

VERDAD RESOURCES

WATTENBERG FIELD

1N-64W-19 CHIVE & SHALLOT PAD

SHALLOT 1930-24H

Plan A

Design #1

Anticollision Summary Report

19 May, 2023

Anticollision Summary Report

Company:	VERDAD RESOURCES	Local Co-ordinate Reference:	Well SHALLOT 1930-24H
Project:	WATTENBERG FIELD	TVD Reference:	RKB = 20' @ 5031.00usft (RIG)
Reference Site:	1N-64W-19 CHIVE & SHALLOT PAD	MD Reference:	RKB = 20' @ 5031.00usft (RIG)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	SHALLOT 1930-24H	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:	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	5/15/2023			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	2,070.00	Design #1 (Plan A)	ISCWSA MWD	Fixed:v2:standard declination	
2,070.00	15,731.87	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						
1N-64W-19 CHIVE & SHALLOT PAD						
CHIVE 2536-10H - Plan A - Design #1	200.00	200.00	224.00	216.43	29.596	CC, ES
CHIVE 2536-10H - Plan A - Design #1	219.50	218.18	224.06	216.48	29.555	SF
CHIVE 2536-11H - Plan A - Design #1	219.50	219.50	208.00	200.42	27.433	CC, ES, SF
CHIVE 2536-12H - Plan A - Design #1	219.50	219.50	192.00	184.42	25.323	CC, ES
CHIVE 2536-12H - Plan A - Design #1	300.00	296.42	193.53	185.88	25.297	SF
CHIVE 2536-13H - Plan A - Design #1	219.50	219.50	176.00	168.42	23.213	CC, ES
CHIVE 2536-13H - Plan A - Design #1	300.00	297.75	177.24	169.58	23.164	SF
CHIVE 2536-14H - Plan A - Design #1	219.50	219.50	160.00	152.42	21.102	CC, ES
CHIVE 2536-14H - Plan A - Design #1	300.00	299.01	161.04	153.38	21.043	SF
CHIVE 2536-15H - Plan A - Design #1	219.50	219.50	144.01	136.43	18.993	CC, ES
CHIVE 2536-15H - Plan A - Design #1	300.00	299.80	144.99	137.33	18.942	SF
CHIVE 2536-16H - Plan A - Design #1	219.50	219.50	128.01	120.42	16.883	CC, ES
CHIVE 2536-16H - Plan A - Design #1	300.00	299.99	128.99	121.33	16.851	SF
CHIVE 2536-17H - Plan A - Design #1	219.50	219.50	112.01	104.42	14.773	CC, ES
CHIVE 2536-17H - Plan A - Design #1	300.00	299.99	112.98	105.33	14.761	SF
SHALLOT 1930-18H - Plan A - Design #1	219.50	219.50	96.00	88.42	12.662	CC, ES, SF
SHALLOT 1930-19H - Plan A - Design #1	219.50	219.50	80.00	72.42	10.552	CC, ES, SF
SHALLOT 1930-20H - Plan A - Design #1	219.50	219.50	64.00	56.42	8.441	CC, ES, SF
SHALLOT 1930-21H - Plan A - Design #1	219.50	219.50	48.00	40.42	6.331	CC, ES, SF
SHALLOT 1930-22H - Plan A - Design #1	219.50	219.50	32.00	24.42	4.221	CC, ES
SHALLOT 1930-22H - Plan A - Design #1	15,731.87	15,286.95	1,430.72	1,089.89	4.198	SF
SHALLOT 1930-23H - Plan A - Design #1	219.50	219.50	16.00	8.42	2.110	CC, ES
SHALLOT 1930-23H - Plan A - Design #1	15,731.87	15,479.23	715.36	374.88	2.101	SF
1N-64W-19 Offsets						
STEVENS #1 - KPK P/A Well - No Surveys	8,867.89	6,911.00	176.09	-99.51	0.639	Level 1, CC, SF
STEVENS #1 - KPK P/A Well - No Surveys	8,900.00	6,911.00	178.99	-99.74	0.642	Level 1, ES
WEIMER #1 - Petro-American Energy D/A Well - No Sur	7,318.46	6,499.33	46.40	-217.25	0.176	Level 1, CC, SF
WEIMER #1 - Petro-American Energy D/A Well - No Sur	7,350.00	6,525.47	50.15	-231.73	0.178	Level 1, ES

