

VERDAD RESOURCES

WATTENBERG FIELD

2N-63W-19 KBL PAD

KBL 1918-16H

Plan A

Design #1

Anticollision Summary Report

17 September, 2024

Anticollision Summary Report

Company:	VERDAD RESOURCES	Local Co-ordinate Reference:	Well KBL 1918-16H
Project:	WATTENBERG FIELD	TVD Reference:	RKB = 21' @ 4882.00usft (RIG)
Reference Site:	2N-63W-19 KBL PAD	MD Reference:	RKB = 21' @ 4882.00usft (RIG)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	KBL 1918-16H	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:	Design #1	Offset TVD Reference:	Reference Datum

Reference	Design #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	9/17/2024			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	1,816.00	Design #1 (Plan A)	ISCWSA MWD	Fixed:v2:standard declination	
1,816.00	12,409.54	Design #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						
2N-63W-08 OFFSETS						
FEDERAL 14 - NOBLE P&A Well - No Surveys						Out of range
L F RANCHES 2-A - VOG P&A Well - No Surveys						Out of range
2N-63W-17 Offsets						
CHAMPLIN #1-17 - Rex Family D/A Well - No Surveys						Out of range
EWS #4A - EWS IJ Well - No Surveys						Out of range
PHILLIP #1 - EMC P&A Well - No Surveys						Out of range
UPRR 34 PAN AM #1 - Amoco D/A Well - No Surveys						Out of range
UPV #17-1K3 - Patina D/A Well - No Surveys						Out of range
UPV #17-3K3 - Snyder D/A Well - No Surveys						Out of range
2N-63W-18 Offsets						
CUYKENDALL-LAUACK #1 - Habersham Energy P&A We						Out of range
CUYKENDALL-LAUACK #2 - ARCH SI Well - No Surveys	12,409.54	6,748.00	1,191.59	892.38	3.983	CC, ES, SF
CUYKENDALL-LAUACK #3 - Sands-American P&A Well -	12,409.54	6,757.00	1,026.33	713.12	3.277	CC, ES, SF
ELMER KAUFMAN #1 - Sands-American P&A Well - No	12,149.81	6,763.00	755.11	385.97	2.046	CC, ES, SF
ELMER KAUFMAN #2 - ARCH SI Well - No Surveys	10,802.38	6,761.00	737.91	400.12	2.184	CC, ES, SF
ELMER KAUFMAN #3 - US Minerals P&A Well - No Surv						Out of range
EWS #4 - EWS 4 IJ Well - No Surveys						Out of range
EWS 4B - EWS IJ Well - Actual Ensign Surveys						Out of range
GUTTERSEN #YY18-715 - NOBLE Drilled Well - No EC						Out of range
GUTTERSEN #YY18-726 - NOBLE Drilled Well - No EC						Out of range
GUTTERSEN #YY18-736 - NOBLE Drilled Well - No EC	12,409.54	6,930.00	1,002.86	829.49	5.785	CC, ES, SF
GUTTERSEN #YY18-746 - NOBLE Drilled Well - No EC	12,409.54	6,966.10	392.86	238.87	2.551	CC, ES, SF
GUTTERSEN #YY18-754 - NOBLE Drilled Well - No EC	12,409.54	6,978.74	386.41	236.63	2.580	CC, ES, SF
GUTTERSEN #YY18-764 - NOBLE Drilled Well - No EC	12,409.54	6,932.11	983.89	812.14	5.729	CC, ES, SF
GUTTERSEN #YY18-775 - NOBLE Drilled Well - No EC						Out of range
GUTTERSEN #YY18-785 - NOBLE Drilled Well - No EC						Out of range
JOHN CUYKENDALL UNIT #2 - NOBLE P&A Well - No S						Out of range
KAUFMAN #4 - ARCH SI Well - No Surveys						Out of range

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Reference Wellbore	Plan A	Database:	EDM 5000.16 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Reference Datum

