	29.91	178.82	6,878.6	96.5	12.6	-96.2	11.00	11.00	0.00	
7,000.0	40.91	178.82	6,960.0	38.7	13.8	-38.3	11.00	11.00	0.00	
7,100.0	51.91	178.82	7,028.9	-33.6	15.3	34.0	11.00	11.00	0.00	
7,200.0	62.91	178.82	7,082.6	-117.7	17.1	118.1	11.00	11.00	0.00	
7,300.0	73.91	178.82	7,119.4	-210.6	19.0	211.0	11.00	11.00	0.00	
7,400.0	84.91	178.82	7,137.7	-308.7	21.0	309.1	11.00	11.00	0.00	
7,448.1	90.20	178.82	7,139.8	-356.7	22.0	357.1	10.99	10.99	0.00	
7"										
7,500.0	90.20	178.82	7,139.6	-408.6	23.0	409.0	0.00	0.00	0.00	
7,600.0	90.20	178.82	7,139.2	-508.6	25.1	509.0	0.00	0.00	0.00	
7,700.0	90.20	178.82	7,138.9	-608.6	27.2	609.0	0.00	0.00	0.00	
7,800.0	90.20	178.82	7,138.5	-708.5	29.2	709.0	0.00	0.00	0.00	
7,900.0	90.20	178.82	7,138.2	-808.5	31.3	809.0	0.00	0.00	0.00	
8,000.0	90.20	178.82	7,137.8	-908.5	33.4	909.0	0.00	0.00	0.00	
8,100.0	90.20	178.82	7,137.5	-1,008.5	35.4	1,009.0	0.00	0.00	0.00	
8,200.0	90.20	178.82	7,137.1	-1,108.5	37.5	1,109.0	0.00	0.00	0.00	
8,300.0	90.20	178.82	7,136.8	-1,208.4	39.5	1,209.0	0.00	0.00	0.00	
8,400.0	90.20	178.82	7,136.4	-1,308.4	41.6	1,309.0	0.00	0.00	0.00	
8,500.0	90.20	178.82	7,136.1	-1,408.4	43.7	1,409.0	0.00	0.00	0.00	
8,600.0	90.20	178.82	7,135.7	-1,508.4	45.7	1,509.0	0.00	0.00	0.00	
8,700.0	90.20	178.82	7,135.4	-1,608.3	47.8	1,609.0	0.00	0.00	0.00	
8,800.0	90.20	178.82	7,135.0	-1,708.3	49.9	1,709.0	0.00	0.00	0.00	
8,900.0	90.20	178.82	7,134.7	-1,808.3	51.9	1,809.0	0.00	0.00	0.00	
9,000.0	90.20	178.82	7,134.3	-1,908.3	54.0	1,909.0	0.00	0.00	0.00	
9,100.0	90.20	178.82	7,134.0	-2,008.3	56.0	2,009.0	0.00	0.00	0.00	
9,200.0	90.20	178.82	7,133.6	-2,108.2	58.1	2,109.0	0.00	0.00	0.00	
9,300.0	90.20	178.82	7,133.3	-2,208.2	60.2	2,209.0	0.00	0.00	0.00	
9,400.0	90.20	178.82	7,132.9	-2,308.2	62.2	2,309.0	0.00	0.00	0.00	
9,500.0	90.20	178.82	7,132.6	-2,408.2	64.3	2,409.0	0.00	0.00	0.00	
9,600.0	90.20	178.82	7,132.2	-2,508.1	66.4	2,509.0	0.00	0.00	0.00	
9,700.0	90.20	178.82	7,131.9	-2,608.1	68.4	2,609.0	0.00	0.00	0.00	
9,800.0	90.20	178.82	7,131.5	-2,708.1	70.5	2,709.0	0.00	0.00	0.00	

Database:	landmark	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Company:	Verdad Oil & Gas Corporation	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Project:	SEC.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	North Reference:	True
Well:	Pastelak 01N-64W-02-5C	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	90.20	178.82	7,131.2	-2,808.1	72.5	2,809.0	0.00	0.00	0.00	
10,000.0	90.20	178.82	7,130.8	-2,908.1	74.6	2,909.0	0.00	0.00	0.00	
10,100.0	90.20	178.82	7,130.5	-3,008.0	76.7	3,009.0	0.00	0.00	0.00	
10,200.0	90.20	178.82	7,130.1	-3,108.0	78.7	3,109.0	0.00	0.00	0.00	
10,300.0	90.20	178.82	7,129.8	-3,208.0	80.8	3,209.0	0.00	0.00	0.00	
10,400.0	90.20	178.82	7,129.5	-3,308.0	82.9	3,309.0	0.00	0.00	0.00	
10,500.0	90.20	178.82	7,129.1	-3,408.0	84.9	3,409.0	0.00	0.00	0.00	
10,600.0	90.20	178.82	7,128.8	-3,507.9	87.0	3,509.0	0.00	0.00	0.00	
10,700.0	90.20	178.82	7,128.4	-3,607.9	89.0	3,609.0	0.00	0.00	0.00	
10,800.0	90.20	178.82	7,128.1	-3,707.9	91.1	3,709.0	0.00	0.00	0.00	
10,900.0	90.20	178.82	7,127.7	-3,807.9	93.2	3,809.0	0.00	0.00	0.00	
11,000.0	90.20	178.82	7,127.4	-3,907.8	95.2	3,909.0	0.00	0.00	0.00	
11,100.0	90.20	178.82	7,127.0	-4,007.8	97.3	4,009.0	0.00	0.00	0.00	
11,200.0	90.20	178.82	7,126.7	-4,107.8	99.3	4,109.0	0.00	0.00	0.00	
11,300.0	90.20	178.82	7,126.3	-4,207.8	101.4	4,209.0	0.00	0.00	0.00	
11,400.0	90.20	178.82	7,126.0	-4,307.8	103.5	4,309.0	0.00	0.00	0.00	
11,500.0	90.20	178.82	7,125.6	-4,407.7	105.5	4,409.0	0.00	0.00	0.00	
11,600.0	90.20	178.82	7,125.3	-4,507.7	107.6	4,509.0	0.00	0.00	0.00	
11,675.1	90.20	178.82	7,125.0	-4,582.8	109.1	4,584.1	0.00	0.00	0.00	

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")		
7,448.1	7,139.8	7"	7	7-1/2		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
2,200.0	2,200.0	0.0	0.0	KOP - Start Build 1.50	
3,530.9	3,523.0	29.8	2.0	Start Drop -1.50	
6,628.1	6,618.9	136.1	9.2	KOP #2 - Start Build 11.00	
11,675.1	7,125.0	165.9	11.2	TD at 11675.1	



Directional

Verdad Oil & Gas Corporation

SEC.2-T1N-R64W

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

Pastelak 01N-64W-02-5C

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-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	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	11,675.1	Plan #1 (8-6-14) (Wellbore #1)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Existing Wells Sec.2-T1N-64W						
Schweitzer 11-2 (P&A) - Wellbore #1 - Wellbore #1	7,518.8	7,140.5	650.4	489.9	4.053	CC, ES, SF
Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W						
Pastelak 01N-64W-02-1C - Wellbore #1 - Plan #1 (8-6-14)	566.0	568.0	58.8	56.4	25.284	CC
Pastelak 01N-64W-02-1C - Wellbore #1 - Plan #1 (8-6-14)	600.0	602.0	58.8	56.3	23.726	ES
Pastelak 01N-64W-02-1C - Wellbore #1 - Plan #1 (8-6-14)	11,675.1	11,709.6	660.5	480.9	3.677	SF
Pastelak 01N-64W-02-2N - Wellbore #1 - Plan #1 (8-6-14)	1,366.3	1,367.3	44.8	38.8	7.563	CC
Pastelak 01N-64W-02-2N - Wellbore #1 - Plan #1 (8-6-14)	1,400.0	1,401.0	44.8	38.7	7.375	ES
Pastelak 01N-64W-02-2N - Wellbore #1 - Plan #1 (8-6-14)	11,675.1	11,502.3	533.8	364.8	3.158	SF
Pastelak 01N-64W-02-3N - Wellbore #1 - Plan #1 (8-6-14)	1,566.3	1,567.3	28.0	21.2	4.104	CC
Pastelak 01N-64W-02-3N - Wellbore #1 - Plan #1 (8-6-14)	1,600.0	1,601.0	28.0	21.0	4.015	ES
Pastelak 01N-64W-02-3N - Wellbore #1 - Plan #1 (8-6-14)	11,675.1	11,489.3	386.1	227.9	2.441	SF
Pastelak 01N-64W-02-4N - Wellbore #1 - Plan #1 (8-6-14)	1,766.3	1,767.3	14.0	6.3	1.813	CC
Pastelak 01N-64W-02-4N - Wellbore #1 - Plan #1 (8-6-14)	1,800.0	1,801.0	14.0	6.1	1.778	ES, SF
Pastelak 01N-64W-02-6N - Wellbore #1 - Plan #1 (8-6-14)	1,600.0	1,600.0	16.8	9.8	2.409	CC, ES
Pastelak 01N-64W-02-6N - Wellbore #1 - Plan #1 (8-6-14)	11,675.1	11,478.7	259.3	132.4	2.044	SF
Pastelak 01N-64W-02-7N - Wellbore #1 - Plan #1 (8-6-14)	1,400.0	1,400.0	30.8	24.7	5.072	CC, ES
Pastelak 01N-64W-02-7N - Wellbore #1 - Plan #1 (8-6-14)	11,675.1	11,483.0	385.9	227.8	2.441	SF
Pastelak 01N-64W-02-8N - Wellbore #1 - Plan #1 (8-6-14)	1,000.0	999.0	44.8	40.5	10.489	CC, ES
Pastelak 01N-64W-02-8N - Wellbore #1 - Plan #1 (8-6-14)	11,675.1	11,489.3	534.0	364.8	3.156	SF
Pastelak 01N-64W-02-9C - Wellbore #1 - Plan #1 (8-6-14)	800.0	799.0	61.6	58.2	18.270	CC, ES
Pastelak 01N-64W-02-9C - Wellbore #1 - Plan #1 (8-6-14)	11,675.1	11,691.5	660.2	480.5	3.673	SF

Offset Design	Existing Wells Sec.2-T1N-64W - Schweitzer 11-2 (P&A) - Wellbore #1 - Wellbore #1											Offset Site Error:	0.0ft
Survey Program:	7690-UNKNOWN											Offset Well Error:	0.0ft
Reference	Vertical Depth (ft)	Offset	Semi Major Axis	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre	Distance	Minimum Separation	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
0.0	0.0	1.0	1.0	0.0	0.0	-125.12	-440.8	-626.8	766.2	766.2	0.02	N/A	
100.0	100.0	101.0	101.0	0.1	2.0	-125.12	-440.8	-626.8	766.2	764.1	2.13	359.305	
200.0	200.0	201.0	201.0	0.3	4.0	-125.12	-440.8	-626.8	766.2	761.9	4.36	175.852	
300.0	300.0	301.0	301.0	0.6	6.0	-125.12	-440.8	-626.8	766.2	759.7	6.58	116.414	
400.0	400.0	401.0	401.0	0.8	8.0	-125.12	-440.8	-626.8	766.2	757.4	8.81	87.006	
500.0	500.0	501.0	501.0	1.0	10.0	-125.12	-440.8	-626.8	766.2	755.2	11.03	69.459	

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	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:	0.0ft
Survey Program: 7690-UNKNOWN														Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
600.0	600.0	601.0	601.0	1.2	12.0	-125.12	-440.8	-626.8	766.2	753.0	13.26	57.802			
700.0	700.0	701.0	701.0	1.5	14.0	-125.12	-440.8	-626.8	766.2	750.8	15.48	49.495			
800.0	800.0	801.0	801.0	1.7	16.0	-125.12	-440.8	-626.8	766.2	748.5	17.71	43.276			
900.0	900.0	901.0	901.0	1.9	18.0	-125.12	-440.8	-626.8	766.2	746.3	19.93	38.446			
1,000.0	1,000.0	1,001.0	1,001.0	2.1	20.0	-125.12	-440.8	-626.8	766.2	744.1	22.16	34.585			
1,100.0	1,100.0	1,101.0	1,101.0	2.4	22.0	-125.12	-440.8	-626.8	766.2	741.9	24.38	31.429			
1,200.0	1,200.0	1,201.0	1,201.0	2.6	24.0	-125.12	-440.8	-626.8	766.2	739.6	26.60	28.801			
1,300.0	1,300.0	1,301.0	1,301.0	2.8	26.0	-125.12	-440.8	-626.8	766.2	737.4	28.83	26.578			
1,400.0	1,400.0	1,401.0	1,401.0	3.0	28.0	-125.12	-440.8	-626.8	766.2	735.2	31.05	24.674			
1,500.0	1,500.0	1,501.0	1,501.0	3.3	30.0	-125.12	-440.8	-626.8	766.2	733.0	33.28	23.025			
1,600.0	1,600.0	1,601.0	1,601.0	3.5	32.0	-125.12	-440.8	-626.8	766.2	730.7	35.50	21.582			
1,700.0	1,700.0	1,701.0	1,701.0	3.7	34.0	-125.12	-440.8	-626.8	766.2	728.5	37.73	20.309			
1,800.0	1,800.0	1,801.0	1,801.0	3.9	36.0	-125.12	-440.8	-626.8	766.2	726.3	39.95	19.178			
1,900.0	1,900.0	1,901.0	1,901.0	4.2	38.0	-125.12	-440.8	-626.8	766.2	724.1	42.18	18.167			
2,000.0	2,000.0	2,001.0	2,001.0	4.4	40.0	-125.12	-440.8	-626.8	766.2	721.8	44.40	17.257			
2,100.0	2,100.0	2,101.0	2,101.0	4.6	42.0	-125.12	-440.8	-626.8	766.2	719.6	46.63	16.433			
2,200.0	2,200.0	2,201.0	2,201.0	4.8	44.0	-125.12	-440.8	-626.8	766.2	717.4	48.85	15.685			
2,300.0	2,300.0	2,301.0	2,301.0	5.1	46.0	-129.04	-440.8	-626.8	767.1	716.0	51.07	15.020			
2,400.0	2,399.9	2,400.9	2,400.9	5.3	48.0	-129.24	-440.8	-626.8	769.6	716.3	53.27	14.446			
2,500.0	2,499.7	2,500.7	2,500.7	5.5	50.0	-129.57	-440.8	-626.8	773.7	718.3	55.45	13.953			
2,600.0	2,599.3	2,600.3	2,600.3	5.7	52.0	-130.02	-440.8	-626.8	779.6	722.0	57.61	13.533			
2,700.0	2,698.6	2,699.6	2,699.6	6.0	54.0	-130.60	-440.8	-626.8	787.2	727.4	59.76	13.173			
2,800.0	2,797.8	2,798.8	2,798.8	6.2	56.0	-131.28	-440.8	-626.8	795.4	733.4	61.97	12.836			
2,900.0	2,897.0	2,898.0	2,898.0	6.5	58.0	-131.95	-440.8	-626.8	803.7	739.5	64.18	12.524			
3,000.0	2,996.2	2,997.2	2,997.2	6.7	59.9	-132.60	-440.8	-626.8	812.2	745.8	66.39	12.233			
3,100.0	3,095.5	3,096.5	3,096.5	7.0	61.9	-133.24	-440.8	-626.8	820.7	752.1	68.61	11.962			
3,200.0	3,194.7	3,195.7	3,195.7	7.2	63.9	-133.87	-440.8	-626.8	829.3	758.5	70.83	11.710			
3,300.0	3,293.9	3,294.9	3,294.9	7.5	65.9	-134.48	-440.8	-626.8	838.1	765.0	73.05	11.473			
3,400.0	3,393.1	3,394.1	3,394.1	7.8	67.9	-135.08	-440.8	-626.8	846.9	771.6	75.27	11.252			
3,500.0	3,492.3	3,493.3	3,493.3	8.0	69.9	-135.67	-440.8	-626.8	855.8	778.3	77.49	11.044			
3,600.0	3,591.6	3,592.6	3,592.6	8.3	71.9	-136.27	-440.8	-626.8	864.4	784.6	79.78	10.835			
3,700.0	3,691.2	3,692.2	3,692.2	8.5	73.8	-136.77	-440.8	-626.8	871.2	789.2	82.05	10.618			
3,800.0	3,790.9	3,791.9	3,791.9	8.7	75.8	-137.13	-440.8	-626.8	876.2	791.9	84.30	10.393			
3,900.0	3,890.8	3,891.8	3,891.8	8.9	77.8	-137.34	-440.8	-626.8	879.2	792.7	86.52	10.162			
4,000.0	3,990.8	3,991.8	3,991.8	9.1	79.8	-137.42	-440.8	-626.8	880.4	791.7	88.71	9.924			
4,100.0	4,090.8	4,091.8	4,091.8	9.3	81.8	-133.56	-440.8	-626.8	880.4	789.5	90.91	9.684			
4,200.0	4,190.8	4,191.8	4,191.8	9.5	83.8	-133.56	-440.8	-626.8	880.4	787.3	93.13	9.453			
4,300.0	4,290.8	4,291.8	4,291.8	9.7	85.8	-133.56	-440.8	-626.8	880.4	785.0	95.35	9.233			
4,400.0	4,390.8	4,391.8	4,391.8	9.9	87.8	-133.56	-440.8	-626.8	880.4	782.8	97.57	9.024			
4,500.0	4,490.8	4,491.8	4,491.8	10.1	89.8	-133.56	-440.8	-626.8	880.4	780.6	99.78	8.823			
4,600.0	4,590.8	4,591.8	4,591.8	10.3	91.8	-133.56	-440.8	-626.8	880.4	778.4	102.00	8.631			
4,700.0	4,690.8	4,691.8	4,691.8	10.5	93.8	-133.56	-440.8	-626.8	880.4	776.2	104.22	8.447			
4,800.0	4,790.8	4,791.8	4,791.8	10.8	95.8	-133.56	-440.8	-626.8	880.4	773.9	106.44	8.271			
4,900.0	4,890.8	4,891.8	4,891.8	11.0	97.8	-133.56	-440.8	-626.8	880.4	771.7	108.66	8.102			
5,000.0	4,990.8	4,991.8	4,991.8	11.2	99.8	-133.56	-440.8	-626.8	880.4	769.5	110.88	7.940			
5,100.0	5,090.8	5,091.8	5,091.8	11.4	101.8	-133.56	-440.8	-626.8	880.4	767.3	113.10	7.784			
5,200.0	5,190.8	5,191.8	5,191.8	11.6	103.8	-133.56	-440.8	-626.8	880.4	765.1	115.31	7.635			
5,300.0	5,290.8	5,291.8	5,291.8	11.8	105.8	-133.56	-440.8	-626.8	880.4	762.8	117.53	7.490			
5,400.0	5,390.8	5,391.8	5,391.8	12.1	107.8	-133.56	-440.8	-626.8	880.4	760.6	119.75	7.352			
5,500.0	5,490.8	5,491.8	5,491.8	12.3	109.8	-133.56	-440.8	-626.8	880.4	758.4	121.97	7.218			
5,600.0	5,590.8	5,591.8	5,591.8	12.5	111.8	-133.56	-440.8	-626.8	880.4	756.2	124.20	7.089			
5,700.0	5,690.8	5,691.8	5,691.8	12.7	113.8	-133.56	-440.8	-626.8	880.4	754.0	126.42	6.964			

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Existing Wells Sec.2-T1N-64W - Schweitzer 11-2 (P&A) - Wellbore #1 - Wellbore #1													Offset Well Error:	0.0 ft
Survey Program: 7690-UNKNOWN														
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,800.0	5,790.8	5,791.8	5,791.8	12.9	115.8	-133.56	-440.8	-626.8	880.4	751.7	128.64	6.844		
5,900.0	5,890.8	5,891.8	5,891.8	13.1	117.8	-133.56	-440.8	-626.8	880.4	749.5	130.86	6.728		
6,000.0	5,990.8	5,991.8	5,991.8	13.4	119.8	-133.56	-440.8	-626.8	880.4	747.3	133.08	6.616		
6,100.0	6,090.8	6,091.8	6,091.8	13.6	121.8	-133.56	-440.8	-626.8	880.4	745.1	135.30	6.507		
6,200.0	6,190.8	6,191.8	6,191.8	13.8	123.8	-133.56	-440.8	-626.8	880.4	742.9	137.52	6.402		
6,300.0	6,290.8	6,291.8	6,291.8	14.0	125.8	-133.56	-440.8	-626.8	880.4	740.6	139.74	6.300		
6,400.0	6,390.8	6,391.8	6,391.8	14.2	127.8	-133.56	-440.8	-626.8	880.4	738.4	141.96	6.202		
6,500.0	6,490.8	6,491.8	6,491.8	14.5	129.8	-133.56	-440.8	-626.8	880.4	736.2	144.18	6.106		
6,600.0	6,590.8	6,591.8	6,591.8	14.7	131.8	-133.56	-440.8	-626.8	880.4	734.0	146.41	6.013		
6,700.0	6,690.6	6,691.6	6,691.6	14.9	133.8	48.13	-440.8	-626.8	877.0	729.1	147.95	5.928		
6,800.0	6,787.7	6,788.7	6,788.7	14.9	135.8	50.57	-440.8	-626.8	861.7	714.2	147.46	5.843		
6,900.0	6,878.6	6,879.6	6,879.6	15.0	137.6	55.07	-440.8	-626.8	835.2	688.9	146.33	5.708		
7,000.0	6,960.0	6,961.0	6,961.0	15.1	139.2	61.56	-440.8	-626.8	800.2	653.4	146.75	5.453		
7,100.0	7,028.9	7,029.9	7,029.9	15.2	140.6	69.52	-440.8	-626.8	760.3	610.4	149.93	5.071		
7,200.0	7,082.6	7,083.6	7,083.6	15.5	141.7	77.77	-440.8	-626.8	720.3	565.9	154.43	4.664		
7,300.0	7,119.4	7,120.4	7,120.4	16.0	142.4	84.72	-440.8	-626.8	685.6	527.8	157.78	4.345		
7,400.0	7,137.7	7,138.7	7,138.7	16.6	142.8	89.07	-440.8	-626.8	661.1	501.7	159.38	4.148		
7,500.0	7,139.6	7,140.6	7,140.6	17.5	142.8	90.01	-440.8	-626.8	650.6	490.4	160.26	4.060		
7,518.8	7,139.5	7,140.5	7,140.5	17.6	142.8	90.00	-440.8	-626.8	650.4	489.9	160.44	4.053	CC, ES, SF	
7,600.0	7,139.2	7,140.2	7,140.2	18.4	142.8	89.98	-440.8	-626.8	655.4	494.2	161.24	4.065		
7,700.0	7,138.9	7,139.9	7,139.9	19.6	142.8	89.94	-440.8	-626.8	675.1	512.8	162.35	4.158		
7,800.0	7,138.5	7,139.5	7,139.5	20.8	142.8	89.91	-440.8	-626.8	708.6	545.0	163.58	4.331		
7,900.0	7,138.2	7,139.2	7,139.2	22.1	142.8	89.88	-440.8	-626.8	753.9	588.9	164.92	4.571		
8,000.0	7,137.8	7,138.8	7,138.8	23.6	142.8	89.85	-440.8	-626.8	809.0	642.7	166.33	4.864		
8,100.0	7,137.5	7,138.5	7,138.5	25.0	142.8	89.82	-440.8	-626.8	872.2	704.4	167.81	5.198		
8,200.0	7,137.1	7,138.1	7,138.1	26.6	142.8	89.79	-440.8	-626.8	941.8	772.5	169.34	5.562		