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Reference Site:	1N-64W-19 CHIVE & SHALLOT PAD	MD Reference:	RKB = 20' @ 5031.00usft (RIG)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	SHALLOT 1930-24H	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:	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						
1N-64W-19 ONION 1907 PAD						
ONION 1907-01H - VERDAD PR Well - Actual SLB Surv	179.21	180.21	236.64	229.08	31.336	CC, ES
ONION 1907-01H - VERDAD PR Well - Actual SLB Surv	300.00	292.96	238.68	231.04	31.251	SF
ONION 1907-02H - VERDAD PR Well - Actual SLB Surv	0.00	1.00	228.63			
ONION 1907-02H - VERDAD PR Well - Actual SLB Surv	1,100.00	1,080.46	288.07	277.80	28.067	SF
ONION 1907-03H - VERDAD PR Well - Actual SLB Surv	390.13	390.12	220.49	212.75	28.482	CC
ONION 1907-03H - VERDAD PR Well - Actual SLB Surv	400.00	399.42	220.50	212.75	28.436	ES
ONION 1907-03H - VERDAD PR Well - Actual SLB Surv	1,100.00	1,075.62	276.31	266.00	26.793	SF
ONION 1907-04H - VERDAD PR Well - Actual SLB Surv	477.70	476.23	214.40	206.53	27.244	CC, ES
ONION 1907-04H - VERDAD PR Well - Actual SLB Surv	1,100.00	1,079.93	246.53	236.16	23.784	SF
ONION 1907-05H - VERDAD PR Well - Actual SLB Surv	747.03	744.65	209.23	200.65	24.384	CC, ES
ONION 1907-05H - VERDAD PR Well - Actual SLB Surv	1,200.00	1,179.96	233.64	222.57	21.105	SF
ONION 1907-06H - VERDAD PR Well - Actual SLB Surv	1,429.75	1,430.76	180.61	166.55	12.842	CC, ES
ONION 1907-06H - VERDAD PR Well - Actual SLB Surv	1,600.00	1,593.94	187.04	171.31	11.893	SF
ONION 1907-07H - VERDAD PR Well - Actual SLB Surv	1,699.15	1,694.18	114.42	96.51	6.388	CC
ONION 1907-07H - VERDAD PR Well - Actual SLB Surv	1,700.00	1,695.00	114.42	96.51	6.386	ES, SF
ONION 1907-08H - VERDAD PR Well - Actual SLB Surv	1,900.00	1,885.89	43.51	24.41	2.278	ES, SF
ONION 1907-08H - VERDAD PR Well - Actual SLB Surv	1,918.13	1,903.53	43.34	24.74	2.330	CC
ONION 1907-09H - VERDAD PR Well - Actual SLB Surv	1,800.17	1,775.13	29.66	15.21	2.053	CC, ES
ONION 1907-09H - VERDAD PR Well - Actual SLB Surv	8,500.00	7,655.49	96.76	25.77	1.363	Level 3, SF
1N-64W-20 Offsets						
STALKING WOLF #1 - Karen D/A Well - No Surveys						Out of range
TURECEK #1-20 - Duncan P&A Well - No Surveys						Out of range
1N-64W-20 OTTESEN PAD						
OTTESEN 01N-64W-20-S1H - Wellbore #1 - Design #1	15,641.63	17,379.92	566.54	179.76	1.465	Level 3, CC, ES
OTTESEN 01N-64W-20-S1H - Wellbore #1 - Design #1	15,700.00	17,380.77	569.33	180.37	1.464	Level 3, SF
1N-64W-29 Offsets						
BANNER 29-1 - Mendell-Denver D/A Well - No Surveys	12,172.67	6,939.00	1,126.15	792.22	3.372	CC
BANNER 29-1 - Mendell-Denver D/A Well - No Surveys	12,200.00	6,939.00	1,126.48	790.86	3.356	ES
BANNER 29-1 - Mendell-Denver D/A Well - No Surveys	12,400.00	6,939.00	1,148.87	802.10	3.313	SF
Douthit #2 - KPK PR Well - No Surveys						Out of range
DOUTHIT #29-6 - Berge D/A Well - No Surveys						Out of range
DOUTHIT 1 - ROCK OIL D/A Well - No Surveys						Out of range
DOUTHIT 42-29 #1 - APC P&A Well - No Surveys						Out of range
UPRR ROLLING THUNDER #22-29 - Karen D/A Well - N						Out of range
UPRR ROSADELA 21-29 - Highpoint Operating PR Well						Out of range
1N-64W-30 Offsets						
ANDREWS #13 - Verdad P&A Well - No Surveys	12,300.00	6,922.00	827.38	486.93	2.430	SF
ANDREWS #13 - Verdad P&A Well - No Surveys	12,383.56	6,922.00	823.15	485.17	2.435	CC, ES
ARNOLD #31 - Verdad P&A Well - No Surveys						Out of range
1N-64W-31 Offsets						
UPRR TIPPETT #1 - Rocky Mtn P&A Well - No Surveys						Out of range

