

# **VERDAD RESOURCES**

**WATTENBERG FIELD**

**9N-59W-17 TIMBRO 1717 PAD**

**TIMBRO 1717-12H**

**Plan B**

**Design #1**

## **Anticollision Summary Report**

**02 September, 2021**

## Anticollision Summary Report

<b>Company:</b>	VERDAD RESOURCES	<b>Local Co-ordinate Reference:</b>	Well TIMBRO 1717-12H
<b>Project:</b>	WATTENBERG FIELD	<b>TVD Reference:</b>	RKB = 20' @ 5030.00usft (RIG)
<b>Reference Site:</b>	9N-59W-17 TIMBRO 1717 PAD	<b>MD Reference:</b>	RKB = 20' @ 5030.00usft (RIG)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	TIMBRO 1717-12H	<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 B	<b>Database:</b>	EDM 5000.16 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset 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>	9/2/2021			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
0.00	1,700.00	Design #1 (Plan B)	ISCWSA MWD	Fixed:v2:standard declination	
1,700.00	11,514.10	Design #1 (Plan B)	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>						
9N-59W-08 TIMBRO 9-59-8B PAD						
TIMBRO 9-59 8B-9-1 - Wellbore #1 - Design #1						Out of range
TIMBRO 9-59 8B-9-2 - Wellbore #1 - Design #2						Out of range
TIMBRO 9-59 8B-9-4 - Wellbore #1 - Design #1						Out of range
TIMBRO 9-59 8B-9-8 - Wellbore #1 - Design #1	5,974.04	9,866.45	820.11	689.62	6.285	CC
TIMBRO 9-59 8B-9-8 - Wellbore #1 - Design #1	6,000.00	9,863.63	821.04	689.00	6.218	ES
TIMBRO 9-59 8B-9-8 - Wellbore #1 - Design #1	6,050.00	9,858.37	828.06	693.36	6.147	SF
TIMBRO 9-59 8B-9-9 - Verdad PR Well - Actual Baker Su	6,128.66	10,141.39	629.88	512.76	5.378	CC
TIMBRO 9-59 8B-9-9 - Verdad PR Well - Actual Baker Su	6,150.00	10,140.70	630.60	510.89	5.268	ES
TIMBRO 9-59 8B-9-9 - Verdad PR Well - Actual Baker Su	6,250.00	10,138.54	652.54	522.51	5.019	SF
9N-59W-17 Offsets						
Timbro Ranch 17-11-9-59 - Verdad PR Well - Actual Prec						Out of range
9N-59W-17 TIMBRO 1717 PAD						
TIMBRO 1717-08H - Plan B - Design #1	200.00	200.00	64.00	56.43	8.456	CC, ES, SF
TIMBRO 1717-09H - Plan B - Design #1	202.69	202.69	47.98	40.41	6.339	CC, ES
TIMBRO 1717-09H - Plan B - Design #1	300.00	299.20	48.40	40.75	6.325	SF
TIMBRO 1717-10H - Plan B - Design #1	300.00	300.00	32.00	24.34	4.180	CC, ES, SF
TIMBRO 1717-11H - Plan B - Design #1	309.12	309.12	15.99	8.32	2.085	CC, ES, SF
TIMBRO 1717-13H - Plan B - Design #1	398.70	399.70	16.01	8.23	2.057	CC
TIMBRO 1717-13H - Plan B - Design #1	400.00	401.00	16.01	8.23	2.057	ES, SF
TIMBRO 1717-14H - Wellbore #1 - Design #1	116.33	117.33	32.00	24.47	4.249	CC
TIMBRO 1717-14H - Wellbore #1 - Design #1	200.00	200.99	32.00	24.43	4.228	ES, SF
9N-59W-18 Offsets						
FEDERAL #1-18 - McCulloch D/A Well - No Surveys						Out of range
WILDHORSE #18-1834H - Whiting PR Well - Actual Cath						Out of range
Wildhorse #18-1844H - Whiting PR Well - Actual Ensign						Out of range
9N-59W-19 Offsets						
Ptasnik Federal LC19-74HN - Noble Energy PR Well - Ac						Out of range
9N-59W-20 Offsets						
Ptasnik LC20-75HN - Noble PR Well - Actual DDC Surve	11,514.10	6,003.41	1,055.21	922.26	7.937	CC, ES, SF
SW IGO #1 - Rock Oil D/A Well - No Surveys						Out of range

