

# **VERDAD RESOURCES**

**WATTENBERG FIELD**

**2N-63W-19 KBL PAD**

**KBL 1830-18H**

**Plan A**

**Design #1**

## **Anticollision Summary Report**

**17 September, 2024**

## Anticollision Summary Report

<b>Company:</b>	VERDAD RESOURCES	<b>Local Co-ordinate Reference:</b>	Well KBL 1830-18H
<b>Project:</b>	WATTENBERG FIELD	<b>TVD Reference:</b>	RKB = 21' @ 4882.00usft (RIG)
<b>Reference Site:</b>	2N-63W-19 KBL PAD	<b>MD Reference:</b>	RKB = 21' @ 4882.00usft (RIG)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KBL 1830-18H	<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 A	<b>Database:</b>	EDM 5000.16 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

<b>Reference</b>	Design #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 1,500.00usft	<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>	9/17/2024			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
0.00	1,816.00	Design #1 (Plan A)	ISCWSA MWD	Fixed:v2:standard declination	
1,816.00	22,814.01	Design #1 (Plan A)	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>						
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 ACACIA 13-17HZ PAD						
ACACIA 17-1HZ - Plan A - Permit Rev-1						Out of range
ACACIA 17-9HZ - Plan A - Permit Rev-1						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

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<b>Reference Site:</b>	2N-63W-19 KBL PAD	<b>MD Reference:</b>	RKB = 21' @ 4882.00usft (RIG)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KBL 1830-18H	<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 A	<b>Database:</b>	EDM 5000.16 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)		Separation Factor	Warning
Offset Well - Wellbore - Design						
2N-63W-18 Offsets						
CUYKENDALL-LAUCK #1 - Habersham Energy P&A We						Out of range
CUYKENDALL-LAUCK #2 - ARCH SI Well - No Surveys						Out of range
CUYKENDALL-LAUCK #3 - Sands-American P&A Well -						Out of range
ELMER KAUFMAN #1 - Sands-American P&A Well - No	7,904.79	5,103.75	520.88	217.68	1.718	CC, ES, SF
ELMER KAUFMAN #2 - ARCH SI Well - No Surveys	6,348.92	4,317.25	417.83	173.57	1.711	CC, ES
ELMER KAUFMAN #2 - ARCH SI Well - No Surveys	6,400.00	4,343.00	420.16	174.44	1.710	SF
ELMER KAUFMAN #3 - US Minerals P&A Well - No Surv	9,445.64	6,150.75	809.14	481.71	2.471	CC
ELMER KAUFMAN #3 - US Minerals P&A Well - No Surv	9,450.00	6,154.99	809.15	481.69	2.471	ES, SF
EWS #4 - EWS 4 IJ Well - No Surveys	10,400.00	6,729.83	733.65	364.13	1.985	SF
EWS #4 - EWS 4 IJ Well - No Surveys	10,441.13	6,731.00	731.92	363.46	1.986	ES
EWS #4 - EWS 4 IJ Well - No Surveys	10,448.77	6,731.00	731.88	363.67	1.988	CC
EWS 4B - EWS IJ Well - Actual Ensign Surveys						Out of range
GUTTERSEN #YY18-715 - NOBLE Drilled Well - Actual	8,573.33	5,816.50	303.35	144.04	1.904	ES, SF
GUTTERSEN #YY18-715 - NOBLE Drilled Well - Actual	8,579.24	5,817.45	303.28	144.13	1.906	CC
GUTTERSEN #YY18-726 - NOBLE Drilled Well - Actual	8,521.69	5,831.87	92.60	-70.93	0.566	Level 1, CC, ES, SF
GUTTERSEN #YY18-736 - NOBLE Drilled Well - Actual	9,986.60	7,236.37	489.31	326.78	3.011	CC
GUTTERSEN #YY18-736 - NOBLE Drilled Well - Actual	10,000.00	7,229.86	489.46	326.64	3.006	ES, SF
GUTTERSEN #YY18-746 - NOBLE Drilled Well - No EC	8,415.36	5,672.40	1,019.27	852.21	6.101	CC, ES
GUTTERSEN #YY18-746 - NOBLE Drilled Well - No EC	8,500.00	5,682.77	1,022.73	854.23	6.070	SF
GUTTERSEN #YY18-754 - NOBLE Drilled Well - No EC	8,365.27	5,486.01	1,472.26	1,307.67	8.945	CC
GUTTERSEN #YY18-754 - NOBLE Drilled Well - No EC	8,400.00	5,489.85	1,472.66	1,307.45	8.914	ES
GUTTERSEN #YY18-754 - NOBLE Drilled Well - No EC	8,500.00	5,500.90	1,478.34	1,311.80	8.877	SF
GUTTERSEN #YY18-764 - NOBLE Drilled Well - No EC						Out of range
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	11,968.59	6,733.00	562.82	216.22	1.624	CC, ES, SF