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.0	0.0	2.0	2.0	0.0	0.0	-90.00	0.0	-58.8	58.8	58.8	0.00	N/A			
100.0	100.0	102.0	102.0	0.1	0.1	-90.00	0.0	-58.8	58.8	58.5	0.23	256.299			
200.0	200.0	202.0	202.0	0.3	0.3	-90.00	0.0	-58.8	58.8	58.1	0.68	86.565			
300.0	300.0	302.0	302.0	0.6	0.6	-90.00	0.0	-58.8	58.8	57.6	1.13	52.077			
400.0	400.0	402.0	402.0	0.8	0.8	-90.00	0.0	-58.8	58.8	57.2	1.58	37.240			
500.0	500.0	502.0	502.0	1.0	1.0	-90.00	0.0	-58.8	58.8	56.7	2.03	28.983			
566.0	566.0	568.0	568.0	1.2	1.2	-90.00	0.0	-58.8	58.8	56.4	2.32	25.284	CC		
600.0	600.0	602.0	602.0	1.2	1.2	-90.00	0.0	-58.8	58.8	56.3	2.48	23.726	ES		
700.0	700.0	700.0	700.0	1.5	1.5	-89.56	0.5	-60.4	60.5	57.6	2.91	20.763			
800.0	800.0	797.8	797.6	1.7	1.7	-88.41	1.8	-65.3	65.5	62.2	3.35	19.575			
900.0	900.0	895.1	894.6	1.9	1.9	-86.86	4.0	-73.4	73.9	70.1	3.79	19.513			
1,000.0	1,000.0	991.7	990.5	2.1	2.1	-85.20	7.1	-84.5	85.6	81.4	4.23	20.234			
1,100.0	1,100.0	1,089.2	1,086.9	2.4	2.4	-83.67	10.9	-98.5	100.3	95.6	4.68	21.412			
1,200.0	1,200.0	1,188.0	1,184.5	2.6	2.7	-82.48	14.9	-113.1	115.4	110.3	5.13	22.486			
1,300.0	1,300.0	1,286.8	1,282.2	2.8	3.0	-81.56	18.9	-127.6	130.6	125.0	5.58	23.382			
1,400.0	1,400.0	1,385.6	1,379.9	3.0	3.4	-80.83	22.9	-142.2	145.7	139.7	6.04	24.138			
1,500.0	1,500.0	1,484.5	1,477.5	3.3	3.7	-80.25	26.9	-156.8	160.9	154.4	6.49	24.783			
1,600.0	1,600.0	1,583.3	1,575.2	3.5	4.0	-79.76	31.0	-171.3	176.2	169.2	6.95	25.339			
1,700.0	1,700.0	1,682.1	1,672.8	3.7	4.4	-79.35	35.0	-185.9	191.4	184.0	7.41	25.823			
1,800.0	1,800.0	1,780.9	1,770.5	3.9	4.7	-79.00	39.0	-200.5	206.6	198.7	7.87	26.248			
1,900.0	1,900.0	1,879.8	1,868.2	4.2	5.1	-78.70	43.0	-215.0	221.9	213.5	8.33	26.624			
2,000.0	2,000.0	1,978.6	1,965.8	4.4	5.4	-78.44	47.0	-229.6	237.1	228.3	8.80	26.958			
2,100.0	2,100.0	2,077.4	2,063.5	4.6	5.8	-78.21	51.0	-244.1	252.4	243.1	9.26	27.257			
2,200.0	2,200.0	2,176.2	2,161.2	4.8	6.1	-78.00	55.0	-258.7	267.6	257.9	9.72	27.527			
2,300.0	2,300.0	2,275.1	2,258.9	5.1	6.5	-81.72	59.0	-273.3	282.7	272.5	10.18	27.779			
2,400.0	2,399.9	2,374.0	2,356.6	5.3	6.9	-82.08	63.0	-287.8	297.4	286.8	10.64	27.951			
2,500.0	2,499.7	2,472.8	2,454.2	5.5	7.2	-82.87	67.0	-302.4	311.8	300.7	11.11	28.077			
2,600.0	2,599.3	2,571.5	2,551.7	5.7	7.6	-84.03	71.0	-316.9	326.1	314.5	11.58	28.163			
2,700.0	2,698.6	2,670.0	2,649.1	6.0	7.9	-85.55	75.0	-331.5	340.3	328.2	12.06	28.217			
2,800.0	2,797.8	2,768.4	2,746.4	6.2	8.3	-87.23	79.0	-346.0	354.7	342.1	12.55	28.257			
2,900.0	2,897.0	2,866.8	2,843.6	6.5	8.6	-88.78	82.9	-360.5	369.4	356.4	13.06	28.291			
3,000.0	2,996.2	2,965.3	2,940.9	6.7	9.0	-90.21	86.9	-375.0	384.4	370.8	13.57	28.321			
3,100.0	3,095.5	3,063.7	3,038.2	7.0	9.4	-91.53	90.9	-389.5	399.5	385.5	14.10	28.347			
3,200.0	3,194.7	3,162.1	3,135.5	7.2	9.7	-92.76	94.9	-404.0	414.9	400.3	14.63	28.369			
3,300.0	3,293.9	3,260.6	3,232.8	7.5	10.1	-93.90	98.9	-418.5	430.5	415.3	15.16	28.388			
3,400.0	3,393.1	3,359.0	3,330.0	7.8	10.4	-94.96	102.9	-433.0	446.2	430.5	15.71	28.404			
3,500.0	3,492.3	3,457.4	3,427.3	8.0	10.8	-95.94	106.9	-447.5	462.0	445.8	16.26	28.419			
3,600.0	3,591.6	3,555.9	3,524.6	8.3	11.1	-96.96	110.9	-462.0	477.9	461.1	16.79	28.456			
3,700.0	3,691.2	3,654.6	3,622.1	8.5	11.5	-97.70	114.9	-476.5	493.6	476.3	17.28	28.555			
3,800.0	3,790.9	3,753.4	3,719.8	8.7	11.9	-98.11	118.9	-491.1	508.9	491.1	17.76	28.658			
3,900.0	3,890.8	3,852.3	3,817.5	8.9	12.2	-98.21	122.9	-505.7	523.9	505.7	18.21	28.769			
4,000.0	3,990.8	3,951.1	3,915.2	9.1	12.6	-98.04	126.9	-520.2	538.5	519.9	18.64	28.890			
4,100.0	4,090.8	4,049.9	4,012.9	9.3	13.0	-93.67	130.9	-534.8	552.9	533.9	19.02	29.066			
4,200.0	4,190.8	4,148.8	4,110.5	9.5	13.3	-93.17	134.9	-549.4	567.4	548.0	19.47	29.143			
4,300.0	4,290.8	4,247.6	4,208.2	9.7	13.7	-92.69	138.9	-563.9	582.0	562.0	19.92	29.217			
4,400.0	4,390.8	4,346.4	4,305.8	9.9	14.0	-92.24	142.9	-578.5	596.5	576.1	20.37	29.288			
4,500.0	4,490.8	4,445.2	4,403.5	10.1	14.4	-91.80	146.9	-593.1	611.1	590.3	20.82	29.357			
4,600.0	4,590.8	4,544.1	4,501.2	10.3	14.8	-91.39	150.9	-607.6	625.7	604.5	21.27	29.424			
4,700.0	4,690.8	4,653.0	4,608.9	10.5	15.1	-90.97	155.2	-623.3	640.1	618.4	21.73	29.460			
4,800.0	4,790.8	4,779.8	4,734.9	10.8	15.4	-90.61	159.0	-637.3	651.1	628.9	22.19	29.344			
4,900.0	4,890.8	4,907.7	4,862.4	11.0	15.7	-90.39	161.4	-646.0	657.9	635.3	22.63	29.071			
5,000.0	4,990.8	5,036.1	4,990.8	11.2	15.9	-90.31	162.3	-649.1	660.4	637.3	23.06	28.632			

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.0	5,090.8	5,138.2	5,092.8	11.4	16.0	-90.31	162.3	-649.2	660.4	636.9	23.47	28.141		
5,200.0	5,190.8	5,238.2	5,192.8	11.6	16.2	-90.31	162.3	-649.2	660.4	636.5	23.87	27.661		
5,300.0	5,290.8	5,338.2	5,292.8	11.8	16.3	-90.31	162.3	-649.2	660.4	636.1	24.28	27.196		
5,400.0	5,390.8	5,438.2	5,392.8	12.1	16.5	-90.31	162.3	-649.2	660.4	635.7	24.69	26.744		
5,500.0	5,490.8	5,538.2	5,492.8	12.3	16.6	-90.31	162.3	-649.2	660.4	635.3	25.10	26.306		
5,600.0	5,590.8	5,638.2	5,592.8	12.5	16.8	-90.31	162.3	-649.2	660.4	634.9	25.52	25.881		
5,700.0	5,690.8	5,738.2	5,692.8	12.7	17.0	-90.31	162.3	-649.2	660.4	634.4	25.93	25.468		
5,800.0	5,790.8	5,838.2	5,792.8	12.9	17.1	-90.31	162.3	-649.2	660.4	634.0	26.34	25.067		
5,900.0	5,890.8	5,938.2	5,892.8	13.1	17.3	-90.31	162.3	-649.2	660.4	633.6	26.76	24.678		
6,000.0	5,990.8	6,038.2	5,992.8	13.4	17.4	-90.31	162.3	-649.2	660.4	633.2	27.18	24.299		
6,100.0	6,090.8	6,138.2	6,092.8	13.6	17.6	-90.31	162.3	-649.2	660.4	632.8	27.59	23.931		
6,200.0	6,190.8	6,238.2	6,192.8	13.8	17.8	-90.31	162.3	-649.2	660.4	632.4	28.01	23.573		
6,300.0	6,290.8	6,338.2	6,292.8	14.0	17.9	-90.31	162.3	-649.2	660.4	631.9	28.43	23.225		
6,400.0	6,390.8	6,438.2	6,392.8	14.2	18.1	-90.31	162.3	-649.2	660.4	631.5	28.85	22.887		
6,500.0	6,490.8	6,538.2	6,492.8	14.5	18.3	-90.31	162.3	-649.2	660.4	631.1	29.28	22.557		
6,600.0	6,590.8	6,638.2	6,592.8	14.7	18.4	-90.31	162.3	-649.2	660.4	630.7	29.70	22.236		
6,700.0	6,690.6	6,739.6	6,694.0	14.9	18.6	90.86	157.1	-649.1	660.4	630.3	30.07	21.957		
6,800.0	6,787.7	6,841.5	6,792.8	14.9	18.7	90.82	133.1	-648.6	660.4	630.1	30.27	21.817		
6,900.0	6,878.6	6,943.2	6,885.0	15.0	18.7	90.75	90.4	-647.7	660.4	630.0	30.39	21.726		
7,000.0	6,960.0	7,044.8	6,967.0	15.1	18.8	90.65	30.7	-646.4	660.3	629.8	30.55	21.612		
7,100.0	7,028.9	7,146.1	7,035.7	15.2	18.9	90.53	-43.5	-644.9	660.3	629.5	30.87	21.394		
7,200.0	7,082.6	7,247.2	7,088.6	15.5	19.0	90.39	-129.4	-643.1	660.3	628.9	31.44	20.999		
7,300.0	7,119.4	7,347.8	7,123.9	16.0	19.2	90.23	-223.5	-641.2	660.3	627.9	32.37	20.397		
7,400.0	7,137.7	7,448.1	7,140.5	16.6	19.6	90.07	-322.2	-639.2	660.3	626.6	33.67	19.612		
7,431.6	7,140.0	7,479.7	7,141.7	16.9	19.8	89.97	-353.8	-638.5	660.3	626.1	34.17	19.325		
7,500.0	7,139.6	7,548.2	7,141.5	17.5	20.2	90.00	-422.2	-637.1	660.3	625.0	35.32	18.695		
7,600.0	7,139.2	7,648.2	7,141.2	18.4	21.0	90.00	-522.2	-635.0	660.3	623.0	37.27	17.717		
7,700.0	7,138.9	7,748.2	7,140.8	19.6	21.9	90.00	-622.2	-633.0	660.3	620.8	39.50	16.717		
7,800.0	7,138.5	7,848.2	7,140.5	20.8	23.0	90.00	-722.2	-630.9	660.3	618.3	41.96	15.735		
7,900.0	7,138.2	7,948.2	7,140.1	22.1	24.2	90.00	-822.1	-628.9	660.3	615.7	44.62	14.797		
8,000.0	7,137.8	8,048.2	7,139.8	23.6	25.5	90.00	-922.1	-626.8	660.3	612.9	47.45	13.916		
8,100.0	7,137.5	8,148.2	7,139.4	25.0	26.9	90.00	-1,022.1	-624.7	660.3	609.9	50.41	13.099		
8,200.0	7,137.1	8,248.2	7,139.1	26.6	28.3	90.00	-1,122.1	-622.7	660.3	606.8	53.48	12.347		
8,300.0	7,136.8	8,348.2	7,138.7	28.2	29.8	90.00	-1,222.0	-620.6	660.3	603.7	56.65	11.656		
8,400.0	7,136.4	8,448.2	7,138.4	29.8	31.4	90.00	-1,322.0	-618.6	660.3	600.4	59.90	11.024		
8,500.0	7,136.1	8,548.2	7,138.0	31.5	33.0	90.00	-1,422.0	-616.5	660.3	597.1	63.21	10.446		
8,600.0	7,135.7	8,648.2	7,137.7	33.2	34.6	90.00	-1,522.0	-614.4	660.3	593.7	66.58	9.917		
8,700.0	7,135.4	8,748.2	7,137.3	34.9	36.3	90.00	-1,622.0	-612.4	660.3	590.3	70.00	9.432		
8,800.0	7,135.0	8,848.2	7,137.0	36.6	37.9	90.00	-1,721.9	-610.3	660.3	586.8	73.47	8.988		
8,900.0	7,134.7	8,948.2	7,136.6	38.4	39.6	90.00	-1,821.9	-608.2	660.3	583.3	76.97	8.579		
9,000.0	7,134.3	9,048.2	7,136.3	40.1	41.4	90.00	-1,921.9	-606.2	660.3	579.8	80.50	8.202		
9,100.0	7,134.0	9,148.2	7,135.9	41.9	43.1	90.00	-2,021.9	-604.1	660.3	576.2	84.06	7.855		
9,200.0	7,133.6	9,248.2	7,135.6	43.7	44.8	90.00	-2,121.8	-602.1	660.3	572.7	87.64	7.534		
9,300.0	7,133.3	9,348.2	7,135.2	45.5	46.6	90.00	-2,221.8	-600.0	660.3	569.1	91.25	7.236		
9,400.0	7,132.9	9,448.2	7,134.9	47.3	48.4	90.00	-2,321.8	-597.9	660.3	565.4	94.87	6.960		
9,500.0	7,132.6	9,548.2	7,134.5	49.1	50.2	90.00	-2,421.8	-595.9	660.3	561.8	98.52	6.703		
9,600.0	7,132.2	9,648.2	7,134.2	51.0	52.0	90.00	-2,521.8	-593.8	660.3	558.1	102.17	6.463		
9,700.0	7,131.9	9,748.2	7,133.8	52.8	53.8	90.00	-2,621.7	-591.7	660.3	554.5	105.84	6.239		
9,800.0	7,131.5	9,848.2	7,133.5	54.7	55.6	90.00	-2,721.7	-589.7	660.3	550.8	109.52	6.029		
9,900.0	7,131.2	9,948.2	7,133.1	56.5	57.4	90.00	-2,821.7	-587.6	660.3	547.1	113.22	5.832		
10,000.0	7,130.8	10,048.2	7,132.8	58.4	59.2	90.00	-2,921.7	-585.6	660.3	543.4	116.92	5.647		
10,100.0	7,130.5	10,148.2	7,132.5	60.2	61.1	90.00	-3,021.7	-583.5	660.3	539.7	120.63	5.474		

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
10,200.0	7,130.1	10,248.2	7,132.1	62.1	62.9	90.00	-3,121.6	-581.4	660.3	536.0	124.35	5.310			
10,300.0	7,129.8	10,348.2	7,131.8	63.9	64.8	90.00	-3,221.6	-579.4	660.3	532.2	128.08	5.155			
10,400.0	7,129.5	10,448.2	7,131.4	65.8	66.6	90.00	-3,321.6	-577.3	660.3	528.5	131.82	5.009			
10,500.0	7,129.1	10,548.2	7,131.1	67.7	68.5	90.00	-3,421.6	-575.3	660.3	524.8	135.56	4.871			
10,600.0	7,128.8	10,648.2	7,130.7	69.6	70.3	90.00	-3,521.5	-573.2	660.3	521.0	139.30	4.740			
10,700.0	7,128.4	10,748.2	7,130.4	71.4	72.2	90.00	-3,621.5	-571.1	660.3	517.3	143.06	4.616			
10,800.0	7,128.1	10,848.2	7,130.0	73.3	74.1	90.00	-3,721.5	-569.1	660.3	513.5	146.81	4.498			
10,900.0	7,127.7	10,948.2	7,129.7	75.2	75.9	90.00	-3,821.5	-567.0	660.3	509.7	150.58	4.385			
11,000.0	7,127.4	11,048.2	7,129.3	77.1	77.8	90.00	-3,921.5	-564.9	660.3	506.0	154.34	4.278			
11,100.0	7,127.0	11,148.2	7,129.0	79.0	79.7	90.00	-4,021.4	-562.9	660.3	502.2	158.11	4.176			
11,200.0	7,126.7	11,248.2	7,128.6	80.9	81.5	90.00	-4,121.4	-560.8	660.3	498.4	161.89	4.079			
11,300.0	7,126.3	11,348.2	7,128.3	82.7	83.4	90.00	-4,221.4	-558.8	660.3	494.7	165.66	3.986			
11,400.0	7,126.0	11,448.2	7,127.9	84.6	85.3	90.00	-4,321.4	-556.7	660.3	490.9	169.44	3.897			
11,500.0	7,125.6	11,548.2	7,127.6	86.5	87.2	90.00	-4,421.3	-554.6	660.3	487.1	173.23	3.812			
11,600.0	7,125.3	11,648.2	7,127.2	88.4	89.1	90.00	-4,521.3	-552.6	660.3	483.3	177.01	3.730			
11,638.9	7,125.1	11,687.1	7,127.1	89.2	89.8	90.00	-4,560.3	-551.8	660.3	481.8	178.49	3.700			
11,675.1	7,125.0	11,709.6	7,127.0	89.8	90.2	90.00	-4,582.8	-551.3	660.5	480.9	179.60	3.677 SF			