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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						
9N-59W-29 Offsets Incomplete						
Rico LC29-74-1HNA - Noble PR Well - Actual Sperry Sur	11,514.10	15,480.00	909.04	839.10	12.997	CC, ES, SF
Rico LC29-76-1HNA - Noble PR Well - Actual DDC Surve						Out of range
Rico LC29-78-1HNC - Noble PR Well - Actual Sperry Sur						Out of range
Tina LC29-73-1HNA - Noble PR Well - Actual DDC Surve	11,514.10	15,463.00	1,065.84	860.69	5.195	CC, ES, SF
Tina LC29-75-1HNA - Noble PR Well - Actual Pathfinder	11,514.10	15,534.00	1,164.43	998.36	7.012	CC, ES, SF
Tina LC29-77-1HNA - Noble PR Well - Actual DDC Surve						Out of range
Trisha LC29-73HNB - Noble PR Well - Actual DDC Surve	11,514.10	15,628.00	905.75	810.53	9.512	CC, ES, SF
Trisha LC29-74HNB - Noble PR Well - Actual Sperry Sur	11,514.10	15,548.00	983.93	865.74	8.325	CC, ES, SF
Trisha LC29-76HNB - Noble PR Well - Actual DDC Surve						Out of range
Trisha LC29-77HNB - Noble PR Well - Actual Sperry Sur						Out of range
Trisha LC29-78HNB - Noble PR Well - Actual Sperry Sur						Out of range

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Reference Depths are relative to RKB = 20' @ 5030.00usft (RIG)

