

# **VERDAD RESOURCES**

**WATTENBERG FIELD**

**8N-61W-29 GAFFNEY 2920 PAD**

**GAFFNEY 2920-08H**

**Plan B**

**Permit Rev-1**

## **Anticollision Summary Report**

**07 June, 2024**

## Anticollision Summary Report

<b>Company:</b>	VERDAD RESOURCES	<b>Local Co-ordinate Reference:</b>	Well GAFFNEY 2920-08H
<b>Project:</b>	WATTENBERG FIELD	<b>TVD Reference:</b>	RKB = 21' @ 5012.00usft (RIG)
<b>Reference Site:</b>	8N-61W-29 GAFFNEY 2920 PAD	<b>MD Reference:</b>	RKB = 21' @ 5012.00usft (RIG)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	GAFFNEY 2920-08H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	3.28 usft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Plan B	<b>Database:</b>	EDM 5000.16 Single User Db
<b>Reference Design:</b>	Permit Rev-1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Permit Rev-1		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum centre distance of 2,500.00usft	<b>Error Surface:</b>	Pedal Curve
<b>Warning Levels Evaluated at:</b>	2.45 Sigma	<b>Casing Method:</b>	Added to Error Values

<b>Survey Tool Program</b>	<b>Date</b>	6/6/2024			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
0.00	1,871.00	Permit Rev-1 (Plan B)	ISCWSA MWD	Fixed:v2:standard declination	
1,871.00	16,031.05	Permit Rev-1 (Plan B)	ISCWSA MWD	Fixed:v2:standard declination	

<b>Summary</b>						
<b>Site Name</b>	<b>Reference Measured Depth (usft)</b>	<b>Offset Measured Depth (usft)</b>	<b>Distance Between Centres (usft)</b>	<b>Distance Between Ellipses (usft)</b>	<b>Separation Factor</b>	<b>Warning</b>
<b>Offset Well - Wellbore - Design</b>						
7N-61W-06 Offsets						
Staudinger 1-31H - Red Hawk PR Well - Actual Sperry S						Out of range
8N-61W-17 Offsets						
Sievers LE17-62HN - Noble PR Well - Actual Sperry Sur	16,031.05	10,960.00	903.50	585.25	2.839	CC, ES, SF
8N-61W-19 Offsets						
GRACE-WISE #19-1 - Geochemical P&A Well - No Surv						Out of range
ULLMAN FARMS #19-2 - Geochemical D/A Well - No Su						Out of range
ULLMAN FARMS #19-3 - Geochemical P&A Well - No S						Out of range
WISE #1 (05-123-05538) - British American D/A Well - N						Out of range
WISE #1 (05-123-07124) - Dunwick D/A Well - No Surve						Out of range
8N-61W-21 Offsets						
Debrine 21-44-8-61 - Verdad PR Well - Actual Precision						Out of range
8N-61W-28 Offsets						
CENSOR #13-28 - St. Michael D/A Well - No Surveys	8,142.81	6,557.96	1,176.36	898.65	4.236	CC
CENSOR #13-28 - St. Michael D/A Well - No Surveys	8,200.00	6,583.33	1,179.11	896.02	4.165	ES
CENSOR #13-28 - St. Michael D/A Well - No Surveys	8,350.00	6,635.35	1,212.68	915.52	4.081	SF
8N-61W-29 GAFFNEY 2920 PAD						
GAFFNEY 2920-01H - Plan B - Permit Rev-1	200.55	200.55	112.00	104.43	14.798	CC, ES, SF
GAFFNEY 2920-02H - Plan B - Permit Rev-1	200.55	200.55	96.00	88.43	12.684	CC, ES, SF
GAFFNEY 2920-03H - Plan B - Permit Rev-1	200.55	200.55	80.00	72.43	10.570	CC, ES, SF
GAFFNEY 2920-04H - Plan B - Permit Rev-1	200.55	200.55	64.00	56.43	8.456	CC, ES
GAFFNEY 2920-04H - Plan B - Permit Rev-1	15,989.41	14,949.87	2,316.26	1,960.37	6.508	SF
GAFFNEY 2920-05H - Plan B - Permit Rev-1	200.55	200.55	48.00	40.43	6.342	CC, ES
GAFFNEY 2920-05H - Plan B - Permit Rev-1	15,999.84	15,158.88	1,737.20	1,380.78	4.874	SF
GAFFNEY 2920-06H - Plan B - Permit Rev-1	200.55	200.55	32.00	24.43	4.228	CC, ES
GAFFNEY 2920-06H - Plan B - Permit Rev-1	16,009.77	15,411.59	1,158.13	801.04	3.243	SF
GAFFNEY 2920-07H - Plan B - Permit Rev-1	200.55	200.55	16.00	8.43	2.114	CC, ES
GAFFNEY 2920-07H - Plan B - Permit Rev-1	16,020.67	15,704.44	579.06	221.26	1.618	SF