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	1.0	1.0	0.0	0.0	-90.02	0.0	-44.8	44.8	44.8	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-90.02	0.0	-44.8	44.8	44.5	0.23	197.209		
200.0	200.0	201.0	201.0	0.3	0.3	-90.02	0.0	-44.8	44.8	44.1	0.68	66.173		
300.0	300.0	301.0	301.0	0.6	0.6	-90.02	0.0	-44.8	44.8	43.6	1.13	39.757		
400.0	400.0	401.0	401.0	0.8	0.8	-90.02	0.0	-44.8	44.8	43.2	1.58	28.414		
500.0	500.0	501.0	501.0	1.0	1.0	-90.02	0.0	-44.8	44.8	42.7	2.03	22.107		
600.0	600.0	601.0	601.0	1.2	1.2	-90.02	0.0	-44.8	44.8	42.3	2.47	18.091		
700.0	700.0	701.0	701.0	1.5	1.5	-90.02	0.0	-44.8	44.8	41.8	2.92	15.310		
800.0	800.0	801.0	801.0	1.7	1.7	-90.02	0.0	-44.8	44.8	41.4	3.37	13.270		
900.0	900.0	901.0	901.0	1.9	1.9	-90.02	0.0	-44.8	44.8	40.9	3.82	11.710		
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-90.02	0.0	-44.8	44.8	40.5	4.27	10.478		
1,100.0	1,100.0	1,101.0	1,101.0	2.4	2.4	-90.02	0.0	-44.8	44.8	40.0	4.72	9.480		
1,200.0	1,200.0	1,201.0	1,201.0	2.6	2.6	-90.02	0.0	-44.8	44.8	39.6	5.17	8.656		
1,300.0	1,300.0	1,301.0	1,301.0	2.8	2.8	-90.02	0.0	-44.8	44.8	39.1	5.62	7.964		
1,366.3	1,366.3	1,367.3	1,367.3	3.0	3.0	-90.02	0.0	-44.8	44.8	38.8	5.92	7.563 CC		
1,400.0	1,400.0	1,401.0	1,401.0	3.0	3.0	-90.02	0.0	-44.8	44.8	38.7	6.07	7.375 ES		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-89.27	0.6	-46.4	46.4	39.9	6.51	7.132		
1,600.0	1,600.0	1,597.8	1,597.6	3.5	3.5	-87.37	2.4	-51.2	51.3	44.4	6.94	7.398		
1,700.0	1,700.0	1,695.6	1,695.1	3.7	3.7	-84.90	5.3	-59.1	59.6	52.2	7.37	8.083		
1,800.0	1,800.0	1,792.7	1,791.5	3.9	3.9	-82.43	9.3	-70.0	71.2	63.4	7.81	9.122		
1,900.0	1,900.0	1,891.0	1,888.8	4.2	4.2	-80.31	14.2	-83.3	85.4	77.1	8.25	10.351		
2,000.0	2,000.0	1,990.0	1,986.6	4.4	4.4	-78.77	19.2	-96.8	99.7	91.1	8.69	11.479		
2,100.0	2,100.0	2,088.9	2,084.5	4.6	4.7	-77.62	24.2	-110.3	114.2	105.0	9.13	12.501		
2,200.0	2,200.0	2,187.8	2,182.4	4.8	5.0	-76.73	29.2	-123.9	128.6	119.0	9.58	13.428		
2,300.0	2,300.0	2,286.8	2,280.3	5.1	5.3	-80.19	34.2	-137.4	142.9	132.8	10.02	14.256		
2,400.0	2,399.9	2,385.8	2,378.3	5.3	5.6	-80.78	39.2	-150.9	156.7	146.2	10.47	14.967		
2,500.0	2,499.7	2,484.8	2,476.2	5.5	5.9	-82.13	44.2	-164.4	170.2	159.2	10.92	15.582		
2,600.0	2,599.3	2,583.7	2,574.0	5.7	6.2	-84.06	49.2	-178.0	183.5	172.1	11.38	16.123		
2,700.0	2,698.6	2,682.4	2,671.7	6.0	6.5	-86.49	54.2	-191.5	196.8	185.0	11.85	16.610		
2,800.0	2,797.8	2,781.1	2,769.3	6.2	6.9	-88.96	59.2	-204.9	210.5	198.2	12.34	17.066		
2,900.0	2,897.0	2,879.8	2,867.0	6.5	7.2	-91.13	64.1	-218.4	224.6	211.7	12.83	17.499		
3,000.0	2,996.2	2,978.5	2,964.6	6.7	7.5	-93.04	69.1	-231.9	238.9	225.5	13.34	17.906		
3,100.0	3,095.5	3,077.1	3,062.2	7.0	7.8	-94.73	74.1	-245.4	253.4	239.6	13.86	18.289		
3,200.0	3,194.7	3,175.8	3,159.8	7.2	8.2	-96.24	79.1	-258.9	268.1	253.8	14.38	18.647		
3,300.0	3,293.9	3,274.5	3,257.5	7.5	8.5	-97.60	84.1	-272.4	283.0	268.1	14.91	18.982		
3,400.0	3,393.1	3,373.1	3,355.1	7.8	8.8	-98.82	89.1	-285.8	298.1	282.6	15.45	19.295		
3,500.0	3,492.3	3,471.8	3,452.7	8.0	9.2	-99.92	94.0	-299.3	313.3	297.3	15.99	19.588		
3,600.0	3,591.6	3,570.5	3,550.4	8.3	9.5	-100.97	99.0	-312.8	328.4	311.9	16.52	19.877		
3,700.0	3,691.2	3,669.4	3,648.2	8.5	9.8	-101.59	104.0	-326.3	343.1	326.1	17.00	20.179		
3,800.0	3,790.9	3,768.4	3,746.1	8.7	10.2	-101.75	109.0	-339.9	357.3	339.9	17.47	20.455		
3,900.0	3,890.8	3,867.4	3,844.1	8.9	10.5	-101.51	114.0	-353.4	371.0	353.1	17.91	20.711		
4,000.0	3,990.8	3,966.4	3,942.0	9.1	10.8	-100.91	119.0	-366.9	384.2	365.9	18.34	20.955		
4,100.0	4,090.8	4,065.3	4,039.9	9.3	11.2	-96.11	124.0	-380.4	397.3	378.5	18.73	21.211		
4,200.0	4,190.8	4,164.3	4,137.8	9.5	11.5	-95.21	129.0	-393.9	410.4	391.2	19.17	21.405		
4,300.0	4,290.8	4,263.2	4,235.6	9.7	11.9	-94.36	134.0	-407.5	423.6	404.0	19.62	21.595		
4,400.0	4,390.8	4,362.1	4,333.5	9.9	12.2	-93.56	139.0	-421.0	436.9	416.9	20.06	21.781		
4,500.0	4,490.8	4,461.1	4,431.4	10.1	12.6	-92.82	144.0	-434.5	450.3	429.8	20.51	21.961		
4,600.0	4,590.8	4,560.0	4,529.3	10.3	12.9	-92.11	149.0	-448.0	463.8	442.8	20.95	22.137		
4,700.0	4,690.8	4,667.2	4,635.4	10.5	13.2	-91.41	154.2	-462.2	476.9	455.5	21.40	22.283		
4,800.0	4,790.8	4,785.1	4,752.6	10.8	13.5	-90.86	158.6	-474.0	486.9	465.0	21.84	22.290		
4,900.0	4,890.8	4,903.8	4,871.1	11.0	13.8	-90.54	161.3	-481.3	493.0	470.7	22.27	22.136		
5,000.0	4,990.8	5,023.1	4,990.3	11.2	14.0	-90.42	162.3	-484.1	495.3	472.6	22.70	21.823		

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,100.0	5,090.8	5,124.6	5,091.8	11.4	14.1	-90.42	162.3	-484.1	495.3	472.2	23.10	21.437			
5,200.0	5,190.8	5,224.6	5,191.8	11.6	14.3	-90.42	162.3	-484.1	495.3	471.8	23.52	21.057			
5,300.0	5,290.8	5,324.6	5,291.8	11.8	14.5	-90.42	162.3	-484.1	495.3	471.3	23.94	20.688			
5,400.0	5,390.8	5,424.6	5,391.8	12.1	14.6	-90.42	162.3	-484.1	495.3	470.9	24.36	20.332			
5,500.0	5,490.8	5,524.6	5,491.8	12.3	14.8	-90.42	162.3	-484.1	495.3	470.5	24.78	19.986			
5,600.0	5,590.8	5,624.6	5,591.8	12.5	15.0	-90.42	162.3	-484.1	495.3	470.1	25.20	19.652			
5,700.0	5,690.8	5,724.6	5,691.8	12.7	15.2	-90.42	162.3	-484.1	495.3	469.7	25.63	19.327			
5,800.0	5,790.8	5,824.6	5,791.8	12.9	15.4	-90.42	162.3	-484.1	495.3	469.2	26.05	19.013			
5,900.0	5,890.8	5,924.6	5,891.8	13.1	15.5	-90.42	162.3	-484.1	495.3	468.8	26.47	18.708			
6,000.0	5,990.8	6,024.6	5,991.8	13.4	15.7	-90.42	162.3	-484.1	495.3	468.4	26.90	18.412			
6,100.0	6,090.8	6,124.6	6,091.8	13.6	15.9	-90.42	162.3	-484.1	495.3	468.0	27.33	18.125			
6,200.0	6,190.8	6,224.6	6,191.8	13.8	16.1	-90.42	162.3	-484.1	495.3	467.5	27.75	17.846			
6,300.0	6,290.8	6,324.6	6,291.8	14.0	16.3	-90.42	162.3	-484.1	495.3	467.1	28.18	17.575			
6,400.0	6,390.8	6,424.6	6,391.8	14.2	16.5	-90.42	162.3	-484.1	495.3	466.7	28.61	17.312			
6,500.0	6,490.8	6,525.1	6,492.1	14.5	16.6	-90.91	158.1	-484.0	495.2	466.2	29.02	17.067			
6,516.9	6,507.7	6,541.8	6,508.7	14.5	16.6	-91.18	155.7	-483.9	495.2	466.2	29.08	17.029			
6,600.0	6,590.8	6,621.3	6,585.9	14.7	16.7	-93.32	137.2	-483.6	495.6	466.2	29.39	16.865			
6,700.0	6,690.6	6,709.2	6,666.9	14.9	16.8	84.19	103.3	-482.9	498.1	468.4	29.72	16.761			
6,800.0	6,787.7	6,792.7	6,737.5	14.9	16.8	80.65	58.9	-481.9	502.6	472.7	29.90	16.812			
6,900.0	6,878.6	6,873.0	6,797.9	15.0	16.9	77.45	6.2	-480.8	508.3	478.3	29.96	16.968			
7,000.0	6,960.0	6,950.0	6,847.6	15.1	16.9	74.69	-52.6	-479.6	514.5	484.5	29.96	17.175			
7,100.0	7,028.9	7,026.8	6,887.9	15.2	17.0	72.38	-117.8	-478.3	520.5	490.5	30.00	17.350			
7,200.0	7,082.6	7,100.0	6,917.1	15.5	17.2	70.62	-184.9	-476.9	525.6	495.4	30.21	17.398			
7,300.0	7,119.4	7,175.0	6,937.0	16.0	17.5	69.38	-257.2	-475.4	529.4	498.6	30.79	17.195			
7,400.0	7,137.7	7,250.0	6,946.2	16.6	17.9	68.72	-331.5	-473.9	531.5	499.7	31.82	16.705			
7,500.0	7,139.6	7,336.5	6,946.6	17.5	18.5	68.61	-417.9	-472.1	531.9	498.5	33.35	15.947			
7,600.0	7,139.2	7,436.5	6,946.2	18.4	19.4	68.60	-517.9	-470.0	531.9	496.7	35.22	15.101			
7,700.0	7,138.9	7,536.5	6,945.7	19.6	20.4	68.59	-617.9	-468.0	531.9	494.6	37.35	14.241			
7,800.0	7,138.5	7,636.5	6,945.2	20.8	21.6	68.58	-717.8	-465.9	532.0	492.3	39.70	13.401			
7,900.0	7,138.2	7,736.5	6,944.7	22.1	22.9	68.56	-817.8	-463.9	532.0	489.8	42.23	12.600			
8,000.0	7,137.8	7,836.5	6,944.3	23.6	24.3	68.55	-917.8	-461.8	532.1	487.2	44.90	11.850			
8,100.0	7,137.5	7,936.5	6,943.8	25.0	25.7	68.54	-1,017.8	-459.7	532.1	484.4	47.70	11.155			
8,200.0	7,137.1	8,036.5	6,943.3	26.6	27.3	68.53	-1,117.7	-457.7	532.2	481.6	50.60	10.516			
8,300.0	7,136.8	8,136.5	6,942.9	28.2	28.8	68.52	-1,217.7	-455.6	532.2	478.6	53.60	9.930			
8,400.0	7,136.4	8,236.5	6,942.4	29.8	30.4	68.50	-1,317.7	-453.5	532.3	475.6	56.66	9.394			
8,500.0	7,136.1	8,336.5	6,941.9	31.5	32.0	68.49	-1,417.7	-451.5	532.3	472.5	59.78	8.904			
8,600.0	7,135.7	8,436.5	6,941.4	33.2	33.7	68.48	-1,517.7	-449.4	532.4	469.4	62.96	8.456			
8,700.0	7,135.4	8,536.5	6,941.0	34.9	35.4	68.47	-1,617.6	-447.4	532.4	466.2	66.18	8.045			
8,800.0	7,135.0	8,636.5	6,940.5	36.6	37.1	68.45	-1,717.6	-445.3	532.4	463.0	69.44	7.668			
8,900.0	7,134.7	8,736.5	6,940.0	38.4	38.8	68.44	-1,817.6	-443.2	532.5	459.8	72.73	7.321			
9,000.0	7,134.3	8,836.5	6,939.6	40.1	40.6	68.43	-1,917.6	-441.2	532.5	456.5	76.05	7.002			
9,100.0	7,134.0	8,936.5	6,939.1	41.9	42.4	68.42	-2,017.5	-439.1	532.6	453.2	79.40	6.708			
9,200.0	7,133.6	9,036.5	6,938.6	43.7	44.1	68.41	-2,117.5	-437.0	532.6	449.9	82.77	6.435			
9,300.0	7,133.3	9,136.5	6,938.1	45.5	45.9	68.39	-2,217.5	-435.0	532.7	446.5	86.16	6.183			
9,400.0	7,132.9	9,236.5	6,937.7	47.3	47.7	68.38	-2,317.5	-432.9	532.7	443.2	89.56	5.948			
9,500.0	7,132.6	9,336.5	6,937.2	49.1	49.5	68.37	-2,417.5	-430.9	532.8	439.8	92.98	5.730			
9,600.0	7,132.2	9,436.5	6,936.7	51.0	51.4	68.36	-2,517.4	-428.8	532.8	436.4	96.41	5.526			
9,700.0	7,131.9	9,536.5	6,936.3	52.8	53.2	68.34	-2,617.4	-426.7	532.8	433.0	99.86	5.336			
9,800.0	7,131.5	9,636.5	6,935.8	54.7	55.0	68.33	-2,717.4	-424.7	532.9	429.6	103.31	5.158			
9,900.0	7,131.2	9,736.5	6,935.3	56.5	56.9	68.32	-2,817.4	-422.6	532.9	426.2	106.78	4.991			
10,000.0	7,130.8	9,836.5	6,934.8	58.4	58.7	68.31	-2,917.3	-420.5	533.0	422.7	110.25	4.834			
10,100.0	7,130.5	9,936.5	6,934.4	60.2	60.6	68.30	-3,017.3	-418.5	533.0	419.3	113.74	4.687			

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
10,200.0	7,130.1	10,036.5	6,933.9	62.1	62.4	68.28	-3,117.3	-416.4	533.1	415.8	117.22	4.547			
10,300.0	7,129.8	10,136.5	6,933.4	63.9	64.3	68.27	-3,217.3	-414.4	533.1	412.4	120.72	4.416			
10,400.0	7,129.5	10,236.5	6,933.0	65.8	66.1	68.26	-3,317.3	-412.3	533.2	408.9	124.22	4.292			
10,500.0	7,129.1	10,336.5	6,932.5	67.7	68.0	68.25	-3,417.2	-410.2	533.2	405.5	127.73	4.175			
10,600.0	7,128.8	10,436.5	6,932.0	69.6	69.9	68.23	-3,517.2	-408.2	533.3	402.0	131.24	4.063			
10,700.0	7,128.4	10,536.5	6,931.6	71.4	71.7	68.22	-3,617.2	-406.1	533.3	398.5	134.76	3.957			
10,800.0	7,128.1	10,636.5	6,931.1	73.3	73.6	68.21	-3,717.2	-404.1	533.3	395.1	138.28	3.857			
10,900.0	7,127.7	10,736.5	6,930.6	75.2	75.5	68.20	-3,817.1	-402.0	533.4	391.6	141.80	3.762			
11,000.0	7,127.4	10,836.5	6,930.1	77.1	77.4	68.19	-3,917.1	-399.9	533.4	388.1	145.33	3.671			
11,100.0	7,127.0	10,936.5	6,929.7	79.0	79.2	68.17	-4,017.1	-397.9	533.5	384.6	148.86	3.584			
11,200.0	7,126.7	11,036.5	6,929.2	80.9	81.1	68.16	-4,117.1	-395.8	533.5	381.1	152.39	3.501			
11,300.0	7,126.3	11,136.5	6,928.7	82.7	83.0	68.15	-4,217.1	-393.7	533.6	377.6	155.93	3.422			
11,400.0	7,126.0	11,236.5	6,928.3	84.6	84.9	68.14	-4,317.0	-391.7	533.6	374.2	159.46	3.346			
11,500.0	7,125.6	11,336.5	6,927.8	86.5	86.8	68.13	-4,417.0	-389.6	533.7	370.7	163.01	3.274			
11,600.0	7,125.3	11,436.5	6,927.3	88.4	88.7	68.11	-4,517.0	-387.6	533.7	367.2	166.55	3.205			
11,639.7	7,125.1	11,476.2	6,927.1	89.2	89.4	68.11	-4,556.7	-386.7	533.7	365.8	167.96	3.178			
11,675.1	7,125.0	11,502.3	6,927.0	89.8	89.9	68.10	-4,582.8	-386.2	533.8	364.8	169.04	3.158 SF			

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	1.0	1.0	0.0	0.0	-90.03	0.0	-28.0	28.0	28.0	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-90.03	0.0	-28.0	28.0	27.8	0.23	123.256		
200.0	200.0	201.0	201.0	0.3	0.3	-90.03	0.0	-28.0	28.0	27.3	0.68	41.358		
300.0	300.0	301.0	301.0	0.6	0.6	-90.03	0.0	-28.0	28.0	26.9	1.13	24.848		
400.0	400.0	401.0	401.0	0.8	0.8	-90.03	0.0	-28.0	28.0	26.4	1.58	17.759		
500.0	500.0	501.0	501.0	1.0	1.0	-90.03	0.0	-28.0	28.0	26.0	2.03	13.817		
600.0	600.0	601.0	601.0	1.2	1.2	-90.03	0.0	-28.0	28.0	25.5	2.47	11.307		
700.0	700.0	701.0	701.0	1.5	1.5	-90.03	0.0	-28.0	28.0	25.1	2.92	9.569		
800.0	800.0	801.0	801.0	1.7	1.7	-90.03	0.0	-28.0	28.0	24.6	3.37	8.294		
900.0	900.0	901.0	901.0	1.9	1.9	-90.03	0.0	-28.0	28.0	24.2	3.82	7.319		
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-90.03	0.0	-28.0	28.0	23.7	4.27	6.549		
1,100.0	1,100.0	1,101.0	1,101.0	2.4	2.4	-90.03	0.0	-28.0	28.0	23.3	4.72	5.925		
1,200.0	1,200.0	1,201.0	1,201.0	2.6	2.6	-90.03	0.0	-28.0	28.0	22.8	5.17	5.410		
1,300.0	1,300.0	1,301.0	1,301.0	2.8	2.8	-90.03	0.0	-28.0	28.0	22.4	5.62	4.978		
1,400.0	1,400.0	1,401.0	1,401.0	3.0	3.0	-90.03	0.0	-28.0	28.0	21.9	6.07	4.609		
1,500.0	1,500.0	1,501.0	1,501.0	3.3	3.3	-90.03	0.0	-28.0	28.0	21.5	6.52	4.291		
1,566.3	1,566.3	1,567.3	1,567.3	3.4	3.4	-90.03	0.0	-28.0	28.0	21.2	6.82	4.104 CC		
1,600.0	1,600.0	1,601.0	1,601.0	3.5	3.5	-90.03	0.0	-28.0	28.0	21.0	6.97	4.015 ES		
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-88.38	0.8	-29.5	29.5	22.1	7.41	3.986		
1,800.0	1,800.0	1,799.8	1,798.8	3.9	3.9	-84.38	3.3	-34.0	34.2	26.4	7.85	4.365		
1,900.0	1,900.0	1,897.4	1,896.8	4.2	4.1	-79.75	7.5	-41.4	42.3	34.0	8.28	5.111		
2,000.0	2,000.0	1,995.4	1,994.2	4.4	4.4	-75.66	13.2	-51.7	53.8	45.1	8.72	6.170		
2,100.0	2,100.0	2,094.6	2,092.5	4.6	4.6	-72.78	19.5	-63.1	66.6	57.4	9.16	7.266		
2,200.0	2,200.0	2,193.7	2,190.8	4.8	4.9	-70.83	25.9	-74.4	79.4	69.8	9.60	8.271		
2,300.0	2,300.0	2,292.9	2,289.1	5.1	5.1	-73.89	32.2	-85.7	92.0	81.9	10.04	9.157		
2,400.0	2,399.9	2,392.2	2,387.5	5.3	5.4	-74.64	38.5	-97.1	103.8	93.3	10.49	9.900		
2,500.0	2,499.7	2,491.5	2,486.0	5.5	5.7	-76.47	44.9	-108.4	115.1	104.1	10.94	10.523		
2,600.0	2,599.3	2,590.7	2,584.3	5.7	6.0	-79.13	51.2	-119.8	125.9	114.5	11.39	11.055		
2,700.0	2,698.6	2,689.8	2,682.6	6.0	6.3	-82.42	57.5	-131.1	136.7	124.8	11.86	11.524		
2,800.0	2,797.8	2,788.9	2,780.8	6.2	6.6	-85.64	63.8	-142.4	147.8	135.4	12.35	11.971		
2,900.0	2,897.0	2,887.9	2,879.0	6.5	6.9	-88.41	70.1	-153.8	159.3	146.4	12.84	12.404		
3,000.0	2,996.2	2,987.0	2,977.2	6.7	7.2	-90.80	76.5	-165.1	171.1	157.8	13.35	12.819		
3,100.0	3,095.5	3,086.1	3,075.4	7.0	7.5	-92.88	82.8	-176.4	183.2	169.3	13.86	13.213		
3,200.0	3,194.7	3,185.1	3,173.6	7.2	7.8	-94.71	89.1	-187.7	195.5	181.1	14.39	13.585		
3,300.0	3,293.9	3,284.2	3,271.9	7.5	8.1	-96.31	95.4	-199.1	207.9	193.0	14.92	13.936		
3,400.0	3,393.1	3,383.3	3,370.1	7.8	8.4	-97.74	101.7	-210.4	220.5	205.1	15.46	14.267		
3,500.0	3,492.3	3,482.3	3,468.3	8.0	8.7	-99.01	108.0	-221.7	233.3	217.3	16.00	14.577		
3,600.0	3,591.6	3,581.4	3,566.5	8.3	9.0	-100.13	114.4	-233.0	246.0	229.4	16.53	14.881		
3,700.0	3,691.2	3,680.6	3,664.9	8.5	9.3	-100.67	120.7	-244.4	258.3	241.3	17.01	15.186		
3,800.0	3,790.9	3,779.9	3,763.3	8.7	9.6	-100.61	127.0	-255.7	270.1	252.7	17.47	15.463		
3,900.0	3,890.8	3,879.2	3,861.8	8.9	9.9	-100.04	133.3	-267.1	281.5	263.6	17.91	15.719		
4,000.0	3,990.8	3,978.4	3,960.1	9.1	10.3	-99.02	139.7	-278.4	292.5	274.2	18.33	15.962		
4,100.0	4,090.8	4,077.6	4,058.4	9.3	10.6	-93.78	146.0	-289.8	303.5	284.8	18.72	16.210		
4,200.0	4,190.8	4,180.0	4,160.0	9.5	10.9	-92.47	152.4	-301.3	314.4	295.2	19.16	16.410		
4,300.0	4,290.8	4,290.0	4,269.4	9.7	11.1	-91.45	157.8	-310.9	322.9	303.4	19.57	16.498		
4,400.0	4,390.8	4,400.7	4,379.9	9.9	11.4	-90.85	161.1	-316.8	328.2	308.2	19.98	16.424		
4,500.0	4,490.8	4,511.7	4,490.9	10.1	11.5	-90.63	162.3	-319.0	330.2	309.8	20.39	16.193		
4,600.0	4,590.8	4,612.7	4,591.8	10.3	11.7	-90.63	162.3	-319.0	330.2	309.4	20.80	15.878		
4,700.0	4,690.8	4,712.7	4,691.8	10.5	11.9	-90.63	162.3	-319.0	330.2	309.0	21.22	15.563		
4,800.0	4,790.8	4,812.7	4,791.8	10.8	12.1	-90.63	162.3	-319.0	330.2	308.6	21.64	15.260		
4,900.0	4,890.8	4,912.7	4,891.8	11.0	12.3	-90.63	162.3	-319.0	330.2	308.1	22.06	14.967		
5,000.0	4,990.8	5,012.7	4,991.8	11.2	12.5	-90.63	162.3	-319.0	330.2	307.7	22.49	14.685		

