

VERDAD RESOURCES

WATTENBERG FIELD

1N-65W-12 RAMEN 1423 PAD

RAMEN 1423-08H

Plan A

Permit Rev-1

Anticollision Summary Report

17 August, 2023

Anticollision Summary Report

Company:	VERDAD RESOURCES	Local Co-ordinate Reference:	Well RAMEN 1423-08H
Project:	WATTENBERG FIELD	TVD Reference:	RKB = 24' @ 4995.00usft (RIG)
Reference Site:	1N-65W-12 RAMEN 1423 PAD	MD Reference:	RKB = 24' @ 4995.00usft (RIG)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	RAMEN 1423-08H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 usft	Output errors are at	2.45 sigma
Reference Wellbore	Plan A	Database:	EDM 5000.16 Single User Db
Reference Design:	Permit Rev-1	Offset TVD Reference:	Offset Datum

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

Survey Tool Program	Date	8/17/2023		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	2,020.00	Permit Rev-1 (Plan A)	ISCWSA MWD	Fixed:v2:standard declination
2,020.00	18,459.52	Permit Rev-1 (Plan A)	ISCWSA MWD	Fixed:v2:standard declination

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						
1N-65W-10 HDI KF PAD						
HDI KF 10-11H - Verdad PR Well - Actual Baker Surveys						Out of range
1N-65W-11 Offsets						
HUDSON 1-11 - KMG SI Well - No Surveys						Out of range
1N-65W-12 Offsets						
RINGSBY 1 - KPK P&A Well - No Surveys						Out of range
RINGSBY 2 - KPK SI Well - No Surveys						Out of range
WUERTZ 12-3 - KPK PR Well - No Surveys	5,255.19	4,548.87	165.41	-50.86	0.765	Level 1, CC, ES, SF
1N-65W-12 RAMEN 1423 PAD						
RAMEN 1423-01H - Plan B - Permit Rev-1	206.17	206.00	111.96	104.39	14.792	CC, ES
RAMEN 1423-01H - Plan B - Permit Rev-1	2,100.00	2,009.00	289.80	259.29	9.498	SF
RAMEN 1423-02H - Plan B - Permit Rev-1	226.14	225.95	95.93	88.35	12.652	CC, ES
RAMEN 1423-02H - Plan B - Permit Rev-1	2,100.00	2,025.06	264.92	234.05	8.583	SF
RAMEN 1423-03H - Plan B - Permit Rev-1	251.52	251.33	79.88	72.28	10.509	CC, ES
RAMEN 1423-03H - Plan B - Permit Rev-1	2,100.00	2,042.57	237.90	206.73	7.633	SF
RAMEN 1423-04H - Plan B - Permit Rev-1	281.00	280.85	63.83	56.20	8.369	CC, ES
RAMEN 1423-04H - Plan B - Permit Rev-1	2,100.00	2,061.38	209.63	178.35	6.703	SF
RAMEN 1423-05H - Plan B - Permit Rev-1	301.00	300.85	47.83	40.19	6.256	CC, ES
RAMEN 1423-05H - Plan B - Permit Rev-1	2,100.00	2,079.03	181.88	150.84	5.860	SF
RAMEN 1423-06H - Plan B - Permit Rev-1	274.43	274.39	31.89	24.27	4.184	CC
RAMEN 1423-06H - Plan B - Permit Rev-1	301.00	300.93	31.92	24.27	4.174	ES
RAMEN 1423-06H - Plan B - Permit Rev-1	18,459.77	19,133.94	1,241.02	667.19	2.163	SF
RAMEN 1423-07H - Plan B - Permit Rev-1	238.44	238.43	15.94	8.35	2.100	CC, ES
RAMEN 1423-07H - Plan B - Permit Rev-1	18,459.77	18,793.45	616.99	43.05	1.075	Level 2, SF