Summary						
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Offset Well - Wellbore - Design						
2N-63W-19 KBL PAD						
KBL 1830-17H - Plan A - Design #1	300.00	300.00	15.11	7.45	1.973	CC
KBL 1830-17H - Plan A - Design #1	400.00	399.95	15.22	7.44	1.956	ES, SF
KBL 1830-18H - Plan A - Design #1	208.03	208.03	30.20	22.63	3.988	CC
KBL 1830-18H - Plan A - Design #1	300.00	299.96	30.24	22.59	3.951	ES
KBL 1830-18H - Plan A - Design #1	400.00	399.75	30.74	22.96	3.949	SF
KBL 1830-19H - Plan A - Design #1	200.00	200.00	45.03	37.46	5.950	CC, ES
KBL 1830-19H - Plan A - Design #1	300.00	299.67	45.38	37.73	5.929	SF
KBL 1918-13H - Plan A - Design #1	246.40	246.40	45.02	37.42	5.924	CC
KBL 1918-13H - Plan A - Design #1	300.00	299.97	45.05	37.40	5.889	ES
KBL 1918-13H - Plan A - Design #1	400.00	399.70	45.50	37.73	5.856	SF
KBL 1918-14H - Plan A - Design #1	400.00	400.00	29.93	22.14	3.844	CC, ES, SF
KBL 1918-15H - Plan A - Design #1	404.54	404.54	14.82	7.03	1.902	CC, ES
KBL 1918-15H - Plan A - Design #1	500.00	499.79	15.10	7.14	1.898	SF
KBL 1930-07H - VERDAD PR Well - Actual SLB Surveys	224.31	223.31	119.15	111.55	15.686	CC, ES
KBL 1930-07H - VERDAD PR Well - Actual SLB Surveys	300.00	295.70	120.19	112.53	15.683	SF
KBL 1930-08H - VERDAD PR Well - Actual SLB Surveys	152.08	151.08	104.78	97.23	13.877	CC, ES
KBL 1930-08H - VERDAD PR Well - Actual SLB Surveys	300.00	296.78	105.98	98.32	13.828	SF
KBL 1930-09H - VERDAD PR Well - Actual SLB Surveys	0.00	0.00	90.06			
KBL 1930-09H - VERDAD PR Well - Actual SLB Surveys	300.00	297.74	90.84	83.17	11.843	SF
KBL 1930-11H - VERDAD PR Well - Actual SLB Surveys	221.37	220.37	74.41	66.82	9.800	CC, ES
KBL 1930-11H - VERDAD PR Well - Actual SLB Surveys	300.00	297.95	74.97	67.30	9.780	SF
KBL 1930-12H - VERDAD PR Well - Actual SLB Surveys	254.58	253.59	59.08	51.45	7.746	CC
KBL 1930-12H - VERDAD PR Well - Actual SLB Surveys	7,150.00	7,194.78	81.39	36.61	1.817	ES, SF
2N-63W-19 Offsets						
BERGLUND #1 - Texaco P/A Well - No Surveys						Out of range
BERGLUND MYERS #42-19 - Simmons Energy D/A We						Out of range
BERGLUND-MYERS #1 - Barrett Resources P/A Well - N	9,156.19	6,750.00	1,058.44	758.82	3.533	CC
BERGLUND-MYERS #1 - Barrett Resources P/A Well - N	9,200.00	6,750.00	1,059.34	758.25	3.518	ES
BERGLUND-MYERS #1 - Barrett Resources P/A Well - N	9,300.00	6,750.00	1,068.16	764.08	3.513	SF
OSCAR & JENNIE BERGLUND #1 - Amoco D/A Well - N	9,508.76	6,747.00	757.18	449.65	2.462	CC, ES, SF
2N-63W-20 Offsets						
WRIGHT #1 - Summit D/A Well - No Surveys						Out of range
2N-63W-30 Offsets						
LAUCK #1 - Siler Earl F DA Well - No Surveys						Out of range

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Reference Wellbore	Plan A	Database:	EDM 5000.16 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to RKB = 21' @ 4882.00usft (RIG)