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.0	5,090.8	5,112.7	5,091.8	11.4	12.7	-90.63	162.3	-319.0	330.2	307.3	22.91	14.413		
5,200.0	5,190.8	5,212.7	5,191.8	11.6	12.9	-90.63	162.3	-319.0	330.2	306.9	23.34	14.150		
5,300.0	5,290.8	5,312.7	5,291.8	11.8	13.1	-90.63	162.3	-319.0	330.2	306.4	23.76	13.896		
5,400.0	5,390.8	5,412.7	5,391.8	12.1	13.3	-90.63	162.3	-319.0	330.2	306.0	24.19	13.651		
5,500.0	5,490.8	5,512.7	5,491.8	12.3	13.4	-90.63	162.3	-319.0	330.2	305.6	24.62	13.413		
5,600.0	5,590.8	5,612.7	5,591.8	12.5	13.6	-90.63	162.3	-319.0	330.2	305.2	25.05	13.183		
5,700.0	5,690.8	5,712.7	5,691.8	12.7	13.8	-90.63	162.3	-319.0	330.2	304.7	25.48	12.961		
5,800.0	5,790.8	5,812.7	5,791.8	12.9	14.0	-90.63	162.3	-319.0	330.2	304.3	25.91	12.746		
5,900.0	5,890.8	5,912.7	5,891.8	13.1	14.2	-90.63	162.3	-319.0	330.2	303.9	26.34	12.537		
6,000.0	5,990.8	6,012.7	5,991.8	13.4	14.4	-90.63	162.3	-319.0	330.2	303.4	26.77	12.335		
6,100.0	6,090.8	6,112.7	6,091.8	13.6	14.6	-90.63	162.3	-319.0	330.2	303.0	27.20	12.139		
6,200.0	6,190.8	6,212.7	6,191.8	13.8	14.8	-90.63	162.3	-319.0	330.2	302.6	27.63	11.949		
6,300.0	6,290.8	6,312.7	6,291.8	14.0	15.1	-90.63	162.3	-319.0	330.2	302.1	28.07	11.765		
6,400.0	6,390.8	6,412.7	6,391.8	14.2	15.3	-90.63	162.3	-319.0	330.2	301.7	28.50	11.586		
6,484.7	6,475.5	6,497.5	6,476.6	14.4	15.4	-91.07	159.7	-318.9	330.2	301.3	28.85	11.447		
6,500.0	6,490.8	6,512.7	6,491.7	14.5	15.4	-91.37	158.0	-318.9	330.2	301.3	28.90	11.424		
6,600.0	6,590.8	6,608.2	6,584.8	14.7	15.5	-94.98	137.2	-318.5	331.0	301.7	29.27	11.307		
6,700.0	6,690.6	6,695.6	6,665.3	14.9	15.6	80.76	103.6	-317.8	335.1	305.5	29.58	11.326		
6,800.0	6,787.7	6,778.7	6,735.7	14.9	15.6	75.60	59.6	-316.9	342.0	312.3	29.71	11.511		
6,900.0	6,878.6	6,858.6	6,795.9	15.0	15.7	71.06	7.2	-315.8	350.5	320.9	29.64	11.827		
7,000.0	6,960.0	6,936.1	6,846.0	15.1	15.8	67.23	-51.9	-314.6	359.5	330.1	29.41	12.226		
7,100.0	7,028.9	7,011.8	6,886.0	15.2	15.9	64.17	-116.1	-313.2	368.0	338.9	29.09	12.650		
7,200.0	7,082.6	7,086.2	6,915.9	15.5	16.0	61.87	-184.1	-311.8	375.1	346.2	28.93	12.966		
7,300.0	7,119.4	7,159.7	6,935.5	16.0	16.4	60.34	-254.9	-310.4	380.3	351.1	29.15	13.046		
7,400.0	7,137.7	7,232.7	6,945.0	16.6	16.9	59.56	-327.2	-308.9	383.0	353.1	29.93	12.798		
7,500.0	7,139.6	7,320.1	6,945.6	17.5	17.6	59.44	-414.5	-307.1	383.4	352.1	31.33	12.237		
7,600.0	7,139.2	7,420.1	6,945.2	18.4	18.6	59.43	-514.5	-305.0	383.5	350.4	33.08	11.591		
7,700.0	7,138.9	7,520.1	6,944.7	19.6	19.7	59.41	-614.5	-303.0	383.6	348.5	35.08	10.935		
7,800.0	7,138.5	7,620.1	6,944.2	20.8	20.9	59.40	-714.4	-300.9	383.6	346.3	37.27	10.293		
7,900.0	7,138.2	7,720.1	6,943.8	22.1	22.3	59.38	-814.4	-298.8	383.7	344.0	39.63	9.681		
8,000.0	7,137.8	7,820.1	6,943.3	23.6	23.7	59.36	-914.4	-296.8	383.7	341.6	42.13	9.108		
8,100.0	7,137.5	7,920.1	6,942.8	25.0	25.1	59.35	-1,014.4	-294.7	383.8	339.0	44.75	8.576		
8,200.0	7,137.1	8,020.1	6,942.3	26.6	26.7	59.33	-1,114.3	-292.6	383.9	336.4	47.47	8.087		
8,300.0	7,136.8	8,120.1	6,941.9	28.2	28.3	59.32	-1,214.3	-290.6	383.9	333.7	50.26	7.638		
8,400.0	7,136.4	8,220.1	6,941.4	29.8	29.9	59.30	-1,314.3	-288.5	384.0	330.9	53.13	7.228		
8,500.0	7,136.1	8,320.1	6,940.9	31.5	31.6	59.29	-1,414.3	-286.5	384.0	328.0	56.05	6.852		
8,600.0	7,135.7	8,420.1	6,940.5	33.2	33.2	59.27	-1,514.3	-284.4	384.1	325.1	59.02	6.508		
8,700.0	7,135.4	8,520.1	6,940.0	34.9	35.0	59.25	-1,614.2	-282.3	384.2	322.1	62.03	6.193		
8,800.0	7,135.0	8,620.1	6,939.5	36.6	36.7	59.24	-1,714.2	-280.3	384.2	319.2	65.08	5.904		
8,900.0	7,134.7	8,720.1	6,939.0	38.4	38.4	59.22	-1,814.2	-278.2	384.3	316.1	68.16	5.638		
9,000.0	7,134.3	8,820.1	6,938.6	40.1	40.2	59.21	-1,914.2	-276.1	384.4	313.1	71.26	5.394		
9,100.0	7,134.0	8,920.1	6,938.1	41.9	42.0	59.19	-2,014.1	-274.1	384.4	310.0	74.39	5.168		
9,200.0	7,133.6	9,020.1	6,937.6	43.7	43.8	59.18	-2,114.1	-272.0	384.5	306.9	77.54	4.959		
9,300.0	7,133.3	9,120.1	6,937.2	45.5	45.6	59.16	-2,214.1	-270.0	384.5	303.8	80.70	4.765		
9,400.0	7,132.9	9,220.1	6,936.7	47.3	47.4	59.15	-2,314.1	-267.9	384.6	300.7	83.89	4.585		
9,500.0	7,132.6	9,320.1	6,936.2	49.1	49.2	59.13	-2,414.1	-265.8	384.7	297.6	87.08	4.417		
9,600.0	7,132.2	9,420.1	6,935.8	51.0	51.0	59.11	-2,514.0	-263.8	384.7	294.4	90.29	4.261		
9,700.0	7,131.9	9,520.1	6,935.3	52.8	52.9	59.10	-2,614.0	-261.7	384.8	291.3	93.51	4.115		
9,800.0	7,131.5	9,620.1	6,934.8	54.7	54.7	59.08	-2,714.0	-259.6	384.9	288.1	96.74	3.978		
9,900.0	7,131.2	9,720.1	6,934.3	56.5	56.6	59.07	-2,814.0	-257.6	384.9	284.9	99.97	3.850		
10,000.0	7,130.8	9,820.1	6,933.9	58.4	58.4	59.05	-2,913.9	-255.5	385.0	281.8	103.22	3.730		
10,100.0	7,130.5	9,920.1	6,933.4	60.2	60.3	59.04	-3,013.9	-253.5	385.0	278.6	106.47	3.616		

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
10,200.0	7,130.1	10,020.1	6,932.9	62.1	62.1	59.02	-3,113.9	-251.4	385.1	275.4	109.73	3.510			
10,300.0	7,129.8	10,120.1	6,932.5	63.9	64.0	59.00	-3,213.9	-249.3	385.2	272.2	112.99	3.409			
10,400.0	7,129.5	10,220.1	6,932.0	65.8	65.9	58.99	-3,313.8	-247.3	385.2	269.0	116.26	3.313			
10,500.0	7,129.1	10,320.1	6,931.5	67.7	67.7	58.97	-3,413.8	-245.2	385.3	265.8	119.54	3.223			
10,600.0	7,128.8	10,420.1	6,931.0	69.6	69.6	58.96	-3,513.8	-243.1	385.4	262.5	122.81	3.138			
10,700.0	7,128.4	10,520.1	6,930.6	71.4	71.5	58.94	-3,613.8	-241.1	385.4	259.3	126.09	3.057			
10,800.0	7,128.1	10,620.1	6,930.1	73.3	73.4	58.93	-3,713.8	-239.0	385.5	256.1	129.38	2.979			
10,900.0	7,127.7	10,720.1	6,929.6	75.2	75.2	58.91	-3,813.7	-236.9	385.5	252.9	132.67	2.906			
11,000.0	7,127.4	10,820.1	6,929.2	77.1	77.1	58.90	-3,913.7	-234.9	385.6	249.6	135.96	2.836			
11,100.0	7,127.0	10,920.1	6,928.7	79.0	79.0	58.88	-4,013.7	-232.8	385.7	246.4	139.25	2.770			
11,200.0	7,126.7	11,020.1	6,928.2	80.9	80.9	58.86	-4,113.7	-230.8	385.7	243.2	142.55	2.706			
11,300.0	7,126.3	11,120.1	6,927.7	82.7	82.8	58.85	-4,213.6	-228.7	385.8	239.9	145.84	2.645			
11,400.0	7,126.0	11,220.1	6,927.3	84.6	84.7	58.83	-4,313.6	-226.6	385.9	236.7	149.14	2.587			
11,500.0	7,125.6	11,320.1	6,926.8	86.5	86.6	58.82	-4,413.6	-224.6	385.9	233.5	152.44	2.532			
11,600.0	7,125.3	11,420.1	6,926.3	88.4	88.5	58.80	-4,513.6	-222.5	386.0	230.2	155.75	2.478			
11,640.6	7,125.1	11,460.6	6,926.1	89.2	89.2	58.80	-4,554.1	-221.7	386.0	228.9	157.09	2.457			
11,675.1	7,125.0	11,489.3	6,926.0	89.8	89.8	58.79	-4,582.8	-221.1	386.1	227.9	158.13	2.441 SF			

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	1.0	1.0	0.0	0.0	-89.97	0.0	-14.0	14.0	14.0	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-89.97	0.0	-14.0	14.0	13.8	0.23	61.628		
200.0	200.0	201.0	201.0	0.3	0.3	-89.97	0.0	-14.0	14.0	13.3	0.68	20.679		
300.0	300.0	301.0	301.0	0.6	0.6	-89.97	0.0	-14.0	14.0	12.9	1.13	12.424		
400.0	400.0	401.0	401.0	0.8	0.8	-89.97	0.0	-14.0	14.0	12.4	1.58	8.879		
500.0	500.0	501.0	501.0	1.0	1.0	-89.97	0.0	-14.0	14.0	12.0	2.03	6.908		
600.0	600.0	601.0	601.0	1.2	1.2	-89.97	0.0	-14.0	14.0	11.5	2.47	5.653		
700.0	700.0	701.0	701.0	1.5	1.5	-89.97	0.0	-14.0	14.0	11.1	2.92	4.784		
800.0	800.0	801.0	801.0	1.7	1.7	-89.97	0.0	-14.0	14.0	10.6	3.37	4.147		
900.0	900.0	901.0	901.0	1.9	1.9	-89.97	0.0	-14.0	14.0	10.2	3.82	3.659		
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-89.97	0.0	-14.0	14.0	9.7	4.27	3.274		
1,100.0	1,100.0	1,101.0	1,101.0	2.4	2.4	-89.97	0.0	-14.0	14.0	9.3	4.72	2.963		
1,200.0	1,200.0	1,201.0	1,201.0	2.6	2.6	-89.97	0.0	-14.0	14.0	8.8	5.17	2.705		
1,300.0	1,300.0	1,301.0	1,301.0	2.8	2.8	-89.97	0.0	-14.0	14.0	8.4	5.62	2.489		
1,400.0	1,400.0	1,401.0	1,401.0	3.0	3.0	-89.97	0.0	-14.0	14.0	7.9	6.07	2.304		
1,500.0	1,500.0	1,501.0	1,501.0	3.3	3.3	-89.97	0.0	-14.0	14.0	7.5	6.52	2.146		
1,600.0	1,600.0	1,601.0	1,601.0	3.5	3.5	-89.97	0.0	-14.0	14.0	7.0	6.97	2.007		
1,700.0	1,700.0	1,701.0	1,701.0	3.7	3.7	-89.97	0.0	-14.0	14.0	6.6	7.42	1.886		
1,766.3	1,766.3	1,767.3	1,767.3	3.9	3.9	-89.97	0.0	-14.0	14.0	6.3	7.72	1.813 CC		
1,800.0	1,800.0	1,801.0	1,801.0	3.9	3.9	-89.97	0.0	-14.0	14.0	6.1	7.87	1.778 ES, SF		
1,900.0	1,900.0	1,900.7	1,900.7	4.2	4.2	-86.09	1.0	-14.9	14.9	6.6	8.31	1.792		
2,000.0	2,000.0	2,000.3	2,000.2	4.4	4.4	-77.11	4.0	-17.4	17.9	9.1	8.76	2.043		
2,100.0	2,100.0	2,099.7	2,099.4	4.6	4.6	-67.65	8.9	-21.7	23.5	14.3	9.20	2.552		
2,200.0	2,200.0	2,198.6	2,197.9	4.8	4.8	-60.26	15.7	-27.6	31.9	22.2	9.64	3.308		
2,300.0	2,300.0	2,297.4	2,296.0	5.1	5.1	-60.36	24.4	-35.0	42.4	32.3	10.09	4.200		
2,400.0	2,399.9	2,396.9	2,394.7	5.3	5.3	-60.30	33.7	-43.0	52.3	41.7	10.53	4.965		
2,500.0	2,499.7	2,496.5	2,493.6	5.5	5.6	-62.39	43.0	-51.0	60.9	50.0	10.97	5.554		
2,600.0	2,599.3	2,596.1	2,592.4	5.7	5.8	-65.90	52.3	-59.0	68.6	57.1	11.42	6.003		
2,700.0	2,698.6	2,695.7	2,691.3	6.0	6.1	-70.52	61.6	-67.0	75.5	63.6	11.89	6.352		
2,800.0	2,797.8	2,795.2	2,790.1	6.2	6.4	-74.93	70.8	-75.0	82.7	70.3	12.38	6.682		
2,900.0	2,897.0	2,894.8	2,888.9	6.5	6.6	-78.62	80.1	-83.0	90.3	77.4	12.88	7.012		
3,000.0	2,996.2	2,994.3	2,987.7	6.7	6.9	-81.73	89.4	-91.0	98.2	84.8	13.39	7.334		
3,100.0	3,095.5	3,093.9	3,086.5	7.0	7.2	-84.38	98.7	-99.0	106.3	92.4	13.91	7.645		
3,200.0	3,194.7	3,193.5	3,185.3	7.2	7.5	-86.64	107.9	-107.0	114.7	100.2	14.44	7.942		
3,300.0	3,293.9	3,293.0	3,284.1	7.5	7.8	-88.59	117.2	-115.0	123.2	108.2	14.97	8.224		
3,400.0	3,393.1	3,392.6	3,382.9	7.8	8.1	-90.30	126.5	-123.0	131.8	116.2	15.52	8.491		
3,500.0	3,492.3	3,492.1	3,481.7	8.0	8.4	-91.79	135.8	-131.0	140.5	124.4	16.07	8.742		
3,600.0	3,591.6	3,593.0	3,581.9	8.3	8.6	-93.07	144.9	-138.9	149.0	132.4	16.59	8.982		
3,700.0	3,691.2	3,695.5	3,683.8	8.5	8.9	-93.98	152.4	-145.3	155.9	138.9	17.03	9.157		
3,800.0	3,790.9	3,798.1	3,786.1	8.7	9.1	-94.60	157.8	-150.0	160.9	143.5	17.44	9.226		
3,900.0	3,890.8	3,900.8	3,888.8	8.9	9.3	-94.97	161.1	-152.8	164.0	146.2	17.83	9.198		
4,000.0	3,990.8	4,003.6	3,991.6	9.1	9.4	-95.11	162.3	-153.9	165.1	146.9	18.19	9.077		
4,100.0	4,090.8	4,103.9	4,091.8	9.3	9.6	-91.25	162.3	-153.9	165.1	146.6	18.56	8.898		
4,200.0	4,190.8	4,203.9	4,191.8	9.5	9.8	-91.25	162.3	-153.9	165.1	146.2	18.98	8.701		
4,300.0	4,290.8	4,303.9	4,291.8	9.7	10.0	-91.25	162.3	-153.9	165.1	145.7	19.40	8.512		
4,400.0	4,390.8	4,403.9	4,391.8	9.9	10.2	-91.25	162.3	-153.9	165.1	145.3	19.82	8.330		
4,500.0	4,490.8	4,503.9	4,491.8	10.1	10.4	-91.25	162.3	-153.9	165.1	144.9	20.25	8.155		
4,600.0	4,590.8	4,603.9	4,591.8	10.3	10.7	-91.25	162.3	-153.9	165.1	144.5	20.67	7.987		
4,700.0	4,690.8	4,703.9	4,691.8	10.5	10.9	-91.25	162.3	-153.9	165.1	144.0	21.10	7.826		
4,800.0	4,790.8	4,803.9	4,791.8	10.8	11.1	-91.25	162.3	-153.9	165.1	143.6	21.53	7.670		
4,900.0	4,890.8	4,903.9	4,891.8	11.0	11.3	-91.25	162.3	-153.9	165.1	143.2	21.96	7.520		
5,000.0	4,990.8	5,003.9	4,991.8	11.2	11.5	-91.25	162.3	-153.9	165.1	142.7	22.39	7.376		