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Reference Well:	SHALLOT 1930-24H	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:	Offset Datum

Summary						
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Offset Well - Wellbore - Design						
1N-65W-12 SAFI 1224 PAD						
SAFI 1224-02H - Verdad PR Well - Actual SLB Surveys						Out of range
SAFI 1224-04H - Verdad PR Well - Actual SLB Surveys						Out of range
SAFI 1224-06H - Verdad PR Well - Actual SLB Surveys						Out of range
SAFI 1224-08H - Verdad PR Well - Actual SLB Surveys						Out of range
SAFI 1224-10H - Verdad PR Well - Actual SLB Surveys						Out of range
SAFI 1224-12H - Verdad PR Well - Actual SLB Surveys						Out of range
SAFI 1224-14H - Verdad PR Well - Actual SLB Surveys						Out of range
1N-65W-24 Offsets						
Meehl 01N-65W-24-2N - Verdad SI Well - Actual Ensign						Out of range
1N-65W-25 Offsets						
HSR OLIPHANT #3-25 - Mountain Petroleum P&A Well -						Out of range
HSR-AMEN #11-25 - KMG P&A Well - No Surveys						Out of range
HSR-HAFFNER #2-25 - HSR P&A Well - No Surveys						Out of range
1N-65W-36 Offsets						
ACCO TERRA STATE #18-36 - Kerr McGee PR Well - N						Out of range
ACCO-TERRA-STATE ET AL #41 - Kerr McGee PR Well						Out of range
RUEBEL ET AL #36-1 - KPK PR Well - No Surveys						Out of range
STATE #36-2 - KPK P&A Well - No Surveys						Out of range

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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:	Offset Datum

Reference Depths are relative to RKB = 20' @ 5031.00usft (RIG)

