

# **VERDAD RESOURCES**

**WATTENBERG FIELD  
2N-64W-28 GEORGENE PAD  
GEORGENE 2833-03H**

**Wellbore #1  
Design #3**

## **Anticollision Summary Report**

**17 September, 2020**

# HP

## Anticollision Summary Report

<b>Company:</b>	VERDAD RESOURCES	<b>Local Co-ordinate Reference:</b>	Well GEORGENE 2833-03H
<b>Project:</b>	WATTENBERG FIELD	<b>TVD Reference:</b>	RKB = 24' @ 5041.00usft (RIG)
<b>Reference Site:</b>	2N-64W-28 GEORGENE PAD	<b>MD Reference:</b>	RKB = 24' @ 5041.00usft (RIG)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	GEORGENE 2833-03H	<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>	Wellbore #1	<b>Database:</b>	EDM 5000.16 Single User Db
<b>Reference Design:</b>	Design #3	<b>Offset TVD Reference:</b>	Offset Datum

Reference	Design #3		
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	9/17/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	1,700.00	Design #3 (Wellbore #1)	ISCWSA MWD	Fixed:v2:standard declination	
1,700.00	12,391.54	Design #3 (Wellbore #1)	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-64W-05 Offsets							
GRINDE 01-64-05 0108C - Highpoint Planned Well - Drill	12,391.54	15,757.39	940.20	613.52	2.878	CC, ES, SF	
2N-64W-28 GEORGENE PAD							
GEORGENE 2828-01H - Wellbore #1 - Design #2	200.00	199.00	75.00	67.43	9.911	CC, ES	
GEORGENE 2828-01H - Wellbore #1 - Design #2	7,100.00	8,922.20	438.86	356.41	5.323	SF	
GEORGENE 2828-02H - Wellbore #1 - Design #2	300.00	299.00	59.99	52.34	7.839	CC, ES	
GEORGENE 2828-02H - Wellbore #1 - Design #2	7,050.00	8,845.89	609.75	523.23	7.047	SF	
GEORGENE 2828-03H - Wellbore #1 - Design #2	400.00	399.00	44.99	37.21	5.782	CC, ES, SF	
GEORGENE 2828-04H - Wellbore #1 - Design #2	400.00	400.00	29.98	22.20	3.852	CC, ES	
GEORGENE 2828-04H - Wellbore #1 - Design #2	500.00	499.98	30.46	22.51	3.832	SF	
GEORGENE 2833-01H - Wellbore #1 - Design #3	607.53	608.35	29.07	20.90	3.557	CC, ES, SF	
GEORGENE 2833-02H - Wellbore #1 - Design #3	546.77	547.71	14.53	6.49	1.807	CC, ES, SF	
GEORGENE 2833-04H - Wellbore #1 - Design #3	377.78	377.90	13.94	6.19	1.799	CC, ES, SF	
2N-64W-28 Offsets Incomplete							
BRNAK 34-28 - Noble SI Well - No Surveys	6,835.91	6,660.30	222.18	-30.12	0.881	Level 1, CC	
BRNAK 34-28 - Noble SI Well - No Surveys	6,850.00	6,672.86	222.33	-30.57	0.879	Level 1, ES, SF	
BRNAK 44-28 - Noble SI Well - No Surveys	2,035.69	1,980.28	156.20	78.79	2.018	CC	
BRNAK 44-28 - Noble SI Well - No Surveys	2,200.00	2,141.40	159.49	76.00	1.910	ES	
BRNAK 44-28 - Noble SI Well - No Surveys	2,300.00	2,239.46	164.57	77.44	1.889	SF	
BRNAK 77-28 - Noble P&A Well - No Surveys	6,003.54	5,843.22	795.95	563.44	3.423	CC	
BRNAK 77-28 - Noble P&A Well - No Surveys	6,522.47	6,352.08	802.42	549.39	3.171	ES	
BRNAK 77-28 - Noble P&A Well - No Surveys	6,600.00	6,428.24	808.63	552.64	3.159	SF	
GREER 13-28 - Noble SI Well - No Surveys						Out of range	
GREER 14-28 - Noble T/A Well - No Surveys						Out of range	
GREER 23-28 - Noble SI Well - No Surveys						Out of range	
GREER 24-28 - Noble T/A Well - No Surveys						Out of range	
STONEBRAKER 32-28 - PDC P&A Well - No Surveys						Out of range	
STONEBRAKER 42-28 - PDC P&A Well - No Surveys						Out of range	
STONEBREAKER 28V-234 - PDC PR Well - Actual Ensig						Out of range	
STONEBREAKER 28W-304 - PDC PR Well - Actual Ens						Out of range	