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft	
Survey Program: 0-MWD													Offset Well Error:		0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,100.0	5,090.8	5,103.9	5,091.8	11.4	11.7	-91.25	162.3	-153.9	165.1	142.3	22.82	7.237			
5,200.0	5,190.8	5,203.9	5,191.8	11.6	11.9	-91.25	162.3	-153.9	165.1	141.9	23.25	7.103			
5,300.0	5,290.8	5,303.9	5,291.8	11.8	12.1	-91.25	162.3	-153.9	165.1	141.5	23.68	6.974			
5,400.0	5,390.8	5,403.9	5,391.8	12.1	12.3	-91.25	162.3	-153.9	165.1	141.0	24.11	6.849			
5,500.0	5,490.8	5,503.9	5,491.8	12.3	12.5	-91.25	162.3	-153.9	165.1	140.6	24.54	6.728			
5,600.0	5,590.8	5,603.9	5,591.8	12.5	12.8	-91.25	162.3	-153.9	165.1	140.2	24.98	6.611			
5,700.0	5,690.8	5,703.9	5,691.8	12.7	13.0	-91.25	162.3	-153.9	165.1	139.7	25.41	6.498			
5,800.0	5,790.8	5,803.9	5,791.8	12.9	13.2	-91.25	162.3	-153.9	165.1	139.3	25.85	6.389			
5,900.0	5,890.8	5,903.9	5,891.8	13.1	13.4	-91.25	162.3	-153.9	165.1	138.8	26.28	6.283			
6,000.0	5,990.8	6,003.9	5,991.8	13.4	13.6	-91.25	162.3	-153.9	165.1	138.4	26.72	6.181			
6,100.0	6,090.8	6,103.9	6,091.8	13.6	13.8	-91.25	162.3	-153.9	165.1	138.0	27.15	6.082			
6,200.0	6,190.8	6,203.9	6,191.8	13.8	14.0	-91.25	162.3	-153.9	165.1	137.5	27.59	5.985			
6,300.0	6,290.8	6,303.9	6,291.8	14.0	14.3	-91.25	162.3	-153.9	165.1	137.1	28.03	5.892			
6,400.0	6,390.8	6,403.9	6,391.8	14.2	14.5	-91.25	162.3	-153.9	165.1	136.7	28.46	5.802			
6,443.2	6,434.0	6,447.1	6,435.0	14.3	14.6	-91.28	162.2	-153.9	165.1	136.5	28.65	5.764			
6,500.0	6,490.8	6,503.5	6,491.3	14.5	14.6	-92.71	158.1	-153.8	165.2	136.3	28.87	5.722			
6,600.0	6,590.8	6,598.4	6,583.8	14.7	14.8	-99.78	137.5	-153.4	167.2	138.0	29.22	5.721			
6,700.0	6,690.6	6,685.4	6,664.1	14.9	14.8	71.08	104.2	-152.7	175.7	146.2	29.47	5.962			
6,800.0	6,787.7	6,768.2	6,734.3	14.9	14.9	62.09	60.6	-151.8	188.9	159.5	29.38	6.429			
6,900.0	6,878.6	6,850.0	6,796.0	15.0	14.9	54.84	7.1	-150.7	204.1	175.3	28.81	7.085			
7,000.0	6,960.0	6,925.2	6,844.8	15.1	15.0	49.58	-50.1	-149.5	219.2	191.4	27.80	7.886			
7,100.0	7,028.9	7,000.0	6,884.6	15.2	15.1	45.65	-113.3	-148.2	232.8	206.3	26.54	8.773			
7,200.0	7,082.6	7,075.1	6,915.1	15.5	15.5	42.89	-181.9	-146.8	243.7	218.3	25.36	9.609			
7,300.0	7,119.4	7,150.0	6,935.3	16.0	15.9	41.16	-253.9	-145.3	251.2	226.6	24.66	10.188			
7,400.0	7,137.7	7,221.5	6,944.8	16.6	16.4	40.37	-324.7	-143.8	255.0	230.2	24.79	10.287			
7,500.0	7,139.6	7,307.9	6,945.7	17.5	17.1	40.27	-411.1	-142.1	255.5	229.6	25.83	9.891			
7,600.0	7,139.2	7,407.9	6,945.2	18.4	18.1	40.25	-511.1	-140.0	255.5	228.3	27.20	9.393			
7,700.0	7,138.9	7,507.9	6,944.7	19.6	19.3	40.23	-611.1	-137.9	255.6	226.9	28.77	8.884			
7,800.0	7,138.5	7,607.9	6,944.2	20.8	20.5	40.22	-711.0	-135.9	255.7	225.2	30.50	8.383			
7,900.0	7,138.2	7,707.9	6,943.8	22.1	21.9	40.20	-811.0	-133.8	255.8	223.5	32.37	7.903			
8,000.0	7,137.8	7,807.9	6,943.3	23.6	23.3	40.18	-911.0	-131.7	255.9	221.6	34.35	7.451			
8,100.0	7,137.5	7,907.9	6,942.8	25.0	24.8	40.16	-1,011.0	-129.7	256.0	219.6	36.42	7.029			
8,200.0	7,137.1	8,007.9	6,942.4	26.6	26.4	40.15	-1,110.9	-127.6	256.1	217.5	38.57	6.639			
8,300.0	7,136.8	8,107.9	6,941.9	28.2	28.0	40.13	-1,210.9	-125.6	256.2	215.4	40.79	6.281			
8,400.0	7,136.4	8,207.9	6,941.4	29.8	29.6	40.11	-1,310.9	-123.5	256.3	213.2	43.06	5.951			
8,500.0	7,136.1	8,307.9	6,941.0	31.5	31.3	40.09	-1,410.9	-121.4	256.4	211.0	45.38	5.649			
8,600.0	7,135.7	8,407.9	6,940.5	33.2	33.0	40.07	-1,510.8	-119.4	256.5	208.7	47.74	5.372			
8,700.0	7,135.4	8,507.9	6,940.0	34.9	34.7	40.06	-1,610.8	-117.3	256.6	206.4	50.14	5.117			
8,800.0	7,135.0	8,607.9	6,939.5	36.6	36.5	40.04	-1,710.8	-115.2	256.7	204.1	52.56	4.883			
8,900.0	7,134.7	8,707.9	6,939.1	38.4	38.2	40.02	-1,810.8	-113.2	256.8	201.7	55.01	4.668			
9,000.0	7,134.3	8,807.9	6,938.6	40.1	40.0	40.00	-1,910.8	-111.1	256.8	199.4	57.47	4.469			
9,100.0	7,134.0	8,907.9	6,938.1	41.9	41.8	39.99	-2,010.7	-109.0	256.9	197.0	59.96	4.285			
9,200.0	7,133.6	9,007.9	6,937.7	43.7	43.6	39.97	-2,110.7	-107.0	257.0	194.6	62.47	4.115			
9,300.0	7,133.3	9,107.9	6,937.2	45.5	45.4	39.95	-2,210.7	-104.9	257.1	192.1	64.99	3.957			
9,400.0	7,132.9	9,207.9	6,936.7	47.3	47.2	39.93	-2,310.7	-102.9	257.2	189.7	67.52	3.810			
9,500.0	7,132.6	9,307.9	6,936.2	49.1	49.0	39.91	-2,410.6	-100.8	257.3	187.3	70.06	3.673			
9,600.0	7,132.2	9,407.9	6,935.8	51.0	50.9	39.90	-2,510.6	-98.7	257.4	184.8	72.61	3.545			
9,700.0	7,131.9	9,507.9	6,935.3	52.8	52.7	39.88	-2,610.6	-96.7	257.5	182.3	75.17	3.425			
9,800.0	7,131.5	9,607.9	6,934.8	54.7	54.6	39.86	-2,710.6	-94.6	257.6	179.8	77.74	3.313			
9,900.0	7,131.2	9,707.9	6,934.4	56.5	56.4	39.84	-2,810.6	-92.5	257.7	177.4	80.31	3.208			
10,000.0	7,130.8	9,807.9	6,933.9	58.4	58.3	39.83	-2,910.5	-90.5	257.8	174.9	82.89	3.110			
10,100.0	7,130.5	9,907.9	6,933.4	60.2	60.1	39.81	-3,010.5	-88.4	257.9	172.4	85.48	3.017			

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
10,200.0	7,130.1	10,007.9	6,932.9	62.1	62.0	39.79	-3,110.5	-86.4	258.0	169.9	88.07	2.929			
10,300.0	7,129.8	10,107.9	6,932.5	63.9	63.9	39.77	-3,210.5	-84.3	258.1	167.4	90.67	2.846			
10,400.0	7,129.5	10,207.9	6,932.0	65.8	65.7	39.76	-3,310.4	-82.2	258.1	164.9	93.26	2.768			
10,500.0	7,129.1	10,307.9	6,931.5	67.7	67.6	39.74	-3,410.4	-80.2	258.2	162.4	95.87	2.694			
10,600.0	7,128.8	10,407.9	6,931.1	69.6	69.5	39.72	-3,510.4	-78.1	258.3	159.9	98.47	2.623			
10,700.0	7,128.4	10,507.9	6,930.6	71.4	71.4	39.70	-3,610.4	-76.0	258.4	157.4	101.08	2.557			
10,800.0	7,128.1	10,607.9	6,930.1	73.3	73.2	39.69	-3,710.4	-74.0	258.5	154.8	103.69	2.493			
10,900.0	7,127.7	10,707.9	6,929.6	75.2	75.1	39.67	-3,810.3	-71.9	258.6	152.3	106.30	2.433			
11,000.0	7,127.4	10,807.9	6,929.2	77.1	77.0	39.65	-3,910.3	-69.8	258.7	149.8	108.91	2.375			
11,100.0	7,127.0	10,907.9	6,928.7	79.0	78.9	39.63	-4,010.3	-67.8	258.8	147.3	111.53	2.321			
11,200.0	7,126.7	11,007.9	6,928.2	80.9	80.8	39.62	-4,110.3	-65.7	258.9	144.8	114.14	2.268			
11,300.0	7,126.3	11,107.9	6,927.8	82.7	82.7	39.60	-4,210.2	-63.7	259.0	142.2	116.76	2.218			
11,400.0	7,126.0	11,207.9	6,927.3	84.6	84.6	39.58	-4,310.2	-61.6	259.1	139.7	119.38	2.170			
11,500.0	7,125.6	11,307.9	6,926.8	86.5	86.5	39.56	-4,410.2	-59.5	259.2	137.2	122.00	2.124			
11,600.0	7,125.3	11,407.9	6,926.3	88.4	88.4	39.55	-4,510.2	-57.5	259.3	134.7	124.62	2.081			
11,639.4	7,125.1	11,447.3	6,926.2	89.2	89.1	39.54	-4,549.6	-56.7	259.3	133.7	125.65	2.064			
11,675.1	7,125.0	11,480.5	6,926.0	89.8	89.7	39.53	-4,582.8	-56.0	259.4	132.8	126.55	2.049			

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference				Offset		Semi Major Axis			Distance				Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.04	0.0	16.8	16.8	16.8	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	90.04	0.0	16.8	16.8	16.6	0.22	74.693		
200.0	200.0	200.0	200.0	0.3	0.3	90.04	0.0	16.8	16.8	16.1	0.67	24.898		
300.0	300.0	300.0	300.0	0.6	0.6	90.04	0.0	16.8	16.8	15.7	1.12	14.939		
400.0	400.0	400.0	400.0	0.8	0.8	90.04	0.0	16.8	16.8	15.2	1.57	10.670		
500.0	500.0	500.0	500.0	1.0	1.0	90.04	0.0	16.8	16.8	14.8	2.02	8.299		
600.0	600.0	600.0	600.0	1.2	1.2	90.04	0.0	16.8	16.8	14.3	2.47	6.790		
700.0	700.0	700.0	700.0	1.5	1.5	90.04	0.0	16.8	16.8	13.9	2.92	5.746		
800.0	800.0	800.0	800.0	1.7	1.7	90.04	0.0	16.8	16.8	13.4	3.37	4.980		
900.0	900.0	900.0	900.0	1.9	1.9	90.04	0.0	16.8	16.8	13.0	3.82	4.394		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	90.04	0.0	16.8	16.8	12.5	4.27	3.931		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	90.04	0.0	16.8	16.8	12.1	4.72	3.557		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	90.04	0.0	16.8	16.8	11.6	5.17	3.248		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	90.04	0.0	16.8	16.8	11.2	5.62	2.988		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	90.04	0.0	16.8	16.8	10.7	6.07	2.766		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	90.04	0.0	16.8	16.8	10.3	6.52	2.576		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	90.04	0.0	16.8	16.8	9.8	6.97	2.409 CC, ES		
1,700.0	1,700.0	1,699.7	1,699.7	3.7	3.7	87.01	0.9	17.7	17.7	10.3	7.41	2.390		
1,800.0	1,800.0	1,799.2	1,799.1	3.9	3.9	79.63	3.7	20.4	20.7	12.9	7.85	2.641		
1,900.0	1,900.0	1,898.5	1,898.2	4.2	4.1	71.35	8.4	24.9	26.3	18.0	8.30	3.171		
2,000.0	2,000.0	1,997.3	1,996.6	4.4	4.4	64.43	14.9	31.1	34.6	25.9	8.74	3.963		
2,100.0	2,100.0	2,096.5	2,095.2	4.6	4.6	59.55	22.7	38.6	45.0	35.9	9.18	4.904		
2,200.0	2,200.0	2,195.9	2,194.0	4.8	4.8	56.49	30.6	46.2	55.7	46.1	9.63	5.787		
2,300.0	2,300.0	2,295.4	2,292.9	5.1	5.1	51.32	38.5	53.8	65.7	55.6	10.07	6.521		
2,400.0	2,399.9	2,395.1	2,391.9	5.3	5.4	51.91	46.4	61.4	74.1	63.5	10.52	7.041		
2,500.0	2,499.7	2,494.8	2,491.1	5.5	5.6	53.86	54.3	69.0	80.9	69.9	10.96	7.375		
2,600.0	2,599.3	2,594.5	2,590.2	5.7	5.9	56.94	62.2	76.6	86.3	74.9	11.42	7.559		
2,700.0	2,698.6	2,694.2	2,689.3	6.0	6.1	61.04	70.1	84.2	90.7	78.8	11.88	7.634		
2,800.0	2,797.8	2,793.9	2,788.3	6.2	6.4	65.23	78.1	91.8	95.2	82.8	12.37	7.698		
2,900.0	2,897.0	2,893.6	2,887.4	6.5	6.7	69.02	86.0	99.4	100.2	87.3	12.86	7.786		
3,000.0	2,996.2	2,993.2	2,986.5	6.7	7.0	72.44	93.9	107.0	105.5	92.1	13.37	7.890		
3,100.0	3,095.5	3,092.9	3,085.5	7.0	7.2	75.52	101.8	114.6	111.2	97.3	13.89	8.005		
3,200.0	3,194.7	3,192.6	3,184.6	7.2	7.5	78.30	109.7	122.2	117.2	102.8	14.42	8.126		
3,300.0	3,293.9	3,292.2	3,283.7	7.5	7.8	80.80	117.6	129.8	123.4	108.5	14.96	8.250		
3,400.0	3,393.1	3,391.9	3,382.7	7.8	8.1	83.06	125.5	137.4	129.9	114.4	15.51	8.376		
3,500.0	3,492.3	3,491.6	3,481.8	8.0	8.4	85.10	133.5	145.0	136.5	120.5	16.06	8.501		
3,600.0	3,591.6	3,591.3	3,580.9	8.3	8.6	86.77	141.4	152.6	143.3	126.7	16.59	8.639		
3,700.0	3,691.2	3,691.0	3,680.0	8.5	8.9	87.38	149.3	160.2	150.4	133.3	17.07	8.809		
3,800.0	3,790.9	3,793.6	3,782.1	8.7	9.2	87.34	156.4	167.1	156.6	139.1	17.48	8.956		
3,900.0	3,890.8	3,896.4	3,884.7	8.9	9.4	87.05	161.6	172.1	161.1	143.3	17.87	9.015		
4,000.0	3,990.8	3,999.3	3,987.5	9.1	9.6	86.52	164.8	175.1	164.0	145.7	18.24	8.992		
4,100.0	4,090.8	4,102.4	4,090.5	9.3	9.7	89.97	166.0	176.3	165.1	146.5	18.62	8.866		
4,200.0	4,190.8	4,202.7	4,190.8	9.5	9.9	89.97	166.0	176.3	165.1	146.1	19.02	8.679		
4,300.0	4,290.8	4,302.7	4,290.8	9.7	10.1	89.97	166.0	176.3	165.1	145.6	19.44	8.492		
4,400.0	4,390.8	4,402.7	4,390.8	9.9	10.3	89.97	166.0	176.3	165.1	145.2	19.86	8.311		
4,500.0	4,490.8	4,502.7	4,490.8	10.1	10.5	89.97	166.0	176.3	165.1	144.8	20.29	8.138		
4,600.0	4,590.8	4,602.7	4,590.8	10.3	10.7	89.97	166.0	176.3	165.1	144.4	20.71	7.972		
4,700.0	4,690.8	4,702.7	4,690.8	10.5	10.9	89.97	166.0	176.3	165.1	144.0	21.13	7.811		
4,800.0	4,790.8	4,802.7	4,790.8	10.8	11.2	89.97	166.0	176.3	165.1	143.5	21.56	7.657		
4,900.0	4,890.8	4,902.7	4,890.8	11.0	11.4	89.97	166.0	176.3	165.1	143.1	21.99	7.508		
5,000.0	4,990.8	5,002.7	4,990.8	11.2	11.6	89.97	166.0	176.3	165.1	142.7	22.41	7.365		
5,100.0	5,090.8	5,102.7	5,090.8	11.4	11.8	89.97	166.0	176.3	165.1	142.2	22.84	7.227		

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft	
Survey Program: 0-MWD													Offset Well Error:		0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,200.0	5,190.8	5,202.7	5,190.8	11.6	12.0	89.97	166.0	176.3	165.1	141.8	23.27	7.094			
5,300.0	5,290.8	5,302.7	5,290.8	11.8	12.2	89.97	166.0	176.3	165.1	141.4	23.70	6.965			
5,400.0	5,390.8	5,402.7	5,390.8	12.1	12.4	89.97	166.0	176.3	165.1	141.0	24.13	6.841			
5,500.0	5,490.8	5,502.7	5,490.8	12.3	12.6	89.97	166.0	176.3	165.1	140.5	24.57	6.720			
5,600.0	5,590.8	5,602.7	5,590.8	12.5	12.8	89.97	166.0	176.3	165.1	140.1	25.00	6.604			
5,700.0	5,690.8	5,702.7	5,690.8	12.7	13.0	89.97	166.0	176.3	165.1	139.7	25.43	6.492			
5,800.0	5,790.8	5,802.7	5,790.8	12.9	13.2	89.97	166.0	176.3	165.1	139.2	25.86	6.383			
5,900.0	5,890.8	5,902.7	5,890.8	13.1	13.5	89.97	166.0	176.3	165.1	138.8	26.30	6.278			
6,000.0	5,990.8	6,002.7	5,990.8	13.4	13.7	89.97	166.0	176.3	165.1	138.4	26.73	6.176			
6,100.0	6,090.8	6,102.7	6,090.8	13.6	13.9	89.97	166.0	176.3	165.1	137.9	27.17	6.077			
6,200.0	6,190.8	6,202.7	6,190.8	13.8	14.1	89.97	166.0	176.3	165.1	137.5	27.60	5.981			
6,300.0	6,290.8	6,302.7	6,290.8	14.0	14.3	89.97	166.0	176.3	165.1	137.1	28.04	5.888			
6,400.0	6,390.8	6,402.7	6,390.8	14.2	14.5	89.97	166.0	176.3	165.1	136.6	28.47	5.798			
6,430.6	6,421.4	6,433.3	6,421.4	14.3	14.6	89.97	166.0	176.3	165.1	136.5	28.61	5.771			
6,500.0	6,490.8	6,501.9	6,489.9	14.5	14.7	91.42	161.8	176.4	165.2	136.3	28.88	5.721			
6,600.0	6,590.8	6,596.4	6,582.0	14.7	14.8	98.39	141.5	176.8	167.6	138.4	29.25	5.731			
6,700.0	6,690.6	6,682.9	6,661.9	14.9	14.9	-70.25	108.5	177.5	176.6	147.1	29.49	5.987			
6,800.0	6,787.7	6,765.4	6,732.0	14.9	14.9	-61.42	65.2	178.4	190.0	160.6	29.40	6.464			
6,900.0	6,878.6	6,844.9	6,792.3	15.0	15.0	-54.45	13.5	179.4	205.3	176.5	28.82	7.125			
7,000.0	6,960.0	6,922.1	6,842.6	15.1	15.1	-49.18	-44.8	180.6	220.4	192.6	27.79	7.931			
7,100.0	7,028.9	7,000.0	6,884.2	15.2	15.3	-45.27	-110.7	182.0	233.8	207.3	26.50	8.822			
7,200.0	7,082.6	7,071.7	6,913.3	15.5	15.5	-42.70	-176.1	183.3	244.4	219.0	25.34	9.645			
7,300.0	7,119.4	7,150.0	6,934.6	16.0	16.0	-41.01	-251.4	184.9	251.7	227.0	24.68	10.198			
7,400.0	7,137.7	7,218.0	6,943.7	16.6	16.5	-40.33	-318.7	186.3	255.1	230.2	24.87	10.257			
7,500.0	7,139.6	7,303.6	6,944.7	17.5	17.2	-40.26	-404.3	188.0	255.4	229.4	25.94	9.843			
7,600.0	7,139.2	7,403.6	6,944.2	18.4	18.2	-40.25	-504.3	190.1	255.5	228.1	27.33	9.348			
7,700.0	7,138.9	7,503.6	6,943.8	19.6	19.3	-40.23	-604.2	192.2	255.6	226.7	28.90	8.842			
7,800.0	7,138.5	7,603.6	6,943.3	20.8	20.6	-40.21	-704.2	194.2	255.6	225.0	30.64	8.344			
7,900.0	7,138.2	7,703.6	6,942.8	22.1	21.9	-40.19	-804.2	196.3	255.7	223.2	32.51	7.867			
8,000.0	7,137.8	7,803.6	6,942.4	23.6	23.4	-40.18	-904.2	198.3	255.8	221.3	34.49	7.417			
8,100.0	7,137.5	7,903.6	6,941.9	25.0	24.9	-40.16	-1,004.2	200.4	255.9	219.4	36.57	6.999			
8,200.0	7,137.1	8,003.6	6,941.4	26.6	26.4	-40.14	-1,104.1	202.5	256.0	217.3	38.72	6.612			
8,300.0	7,136.8	8,103.6	6,940.9	28.2	28.0	-40.12	-1,204.1	204.5	256.1	215.2	40.94	6.255			
8,400.0	7,136.4	8,203.6	6,940.5	29.8	29.6	-40.10	-1,304.1	206.6	256.2	213.0	43.22	5.928			
8,500.0	7,136.1	8,303.6	6,940.0	31.5	31.3	-40.09	-1,404.1	208.7	256.3	210.8	45.54	5.628			
8,600.0	7,135.7	8,403.6	6,939.5	33.2	33.0	-40.07	-1,504.0	210.7	256.4	208.5	47.90	5.352			
8,700.0	7,135.4	8,503.6	6,939.1	34.9	34.7	-40.05	-1,604.0	212.8	256.5	206.2	50.30	5.099			
8,800.0	7,135.0	8,603.6	6,938.6	36.6	36.5	-40.03	-1,704.0	214.8	256.6	203.8	52.73	4.866			
8,900.0	7,134.7	8,703.6	6,938.1	38.4	38.2	-40.02	-1,804.0	216.9	256.7	201.5	55.18	4.652			
9,000.0	7,134.3	8,803.6	6,937.6	40.1	40.0	-40.00	-1,904.0	219.0	256.8	199.1	57.65	4.454			
9,100.0	7,134.0	8,903.6	6,937.2	41.9	41.8	-39.98	-2,003.9	221.0	256.9	196.7	60.14	4.271			
9,200.0	7,133.6	9,003.6	6,936.7	43.7	43.6	-39.96	-2,103.9	223.1	256.9	194.3	62.65	4.101			
9,300.0	7,133.3	9,103.6	6,936.2	45.5	45.4	-39.94	-2,203.9	225.1	257.0	191.9	65.17	3.944			
9,400.0	7,132.9	9,203.6	6,935.8	47.3	47.2	-39.93	-2,303.9	227.2	257.1	189.4	67.70	3.798			
9,500.0	7,132.6	9,303.6	6,935.3	49.1	49.0	-39.91	-2,403.8	229.3	257.2	187.0	70.25	3.662			
9,600.0	7,132.2	9,403.6	6,934.8	51.0	50.9	-39.89	-2,503.8	231.3	257.3	184.5	72.80	3.534			
9,700.0	7,131.9	9,503.6	6,934.3	52.8	52.7	-39.87	-2,603.8	233.4	257.4	182.0	75.37	3.415			
9,800.0	7,131.5	9,603.6	6,933.9	54.7	54.6	-39.86	-2,703.8	235.4	257.5	179.6	77.94	3.304			
9,900.0	7,131.2	9,703.6	6,933.4	56.5	56.4	-39.84	-2,803.7	237.5	257.6	177.1	80.52	3.199			
10,000.0	7,130.8	9,803.6	6,932.9	58.4	58.3	-39.82	-2,903.7	239.6	257.7	174.6	83.10	3.101			
10,100.0	7,130.5	9,903.6	6,932.5	60.2	60.1	-39.80	-3,003.7	241.6	257.8	172.1	85.69	3.008			
10,200.0	7,130.1	10,003.6	6,932.0	62.1	62.0	-39.79	-3,103.7	243.7	257.9	169.6	88.28	2.921			

