

VERDAD RESOURCES

WATTENBERG FIELD

1N-65W-12 RAMEN 1423 PAD

RAMEN 1423-01H

Plan B

Permit Rev-1

Anticollision Summary Report

17 August, 2023

Anticollision Summary Report

Company:	VERDAD RESOURCES	Local Co-ordinate Reference:	Well RAMEN 1423-01H
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 1423-01H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 usft	Output errors are at	2.45 sigma
Reference Wellbore	Plan B	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 B)	ISCWSA MWD	Fixed:v2:standard declination
2,020.00	21,250.75	Permit Rev-1 (Plan B)	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	11,147.25	7,170.69	682.81	516.47	4.105	CC
HDI KF 10-11H - Verdad PR Well - Actual Baker Surveys	11,200.00	7,136.78	685.47	512.77	3.969	ES
HDI KF 10-11H - Verdad PR Well - Actual Baker Surveys	11,300.00	7,079.38	705.04	519.95	3.809	SF
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	4,090.99	3,159.34	667.00	499.12	3.973	CC
WUERTZ 12-3 - KPK PR Well - No Surveys	4,100.00	3,164.32	667.04	498.76	3.964	ES
WUERTZ 12-3 - KPK PR Well - No Surveys	4,200.00	3,219.64	673.15	500.92	3.908	SF
1N-65W-12 RAMEN 1423 PAD						
RAMEN 1423-02H - Plan B - Permit Rev-1	201.50	201.50	16.00	8.43	2.114	CC
RAMEN 1423-02H - Plan B - Permit Rev-1	3,000.00	3,019.89	41.32	-9.22	0.818	Level 1, ES, SF
RAMEN 1423-03H - Plan B - Permit Rev-1	201.50	201.50	32.00	24.43	4.228	CC, ES
RAMEN 1423-03H - Plan B - Permit Rev-1	2,900.00	2,939.14	86.13	40.01	1.868	SF
RAMEN 1423-04H - Plan B - Permit Rev-1	201.50	201.50	48.00	40.43	6.342	CC, ES
RAMEN 1423-04H - Plan B - Permit Rev-1	2,800.00	2,856.74	135.10	93.28	3.231	SF
RAMEN 1423-05H - Plan B - Permit Rev-1	201.50	201.50	64.00	56.43	8.456	CC, ES
RAMEN 1423-05H - Plan B - Permit Rev-1	2,800.00	2,866.92	195.19	153.68	4.702	SF
RAMEN 1423-06H - Plan B - Permit Rev-1	201.50	201.50	80.00	72.43	10.571	CC, ES
RAMEN 1423-06H - Plan B - Permit Rev-1	2,600.00	2,671.71	230.16	193.70	6.313	SF
RAMEN 1423-07H - Plan B - Permit Rev-1	201.50	201.50	96.00	88.43	12.685	CC, ES
RAMEN 1423-07H - Plan B - Permit Rev-1	2,500.00	2,574.59	261.59	230.89	8.520	SF
RAMEN 1423-08H - Plan A - Permit Rev-1	206.01	206.18	111.96	104.39	14.792	CC, ES
RAMEN 1423-08H - Plan A - Permit Rev-1	2,000.00	2,036.60	282.93	252.97	9.443	SF

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Reference Well:	RAMEN 1423-01H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 usft	Output errors are at	2.45 sigma
Reference Wellbore	Plan B	Database:	EDM 5000.16 Single User Db
Reference Design:	Permit Rev-1	Offset TVD Reference:	Offset Datum