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<b>Reference Site:</b>	2N-64W-28 GEORGENE PAD	<b>MD Reference:</b>	RKB = 24' @ 5041.00usft (RIG)
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<b>Reference Well:</b>	GEORGENE 2833-03H	<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>	Wellbore #1	<b>Database:</b>	EDM 5000.16 Single User Db
<b>Reference Design:</b>	Design #3	<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						
2N-64W-33 Offsets						
JACKSON 33-1H - Verdad Planned Well - Surcon MWD						Out of range
JACKSON 33-2H - Verdad Planned Well - Surcon MWD						Out of range
JACKSON 33-3H - Verdad Planned Well - Surcon MWD						Out of range
JACKSON 33-4H - Verdad Planned Well - Surcon MWD						Out of range
JACKSON 33-5H - Verdad Planned Well - Surcon MWD						Out of range
JACKSON 33-6H - Verdad PR Well - Actual BHI Surveys	8,155.11	8,019.07	1,455.61	1,407.21	30.077	CC
JACKSON 33-6H - Verdad PR Well - Actual BHI Surveys	10,200.00	10,017.05	1,499.26	1,371.56	11.740	ES, SF
JACKSON 33-7H - Verdad PR Well - Actual BHI Surveys	10,310.45	10,489.03	1,317.66	1,184.28	9.879	CC
JACKSON 33-7H - Verdad PR Well - Actual BHI Surveys	12,200.00	12,337.69	1,375.17	1,159.66	6.381	ES
JACKSON 33-7H - Verdad PR Well - Actual BHI Surveys	12,391.54	12,518.81	1,386.42	1,162.72	6.198	SF
JACKSON 33-S1H - Verdad Planned Well - Surcon MWD						Out of range
JACKSON 33-S2H - Verdad Planned Well - Surcon MWD						Out of range
UPV 33-13K4 - Noble SI Well - No Surveys						Out of range
UPV 33-15K4 - Noble T/A Well - No Surveys	11,853.04	7,065.00	184.45	-174.53	0.514	Level 1, CC, ES, SF
UPV 33-7K4 - Noble SI Well - No Surveys	9,200.00	7,069.00	181.41	-118.84	0.604	Level 1, ES, SF
UPV 33-7K4 - Noble SI Well - No Surveys	9,214.92	7,069.00	180.80	-118.33	0.604	Level 1, CC
2N-64W-34 Offsets Incomplete						
FRITZLER 12-34 - Noble PR Well - Actual VES Surveys						Out of range
Shufly State Y34-784 - Noble Planned Well - Planned Su						Out of range

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<b>Reference Well:</b>	GEORGENE 2833-03H	<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>	Wellbore #1	<b>Database:</b>	EDM 5000.16 Single User Db
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Reference Depths are relative to RKB = 24' @ 5041.00usft (RIG)