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
10,300.0	7,129.8	10,103.6	6,931.5	63.9	63.9	-39.77	-3,203.7	245.8	258.0	167.1	90.88	2.839			
10,400.0	7,129.5	10,203.6	6,931.0	65.8	65.7	-39.75	-3,303.6	247.8	258.1	164.6	93.48	2.761			
10,500.0	7,129.1	10,303.6	6,930.6	67.7	67.6	-39.73	-3,403.6	249.9	258.2	162.1	96.09	2.687			
10,600.0	7,128.8	10,403.6	6,930.1	69.6	69.5	-39.72	-3,503.6	251.9	258.2	159.6	98.69	2.617			
10,700.0	7,128.4	10,503.6	6,929.6	71.4	71.3	-39.70	-3,603.6	254.0	258.3	157.0	101.30	2.550			
10,800.0	7,128.1	10,603.6	6,929.2	73.3	73.2	-39.68	-3,703.5	256.1	258.4	154.5	103.92	2.487			
10,900.0	7,127.7	10,703.6	6,928.7	75.2	75.1	-39.66	-3,803.5	258.1	258.5	152.0	106.53	2.427			
11,000.0	7,127.4	10,803.6	6,928.2	77.1	77.0	-39.65	-3,903.5	260.2	258.6	149.5	109.15	2.369			
11,100.0	7,127.0	10,903.6	6,927.7	79.0	78.9	-39.63	-4,003.5	262.2	258.7	146.9	111.77	2.315			
11,200.0	7,126.7	11,003.6	6,927.3	80.9	80.8	-39.61	-4,103.5	264.3	258.8	144.4	114.39	2.263			
11,300.0	7,126.3	11,103.6	6,926.8	82.7	82.7	-39.59	-4,203.4	266.4	258.9	141.9	117.01	2.213			
11,400.0	7,126.0	11,203.6	6,926.3	84.6	84.6	-39.58	-4,303.4	268.4	259.0	139.4	119.63	2.165			
11,500.0	7,125.6	11,303.6	6,925.9	86.5	86.4	-39.56	-4,403.4	270.5	259.1	136.8	122.25	2.119			
11,600.0	7,125.3	11,403.6	6,925.4	88.4	88.3	-39.54	-4,503.4	272.5	259.2	134.3	124.87	2.076			
11,675.1	7,125.0	11,478.7	6,925.0	89.8	89.8	-39.53	-4,578.4	274.1	259.3	132.4	126.84	2.044 SF			

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
Reference				Offset			Semi Major Axis			Distance				Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.05	0.0	30.8	30.8					
100.0	100.0	100.0	100.0	0.1	0.1	90.05	0.0	30.8	30.8	30.6	0.22	136.937		
200.0	200.0	200.0	200.0	0.3	0.3	90.05	0.0	30.8	30.8	30.1	0.67	45.646		
300.0	300.0	300.0	300.0	0.6	0.6	90.05	0.0	30.8	30.8	29.7	1.12	27.387		
400.0	400.0	400.0	400.0	0.8	0.8	90.05	0.0	30.8	30.8	29.2	1.57	19.562		
500.0	500.0	500.0	500.0	1.0	1.0	90.05	0.0	30.8	30.8	28.8	2.02	15.215		
600.0	600.0	600.0	600.0	1.2	1.2	90.05	0.0	30.8	30.8	28.3	2.47	12.449		
700.0	700.0	700.0	700.0	1.5	1.5	90.05	0.0	30.8	30.8	27.9	2.92	10.534		
800.0	800.0	800.0	800.0	1.7	1.7	90.05	0.0	30.8	30.8	27.4	3.37	9.129		
900.0	900.0	900.0	900.0	1.9	1.9	90.05	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	90.05	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	90.05	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	90.05	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	90.05	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	90.05	0.0	30.8	30.8	24.7	6.07	5.072 CC, ES		
1,500.0	1,500.0	1,499.3	1,499.3	3.3	3.3	88.97	0.6	31.9	31.9	25.4	6.51	4.906		
1,600.0	1,600.0	1,598.4	1,598.3	3.5	3.5	86.13	2.4	35.3	35.4	28.5	6.94	5.105		
1,700.0	1,700.0	1,697.3	1,697.0	3.7	3.7	82.50	5.4	41.0	41.5	34.1	7.38	5.617		
1,800.0	1,800.0	1,795.8	1,795.0	3.9	3.9	78.91	9.6	48.9	50.0	42.2	7.82	6.401		
1,900.0	1,900.0	1,894.0	1,892.7	4.2	4.1	75.79	14.9	58.9	61.2	52.9	8.26	7.410		
2,000.0	2,000.0	1,993.3	1,991.1	4.4	4.4	73.50	20.7	69.7	73.3	64.6	8.70	8.420		
2,100.0	2,100.0	2,092.5	2,089.6	4.6	4.6	71.85	26.4	80.5	85.4	76.3	9.14	9.339		
2,200.0	2,200.0	2,191.7	2,188.1	4.8	4.9	70.61	32.2	91.4	97.6	88.0	9.59	10.177		
2,300.0	2,300.0	2,291.0	2,286.6	5.1	5.2	66.25	37.9	102.2	109.3	99.3	10.03	10.891		
2,400.0	2,399.9	2,390.4	2,385.3	5.3	5.5	66.99	43.7	113.0	120.0	109.5	10.48	11.445		
2,500.0	2,499.7	2,489.9	2,484.0	5.5	5.7	68.66	49.4	123.9	129.7	118.8	10.93	11.863		
2,600.0	2,599.3	2,589.3	2,582.6	5.7	6.0	71.11	55.2	134.7	138.7	127.3	11.39	12.176		
2,700.0	2,698.6	2,688.6	2,681.2	6.0	6.3	74.22	60.9	145.5	147.2	135.3	11.86	12.411		
2,800.0	2,797.8	2,787.9	2,779.7	6.2	6.6	77.36	66.7	156.4	155.9	143.6	12.34	12.631		
2,900.0	2,897.0	2,887.2	2,878.2	6.5	6.9	80.16	72.4	167.2	165.1	152.2	12.84	12.855		
3,000.0	2,996.2	2,986.4	2,976.7	6.7	7.2	82.66	78.2	178.0	174.6	161.2	13.35	13.078		
3,100.0	3,095.5	3,085.7	3,075.2	7.0	7.5	84.90	83.9	188.8	184.4	170.5	13.87	13.297		
3,200.0	3,194.7	3,185.0	3,173.7	7.2	7.8	86.91	89.7	199.7	194.5	180.1	14.40	13.509		
3,300.0	3,293.9	3,284.2	3,272.2	7.5	8.1	88.72	95.4	210.5	204.7	189.8	14.93	13.714		
3,400.0	3,393.1	3,383.5	3,370.8	7.8	8.4	90.36	101.2	221.3	215.2	199.7	15.47	13.911		
3,500.0	3,492.3	3,482.8	3,469.3	8.0	8.7	91.84	106.9	232.2	225.8	209.8	16.02	14.099		
3,600.0	3,591.6	3,582.1	3,567.8	8.3	9.0	93.15	112.7	243.0	236.6	220.0	16.55	14.295		
3,700.0	3,691.2	3,681.5	3,666.5	8.5	9.3	93.83	118.5	253.8	247.2	230.2	17.03	14.518		
3,800.0	3,790.9	3,780.9	3,765.1	8.7	9.6	93.88	124.2	264.7	257.7	240.2	17.49	14.736		
3,900.0	3,890.8	3,880.4	3,863.8	8.9	9.9	93.38	130.0	275.5	268.0	250.1	17.92	14.952		
4,000.0	3,990.8	3,979.7	3,962.4	9.1	10.2	92.38	135.7	286.3	278.2	259.9	18.34	15.173		
4,100.0	4,090.8	4,078.9	4,060.8	9.3	10.5	94.88	141.5	297.2	288.6	269.8	18.78	15.366		
4,200.0	4,190.8	4,178.2	4,159.3	9.5	10.9	93.60	147.2	308.0	299.0	279.8	19.22	15.560		
4,300.0	4,290.8	4,279.6	4,260.0	9.7	11.2	92.39	153.0	318.9	309.5	289.9	19.65	15.750		
4,400.0	4,390.8	4,386.8	4,366.6	9.9	11.4	91.40	158.1	328.5	318.3	298.3	20.06	15.865		
4,500.0	4,490.8	4,494.4	4,474.0	10.1	11.6	90.72	161.8	335.5	324.7	304.3	20.47	15.864		
4,600.0	4,590.8	4,602.4	4,581.9	10.3	11.8	90.31	164.1	339.8	328.7	307.8	20.87	15.746		
4,700.0	4,690.8	4,710.7	4,690.1	10.5	12.0	90.16	165.0	341.4	330.2	308.9	21.28	15.517		
4,800.0	4,790.8	4,811.4	4,790.8	10.8	12.2	90.16	165.0	341.4	330.2	308.5	21.68	15.227		
4,900.0	4,890.8	4,911.4	4,890.8	11.0	12.4	90.16	165.0	341.4	330.2	308.1	22.10	14.939		
5,000.0	4,990.8	5,011.4	4,990.8	11.2	12.6	90.16	165.0	341.4	330.2	307.7	22.52	14.660		
5,100.0	5,090.8	5,111.4	5,090.8	11.4	12.8	90.16	165.0	341.4	330.2	307.2	22.94	14.390		

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft	
Survey Program: 0-MWD													Offset Well Error:		0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,200.0	5,190.8	5,211.4	5,190.8	11.6	12.9	90.16	165.0	341.4	330.2	306.8	23.37	14.130			
5,300.0	5,290.8	5,311.4	5,290.8	11.8	13.1	90.16	165.0	341.4	330.2	306.4	23.79	13.878			
5,400.0	5,390.8	5,411.4	5,390.8	12.1	13.3	90.16	165.0	341.4	330.2	306.0	24.22	13.635			
5,500.0	5,490.8	5,511.4	5,490.8	12.3	13.5	90.16	165.0	341.4	330.2	305.5	24.64	13.400			
5,600.0	5,590.8	5,611.4	5,590.8	12.5	13.7	90.16	165.0	341.4	330.2	305.1	25.07	13.172			
5,700.0	5,690.8	5,711.4	5,690.8	12.7	13.9	90.16	165.0	341.4	330.2	304.7	25.49	12.951			
5,800.0	5,790.8	5,811.4	5,790.8	12.9	14.1	90.16	165.0	341.4	330.2	304.3	25.92	12.737			
5,900.0	5,890.8	5,911.4	5,890.8	13.1	14.3	90.16	165.0	341.4	330.2	303.8	26.35	12.530			
6,000.0	5,990.8	6,011.4	5,990.8	13.4	14.5	90.16	165.0	341.4	330.2	303.4	26.78	12.329			
6,100.0	6,090.8	6,111.4	6,090.8	13.6	14.7	90.16	165.0	341.4	330.2	303.0	27.21	12.135			
6,200.0	6,190.8	6,211.4	6,190.8	13.8	14.9	90.16	165.0	341.4	330.2	302.5	27.64	11.946			
6,300.0	6,290.8	6,311.4	6,290.8	14.0	15.1	90.16	165.0	341.4	330.2	302.1	28.07	11.762			
6,400.0	6,390.8	6,411.4	6,390.8	14.2	15.3	90.16	165.0	341.4	330.2	301.7	28.50	11.584			
6,425.5	6,416.3	6,436.9	6,416.3	14.3	15.4	90.16	165.0	341.4	330.2	301.6	28.61	11.539			
6,500.0	6,490.8	6,510.1	6,489.3	14.5	15.5	90.87	160.9	341.5	330.3	301.4	28.91	11.427			
6,600.0	6,590.8	6,603.8	6,580.8	14.7	15.6	94.33	140.8	341.9	331.8	302.5	29.28	11.332			
6,700.0	6,690.6	6,689.9	6,660.3	14.9	15.6	-79.19	108.3	342.5	336.8	307.2	29.56	11.393			
6,800.0	6,787.7	6,771.9	6,730.2	14.9	15.7	-74.19	65.5	343.4	344.3	314.6	29.68	11.601			
6,900.0	6,878.6	6,850.0	6,789.7	15.0	15.8	-69.89	15.1	344.5	353.1	323.5	29.58	11.936			
7,000.0	6,960.0	6,928.0	6,841.0	15.1	15.9	-66.24	-43.6	345.7	362.0	332.7	29.31	12.353			
7,100.0	7,028.9	7,000.0	6,880.0	15.2	16.0	-63.47	-104.0	346.9	370.2	341.3	28.97	12.779			
7,200.0	7,082.6	7,077.4	6,912.3	15.5	16.2	-61.33	-174.3	348.4	376.8	348.0	28.83	13.072			
7,300.0	7,119.4	7,150.0	6,932.8	16.0	16.6	-60.02	-243.9	349.8	381.3	352.2	29.08	13.111			
7,400.0	7,137.7	7,223.6	6,943.5	16.6	17.0	-59.45	-316.6	351.3	383.3	353.3	29.95	12.799			
7,500.0	7,139.6	7,307.9	6,944.7	17.5	17.7	-59.45	-400.9	353.0	383.3	351.9	31.37	12.218			
7,600.0	7,139.2	7,407.9	6,944.3	18.4	18.7	-59.43	-500.9	355.1	383.4	350.2	33.13	11.573			
7,700.0	7,138.9	7,507.9	6,943.8	19.6	19.8	-59.42	-600.8	357.2	383.4	348.3	35.12	10.918			
7,800.0	7,138.5	7,607.9	6,943.3	20.8	21.0	-59.40	-700.8	359.2	383.5	346.2	37.32	10.277			
7,900.0	7,138.2	7,707.9	6,942.8	22.1	22.3	-59.38	-800.8	361.3	383.6	343.9	39.68	9.666			
8,000.0	7,137.8	7,807.9	6,942.4	23.6	23.7	-59.37	-900.8	363.4	383.6	341.4	42.18	9.094			
8,100.0	7,137.5	7,907.9	6,941.9	25.0	25.2	-59.35	-1,000.7	365.4	383.7	338.9	44.81	8.563			
8,200.0	7,137.1	8,007.9	6,941.4	26.6	26.7	-59.34	-1,100.7	367.5	383.7	336.2	47.52	8.075			
8,300.0	7,136.8	8,107.9	6,941.0	28.2	28.3	-59.32	-1,200.7	369.5	383.8	333.5	50.32	7.627			
8,400.0	7,136.4	8,207.9	6,940.5	29.8	29.9	-59.31	-1,300.7	371.6	383.9	330.7	53.19	7.217			
8,500.0	7,136.1	8,307.9	6,940.0	31.5	31.6	-59.29	-1,400.7	373.7	383.9	327.8	56.11	6.842			
8,600.0	7,135.7	8,407.9	6,939.5	33.2	33.2	-59.27	-1,500.6	375.7	384.0	324.9	59.09	6.499			
8,700.0	7,135.4	8,507.9	6,939.1	34.9	35.0	-59.26	-1,600.6	377.8	384.1	322.0	62.10	6.184			
8,800.0	7,135.0	8,607.9	6,938.6	36.6	36.7	-59.24	-1,700.6	379.9	384.1	319.0	65.15	5.896			
8,900.0	7,134.7	8,707.9	6,938.1	38.4	38.4	-59.23	-1,800.6	381.9	384.2	315.9	68.23	5.631			
9,000.0	7,134.3	8,807.9	6,937.7	40.1	40.2	-59.21	-1,900.5	384.0	384.2	312.9	71.34	5.386			
9,100.0	7,134.0	8,907.9	6,937.2	41.9	42.0	-59.20	-2,000.5	386.0	384.3	309.8	74.47	5.161			
9,200.0	7,133.6	9,007.9	6,936.7	43.7	43.8	-59.18	-2,100.5	388.1	384.4	306.7	77.62	4.952			
9,300.0	7,133.3	9,107.9	6,936.2	45.5	45.6	-59.16	-2,200.5	390.2	384.4	303.6	80.79	4.758			
9,400.0	7,132.9	9,207.9	6,935.8	47.3	47.4	-59.15	-2,300.5	392.2	384.5	300.5	83.97	4.579			
9,500.0	7,132.6	9,307.9	6,935.3	49.1	49.2	-59.13	-2,400.4	394.3	384.6	297.4	87.17	4.411			
9,600.0	7,132.2	9,407.9	6,934.8	51.0	51.0	-59.12	-2,500.4	396.4	384.6	294.2	90.38	4.255			
9,700.0	7,131.9	9,507.9	6,934.4	52.8	52.9	-59.10	-2,600.4	398.4	384.7	291.1	93.60	4.110			
9,800.0	7,131.5	9,607.9	6,933.9	54.7	54.7	-59.09	-2,700.4	400.5	384.7	287.9	96.83	3.973			
9,900.0	7,131.2	9,707.9	6,933.4	56.5	56.5	-59.07	-2,800.3	402.5	384.8	284.7	100.07	3.845			
10,000.0	7,130.8	9,807.9	6,932.9	58.4	58.4	-59.06	-2,900.3	404.6	384.9	281.5	103.32	3.725			
10,100.0	7,130.5	9,907.9	6,932.5	60.2	60.2	-59.04	-3,000.3	406.7	384.9	278.4	106.58	3.612			
10,200.0	7,130.1	10,007.9	6,932.0	62.1	62.1	-59.02	-3,100.3	408.7	385.0	275.2	109.84	3.505			

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
10,300.0	7,129.8	10,107.9	6,931.5	63.9	64.0	-59.01	-3,200.3	410.8	385.1	272.0	113.10	3.404			
10,400.0	7,129.5	10,207.9	6,931.1	65.8	65.8	-58.99	-3,300.2	412.8	385.1	268.7	116.37	3.309			
10,500.0	7,129.1	10,307.9	6,930.6	67.7	67.7	-58.98	-3,400.2	414.9	385.2	265.5	119.65	3.219			
10,600.0	7,128.8	10,407.9	6,930.1	69.6	69.6	-58.96	-3,500.2	417.0	385.2	262.3	122.93	3.134			
10,700.0	7,128.4	10,507.9	6,929.6	71.4	71.4	-58.95	-3,600.2	419.0	385.3	259.1	126.22	3.053			
10,800.0	7,128.1	10,607.9	6,929.2	73.3	73.3	-58.93	-3,700.1	421.1	385.4	255.9	129.50	2.976			
10,900.0	7,127.7	10,707.9	6,928.7	75.2	75.2	-58.92	-3,800.1	423.2	385.4	252.6	132.79	2.902			
11,000.0	7,127.4	10,807.9	6,928.2	77.1	77.1	-58.90	-3,900.1	425.2	385.5	249.4	136.09	2.833			
11,100.0	7,127.0	10,907.9	6,927.8	79.0	79.0	-58.88	-4,000.1	427.3	385.6	246.2	139.38	2.766			
11,200.0	7,126.7	11,007.9	6,927.3	80.9	80.9	-58.87	-4,100.1	429.3	385.6	242.9	142.68	2.703			
11,300.0	7,126.3	11,107.9	6,926.8	82.7	82.7	-58.85	-4,200.0	431.4	385.7	239.7	145.98	2.642			
11,400.0	7,126.0	11,207.9	6,926.3	84.6	84.6	-58.84	-4,300.0	433.5	385.7	236.5	149.28	2.584			
11,500.0	7,125.6	11,307.9	6,925.9	86.5	86.5	-58.82	-4,400.0	435.5	385.8	233.2	152.59	2.528			
11,600.0	7,125.3	11,407.9	6,925.4	88.4	88.4	-58.81	-4,500.0	437.6	385.9	230.0	155.87	2.476			
11,675.1	7,125.0	11,483.0	6,925.1	89.8	89.5	-58.79	-4,575.0	439.1	385.9	227.8	158.09	2.441 SF			

