

VERDAD RESOURCES

WATTENBERG FIELD

9N-59W-17 TIMBRO 1717 PAD

TIMBRO 1717-09H

Plan B

Design #1

Anticollision Summary Report

02 September, 2021

Anticollision Summary Report

Company:	VERDAD RESOURCES	Local Co-ordinate Reference:	Well TIMBRO 1717-09H
Project:	WATTENBERG FIELD	TVD Reference:	RKB = 20' @ 5030.00usft (RIG)
Reference Site:	9N-59W-17 TIMBRO 1717 PAD	MD Reference:	RKB = 20' @ 5030.00usft (RIG)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	TIMBRO 1717-09H	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:	Design #1	Offset TVD Reference:	Offset 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	9/2/2021			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	1,700.00	Design #1 (Plan B)	ISCWSA MWD	Fixed:v2:standard declination	
1,700.00	11,983.08	Design #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						
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	6,425.86	8,139.22	804.47	692.86	7.208	CC
TIMBRO 9-59 8B-9-8 - Wellbore #1 - Design #1	6,450.00	8,130.02	805.23	692.45	7.140	ES
TIMBRO 9-59 8B-9-8 - Wellbore #1 - Design #1	6,500.00	8,111.51	811.62	696.68	7.061	SF
TIMBRO 9-59 8B-9-9 - Verdad PR Well - Actual Baker Su	6,591.22	8,331.09	606.96	510.53	6.294	CC
TIMBRO 9-59 8B-9-9 - Verdad PR Well - Actual Baker Su	6,650.00	8,315.00	612.16	509.73	5.976	ES
TIMBRO 9-59 8B-9-9 - Verdad PR Well - Actual Baker Su	6,700.00	8,315.00	624.69	517.16	5.810	SF
9N-59W-17 Offsets						
Timbro Ranch 17-11-9-59 - Verdad PR Well - Actual Prec	11,533.92	10,631.00	1,210.71	974.23	5.120	CC
Timbro Ranch 17-11-9-59 - Verdad PR Well - Actual Prec	11,600.00	10,631.00	1,212.51	972.88	5.060	ES
Timbro Ranch 17-11-9-59 - Verdad PR Well - Actual Prec	11,700.00	10,631.00	1,222.05	978.77	5.023	SF
9N-59W-17 TIMBRO 1717 PAD						
TIMBRO 1717-08H - Plan B - Design #1	200.00	200.00	16.01	8.44	2.116	CC, ES, SF
TIMBRO 1717-10H - Plan B - Design #1	249.50	249.50	15.99	8.38	2.102	CC, ES, SF
TIMBRO 1717-11H - Plan B - Design #1	249.50	249.50	32.00	24.39	4.207	CC, ES, SF
TIMBRO 1717-12H - Plan B - Design #1	249.50	249.50	47.98	40.38	6.309	CC, ES, SF
TIMBRO 1717-13H - Plan B - Design #1	249.50	250.50	64.00	56.39	8.414	CC, ES, SF
TIMBRO 1717-14H - Wellbore #1 - Design #1	116.33	117.33	79.98	72.45	10.621	CC
TIMBRO 1717-14H - Wellbore #1 - Design #1	200.00	200.98	79.98	72.41	10.567	ES
TIMBRO 1717-14H - Wellbore #1 - Design #1	249.50	249.68	80.24	72.64	10.550	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