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Offset Well - Wellbore - Design						
1N-65W-12 SAFI 1224 PAD						
SAFI 1224-02H - Verdad PR Well - Actual SLB Surveys	218.58	215.31	127.79	120.20	16.837	CC, ES
SAFI 1224-02H - Verdad PR Well - Actual SLB Surveys	2,000.00	2,034.08	328.25	306.49	15.083	SF
SAFI 1224-04H - Verdad PR Well - Actual SLB Surveys	500.00	510.69	135.09	127.07	16.841	CC, ES
SAFI 1224-04H - Verdad PR Well - Actual SLB Surveys	1,600.00	1,613.96	276.12	258.39	15.577	SF
SAFI 1224-06H - Verdad PR Well - Actual SLB Surveys	225.67	222.96	159.66	152.07	21.019	CC, ES
SAFI 1224-06H - Verdad PR Well - Actual SLB Surveys	400.00	401.97	162.13	154.34	20.791	SF
SAFI 1224-08H - Verdad PR Well - Actual SLB Surveys	212.06	208.69	175.63	168.05	23.152	CC, ES
SAFI 1224-08H - Verdad PR Well - Actual SLB Surveys	300.00	296.66	176.93	169.27	23.089	SF
SAFI 1224-10H - Verdad PR Well - Actual SLB Surveys	209.63	206.19	191.70	184.12	25.275	CC, ES
SAFI 1224-10H - Verdad PR Well - Actual SLB Surveys	300.00	294.47	193.37	185.71	25.239	SF
SAFI 1224-12H - Verdad PR Well - Actual SLB Surveys	211.07	207.74	207.46	199.87	27.349	CC, ES
SAFI 1224-12H - Verdad PR Well - Actual SLB Surveys	300.00	293.80	209.23	201.57	27.312	SF
SAFI 1224-14H - Verdad PR Well - Actual SLB Surveys	206.05	202.39	223.17	215.59	29.433	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						Out of range
WUERTZ 1201-3H - VERDAD PR Well - Actual SLB Sur						Out of range
WUERTZ 1201-5H - VERDAD PR Well - Actual SLB Sur						Out of range
WUERTZ 1201-7H - VERDAD PR Well - Actual SLB Sur						Out of range
WUERTZ 1201-9H - VERDAD PR Well - Actual SLB Sur						Out of range
1N-65W-14 Offsets						
AMEN 5 - VERDAD PR Well - Actual Ensign Surveys	6,320.75	4,435.71	1,219.60	1,093.05	9.637	CC, ES
AMEN 5 - VERDAD PR Well - Actual Ensign Surveys	6,600.00	4,587.66	1,242.34	1,110.17	9.400	SF
STEINWALD #37 - NOBLE P&A Well - No Surveys	14,700.00	7,128.00	840.27	391.36	1.872	SF
STEINWALD #37 - NOBLE P&A Well - No Surveys	14,800.00	7,128.00	814.85	382.84	1.886	ES
STEINWALD #37 - NOBLE P&A Well - No Surveys	14,960.43	7,128.00	798.90	398.75	1.997	CC
1N-65W-22 Offsets						
CANAL 22-1-3L - Confluence PR Well - Actual BKR Surv	18,992.33	10,651.50	1,003.88	705.50	3.364	CC
CANAL 22-1-3L - Confluence PR Well - Actual BKR Surv	21,250.75	8,426.00	1,007.25	682.01	3.097	ES, SF
CANAL 22-2-2L - Confluence PR Well - Actual BKR Surv	11,450.00	17,903.00	1,401.18	1,093.49	4.554	ES, SF
CANAL 22-2-2L - Confluence PR Well - Actual BKR Surv	11,474.62	17,879.20	1,400.83	1,094.36	4.571	CC
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	21,250.75	6,978.98	1,440.65	1,094.61	4.163	CC, ES, SF
1N-65W-27 Offsets						
ROWE 13N-27HZ - VERDAD PR Well - Actual BHI Surv	21,250.75	6,888.17	833.22	619.20	3.893	CC, ES, SF

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Reference Well:	RAMEN 1423-01H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 usft	Output errors are at	2.45 sigma
Reference Wellbore	Plan B	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