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.06	0.0	44.8	44.8					
100.0	100.0	99.0	99.0	0.1	0.1	90.06	0.0	44.8	44.8	44.5	0.22	200.181		
200.0	200.0	199.0	199.0	0.3	0.3	90.06	0.0	44.8	44.8	44.1	0.67	66.616		
300.0	300.0	299.0	299.0	0.6	0.6	90.06	0.0	44.8	44.8	43.6	1.12	39.916		
400.0	400.0	399.0	399.0	0.8	0.8	90.06	0.0	44.8	44.8	43.2	1.57	28.495		
500.0	500.0	499.0	499.0	1.0	1.0	90.06	0.0	44.8	44.8	42.7	2.02	22.156		
600.0	600.0	599.0	599.0	1.2	1.2	90.06	0.0	44.8	44.8	42.3	2.47	18.124		
700.0	700.0	699.0	699.0	1.5	1.5	90.06	0.0	44.8	44.8	41.8	2.92	15.333		
800.0	800.0	799.0	799.0	1.7	1.7	90.06	0.0	44.8	44.8	41.4	3.37	13.288		
900.0	900.0	899.0	899.0	1.9	1.9	90.06	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	90.06	0.0	44.8	44.8	40.5	4.27	10.489	CC, ES	
1,100.0	1,100.0	1,097.5	1,097.5	2.4	2.3	89.36	0.5	46.3	46.4	41.7	4.71	9.851		
1,200.0	1,200.0	1,195.8	1,195.7	2.6	2.6	87.51	2.2	51.1	51.2	46.1	5.14	9.968		
1,300.0	1,300.0	1,293.6	1,293.1	2.8	2.8	85.11	5.0	58.9	59.4	53.8	5.57	10.660		
1,400.0	1,400.0	1,391.4	1,390.2	3.0	3.0	82.70	8.9	68.8	70.9	64.9	6.02	11.784		
1,500.0	1,500.0	1,490.6	1,488.6	3.3	3.3	80.81	13.2	81.6	83.3	76.9	6.46	12.907		
1,600.0	1,600.0	1,589.8	1,587.0	3.5	3.5	79.42	17.5	93.5	95.8	88.9	6.90	13.891		
1,700.0	1,700.0	1,689.0	1,685.4	3.7	3.8	78.35	21.7	105.3	108.4	101.0	7.34	14.758		
1,800.0	1,800.0	1,788.2	1,783.8	3.9	4.1	77.50	26.0	117.2	121.0	113.2	7.79	15.525		
1,900.0	1,900.0	1,887.4	1,882.2	4.2	4.4	76.81	30.2	129.0	133.6	125.3	8.24	16.207		
2,000.0	2,000.0	1,986.6	1,980.5	4.4	4.7	76.24	34.5	140.8	146.2	137.5	8.69	16.818		
2,100.0	2,100.0	2,085.8	2,078.9	4.6	5.0	75.76	38.8	152.7	158.8	149.7	9.14	17.367		
2,200.0	2,200.0	2,184.9	2,177.3	4.8	5.3	75.35	43.0	164.5	171.4	161.8	9.60	17.864		
2,300.0	2,300.0	2,284.2	2,275.8	5.1	5.6	71.35	47.3	176.4	183.7	173.6	10.05	18.274		
2,400.0	2,399.9	2,383.5	2,374.3	5.3	5.9	71.95	51.5	188.2	195.1	184.6	10.51	18.569		
2,500.0	2,499.7	2,482.8	2,472.8	5.5	6.2	73.18	55.8	200.1	205.8	194.8	10.96	18.769		
2,600.0	2,599.3	2,582.1	2,571.2	5.7	6.5	74.94	60.1	212.0	215.9	204.4	11.43	18.892		
2,700.0	2,698.6	2,681.2	2,669.5	6.0	6.8	77.19	64.3	223.8	225.6	213.7	11.90	18.957		
2,800.0	2,797.8	2,780.2	2,767.8	6.2	7.1	79.55	68.6	235.6	235.6	223.2	12.39	19.013		
2,900.0	2,897.0	2,879.3	2,866.0	6.5	7.4	81.72	72.8	247.5	245.9	233.0	12.89	19.077		
3,000.0	2,996.2	2,978.3	2,964.3	6.7	7.8	83.70	77.1	259.3	256.5	243.1	13.40	19.145		
3,100.0	3,095.5	3,077.4	3,062.5	7.0	8.1	85.53	81.3	271.1	267.5	253.5	13.92	19.216		
3,200.0	3,194.7	3,176.4	3,160.8	7.2	8.4	87.22	85.6	282.9	278.6	264.2	14.45	19.288		
3,300.0	3,293.9	3,275.5	3,259.0	7.5	8.7	88.77	89.8	294.8	290.0	275.1	14.98	19.360		
3,400.0	3,393.1	3,374.5	3,357.3	7.8	9.0	90.21	94.1	306.6	301.6	286.1	15.52	19.432		
3,500.0	3,492.3	3,473.6	3,455.5	8.0	9.3	91.54	98.3	318.4	313.4	297.3	16.07	19.503		
3,600.0	3,591.6	3,572.7	3,553.8	8.3	9.6	92.79	102.6	330.3	325.3	308.7	16.60	19.595		
3,700.0	3,691.2	3,671.9	3,652.2	8.5	10.0	93.59	106.9	342.1	337.1	320.1	17.08	19.737		
3,800.0	3,790.9	3,771.2	3,750.7	8.7	10.3	93.91	111.1	354.0	348.8	331.3	17.54	19.884		
3,900.0	3,890.8	3,870.5	3,849.3	8.9	10.6	93.81	115.4	365.8	360.4	342.4	17.98	20.038		
4,000.0	3,990.8	3,969.8	3,947.7	9.1	10.9	93.31	119.6	377.7	371.8	353.4	18.40	20.203		
4,100.0	4,090.8	4,068.9	4,046.1	9.3	11.2	96.33	123.9	389.5	383.1	364.3	18.85	20.322		
4,200.0	4,190.8	4,168.1	4,144.5	9.5	11.6	95.52	128.2	401.4	394.6	375.3	19.29	20.451		
4,300.0	4,290.8	4,267.3	4,242.9	9.7	11.9	94.76	132.4	413.2	406.1	386.4	19.74	20.578		
4,400.0	4,390.8	4,366.5	4,341.3	9.9	12.2	94.04	136.7	425.1	417.7	397.5	20.18	20.701		
4,500.0	4,490.8	4,465.7	4,439.7	10.1	12.5	93.36	140.9	436.9	429.4	408.8	20.62	20.822		
4,600.0	4,590.8	4,564.9	4,538.0	10.3	12.8	92.71	145.2	448.7	441.1	420.0	21.06	20.940		
4,700.0	4,690.8	4,664.1	4,636.4	10.5	13.2	92.10	149.5	460.6	452.9	431.3	21.51	21.054		
4,800.0	4,790.8	4,763.3	4,734.8	10.8	13.5	91.51	153.7	472.4	464.7	442.7	21.95	21.166		
4,900.0	4,890.8	4,862.5	4,833.2	11.0	13.8	90.96	158.0	484.3	476.5	454.1	22.40	21.275		
5,000.0	4,990.8	4,979.9	4,949.9	11.2	14.1	90.43	162.3	496.2	486.6	463.8	22.84	21.307		
5,100.0	5,090.8	5,098.8	5,068.6	11.4	14.3	90.11	164.9	503.6	492.9	469.6	23.27	21.185		

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft	
Survey Program: 0-MWD													Offset Well Error:		0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,200.0	5,190.8	5,218.1	5,187.9	11.6	14.5	89.99	165.9	506.4	495.2	471.6	23.69	20.908			
5,300.0	5,290.8	5,320.1	5,289.8	11.8	14.7	89.99	166.0	506.5	495.3	471.2	24.09	20.555			
5,400.0	5,390.8	5,420.1	5,389.8	12.1	14.9	89.99	166.0	506.5	495.3	470.8	24.51	20.207			
5,500.0	5,490.8	5,520.1	5,489.8	12.3	15.0	89.99	166.0	506.5	495.3	470.3	24.93	19.870			
5,600.0	5,590.8	5,620.1	5,589.8	12.5	15.2	89.99	166.0	506.5	495.3	469.9	25.34	19.543			
5,700.0	5,690.8	5,720.1	5,689.8	12.7	15.4	89.99	166.0	506.5	495.3	469.5	25.76	19.226			
5,800.0	5,790.8	5,820.1	5,789.8	12.9	15.5	89.99	166.0	506.5	495.3	469.1	26.18	18.918			
5,900.0	5,890.8	5,920.1	5,889.8	13.1	15.7	89.99	166.0	506.5	495.3	468.7	26.60	18.619			
6,000.0	5,990.8	6,020.1	5,989.8	13.4	15.9	89.99	166.0	506.5	495.3	468.2	27.02	18.329			
6,100.0	6,090.8	6,120.1	6,089.8	13.6	16.1	89.99	166.0	506.5	495.3	467.8	27.44	18.047			
6,200.0	6,190.8	6,220.1	6,189.8	13.8	16.3	89.99	166.0	506.5	495.3	467.4	27.87	17.773			
6,300.0	6,290.8	6,320.1	6,289.8	14.0	16.4	89.99	166.0	506.5	495.3	467.0	28.29	17.507			
6,400.0	6,390.8	6,420.1	6,389.8	14.2	16.6	89.99	166.0	506.5	495.3	466.6	28.71	17.249			
6,422.0	6,412.8	6,442.1	6,411.8	14.3	16.7	89.99	166.0	506.5	495.3	466.5	28.81	17.193			
6,500.0	6,490.8	6,518.5	6,488.0	14.5	16.8	90.46	161.9	506.6	495.4	466.3	29.12	17.012			
6,600.0	6,590.8	6,611.8	6,579.1	14.7	16.9	92.76	142.0	507.0	496.5	467.0	29.49	16.834			
6,700.0	6,690.6	6,700.0	6,660.6	14.9	17.0	-82.42	108.6	507.7	499.9	470.2	29.78	16.790			
6,800.0	6,787.7	6,779.4	6,728.3	14.9	17.0	-79.09	67.2	508.5	505.1	475.2	29.94	16.869			
6,900.0	6,878.6	6,858.4	6,788.5	15.0	17.1	-76.06	16.3	509.6	511.2	481.2	29.97	17.054			
7,000.0	6,960.0	6,935.2	6,839.1	15.1	17.2	-73.48	-41.4	510.7	517.4	487.5	29.96	17.272			
7,100.0	7,028.9	7,010.4	6,879.8	15.2	17.3	-71.41	-104.5	512.0	523.1	493.2	29.96	17.460			
7,200.0	7,082.6	7,084.4	6,910.7	15.5	17.5	-69.88	-171.7	513.4	527.8	497.6	30.18	17.485			
7,300.0	7,119.4	7,157.6	6,931.5	16.0	17.8	-68.91	-241.9	514.9	530.9	500.1	30.78	17.246			
7,400.0	7,137.7	7,230.5	6,942.3	16.6	18.2	-68.51	-313.8	516.4	532.2	500.3	31.87	16.697			
7,496.3	7,142.0	7,310.4	6,943.8	17.4	18.8	-68.28	-393.7	518.0	533.0	499.7	33.30	16.004			
7,500.0	7,139.6	7,314.2	6,943.7	17.5	18.8	-68.52	-397.5	518.1	532.1	498.7	33.41	15.929			
7,600.0	7,139.2	7,414.2	6,943.3	18.4	19.7	-68.51	-497.5	520.2	532.2	496.9	35.27	15.087			
7,700.0	7,138.9	7,514.2	6,942.8	19.6	20.7	-68.50	-597.4	522.2	532.2	494.8	37.40	14.231			
7,800.0	7,138.5	7,614.2	6,942.3	20.8	21.9	-68.49	-697.4	524.3	532.3	492.5	39.74	13.393			
7,900.0	7,138.2	7,714.2	6,941.9	22.1	23.1	-68.47	-797.4	526.3	532.3	490.0	42.26	12.595			
8,000.0	7,137.8	7,814.2	6,941.4	23.6	24.5	-68.46	-897.4	528.4	532.3	487.4	44.93	11.847			
8,100.0	7,137.5	7,914.2	6,940.9	25.0	25.9	-68.45	-997.3	530.5	532.4	484.7	47.73	11.154			
8,200.0	7,137.1	8,014.2	6,940.4	26.6	27.4	-68.44	-1,097.3	532.5	532.4	481.8	50.63	10.516			
8,300.0	7,136.8	8,114.2	6,940.0	28.2	28.9	-68.42	-1,197.3	534.6	532.5	478.9	53.62	9.931			
8,400.0	7,136.4	8,214.2	6,939.5	29.8	30.5	-68.41	-1,297.3	536.6	532.5	475.8	56.68	9.396			
8,500.0	7,136.1	8,314.2	6,939.0	31.5	32.2	-68.40	-1,397.3	538.7	532.6	472.8	59.80	8.906			
8,600.0	7,135.7	8,414.2	6,938.6	33.2	33.8	-68.39	-1,497.2	540.8	532.6	469.6	62.97	8.458			
8,700.0	7,135.4	8,514.2	6,938.1	34.9	35.5	-68.38	-1,597.2	542.8	532.7	466.5	66.19	8.047			
8,800.0	7,135.0	8,614.2	6,937.6	36.6	37.2	-68.36	-1,697.2	544.9	532.7	463.2	69.45	7.670			
8,900.0	7,134.7	8,714.2	6,937.1	38.4	38.9	-68.35	-1,797.2	547.0	532.7	460.0	72.74	7.324			
9,000.0	7,134.3	8,814.2	6,936.7	40.1	40.7	-68.34	-1,897.1	549.0	532.8	456.7	76.06	7.005			
9,100.0	7,134.0	8,914.2	6,936.2	41.9	42.4	-68.33	-1,997.1	551.1	532.8	453.4	79.41	6.710			
9,200.0	7,133.6	9,014.2	6,935.7	43.7	44.2	-68.31	-2,097.1	553.1	532.9	450.1	82.77	6.438			
9,300.0	7,133.3	9,114.2	6,935.3	45.5	46.0	-68.30	-2,197.1	555.2	532.9	446.8	86.16	6.185			
9,400.0	7,132.9	9,214.2	6,934.8	47.3	47.8	-68.29	-2,297.1	557.3	533.0	443.4	89.56	5.951			
9,500.0	7,132.6	9,314.2	6,934.3	49.1	49.6	-68.28	-2,397.0	559.3	533.0	440.0	92.98	5.733			
9,600.0	7,132.2	9,414.2	6,933.8	51.0	51.4	-68.27	-2,497.0	561.4	533.1	436.6	96.41	5.529			
9,700.0	7,131.9	9,514.2	6,933.4	52.8	53.2	-68.25	-2,597.0	563.5	533.1	433.2	99.86	5.339			
9,800.0	7,131.5	9,614.2	6,932.9	54.7	55.0	-68.24	-2,697.0	565.5	533.1	429.8	103.31	5.161			
9,900.0	7,131.2	9,714.2	6,932.4	56.5	56.9	-68.23	-2,796.9	567.6	533.2	426.4	106.78	4.994			
10,000.0	7,130.8	9,814.2	6,932.0	58.4	58.7	-68.22	-2,896.9	569.6	533.2	423.0	110.25	4.837			
10,100.0	7,130.5	9,914.2	6,931.5	60.2	60.6	-68.20	-2,996.9	571.7	533.3	419.6	113.73	4.689			

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
10,200.0	7,130.1	10,014.2	6,931.0	62.1	62.4	-68.19	-3,096.9	573.8	533.3	416.1	117.22	4.550			
10,300.0	7,129.8	10,114.2	6,930.5	63.9	64.3	-68.18	-3,196.9	575.8	533.4	412.7	120.71	4.418			
10,400.0	7,129.5	10,214.2	6,930.1	65.8	66.1	-68.17	-3,296.8	577.9	533.4	409.2	124.22	4.294			
10,500.0	7,129.1	10,314.2	6,929.6	67.7	68.0	-68.16	-3,396.8	580.0	533.5	405.7	127.72	4.177			
10,600.0	7,128.8	10,414.2	6,929.1	69.6	69.8	-68.14	-3,496.8	582.0	533.5	402.3	131.23	4.065			
10,700.0	7,128.4	10,514.2	6,928.7	71.4	71.7	-68.13	-3,596.8	584.1	533.6	398.8	134.75	3.960			
10,800.0	7,128.1	10,614.2	6,928.2	73.3	73.6	-68.12	-3,696.7	586.1	533.6	395.3	138.27	3.859			
10,900.0	7,127.7	10,714.2	6,927.7	75.2	75.5	-68.11	-3,796.7	588.2	533.6	391.9	141.79	3.764			
11,000.0	7,127.4	10,814.2	6,927.3	77.1	77.3	-68.09	-3,896.7	590.3	533.7	388.4	145.32	3.673			
11,100.0	7,127.0	10,914.2	6,926.8	79.0	79.2	-68.08	-3,996.7	592.3	533.7	384.9	148.85	3.586			
11,200.0	7,126.7	11,014.2	6,926.3	80.9	81.1	-68.07	-4,096.6	594.4	533.8	381.4	152.38	3.503			
11,300.0	7,126.3	11,114.2	6,925.8	82.7	83.0	-68.06	-4,196.6	596.4	533.8	377.9	155.92	3.424			
11,400.0	7,126.0	11,214.2	6,925.4	84.6	84.9	-68.05	-4,296.6	598.5	533.9	374.4	159.45	3.348			
11,500.0	7,125.6	11,314.2	6,924.9	86.5	86.8	-68.03	-4,396.6	600.6	533.9	370.9	162.99	3.276			
11,600.0	7,125.3	11,414.2	6,924.4	88.4	88.6	-68.02	-4,496.6	602.6	534.0	367.4	166.54	3.206			
11,675.1	7,125.0	11,489.3	6,924.1	89.8	90.1	-68.01	-4,571.6	604.2	534.0	364.8	169.20	3.156 SF			

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.04	0.0	61.6	61.6					
100.0	100.0	99.0	99.0	0.1	0.1	90.04	0.0	61.6	61.6	61.3	0.22	275.248		
200.0	200.0	199.0	199.0	0.3	0.3	90.04	0.0	61.6	61.6	60.9	0.67	91.597		
300.0	300.0	299.0	299.0	0.6	0.6	90.04	0.0	61.6	61.6	60.4	1.12	54.885		
400.0	400.0	399.0	399.0	0.8	0.8	90.04	0.0	61.6	61.6	60.0	1.57	39.181		
500.0	500.0	499.0	499.0	1.0	1.0	90.04	0.0	61.6	61.6	59.5	2.02	30.464		
600.0	600.0	599.0	599.0	1.2	1.2	90.04	0.0	61.6	61.6	59.1	2.47	24.920		
700.0	700.0	699.0	699.0	1.5	1.5	90.04	0.0	61.6	61.6	58.6	2.92	21.083		
800.0	800.0	799.0	799.0	1.7	1.7	90.04	0.0	61.6	61.6	58.2	3.37	18.270	CC, ES	
900.0	900.0	897.0	896.9	1.9	1.9	89.65	0.4	63.1	63.2	59.4	3.80	16.604		
1,000.0	1,000.0	994.7	994.5	2.1	2.1	88.58	1.7	67.9	68.1	63.9	4.24	16.077		
1,100.0	1,100.0	1,091.9	1,091.4	2.4	2.3	87.09	3.9	75.9	76.4	71.7	4.67	16.347		
1,200.0	1,200.0	1,189.0	1,187.8	2.6	2.6	85.49	6.9	87.0	87.9	82.8	5.11	17.197		
1,300.0	1,300.0	1,288.1	1,286.1	2.8	2.8	84.11	10.2	99.4	100.7	95.2	5.56	18.132		
1,400.0	1,400.0	1,387.3	1,384.4	3.0	3.1	83.05	13.6	111.8	113.6	107.6	6.00	18.931		
1,500.0	1,500.0	1,486.4	1,482.7	3.3	3.4	82.20	17.0	124.2	126.4	120.0	6.45	19.616		
1,600.0	1,600.0	1,585.6	1,581.0	3.5	3.7	81.51	20.4	136.7	139.3	132.4	6.90	20.208		
1,700.0	1,700.0	1,684.7	1,679.3	3.7	4.0	80.94	23.8	149.1	152.2	144.9	7.35	20.724		
1,800.0	1,800.0	1,783.9	1,777.7	3.9	4.3	80.46	27.2	161.5	165.2	157.4	7.80	21.179		
1,900.0	1,900.0	1,883.0	1,876.0	4.2	4.6	80.04	30.5	173.9	178.1	169.8	8.25	21.580		
2,000.0	2,000.0	1,982.2	1,974.3	4.4	4.9	79.69	33.9	186.4	191.0	182.3	8.71	21.938		
2,100.0	2,100.0	2,081.3	2,072.6	4.6	5.2	79.37	37.3	198.8	204.0	194.8	9.16	22.259		
2,200.0	2,200.0	2,180.5	2,170.9	4.8	5.5	79.10	40.7	211.2	216.9	207.3	9.62	22.548		
2,300.0	2,300.0	2,279.7	2,269.3	5.1	5.8	75.13	44.1	223.6	229.5	219.5	10.08	22.779		
2,400.0	2,399.9	2,378.9	2,367.7	5.3	6.2	75.62	47.4	236.1	241.5	231.0	10.53	22.925		
2,500.0	2,499.7	2,478.1	2,466.0	5.5	6.5	76.64	50.8	248.5	252.9	241.9	10.99	23.002		
2,600.0	2,599.3	2,577.3	2,564.3	5.7	6.8	78.12	54.2	260.9	263.9	252.4	11.46	23.023		
2,700.0	2,698.6	2,676.2	2,662.5	6.0	7.1	80.02	57.6	273.3	274.6	262.6	11.94	23.001		
2,800.0	2,797.8	2,775.1	2,760.5	6.2	7.4	82.05	61.0	285.7	285.5	273.0	12.43	22.974		
2,900.0	2,897.0	2,874.0	2,858.6	6.5	7.8	83.94	64.3	298.1	296.7	283.8	12.92	22.956		
3,000.0	2,996.2	2,973.0	2,956.7	6.7	8.1	85.68	67.7	310.5	308.2	294.8	13.43	22.944		
3,100.0	3,095.5	3,071.9	3,054.7	7.0	8.4	87.30	71.1	322.9	320.0	306.1	13.95	22.937		
3,200.0	3,194.7	3,170.8	3,152.8	7.2	8.7	88.80	74.5	335.3	332.1	317.6	14.48	22.935		
3,300.0	3,293.9	3,269.7	3,250.9	7.5	9.0	90.20	77.8	347.7	344.3	329.3	15.01	22.936		
3,400.0	3,393.1	3,368.6	3,348.9	7.8	9.4	91.50	81.2	360.1	356.7	341.2	15.55	22.940		
3,500.0	3,492.3	3,467.5	3,447.0	8.0	9.7	92.71	84.6	372.5	369.3	353.3	16.10	22.946		
3,600.0	3,591.6	3,566.4	3,545.1	8.3	10.0	93.88	87.9	384.9	382.1	365.4	16.63	22.980		
3,700.0	3,691.2	3,665.6	3,643.4	8.5	10.3	94.69	91.3	397.3	394.7	377.6	17.11	23.071		
3,800.0	3,790.9	3,764.8	3,741.8	8.7	10.7	95.08	94.7	409.8	407.1	389.6	17.57	23.171		
3,900.0	3,890.8	3,864.0	3,840.2	8.9	11.0	95.10	98.1	422.2	419.4	401.3	18.01	23.279		
4,000.0	3,990.8	3,963.2	3,938.5	9.1	11.3	94.77	101.5	434.6	431.4	412.9	18.43	23.400		
4,100.0	4,090.8	4,062.4	4,036.8	9.3	11.6	97.97	104.9	447.0	443.3	424.4	18.89	23.466		
4,200.0	4,190.8	4,161.5	4,135.2	9.5	12.0	97.33	108.2	459.5	455.3	435.9	19.33	23.547		
4,300.0	4,290.8	4,260.7	4,233.5	9.7	12.3	96.72	111.6	471.9	467.3	447.5	19.78	23.627		
4,400.0	4,390.8	4,359.8	4,331.8	9.9	12.6	96.14	115.0	484.3	479.4	459.2	20.22	23.705		
4,500.0	4,490.8	4,459.0	4,430.1	10.1	12.9	95.59	118.4	496.8	491.5	470.8	20.67	23.782		
4,600.0	4,590.8	4,558.1	4,528.4	10.3	13.3	95.06	121.8	509.2	503.7	482.6	21.11	23.856		
4,700.0	4,690.8	4,657.3	4,626.7	10.5	13.6	94.57	125.1	521.6	515.9	494.3	21.56	23.929		
4,800.0	4,790.8	4,756.4	4,725.0	10.8	13.9	94.09	128.5	534.0	528.2	506.1	22.01	24.000		
4,900.0	4,890.8	4,855.6	4,823.3	11.0	14.3	93.63	131.9	546.5	540.4	518.0	22.45	24.068		
5,000.0	4,990.8	4,954.7	4,921.7	11.2	14.6	93.20	135.3	558.9	552.8	529.9	22.90	24.136		
5,100.0	5,090.8	5,053.9	5,020.0	11.4	14.9	92.78	138.7	571.3	565.1	541.8	23.35	24.201		