Offset Depths are relative to Offset Datum

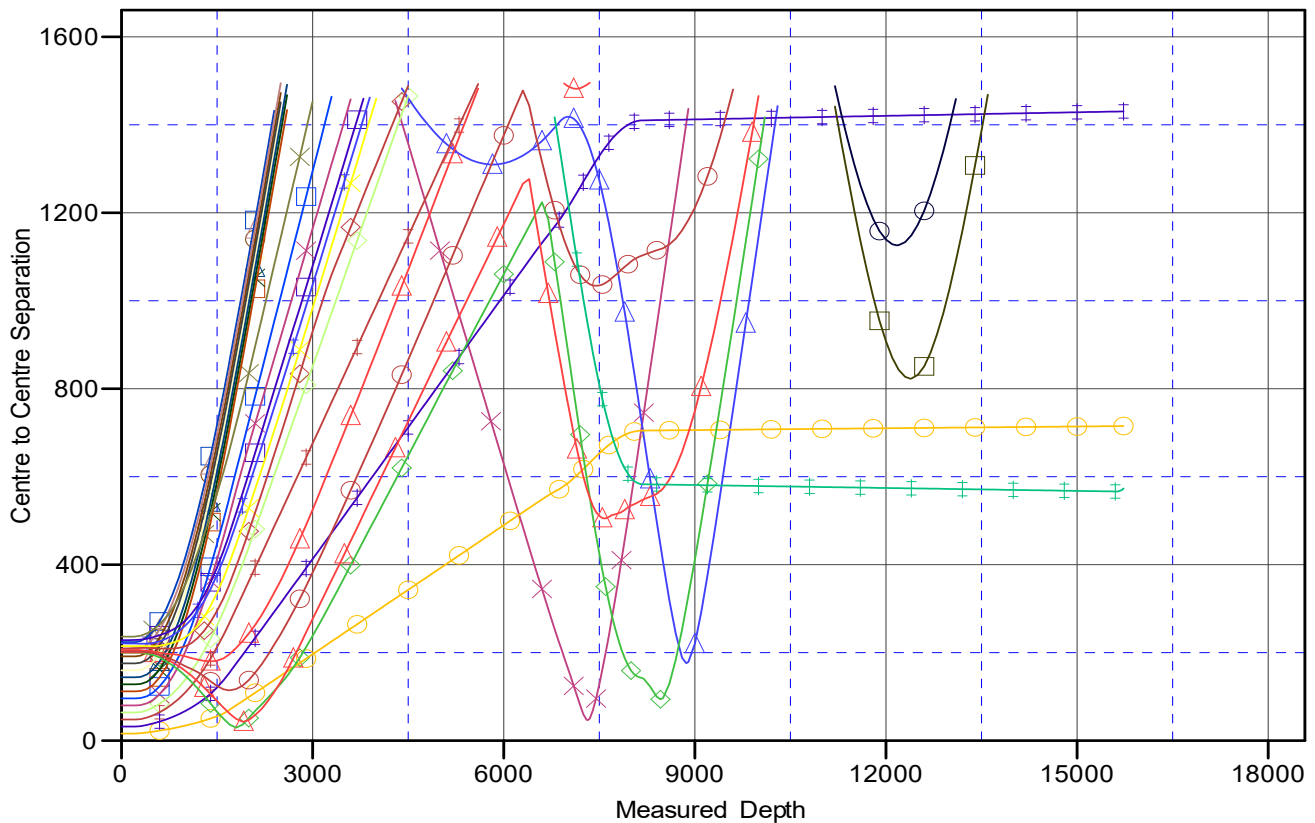
Central Meridian is -105.500000

Coordinates are relative to: SHALLOT 1930-24H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.58°

Ladder Plot



LEGEND

WEIMER #1 Petro-American Energy D/A Well, No Surveys V0	SHALLOT 1930-19H, Plan A, Design #1 V0	ONION 190705H, VERDAD PR Well, Actual SLB Surveys V0
STEVENS#1, KPK P/A Well, No Surveys V0	CHIVE 253615H, Plan A, Design #1 V0	ONION 190701H, VERDAD PR Well, Actual SLB Surveys V0
SHALLOT 1930-21H, Plan A, Design #1 V0	CHIVE 253611H, Plan A, Design #1 V0	ONION 190702H, VERDAD PR Well, Actual SLB Surveys V0
CHIVE 253617H, Plan A, Design #1 V0	SHALLOT 1930-22H, Plan A, Design #1 V0	ONION 190702H, VERDAD PR Well, Actual SLB Surveys V0
SHALLOT 1930-23H, Plan A, Design #1 V0	CHIVE 253613H, Plan A, Design #1 V0	ONION 190707H, VERDAD PR Well, Actual SLB Surveys V0
SHALLOT 1930-20H, Plan A, Design #1 V0	SHALLOT 1930-18H, Plan A, Design #1 V0	OTTESEN01N-64W-20-S-1H, Wellbore #1, Design #1 V0
CHIVE 253614H, Plan A, Design #1 V0	ONION 190709H, VERDAD PR Well, Actual SLB Surveys V0	BANNER 291, Mendel-Denver D/A Well, No Surveys V0
CHIVE 253616H, Plan A, Design #1 V0	ONION 190704H, VERDAD PR Well, Actual SLB Surveys V0	ANDREWS #13, Verdad P&A Well, No Surveys V0
CHIVE 253610H, Plan A, Design #1 V0	ONION 190708H, VERDAD PR Well, Actual SLB Surveys V0	
CHIVE 253612H, Plan A, Design #1 V0	ONION 190703H, VERDAD PR Well, Actual SLB Surveys V0	

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Reference Depths are relative to RKB = 20' @ 5031.00usft (RIG)