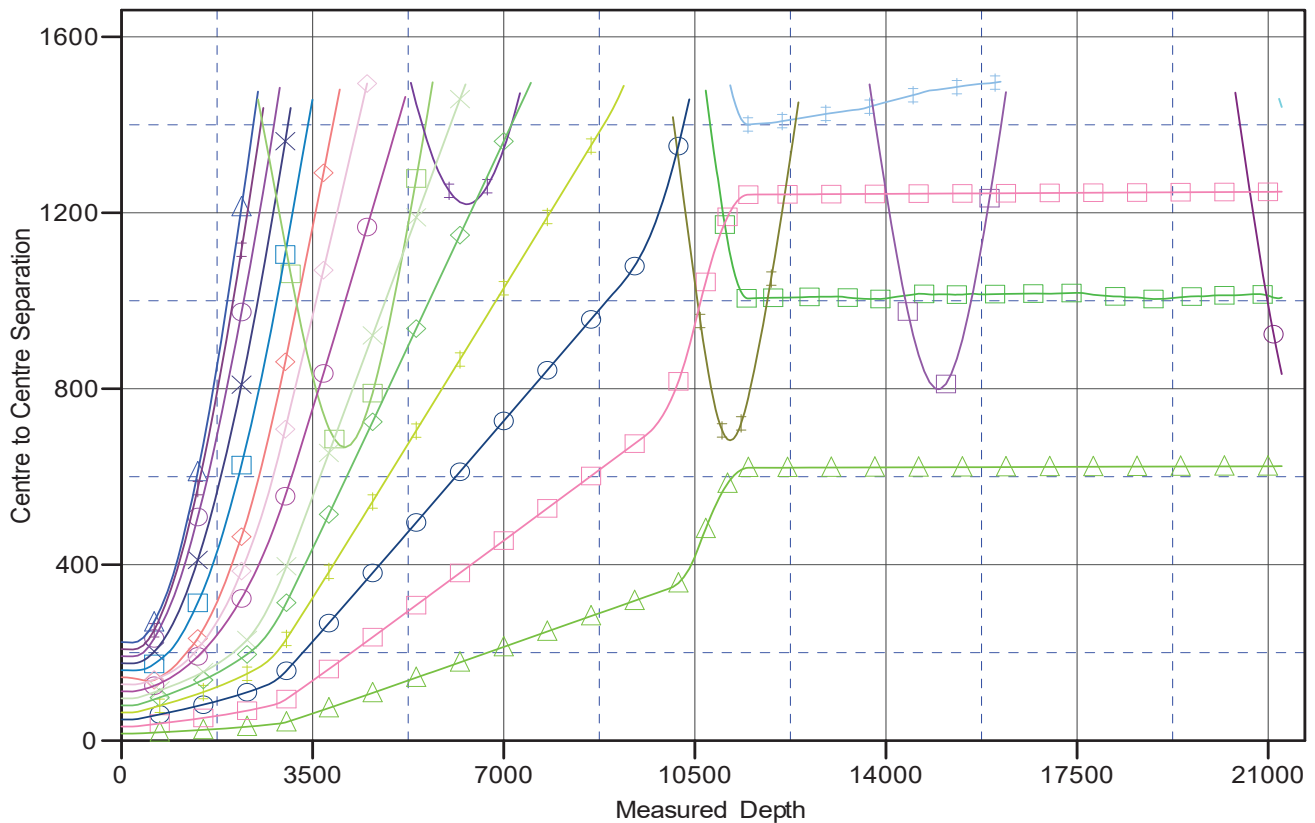
Central Meridian is -105.500000

Coordinates are relative to: RAMEN 1423-01H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.57°

Ladder Plot



LEGEND

CANAL 22-13L, Confluence PR Well, Actual BKR Surveys V0	SAFI 1224-02H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-07H, Plan B, Permit Rev-1 V0
CANAL 22-32L, Confluence PR Well, Actual BKR Surveys V0	SAFI 1224-12H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-08H, Plan B, Permit Rev-1 V0
ROWE 13N-67W-12, VERDAD PR Well, Actual BKR Surveys V0	H-01 KF, 10-11H, Verdad PR Well, Actual Baker Surveys V0	RAMEN 1423-09H, Plan B, Permit Rev-1 V0
SAFI 1224-04H, Verdad PR Well, Actual SLB Surveys V0	WUERTZ 12-3, KPK PR Well, No Surveys V0	RAMEN 1423-10H, Plan B, Permit Rev-1 V0
SAFI 1224-08H, Verdad PR Well, Actual SLB Surveys V0	ROWE 01N-65W-26-8N, VERDAD PR Well, Actual Ensign Surveys V0	RAMEN 1423-08H, Plan A, Permit Rev-1 V0
SAFI 1224-14H, Verdad PR Well, Actual SLB Surveys V0	AMEN 5, VERDAD PR Well, Actual Ensign Surveys V0	RAMEN 1423-08H, Plan B, Permit Rev-1 V0
SAFI 1224-06H, Verdad PR Well, Actual SLB Surveys V0	STEINWALD #37, NOBLE P&A Well, No Surveys V0	
SAFI 1224-10H, 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