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Reference Wellbore	Plan A	Database:	EDM 5000.16 Single User Db
Reference Design:	Permit Rev-1	Offset TVD Reference:	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						
1N-65W-12 SAFI 1224 PAD						
SAFI 1224-02H - Verdad PR Well - Actual SLB Surveys	323.37	319.63	15.33	7.64	1.994	CC, ES
SAFI 1224-02H - Verdad PR Well - Actual SLB Surveys	18,457.56	18,366.00	962.30	399.30	1.709	SF
SAFI 1224-04H - Verdad PR Well - Actual SLB Surveys	580.17	578.42	14.32	6.00	1.721	CC
SAFI 1224-04H - Verdad PR Well - Actual SLB Surveys	600.00	598.22	14.38	5.98	1.712	ES, SF
SAFI 1224-06H - Verdad PR Well - Actual SLB Surveys	420.33	418.35	45.87	38.04	5.860	CC, ES
SAFI 1224-06H - Verdad PR Well - Actual SLB Surveys	500.00	498.42	46.50	38.51	5.818	SF
SAFI 1224-08H - Verdad PR Well - Actual SLB Surveys	256.83	253.06	63.64	56.02	8.353	CC
SAFI 1224-08H - Verdad PR Well - Actual SLB Surveys	301.00	297.27	63.67	56.01	8.312	ES, SF
SAFI 1224-10H - Verdad PR Well - Actual SLB Surveys	235.90	232.12	79.73	72.13	10.489	CC, ES
SAFI 1224-10H - Verdad PR Well - Actual SLB Surveys	301.00	296.36	80.12	72.46	10.461	SF
SAFI 1224-12H - Verdad PR Well - Actual SLB Surveys	228.96	225.19	95.48	87.88	12.570	CC, ES
SAFI 1224-12H - Verdad PR Well - Actual SLB Surveys	301.00	295.97	95.97	88.31	12.532	SF
SAFI 1224-14H - Verdad PR Well - Actual SLB Surveys	204.40	200.60	111.22	103.64	14.673	CC, ES, SF
1N-65W-12 WUERTZ 1201 PAD						
WUERTZ 1201-11H - VERDAD PR Well - Actual SLB Su						Out of range
WUERTZ 1201-14H - VERDAD PR Well - Actual SLB Su						Out of range
WUERTZ 1201-16H - VERDAD PR Well - Actual SLB Su						Out of range
WUERTZ 1201-18H - VERDAD PR Well - Actual SLB Su						Out of range
WUERTZ 1201-2H - VERDAD PR Well - Actual SLB Sur	8,000.00	7,500.56	392.90	305.65	4.503	ES, SF
WUERTZ 1201-2H - VERDAD PR Well - Actual SLB Sur	8,011.84	7,499.03	392.73	305.81	4.519	CC
WUERTZ 1201-3H - VERDAD PR Well - Actual SLB Sur	5,778.64	5,134.66	928.73	837.67	10.199	CC
WUERTZ 1201-3H - VERDAD PR Well - Actual SLB Sur	5,900.00	5,243.26	930.10	836.46	9.933	ES
WUERTZ 1201-3H - VERDAD PR Well - Actual SLB Sur	6,500.00	5,798.06	968.61	865.10	9.357	SF
WUERTZ 1201-5H - VERDAD PR Well - Actual SLB Sur	5,392.40	4,768.37	1,015.89	934.79	12.525	CC
WUERTZ 1201-5H - VERDAD PR Well - Actual SLB Sur	5,500.00	4,866.90	1,016.71	933.23	12.179	ES
WUERTZ 1201-5H - VERDAD PR Well - Actual SLB Sur	6,300.00	5,601.04	1,079.81	982.70	11.120	SF
WUERTZ 1201-7H - VERDAD PR Well - Actual SLB Sur	5,108.59	4,450.44	1,256.20	1,182.19	16.973	CC, ES
WUERTZ 1201-7H - VERDAD PR Well - Actual SLB Sur	5,900.00	5,175.70	1,333.12	1,245.83	15.272	SF
WUERTZ 1201-9H - VERDAD PR Well - Actual SLB Sur						Out of range
1N-65W-14 Offsets						
AMEN 5 - VERDAD PR Well - Actual Ensign Surveys	11,600.40	10,223.56	150.56	-47.29	0.761	Level 1, CC
AMEN 5 - VERDAD PR Well - Actual Ensign Surveys	13,039.15	11,663.00	154.63	-129.99	0.543	Level 1, ES, SF
STEINWALD #37 - NOBLE P&A Well - No Surveys						Out of range
1N-65W-26 Offsets						
PARKER 10-26 - MTN P&A Well - No Surveys						Out of range
ROWE 01N-65W-26-8N - VERDAD PR Well - Actual Ens						Out of range

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Reference Well:	RAMEN 1423-08H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 usft	Output errors are at	2.45 sigma
Reference Wellbore	Plan A	Database:	EDM 5000.16 Single User Db
Reference Design:	Permit Rev-1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB = 24' @ 4995.00usft (RIG)