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

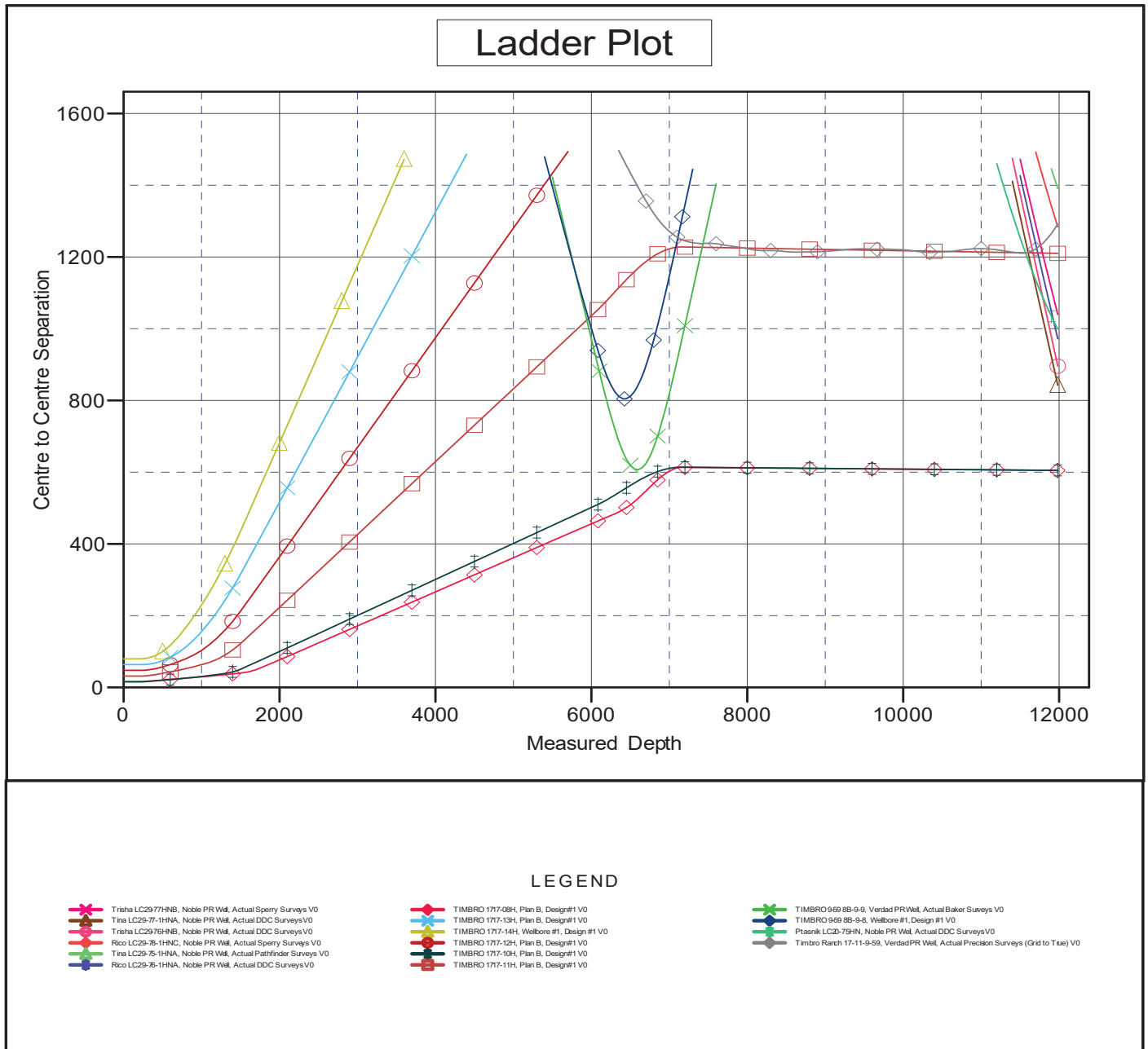
Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
9N-59W-20 Offsets						
Ptasnik LC20-75HN - Noble PR Well - Actual DDC Surve	11,983.60	6,046.19	999.24	848.52	6.630	CC, ES, SF
SW IGO #1 - Rock Oil D/A Well - No Surveys						Out of range
9N-59W-29 Offsets Incomplete						
Rico LC29-74-1HNA - Noble PR Well - Actual Sperry Sur						Out of range
Rico LC29-76-1HNA - Noble PR Well - Actual DDC Surve	11,983.60	15,506.00	972.22	771.15	4.835	CC, ES, SF
Rico LC29-78-1HNC - Noble PR Well - Actual Sperry Sur	11,983.60	15,541.00	1,284.25	876.30	3.148	CC, ES, SF
Tina LC29-73-1HNA - Noble PR Well - Actual DDC Surve						Out of range
Tina LC29-75-1HNA - Noble PR Well - Actual Pathfinder	11,983.60	15,534.00	1,390.92	1,160.50	6.037	CC, ES, SF
Tina LC29-77-1HNA - Noble PR Well - Actual DDC Surve	11,983.60	15,595.00	842.72	712.47	6.470	CC, ES, SF
Trisha LC29-73HNB - Noble PR Well - Actual DDC Surve						Out of range
Trisha LC29-74HNB - Noble PR Well - Actual Sperry Sur						Out of range
Trisha LC29-76HNB - Noble PR Well - Actual DDC Surve	11,983.60	15,585.00	895.92	764.95	6.841	CC, ES, SF
Trisha LC29-77HNB - Noble PR Well - Actual Sperry Sur	11,983.60	15,595.00	1,039.87	916.82	8.450	CC, ES, SF
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 1717-09H
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.97°



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Offset Depths are relative to Offset Datum