Offset Depths are relative to Offset Datum

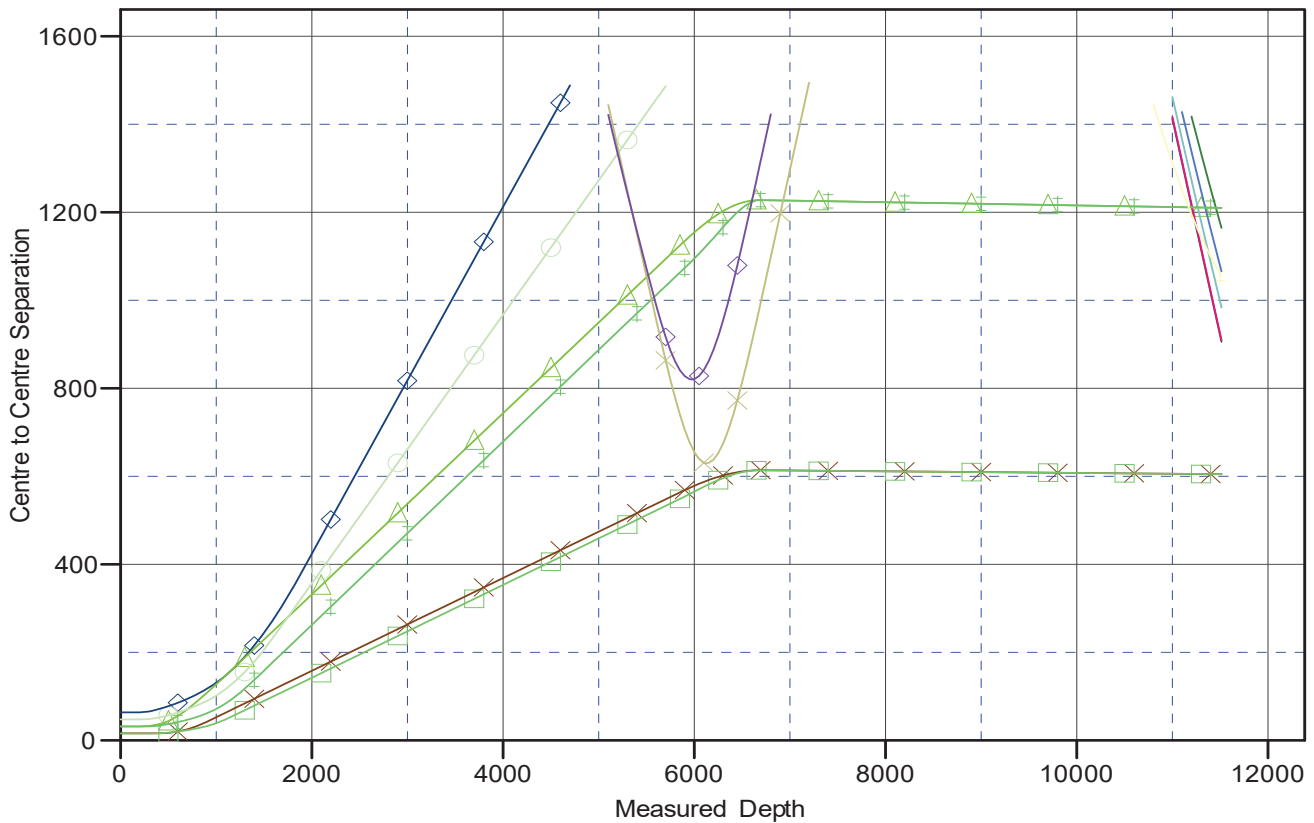
Central Meridian is -105.500000

Coordinates are relative to: TIMBRO 1717-12H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.97°

### Ladder Plot



#### LEGEND

- Trisha LC29-75H-NB, Noble PR Well, Actual DDC Surveys V0
- Rico LC29-75-1HNA, Noble PR Well, Actual Sperry Surveys V0
- Tina LC29-75-1HNA, Noble PR Well, Actual DDC Surveys V0
- Tina LC29-75-1HNA, Noble PR Well, Actual Pathfinder Surveys V0
- Trisha LC29-74HNB, Noble PR Well, Actual Sperry Surveys V0
- TIMBRO 1717-08H, Plan B, Design#1 V0
- TIMBRO 1717-13H, Plan B, Design#1 V0
- TIMBRO 1717-14H, Wellbore #1, Design #1 V0
- TIMBRO 1717-09H, Plan B, Design#1 V0
- TIMBRO 1717-10H, Plan B, Design#1 V0
- TIMBRO 1717-11H, Plan B, Design#1 V0
- TIMBRO 969 8B-9-8, Verdad PR Well, Actual Baker Surveys V0
- TIMBRO 969 8B-9-8, Wellbore #1, Design #1 V0
- Ptasnik LC29-75H-N, Noble PR Well, Actual DDC Surveys V0

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Offset Depths are relative to Offset Datum