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<b>Reference Site:</b>	2N-63W-19 KBL PAD	<b>MD Reference:</b>	RKB = 21' @ 4882.00usft (RIG)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KBL 1830-18H	<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 A	<b>Database:</b>	EDM 5000.16 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference 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						
2N-63W-19 KBL PAD						
KBL 1830-17H - Plan A - Design #1	249.35	249.35	15.10	7.50	1.986	CC
KBL 1830-17H - Plan A - Design #1	300.00	300.00	15.15	7.49	1.979	ES
KBL 1830-17H - Plan A - Design #1	8,500.00	8,518.88	327.08	56.02	1.207	Level 2, SF
KBL 1830-19H - Plan A - Design #1	200.00	200.00	14.83	7.26	1.959	CC, ES
KBL 1830-19H - Plan A - Design #1	22,814.01	21,342.98	722.77	291.21	1.675	SF
KBL 1918-13H - Plan A - Design #1	251.37	251.38	75.23	67.62	9.892	CC, ES
KBL 1918-13H - Plan A - Design #1	400.00	399.39	76.25	68.48	9.812	SF
KBL 1918-14H - Plan A - Design #1	249.35	249.35	60.13	52.52	7.906	CC
KBL 1918-14H - Plan A - Design #1	300.00	300.00	60.17	52.51	7.860	ES
KBL 1918-14H - Plan A - Design #1	400.00	399.93	60.55	52.77	7.779	SF
KBL 1918-15H - Plan A - Design #1	249.35	249.35	45.03	37.42	5.920	CC
KBL 1918-15H - Plan A - Design #1	300.00	300.00	45.06	37.41	5.887	ES
KBL 1918-15H - Plan A - Design #1	400.00	399.93	45.51	37.72	5.846	SF
KBL 1918-16H - Plan A - Design #1	249.35	249.35	30.20	22.60	3.972	CC
KBL 1918-16H - Plan A - Design #1	300.00	300.00	30.24	22.59	3.951	ES, SF
KBL 1930-07H - VERDAD PR Well - Actual SLB Surveys	224.33	223.33	149.35	141.76	19.662	CC, ES
KBL 1930-07H - VERDAD PR Well - Actual SLB Surveys	249.35	247.01	149.47	141.85	19.625	SF
KBL 1930-08H - VERDAD PR Well - Actual SLB Surveys	152.11	151.11	134.98	127.43	17.878	CC, ES
KBL 1930-08H - VERDAD PR Well - Actual SLB Surveys	300.00	296.16	136.21	128.55	17.773	SF
KBL 1930-09H - VERDAD PR Well - Actual SLB Surveys	0.00	0.00	120.26			
KBL 1930-09H - VERDAD PR Well - Actual SLB Surveys	300.00	297.34	121.06	113.39	15.784	SF
KBL 1930-11H - VERDAD PR Well - Actual SLB Surveys	221.46	220.46	104.62	97.03	13.777	CC, ES
KBL 1930-11H - VERDAD PR Well - Actual SLB Surveys	300.00	297.53	105.20	97.54	13.725	SF
KBL 1930-12H - VERDAD PR Well - Actual SLB Surveys	255.32	254.34	89.28	81.65	11.705	CC, ES
KBL 1930-12H - VERDAD PR Well - Actual SLB Surveys	400.00	396.96	90.84	83.03	11.634	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	13,899.59	6,724.00	541.36	209.08	1.629	CC, ES, SF
BERGLUND-MYERS #1 - Barrett Resources P/A Well - N						Out of range
OSCAR & JENNIE BERGLUND #1 - Amoco D/A Well - N	4,858.91	3,551.94	283.26	95.74	1.511	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	19,881.52	6,698.00	759.76	361.53	1.908	CC, ES
LAUCK #1 - Siler Earl F DA Well - No Surveys	19,900.00	6,698.00	759.98	361.60	1.908	SF