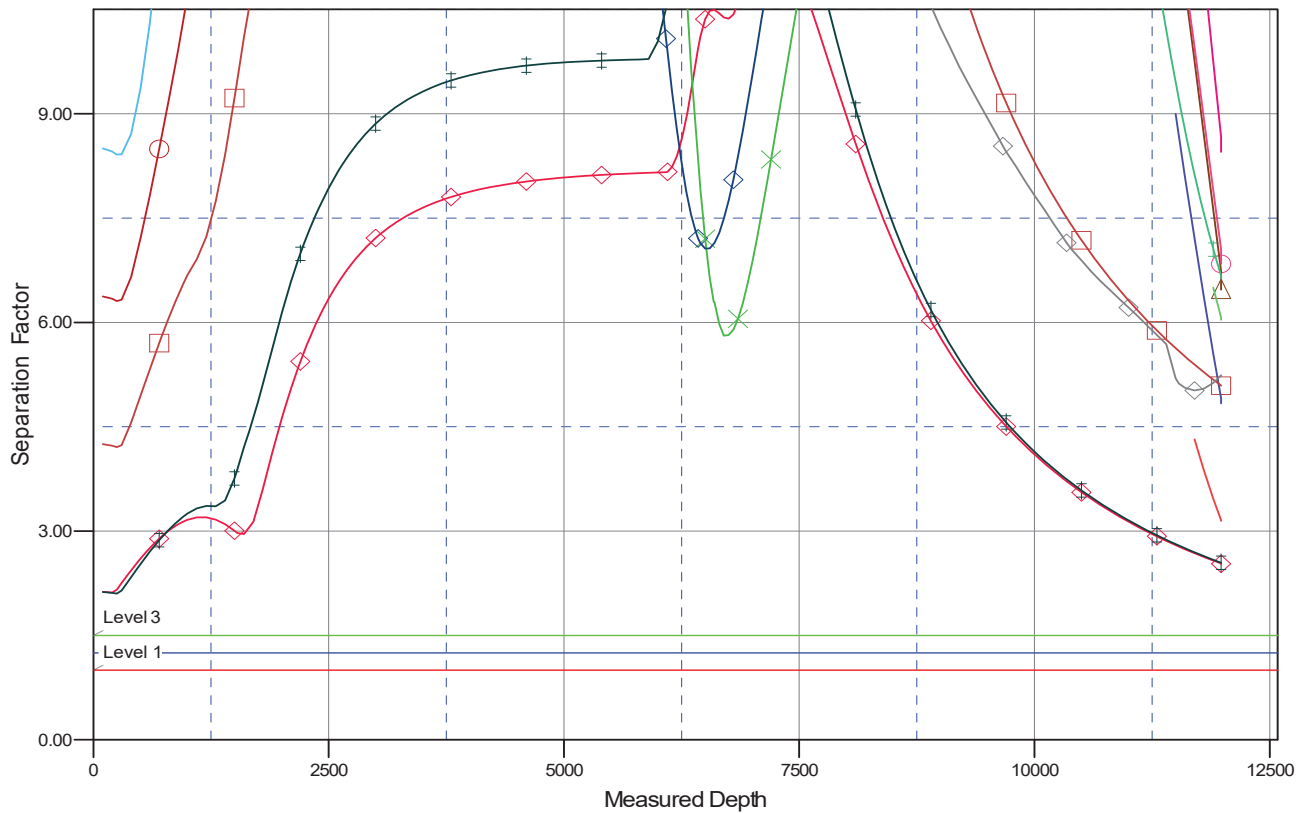
Central Meridian is -105.500000

Coordinates are relative to: TIMBRO 1717-09H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.97°

Separation Factor Plot



LEGEND

TimbRO 1717-09H, Noble PR Well, Actual Sperry Surveys V0
TimbRO 1717-13H, Noble PR Well, Actual DDC Surveys V0
TimbRO 1717-14H, Wellbore #1, Design #1 V0
TimbRO 1717-12H, Plan B, Design #1 V0
TimbRO 1717-10H, Plan B, Design #1 V0
TimbRO 1717-11H, Plan B, Design #1 V0

TimbRO 1717-09H, Noble PR Well, Actual Sperry Surveys V0
TimbRO 1717-13H, Noble PR Well, Actual DDC Surveys V0
TimbRO 1717-14H, Wellbore #1, Design #1 V0
TimbRO 1717-12H, Plan B, Design #1 V0
TimbRO 1717-10H, Plan B, Design #1 V0
TimbRO 1717-11H, Plan B, Design #1 V0

TimbRO 1717-09H, Noble PR Well, Actual Sperry Surveys V0
TimbRO 1717-13H, Noble PR Well, Actual DDC Surveys V0
TimbRO 1717-14H, Wellbore #1, Design #1 V0
TimbRO 1717-12H, Plan B, Design #1 V0
TimbRO 1717-10H, Plan B, Design #1 V0
TimbRO 1717-11H, Plan B, Design #1 V0