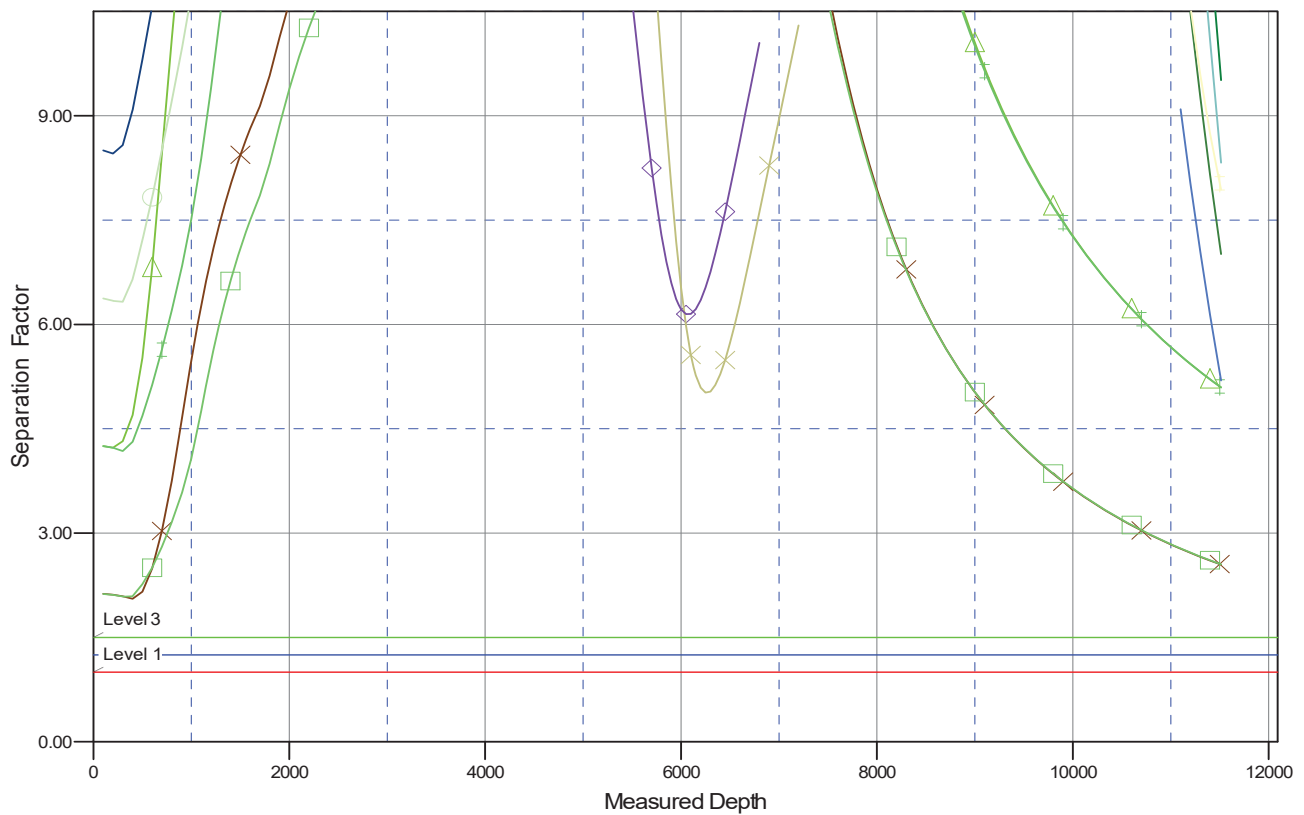
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Grid Convergence at Surface is: 0.97°

### Separation Factor Plot



#### LEGEND

- |  |  |  |
|--|--|--|
| Trisha LC29-73HNB, Noble PR Well, Actual DDC Surveys V0        | TIMBRO 1717-08H, Plan B, Design#1 V0       | TIMBRO 1717-11H, Plan B, Design#1 V0                       |
| Rico LC29-74-1HNA, Noble PR Well, Actual Sperry Surveys V0     | TIMBRO 1717-13H, Plan B, Design#1 V0       | TIMBRO 969 8B-9-9, Verdad PR Well, Actual Baker Surveys V0 |
| Tina LC29-75-1HNA, Noble PR Well, Actual DDC Surveys V0        | TIMBRO 1717-14H, Wellbore #1, Design #1 V0 | TIMBRO 969 8B-9-8, Wellbore #1, Design #1 V0               |
| Tina LC29-75-1HNA, Noble PR Well, Actual Pathfinder Surveys V0 | TIMBRO 1717-09H, Plan B, Design#1 V0       | Plasnik LC29-75HNB, Noble PR Well, Actual DDC Surveys V0   |
| Trisha LC29-74HNB, Noble PR Well, Actual Sperry Surveys V0     | TIMBRO 1717-10H, Plan B, Design#1 V0       |  |