Offset Depths are relative to Offset Datum

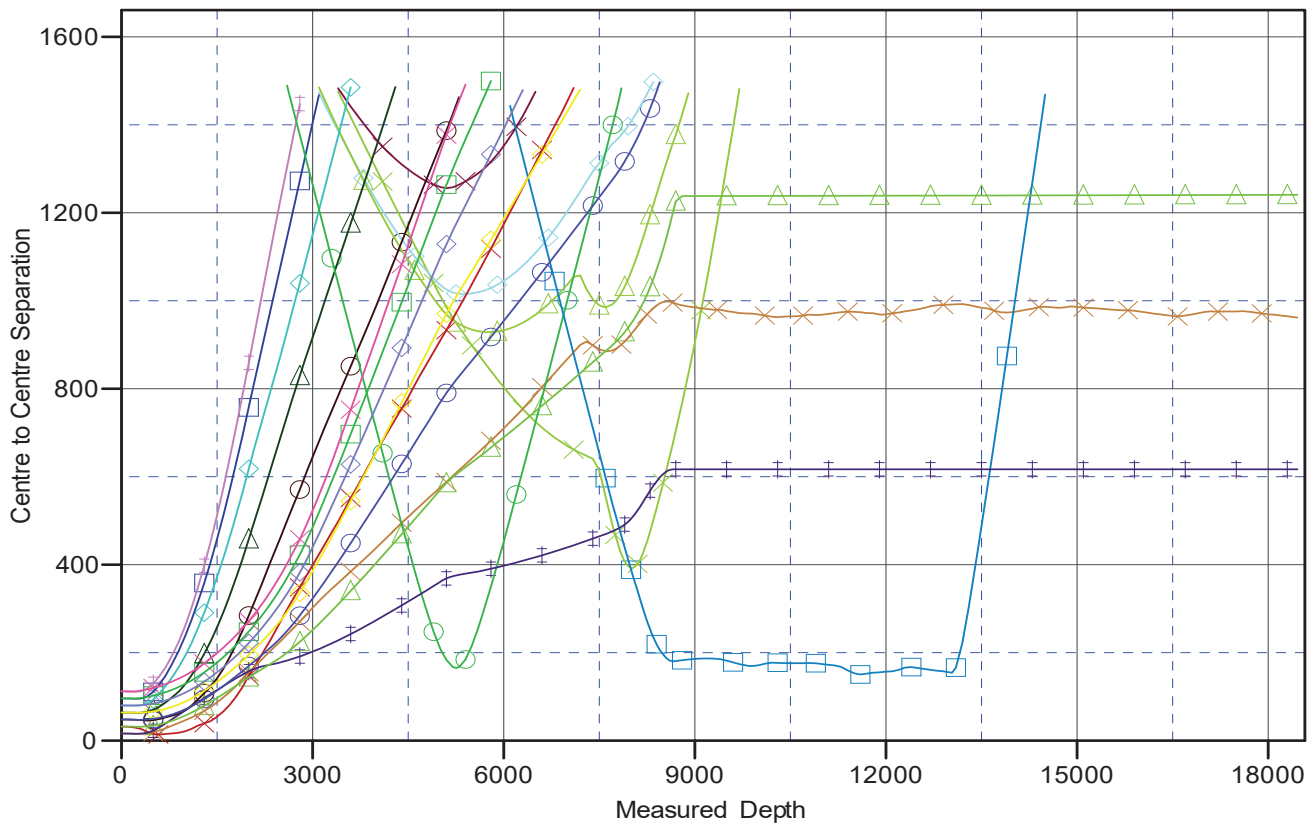
Central Meridian is -105.500000

Coordinates are relative to: RAMEN 1423-08H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.57°

Ladder Plot



LEGEND

WUERTZ 1201-2H, VERDAD PR Well, Actual SLB Surveys V0	SAFI 1224-03H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-07H, Plan B, Permit Rev-1 V0
WUERTZ 1201-5H, VERDAD PR Well, Actual SLB Surveys V0	SAFI 1224-10H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-02H, Plan B, Permit Rev-1 V0
WUERTZ 1201-7H, VERDAD PR Well, Actual SLB Surveys V0	SAFI 1224-02H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-05H, Plan B, Permit Rev-1 V0
WUERTZ 1201-3H, VERDAD PR Well, Actual SLB Surveys V0	SAFI 1224-12H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-03H, Plan B, Permit Rev-1 V0
SAFI 1224-09H, Verdad PR Well, Actual SLB Surveys V0	WUERTZ 12-3, KPRK PR Well, No Surveys V0	RAMEN 1423-01H, Plan B, Permit Rev-1 V0
SAFI 1224-08H, Verdad PR Well, Actual SLB Surveys V0	AMEN S, VERDAD PR Well, Actual Ensign Surveys V0	RAMEN 1423-06H, Plan B, Permit Rev-1 V0
SAFI 1224-4H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-04H, Plan B, Permit Rev-1 V0	

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Offset Depths are relative to Offset Datum