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<b>Reference Site:</b>	8N-61W-29 GAFFNEY 2920 PAD	<b>MD Reference:</b>	RKB = 21' @ 5012.00usft (RIG)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	GAFFNEY 2920-08H	<b>Survey Calculation Method:</b>	Minimum Curvature
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<b>Reference Wellbore</b>	Plan B	<b>Database:</b>	EDM 5000.16 Single User Db
<b>Reference Design:</b>	Permit Rev-1	<b>Offset TVD Reference:</b>	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
8N-61W-29 Offsets Incomplete						
ANCONA 28-16-1HN - BISON IV Well - Drilled w/No Actu	8,609.36	7,066.62	643.25	582.82	10.644	CC
ANCONA 28-16-1HN - BISON IV Well - Drilled w/No Actu	16,031.05	14,488.05	643.54	273.72	1.740	ES, SF
ANCONA 28-16-2HN - BISON IV Well - Drilled w/Only Sh	8,369.82	6,755.88	1,373.77	1,313.59	22.828	CC
ANCONA 28-16-2HN - BISON IV Well - Drilled w/Only Sh	16,031.05	14,718.64	1,418.38	1,048.78	3.838	ES, SF
ANCONA 28-16-3HN - BISON IV Well - Drilled w/No Actu	8,308.38	6,224.47	2,074.54	2,009.15	31.726	CC
ANCONA 28-16-3HN - BISON IV Well - Drilled w/No Actu	16,031.05	14,789.07	2,193.96	1,822.48	5.906	ES, SF
ANCONA 28-16-4HN - BISON IV Well - Drilled w/No Actu						Out of range
ANCONA 28-16-5HN - BISON IV Well - Drilled w/No Actu						Out of range
ANCONA 28-16-6HN - BISON IV Well - Drilled in Center						Out of range
ANCONA 28-16-7HN - BISON IV Well - Drilled w/No Actu						Out of range
GAFFNEY 29-8-61 - Verdad PR Well - Actual Precision S	0.00	0.00	149.82			
GAFFNEY 29-8-61 - Verdad PR Well - Actual Precision S	100.00	95.68	149.87	142.34	19.910	SF
HEINZE #1 - Weaver D/A Well - No Surveys	7,567.10	6,149.15	273.05	-48.63	0.849	Level 1, CC
HEINZE #1 - Weaver D/A Well - No Surveys	7,600.00	6,174.38	274.61	-51.34	0.842	Level 1, ES, SF
8N-61W-33 Offsets Incomplete						
HARLEQUIN 28-29-4HN - Drilled w/No Actuals on ECMC	8,048.29	13,481.15	200.36	-16.57	0.924	Level 1, CC
HARLEQUIN 28-29-4HN - Drilled w/No Actuals on ECMC	8,150.00	13,437.28	225.99	-60.50	0.789	Level 1, ES, SF
HARLEQUIN 28-29-5HN - BISON IV Planned Well - Plan	7,695.42	13,297.32	942.39	640.75	3.124	CC
HARLEQUIN 28-29-5HN - BISON IV Planned Well - Plan	7,750.00	13,264.59	945.43	640.00	3.095	ES
HARLEQUIN 28-29-5HN - BISON IV Planned Well - Plan	7,800.00	13,235.34	953.54	645.20	3.092	SF
HARLEQUIN 28-29-6HN - BISON IV Planned Well - Plan	7,633.62	12,997.10	1,862.04	1,553.03	6.026	CC
HARLEQUIN 28-29-6HN - BISON IV Planned Well - Plan	7,650.00	12,987.02	1,862.27	1,552.88	6.019	ES
HARLEQUIN 28-29-6HN - BISON IV Planned Well - Plan	7,700.00	12,956.52	1,865.82	1,555.35	6.010	SF

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Reference Depths are relative to RKB = 21' @ 5012.00usft (RIG)