Offset Depths are relative to Offset Datum

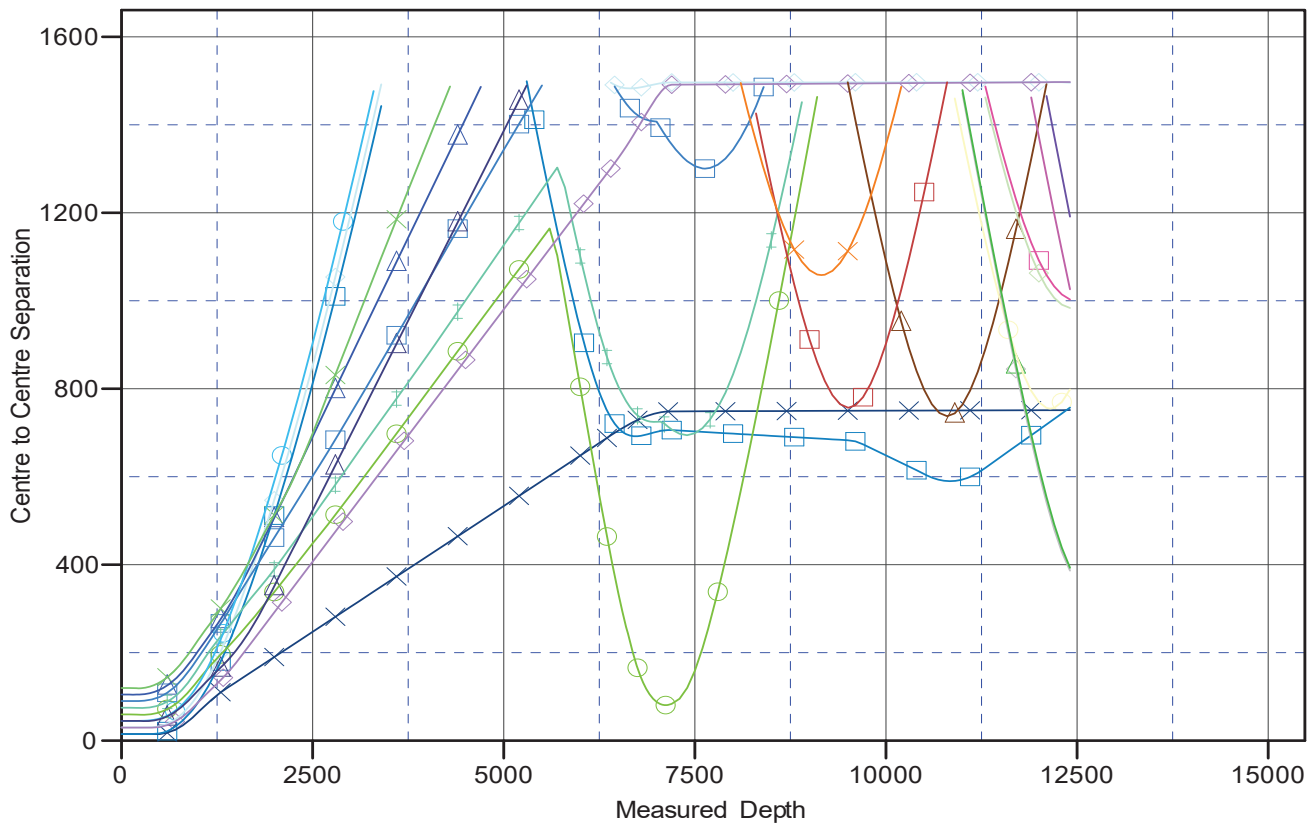
Central Meridian is -105.500000

Coordinates are relative to: KBL 1918-16H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.66°

Ladder Plot



LEGEND

• KBL 1930-16H, Plan A, Design #1 V0	• KBL 1918-16H, Plan A, Design #1 V0	• CLYKENDALL-LAUCK #2, ARCHSI Well, No Surveys V0
• KBL 1918-16H, Plan A, Design #1 V0	• KBL 1930-16H, Plan A, Design #1 V0	• ELMER KAUFMAN #1, Sands-American P&A Well, No Surveys V0
• KBL 1930-16H, Plan A, Design #1 V0	• KBL 1930-16H, VERDAD PR Well, Actual SLB Surveys V0	• GUTTERSEN #YY18-754, NOBLE Drilled Well - No ECMCActual Surveys, BKRPlanned Well - Now I
• KBL 1930-16H, VERDAD PR Well, Actual SLB Surveys V0	• KBL 1918-16H, Plan A, Design #1 V0	• GUTTERSEN #YY18-746, NOBLE Drilled Well - No ECMCActual Surveys, BKRPlanned Well - Now I
• KBL 1930-16H, VERDAD PR Well, Actual SLB Surveys V0	• ELMER KAUFMAN #2, ARCHSI Well, No Surveys V0	• CLYKENDALL-LAUCK #3, Sands-American P&A Well, No Surveys V0
• KBL 1930-16H, VERDAD PR Well, Actual SLB Surveys V0	• GUTTERSEN #YY18-756, NOBLE Drilled Well - No ECMCActual Surveys, BKRPlanned Well - Now I	• OSCAR & JENNIE BERGLUND #1, Amoco DIA Well, No Surveys V0
• KBL 1930-16H, VERDAD PR Well, Actual SLB Surveys V0	• GUTTERSEN #YY18-764, NOBLE Drilled Well - No ECMCActual Surveys, BKRPlanned Well - Now I	• BERGLUND MYERS #1, Barrett Resources P/A Well, No Surveys V0