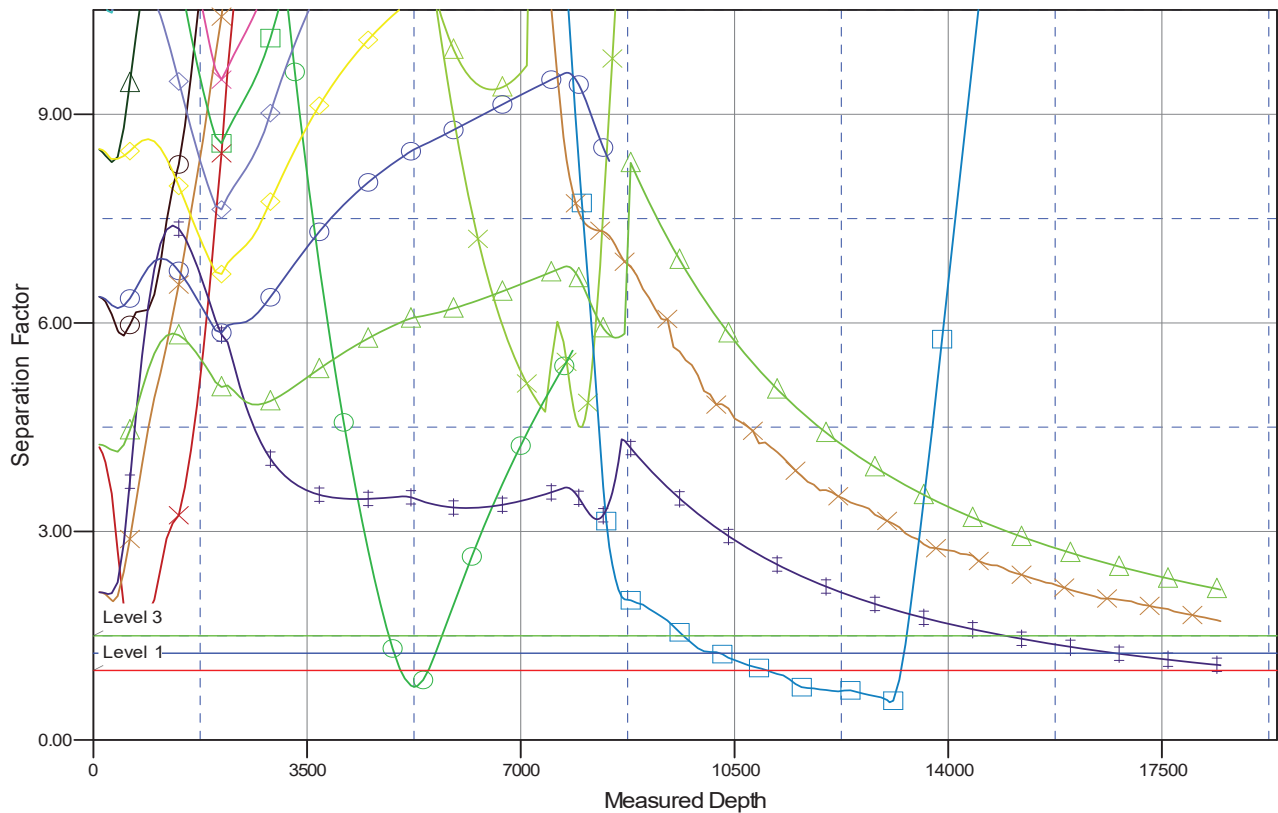
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Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.57°

Separation Factor Plot



LEGEND

WUERTZ 1201-2H, VERDAD PR Well, Actual SLB Surveys V0	SAFI 1224-09H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-07H, Plan B, Permit Rev-1 V0
WUERTZ 1201-5H, VERDAD PR Well, Actual SLB Surveys V0	SAFI 1224-10H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-02H, Plan B, Permit Rev-1 V0
WUERTZ 1201-7H, VERDAD PR Well, Actual SLB Surveys V0	SAFI 1224-02H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-05H, Plan B, Permit Rev-1 V0
WUERTZ 1201-3H, VERDAD PR Well, Actual SLB Surveys V0	SAFI 1224-12H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-03H, Plan B, Permit Rev-1 V0
SAFI 1224-04H, Verdad PR Well, Actual SLB Surveys V0	WUERTZ 1203, KPRK PR Well, No Surveys V0	RAMEN 1423-01H, Plan B, Permit Rev-1 V0
SAFI 1224-08H, Verdad PR Well, Actual SLB Surveys V0	AMEN 5, VERDAD PR Well, Actual Ensign Surveys V0	RAMEN 1423-06H, Plan B, Permit Rev-1 V0
SAFI 1224-14H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-04H, Plan B, Permit Rev-1 V0	