Offset Depths are relative to Offset Datum

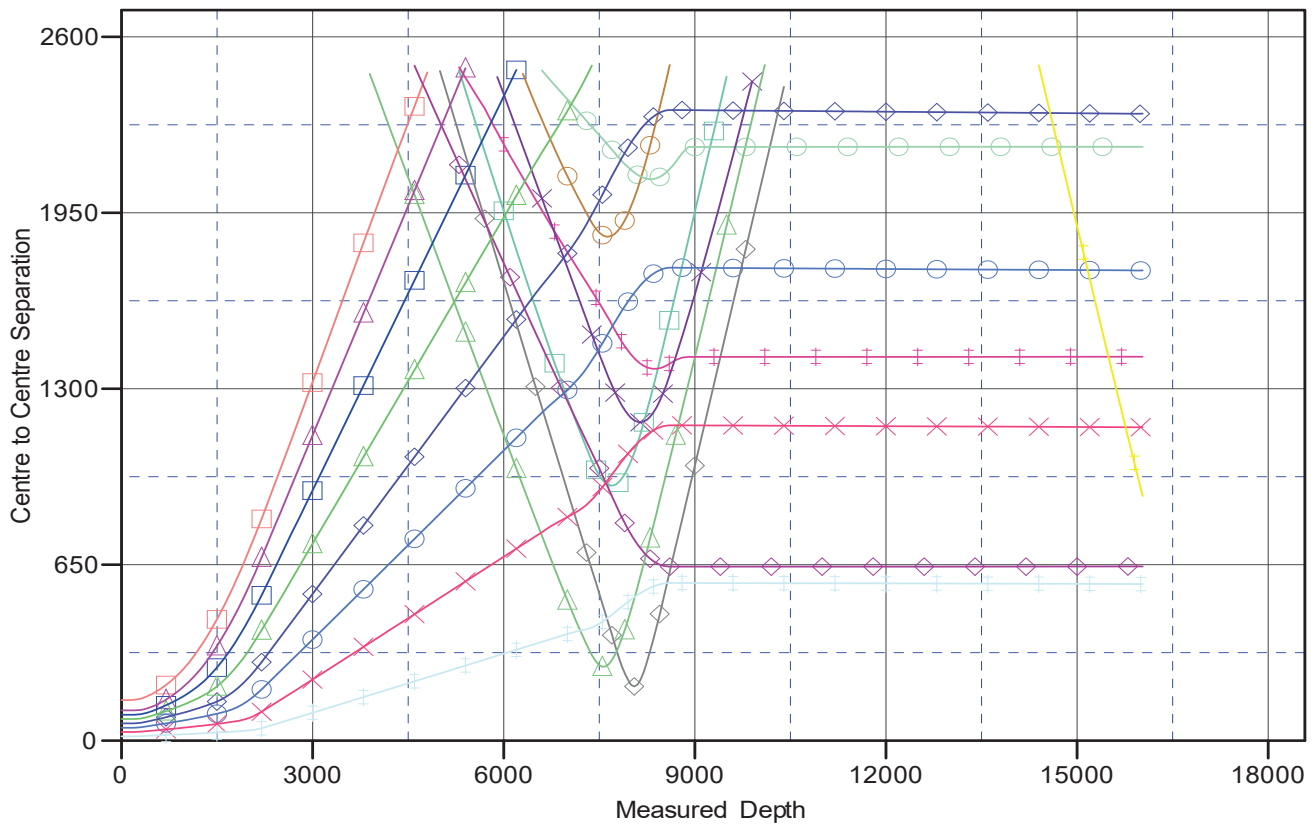
Central Meridian is -105.500000

Coordinates are relative to: GAFFNEY 2920-08H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.82°

### Ladder Plot



### LEGEND

Inner Surveys V0	ANCONA 2816-3H-N, BISON IV Well - Drilled w/No Actuals on ECMC, Planned Mallard Surveys V0	GAFFNEY 2920-08H, Plan B, Permit Rev-1 V0
Inner Surveys V0	ANCONA 2816-1H-N, BISON IV Well - Drilled w/No Actuals on ECMC, Planned Mallard Surveys V0	GAFFNEY 2920-09H, Plan B, Permit Rev-1 V0
2M BISON IV Well - No Actuals on ECMC - Mallard Plan Entered, Planned Mallard Surveys V0	CENSOR #3-28, St. Michael D/A Well, No Surveys V0	GAFFNEY 2920-09H, Plan B, Permit Rev-1 V0
Show Svys on ECMC, Altitude Planned Sidetrack V0	GAFFNEY 2920-01H, Plan B, Permit Rev-1 V0	GAFFNEY 2920-03H, Plan B, Permit Rev-1 V0
n Surveys (Grid to True) V0	GAFFNEY 2920-07H, Plan B, Permit Rev-1 V0	Sievers LE 17-62H-N, Noble PR Well, Actual Sperry Surveys V0
	GAFFNEY 2920-02H, Plan B, Permit Rev-1 V0	

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Offset Depths are relative to Offset Datum