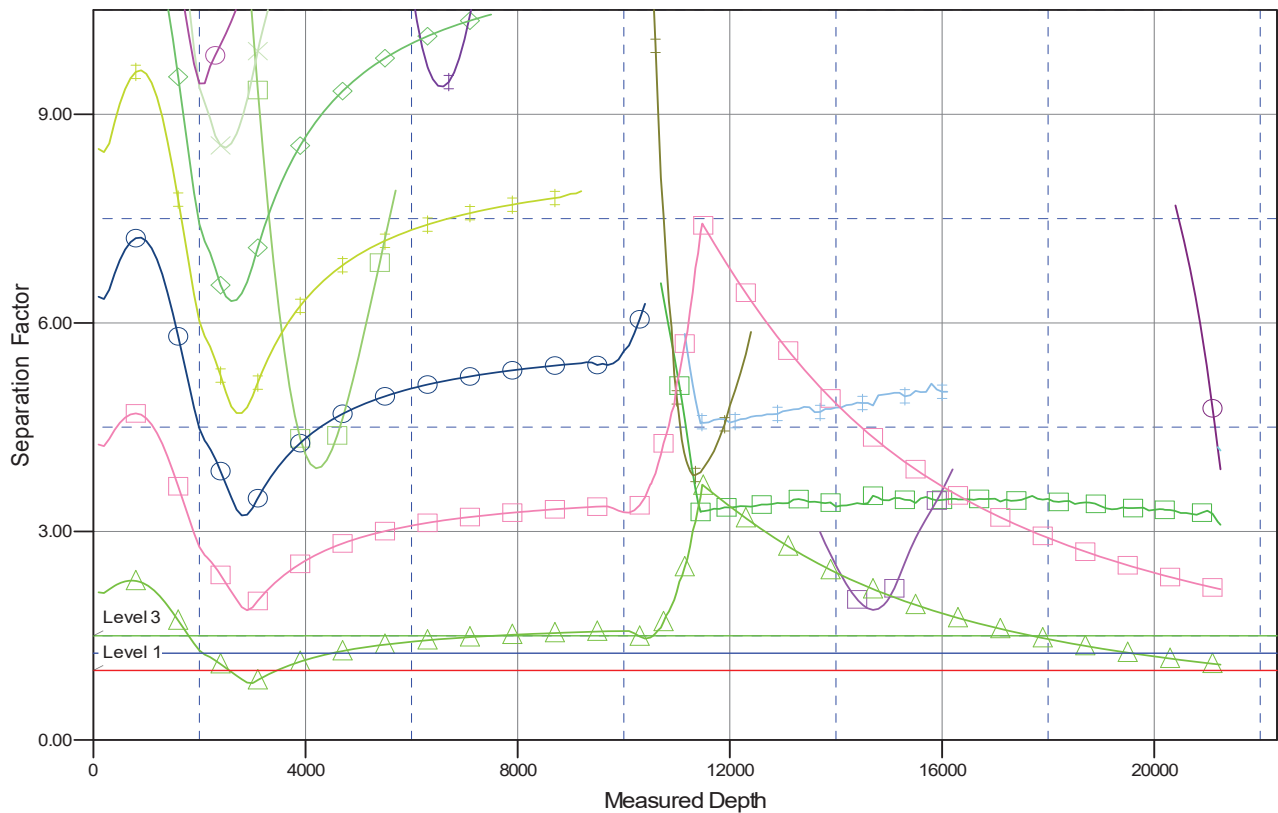
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Grid Convergence at Surface is: 0.57°

Separation Factor Plot



LEGEND

CANAL 22-13L, Confluence PR Well, Actual BKR Surveys V0	SAFI 122402H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-07H, Plan B, Permit Rev-1 V0
CANAL 22-32L, Confluence PR Well, Actual BKR Surveys V0	SAFI 122412H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-02H, Plan B, Permit Rev-1 V0
ROME 13N27W12, VERDAD PR Well, Actual BKR Surveys V0	HOI KF 10-11H, Verdad PR Well, Actual Baker Surveys V0	RAMEN 1423-03H, Plan B, Permit Rev-1 V0
SAFI 122404H, Verdad PR Well, Actual SLB Surveys V0	WUERTZ Q3, KPK PR Well, No Surveys V0	RAMEN 1423-03H, Plan A, Permit Rev-1 V0
SAFI 122408H, Verdad PR Well, Actual SLB Surveys V0	ROME 01N65W-26-8N, VERDAD PR Well, Actual Ensign Surveys V0	RAMEN 1423-08H, Plan A, Permit Rev-1 V0
SAFI 122414H, Verdad PR Well, Actual SLB Surveys V0	AMEN 5, VERDAD PR Well, Actual Ensign Surveys V0	RAMEN 1423-05H, Plan B, Permit Rev-1 V0
SAFI 122406H, Verdad PR Well, Actual SLB Surveys V0	STEINWALD #37, NOBLE P&A Well, No Surveys V0	
SAFI 122410H, Verdad PR Well, Actual SLB Surveys V0	RAMEN 1423-04H, Plan B, Permit Rev-1 V0	