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft	
Survey Program: 0-MWD													Offset Well Error:		0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,200.0	5,190.8	5,153.1	5,118.3	11.6	15.2	92.39	142.1	583.7	577.5	553.7	23.80	24.264			
5,300.0	5,290.8	5,252.2	5,216.6	11.8	15.6	92.00	145.4	596.2	589.9	565.6	24.25	24.326			
5,400.0	5,390.8	5,351.4	5,314.9	12.1	15.9	91.64	148.8	608.6	602.3	577.6	24.70	24.386			
5,500.0	5,490.8	5,450.5	5,413.2	12.3	16.2	91.29	152.2	621.0	614.8	589.6	25.15	24.445			
5,600.0	5,590.8	5,549.7	5,511.5	12.5	16.5	90.95	155.6	633.4	627.2	601.6	25.60	24.501			
5,700.0	5,690.8	5,648.8	5,609.9	12.7	16.9	90.63	159.0	645.9	639.7	613.7	26.05	24.556			
5,800.0	5,790.8	5,770.7	5,730.9	12.9	17.2	90.29	162.6	659.3	650.8	624.3	26.51	24.549			
5,900.0	5,890.8	5,898.6	5,858.5	13.1	17.4	90.08	165.0	668.2	657.7	630.8	26.96	24.398			
6,000.0	5,990.8	6,027.1	5,986.9	13.4	17.6	90.00	165.9	671.5	660.3	632.9	27.40	24.103			
6,100.0	6,090.8	6,130.0	6,089.8	13.6	17.8	90.00	166.0	671.6	660.4	632.6	27.81	23.748			
6,200.0	6,190.8	6,230.0	6,189.8	13.8	18.0	90.00	166.0	671.6	660.4	632.1	28.22	23.401			
6,300.0	6,290.8	6,330.0	6,289.8	14.0	18.1	90.00	166.0	671.6	660.4	631.7	28.63	23.063			
6,400.0	6,390.8	6,430.0	6,389.8	14.2	18.3	90.00	166.0	671.6	660.4	631.3	29.05	22.733			
6,500.0	6,490.8	6,530.0	6,489.8	14.5	18.4	90.00	166.0	671.6	660.4	630.9	29.46	22.412			
6,600.0	6,590.8	6,630.0	6,589.8	14.7	18.6	90.00	166.0	671.6	660.4	630.5	29.88	22.100			
6,700.0	6,690.6	6,728.2	6,687.8	14.9	18.8	-88.83	161.2	671.7	660.4	630.2	30.18	21.878			
6,800.0	6,787.7	6,825.7	6,782.7	14.9	18.9	-88.89	139.2	672.1	660.3	630.0	30.39	21.732			
6,900.0	6,878.6	6,923.4	6,871.9	15.0	18.9	-88.98	99.8	672.9	660.3	629.8	30.52	21.634			
7,000.0	6,960.0	7,021.3	6,952.4	15.1	19.0	-89.10	44.4	674.1	660.3	629.6	30.69	21.516			
7,100.0	7,028.9	7,119.5	7,021.3	15.2	19.1	-89.27	-25.4	675.5	660.3	629.3	31.00	21.299			
7,200.0	7,082.6	7,218.1	7,076.1	15.5	19.3	-89.45	-107.1	677.2	660.2	628.7	31.57	20.912			
7,300.0	7,119.4	7,317.1	7,114.6	16.0	19.5	-89.66	-198.1	679.1	660.2	627.7	32.48	20.325			
7,400.0	7,137.7	7,416.5	7,135.4	16.6	20.0	-89.88	-295.2	681.1	660.2	626.5	33.76	19.557			
7,456.1	7,141.2	7,472.5	7,138.8	17.1	20.3	-89.87	-351.1	682.2	660.2	625.6	34.64	19.058			
7,500.0	7,139.6	7,516.4	7,138.6	17.5	20.6	-90.01	-395.0	683.1	660.2	624.8	35.38	18.662			
7,600.0	7,139.2	7,616.4	7,138.3	18.4	21.4	-90.01	-495.0	685.2	660.2	622.9	37.31	17.693			
7,700.0	7,138.9	7,716.4	7,137.9	19.6	22.3	-90.01	-594.9	687.3	660.2	620.7	39.53	16.701			
7,800.0	7,138.5	7,816.4	7,137.6	20.8	23.4	-90.01	-694.9	689.3	660.2	618.2	41.98	15.725			
7,900.0	7,138.2	7,916.4	7,137.2	22.1	24.6	-90.01	-794.9	691.4	660.2	615.6	44.63	14.792			
8,000.0	7,137.8	8,016.4	7,136.9	23.6	25.8	-90.01	-894.9	693.4	660.2	612.8	47.45	13.914			
8,100.0	7,137.5	8,116.4	7,136.5	25.0	27.2	-90.01	-994.9	695.5	660.2	609.8	50.40	13.099			
8,200.0	7,137.1	8,216.4	7,136.2	26.6	28.6	-90.01	-1,094.8	697.6	660.2	606.8	53.47	12.348			
8,300.0	7,136.8	8,316.4	7,135.8	28.2	30.1	-90.01	-1,194.8	699.6	660.2	603.6	56.63	11.659			
8,400.0	7,136.4	8,416.4	7,135.5	29.8	31.6	-90.01	-1,294.8	701.7	660.2	600.4	59.87	11.028			
8,500.0	7,136.1	8,516.4	7,135.1	31.5	33.2	-90.01	-1,394.8	703.8	660.2	597.0	63.18	10.450			
8,600.0	7,135.7	8,616.4	7,134.8	33.2	34.8	-90.01	-1,494.7	705.8	660.2	593.7	66.55	9.921			
8,700.0	7,135.4	8,716.4	7,134.4	34.9	36.4	-90.01	-1,594.7	707.9	660.2	590.3	69.96	9.437			
8,800.0	7,135.0	8,816.4	7,134.1	36.6	38.1	-90.01	-1,694.7	709.9	660.2	586.8	73.42	8.992			
8,900.0	7,134.7	8,916.4	7,133.7	38.4	39.8	-90.01	-1,794.7	712.0	660.2	583.3	76.92	8.583			
9,000.0	7,134.3	9,016.4	7,133.4	40.1	41.5	-90.01	-1,894.7	714.1	660.2	579.8	80.45	8.207			
9,100.0	7,134.0	9,116.4	7,133.0	41.9	43.2	-90.01	-1,994.6	716.1	660.2	576.2	84.01	7.859			
9,200.0	7,133.6	9,216.4	7,132.7	43.7	45.0	-90.01	-2,094.6	718.2	660.2	572.6	87.59	7.538			
9,300.0	7,133.3	9,316.4	7,132.4	45.5	46.7	-90.01	-2,194.6	720.3	660.2	569.0	91.19	7.240			
9,400.0	7,132.9	9,416.4	7,132.0	47.3	48.5	-90.01	-2,294.6	722.3	660.2	565.4	94.81	6.964			
9,500.0	7,132.6	9,516.4	7,131.7	49.1	50.3	-90.01	-2,394.6	724.4	660.2	561.8	98.45	6.706			
9,600.0	7,132.2	9,616.4	7,131.3	51.0	52.1	-90.01	-2,494.5	726.4	660.2	558.1	102.11	6.466			
9,700.0	7,131.9	9,716.4	7,131.0	52.8	53.9	-90.01	-2,594.5	728.5	660.2	554.5	105.77	6.242			
9,800.0	7,131.5	9,816.4	7,130.6	54.7	55.7	-90.01	-2,694.5	730.6	660.2	550.8	109.45	6.032			
9,900.0	7,131.2	9,916.4	7,130.3	56.5	57.5	-90.01	-2,794.5	732.6	660.2	547.1	113.15	5.835			
10,000.0	7,130.8	10,016.4	7,129.9	58.4	59.3	-90.01	-2,894.4	734.7	660.2	543.4	116.85	5.650			
10,100.0	7,130.5	10,116.4	7,129.6	60.2	61.1	-90.01	-2,994.4	736.8	660.2	539.7	120.56	5.476			
10,200.0	7,130.1	10,216.4	7,129.2	62.1	63.0	-90.01	-3,094.4	738.8	660.2	536.0	124.28	5.313			

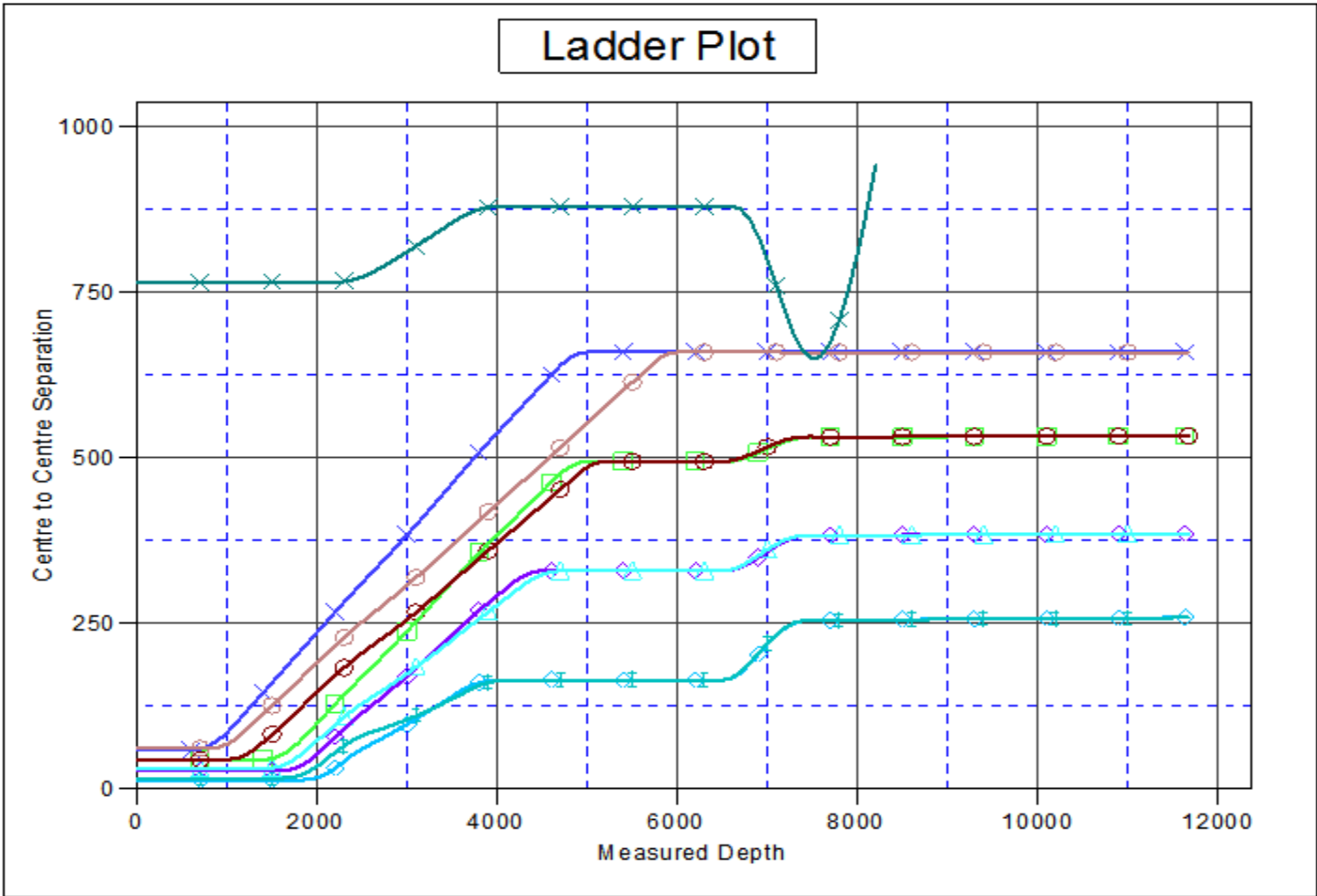
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
10,300.0	7,129.8	10,316.4	7,128.9	63.9	64.8	-90.01	-3,194.4	740.9	660.2	532.2	128.00	5.158			
10,400.0	7,129.5	10,416.4	7,128.5	65.8	66.6	-90.01	-3,294.4	742.9	660.2	528.5	131.74	5.012			
10,500.0	7,129.1	10,516.4	7,128.2	67.7	68.5	-90.01	-3,394.3	745.0	660.2	524.8	135.48	4.873			
10,600.0	7,128.8	10,616.4	7,127.8	69.6	70.3	-90.01	-3,494.3	747.1	660.2	521.0	139.22	4.742			
10,700.0	7,128.4	10,716.4	7,127.5	71.4	72.2	-90.01	-3,594.3	749.1	660.2	517.3	142.98	4.618			
10,800.0	7,128.1	10,816.4	7,127.1	73.3	74.1	-90.01	-3,694.3	751.2	660.2	513.5	146.73	4.500			
10,900.0	7,127.7	10,916.4	7,126.8	75.2	75.9	-90.01	-3,794.2	753.3	660.2	509.7	150.49	4.387			
11,000.0	7,127.4	11,016.4	7,126.4	77.1	77.8	-90.01	-3,894.2	755.3	660.2	506.0	154.26	4.280			
11,100.0	7,127.0	11,116.4	7,126.1	79.0	79.7	-90.01	-3,994.2	757.4	660.2	502.2	158.03	4.178			
11,200.0	7,126.7	11,216.4	7,125.7	80.9	81.5	-90.01	-4,094.2	759.4	660.2	498.4	161.80	4.081			
11,300.0	7,126.3	11,316.4	7,125.4	82.7	83.4	-90.01	-4,194.2	761.5	660.2	494.7	165.58	3.988			
11,400.0	7,126.0	11,416.4	7,125.0	84.6	85.3	-90.01	-4,294.1	763.6	660.2	490.9	169.36	3.899			
11,500.0	7,125.6	11,516.4	7,124.7	86.5	87.2	-90.01	-4,394.1	765.6	660.2	487.1	173.14	3.813			
11,600.0	7,125.3	11,616.4	7,124.3	88.4	89.0	-90.01	-4,494.1	767.7	660.2	483.3	176.92	3.732			
11,675.1	7,125.0	11,691.5	7,124.1	89.8	90.5	-90.01	-4,569.2	769.2	660.2	480.5	179.77	3.673 SF			

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5025.0ft (Original Well Elev) Coordinates are relative to: Pastelak 01N-64W-02-5C
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
 Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.63°

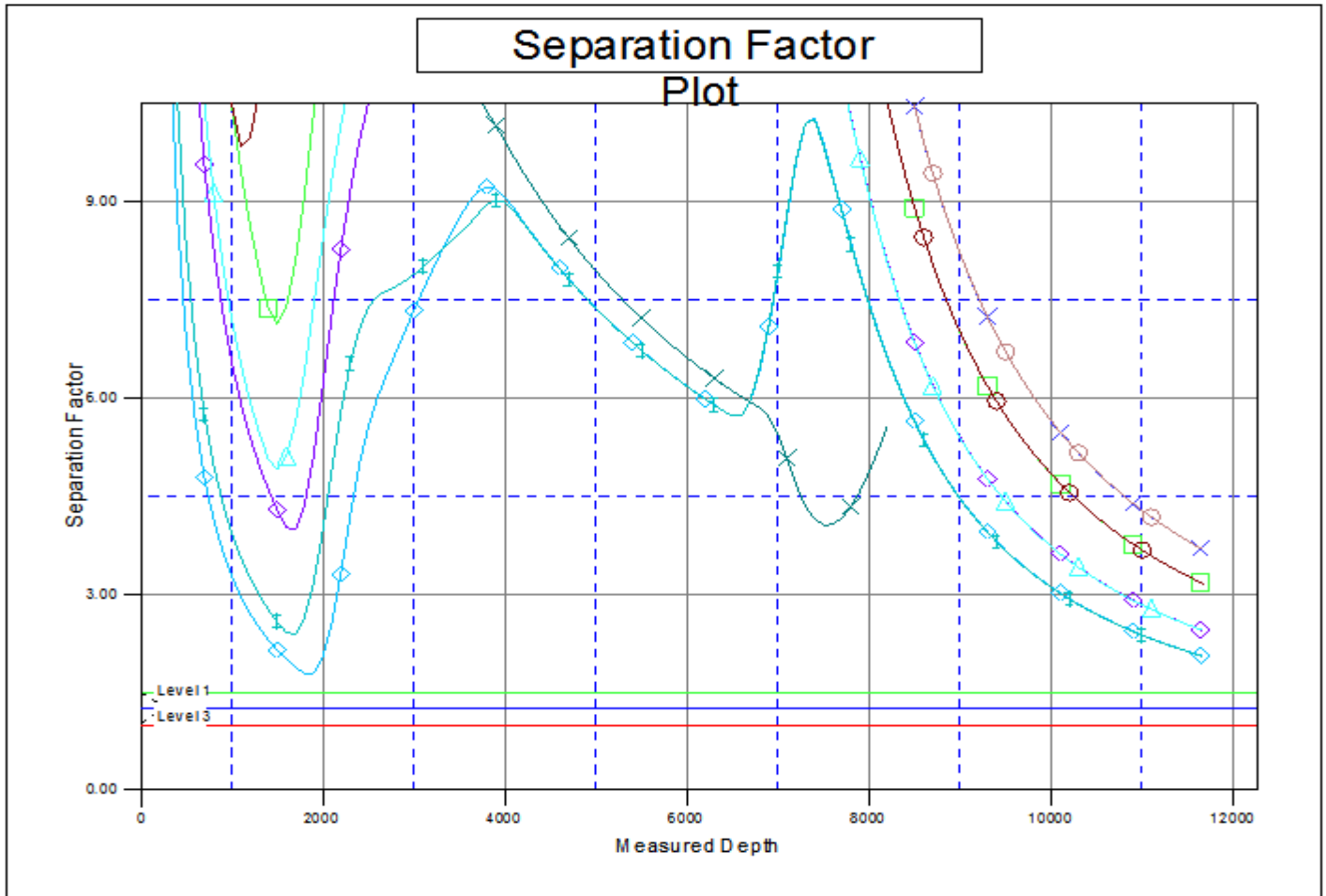


LEGEND

- 64W-02-1C, Wellbore #1, Plan #1 (8-6-14) VQ
- 64W-02-2N, Wellbore #1, Plan #1 (8-6-14) VQ
- 64W-02-3N, Wellbore #1, Plan #1 (8-6-14) VQ
- Pastelak 01N-64W-02-4N, Wellbore #1, Plan #1 (8-6-14) VQ
- Pastelak 01N-64W-02-6N, Wellbore #1, Plan #1 (8-6-14) VQ
- Pastelak 01N-64W-02-7N, Wellbore #1, Plan #1 (8-6-14) VQ
- Pastelak 01N-64W-02-8N, Wellbore #1, Plan #1 (8-6-14) VQ
- Pastelak 01N-64W-02-9C, Wellbore #1, Plan #1 (8-6-14) VQ
- Schweitzer 11-2 (P&A), Wellbore #1 VQ

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Pastelak 01N-64W-02-5C
Project:	SEC.2-T1N-R64W	TVD Reference:	WELL @ 5025.0ft (Original Well Elev)
Reference Site:	Pastelak 01N-64W-02 Pad Sec.2-T1N-R64W	MD Reference:	WELL @ 5025.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pastelak 01N-64W-02-5C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	landmark
Reference Design:	Plan #1 (8-6-14)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5025.0ft (Original Well Elev) Coordinates are relative to: Pastelak 01N-64W-02-5C
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
 Central Meridian is -105.500000° Grid Convergence at Surface is: 0.63°



LEGEND

- 64W-02-1C, Wellbore #1, Plan #1 (8-6-14) ◆ Pastelak 01N-64W-02-4N, Wellbore #1, Plan #1 (8-6-14) ◆ Pastelak 01N-64W-02-8N, Wellbore #1, Plan #1 (8-6-14) ◆
- 64W-02-2N, Wellbore #1, Plan #1 (8-6-14) ◆ Pastelak 01N-64W-02-6N, Wellbore #1, Plan #1 (8-6-14) ◆ Pastelak 01N-64W-02-9C, Wellbore #1, Plan #1 (8-6-14) ◆
- 64W-02-3N, Wellbore #1, Plan #1 (8-6-14) ◆ Pastelak 01N-64W-02-7N, Wellbore #1, Plan #1 (8-6-14) ◆ Schweitzer 11-2 (P&A), Wellbore #1 x