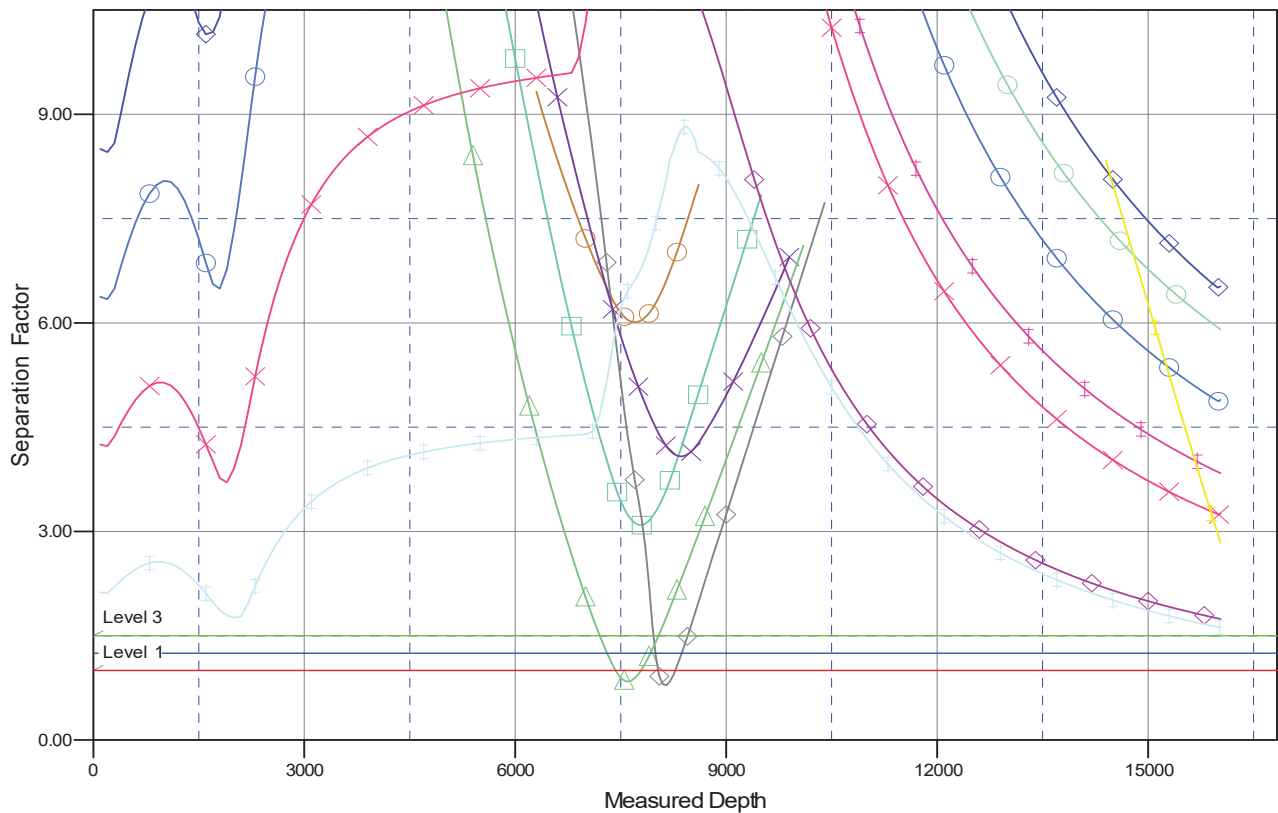
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### Separation Factor Plot



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Inner Surveys V0	ANCONA 28-16-34N, BISON IV Well - Drilled w/No Actuals on ECMC, Planned Mallard Surveys V0	GAFFNEY 2920-04H, Plan B, Permit Rev-1 V0
Inner Surveys V0	ANCONA 28-16-14N, BISON IV Well - Drilled w/No Actuals on ECMC, Planned Mallard Surveys V0	GAFFNEY 2920-09H, Plan B, Permit Rev-1 V0
CMC/BISON IV Well - No Actuals on ECMC - Mallard Plan Entered, Planned Mallard Surveys V0	CENSORA #B-28, St. Michael D/A Well, No Surveys V0	GAFFNEY 2920-09H, Plan B, Permit Rev-1 V0
Show Svys on ECMC, Altitude Planned Sidetrack V0	GAFFNEY 2920-01H, Plan B, Permit Rev-1 V0	GAFFNEY 2920-03H, Plan B, Permit Rev-1 V0
in Surveys (Grid to True) V0	GAFFNEY 2920-07H, Plan B, Permit Rev-1 V0	Sievers LE 17-62HN, Noble PR Well, Actual Sperry Surveys V0
	GAFFNEY 2920-02H, Plan B, Permit Rev-1 V0	