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

Offset Depths are relative to Offset Datum

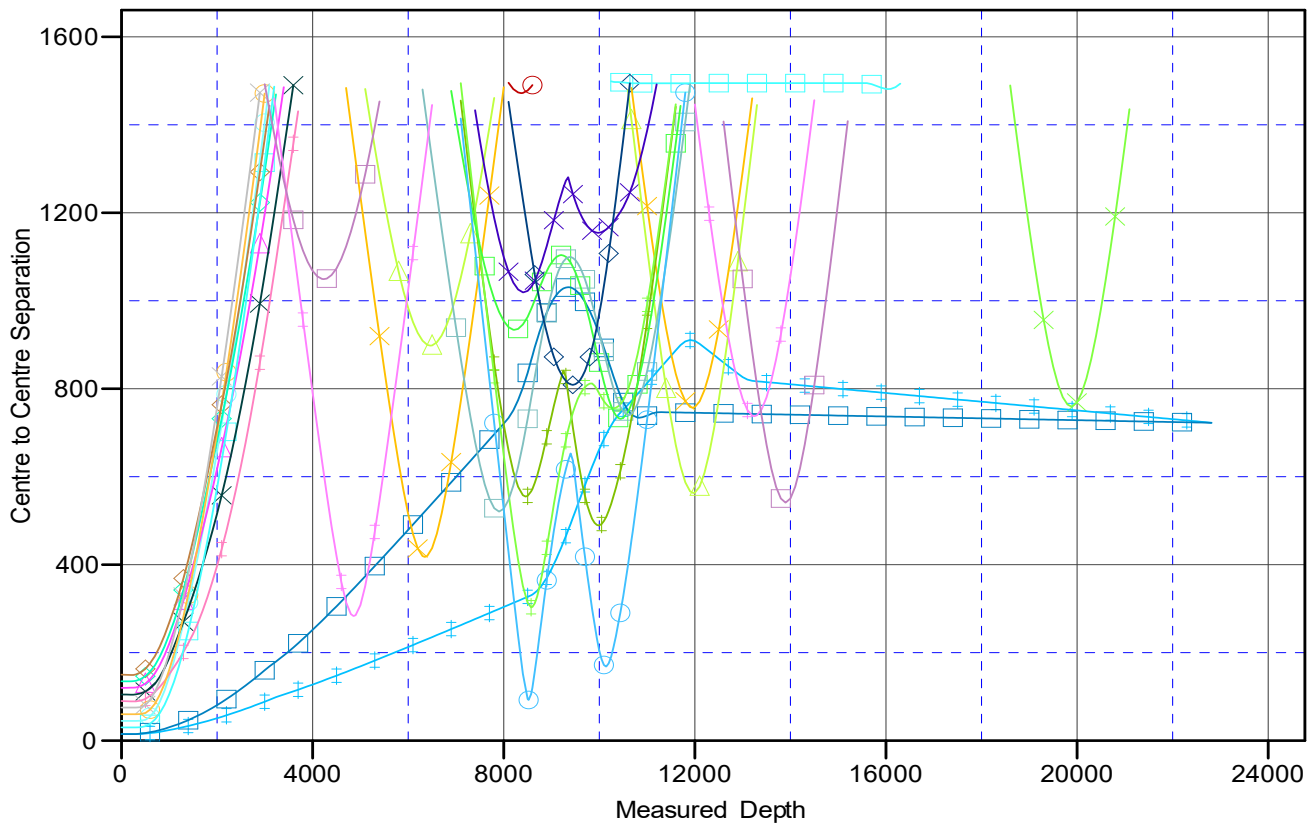
Central Meridian is -105.500000

Coordinates are relative to: KBL 1830-18H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.66°

### Ladder Plot



### LEGEND

ELMER KAUFMAN #1, Plan A, Design #1 V0	KBL 1830-18H, Plan A, Design #1 V0	ELMER KAUFMAN #1, Sands-American P&A Well, No Surveys V0
KBL 1830-18H, Plan A, Design #1 V0	KBL 1830-18H, VERDAD PR Well, Actual SLB Surveys V0	GUTTERSEN #Y18-726, NOBLE Drilled Well, Actual BKR Surveys V0
KBL 1930-09H, VERDAD PR Well, Actual SLB Surveys V0	KBL 1918-18H, Plan A, Design #1 V0	GUTTERSEN #Y18-754, NOBLE Drilled Well - No EOCMA Actual Surveys, BKR Planned Well - Low I
KBL 1930-09H, VERDAD PR Well, Actual SLB Surveys V0	ELMER KAUFMAN #2, ARCH SI Well, No Surveys V0	GUTTERSEN #Y18-746, NOBLE Drilled Well - No EOCMA Actual Surveys, BKR Planned Well - Low I
KBL 1930-11H, VERDAD PR Well, Actual SLB Surveys V0	KAUFMAN #4, ARCH SI Well, No Surveys V0	ELMER KAUFMAN #3, US Minerals P&A Well, No Surveys V0
KBL 1930-12H, VERDAD PR Well, Actual SLB Surveys V0	GUTTERSEN #Y18-736, NOBLE Drilled Well, Actual BKR Surveys V0	OSCAR & JENNIE BERGLUND #1, Amoco D/A Well, No Surveys V0
KBL 1918-18H, Plan A, Design #1 V0	GUTTERSEN #Y18-715, NOBLE Drilled Well, Actual BKR Surveys V0	BERGLUND MYERS #42-19, Simmons Energy D/A Well, No Surveys V0
KBL 1918-18H, Plan A, Design #1 V0	EWS #4, EWS 4 U Well, No Surveys V0	LAUCK #1, Sler Earl F DA Well, No Surveys V0

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Grid Convergence at Surface is: 0.66°