Offset Depths are relative to Offset Datum

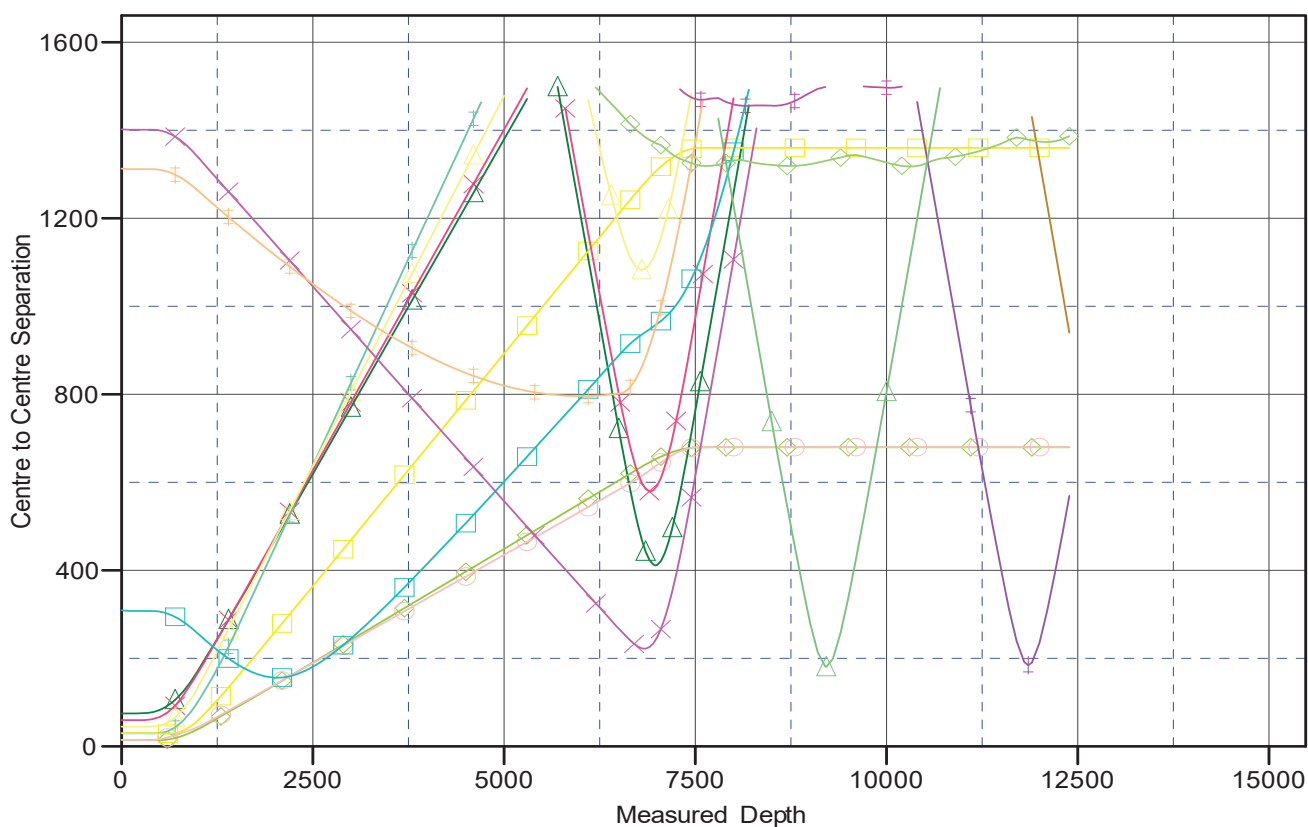
Central Meridian is -105.500000

Coordinates are relative to: GEORGENE 2833-03H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.61°

## Ladder Plot



## LEGEND

828-01H, Wellbore #1, Design #2 V0  
828-04H, Wellbore #1, Design #2 V0  
833-02H, Wellbore #1, Design #3 V0  
833-01H, Wellbore #1, Design #3 V0  
833-04H, Wellbore #1, Design #3 V0

GEORGENE 2828-02H, Wellbore #1, Design #2 V0  
GEORGENE 2828-03H, Wellbore #1, Design #2 V0  
GRINDE 01-64-05 0108C, Highpoint Planned Well - Drilled but no actual svys on COGCC, Planned Highpoint Surveys V0  
BRNAK 4428, Noble SI Well, No Surveys V0  
BRNAK 3428, Noble SI Well, No Surveys V0

BRNAK 7728, Noble P&A Well, No Surveys V0  
JACKSON 33-7H, Verdad PR Well, Actual BHI Surveys V0  
UPV 33-19K4, Noble T/A Well, No Surveys V0  
UPV 33-7K4, Noble SI Well, No Surveys V0  
JACKSON 33-6H, Verdad PR Well, Actual BHI Surveys V0

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Grid Convergence at Surface is: 0.61°