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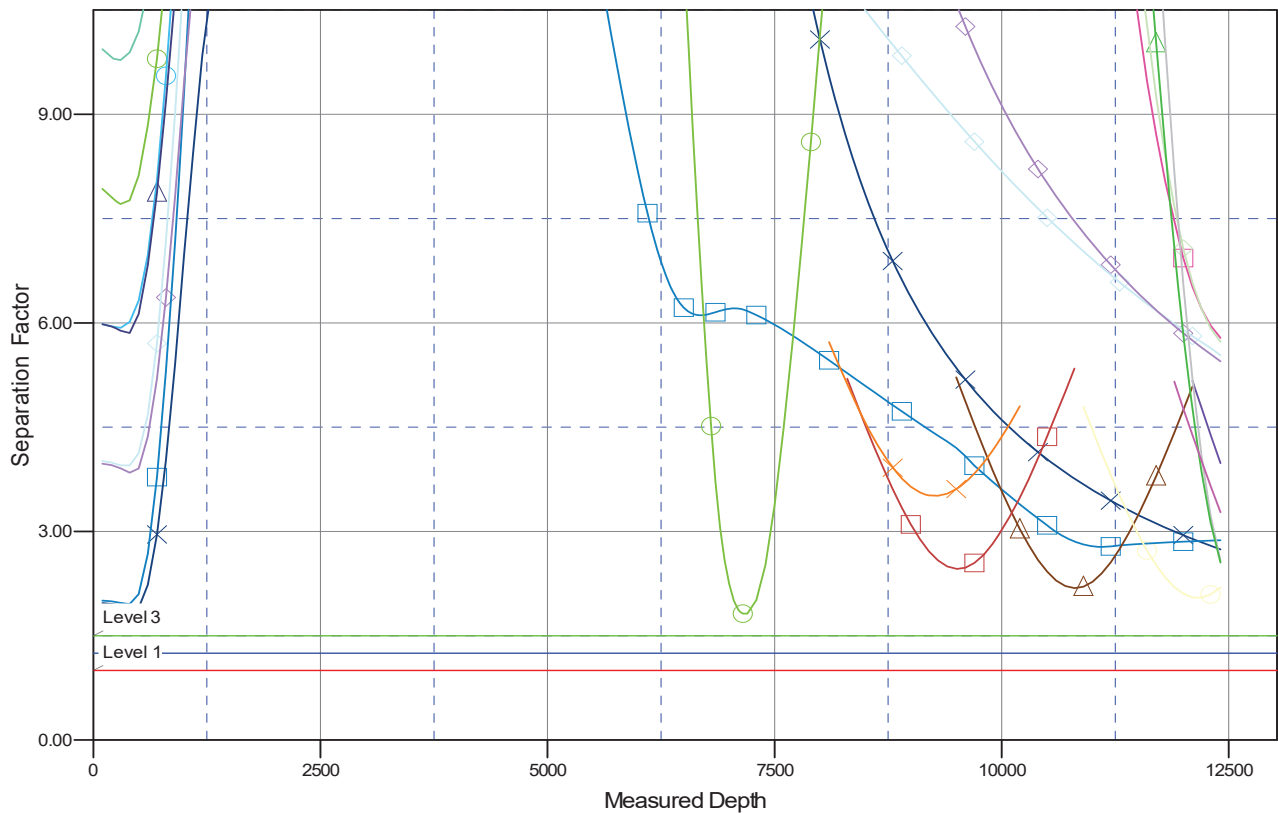
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Separation Factor Plot



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• KBL 1830-16H, Plan A, Design #1 V0	• KBL 1918-16H, Plan A, Design #1 V0	• CUYKENDALL-LAUCK #2, ARCHSI Well, No Surveys V0
• KBL 1918-16H, Plan A, Design #1 V0	• KBL 1830-16H, Plan A, Design #1 V0	• ELMER KAUFMAN #1, Sands-American P&A Well, No Surveys V0
• KBL 1830-17H, Plan A, Design #1 V0	• KBL 1930-07H, VERDAD PR Well, Actual SLB Surveys V0	• GUTTERSEN #YY18-754, NOBLE Drilled Well - No ECMCActual Surveys, BKRPlanned Well - Now Drilled V0
• KBL 1930-08H, VERDAD PR Well, Actual SLB Surveys V0	• KBL 1918-16H, Plan A, Design #1 V0	• GUTTERSEN #YY18-746, NOBLE Drilled Well - No ECMCActual Surveys, BKRPlanned Well - Now Drilled V0
• KBL 1930-09H, VERDAD PR Well, Actual SLB Surveys V0	• ELMER KAUFMAN #2, ARCHSI Well, No Surveys V0	• CUYKENDALL-LAUCK #3, Sands-American P&A Well, No Surveys V0
• KBL 1930-11H, VERDAD PR Well, Actual SLB Surveys V0	• GUTTERSEN #YY18-756, NOBLE Drilled Well - No ECMCActual Surveys, BKRPlanned Well - Now Drilled V0	• OSCAR & JENNIE BERGLUND #1, Amoco D/A Well, No Surveys V0
• KBL 1930-12H, VERDAD PR Well, Actual SLB Surveys V0	• GUTTERSEN #YY18-764, NOBLE Drilled Well - No ECMCActual Surveys, BKRPlanned Well - Now Drilled V0	• BERGLUND MYERS #1, Barnett Resources P/A Well, No Surveys V0