Offset Depths are relative to Offset Datum

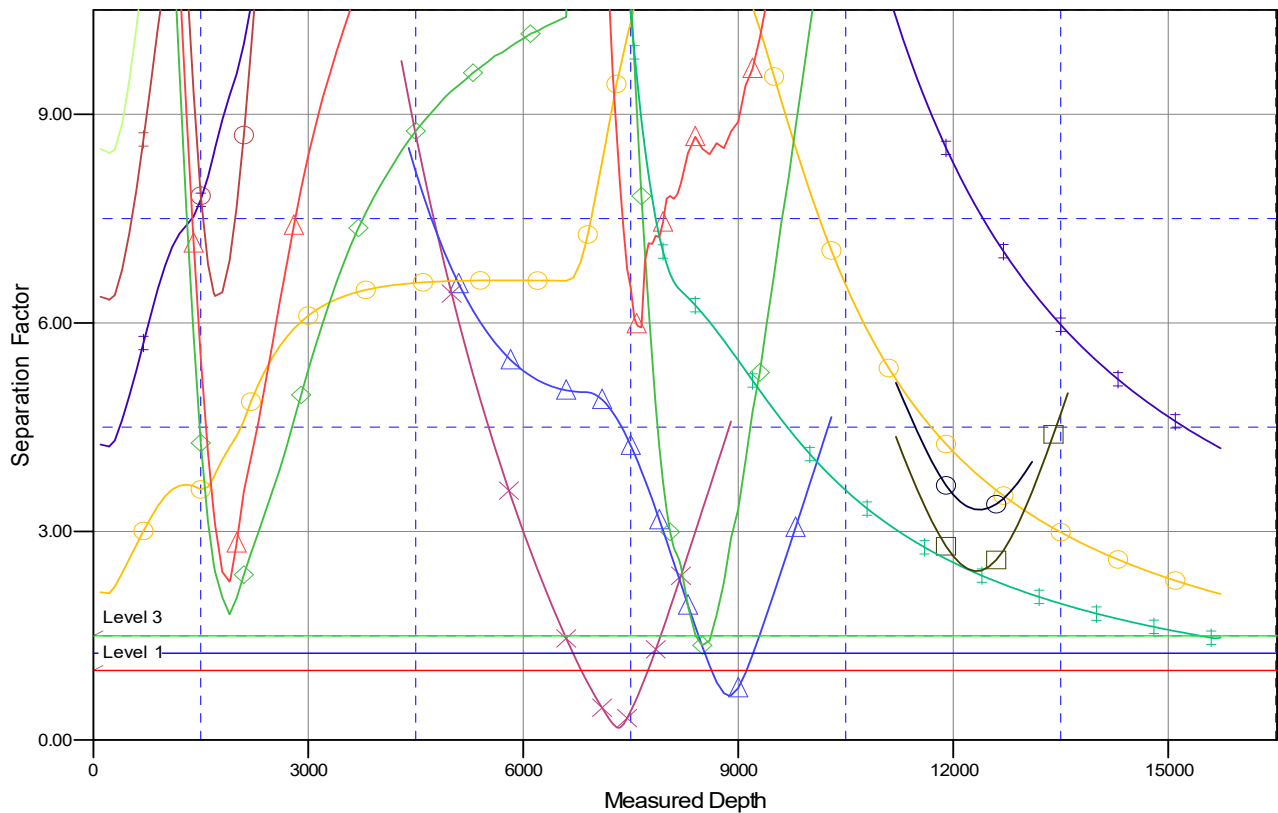
Central Meridian is -105.500000

Coordinates are relative to: SHALLOT 1930-24H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.58°

Separation Factor Plot



LEGEND

WEIMER #1, Petro-American Energy D/A Well, No Surveys V0	SHALLOT 1930-19H, Plan A, Design #1 V0	ONION 190705H, VERDAD PR Well, Actual SLB Surveys V0
STEVENS#1, KPK P/A Well, No Surveys V0	CHIVE 253615H, Plan A, Design #1 V0	ONION 190701H, VERDAD PR Well, Actual SLB Surveys V0
SHALLOT 1930-21H, Plan A, Design #1 V0	CHIVE 253611H, Plan A, Design #1 V0	ONION 190702H, VERDAD PR Well, Actual SLB Surveys V0
CHIVE 253617H, Plan A, Design #1 V0	SHALLOT 1930-22H, Plan A, Design #1 V0	ONION 190704H, VERDAD PR Well, Actual SLB Surveys V0
SHALLOT 1930-23H, Plan A, Design #1 V0	CHIVE 253613H, Plan A, Design #1 V0	ONION 190707H, VERDAD PR Well, Actual SLB Surveys V0
SHALLOT 1930-20H, Plan A, Design #1 V0	SHALLOT 1930-18H, Plan A, Design #1 V0	OTTESEN01N-64W-20-S-1H, Wellbore #1, Design #1 V0
CHIVE 253614H, Plan A, Design #1 V0	ONION 190709H, VERDAD PR Well, Actual SLB Surveys V0	BANNER 29-1, Mendel-Denver D/A Well, No Surveys V0
CHIVE 253616H, Plan A, Design #1 V0	ONION 190704H, VERDAD PR Well, Actual SLB Surveys V0	ANDREWS#13, Verdad P&A Well, No Surveys V0
CHIVE 253610H, Plan A, Design #1 V0	ONION 190708H, VERDAD PR Well, Actual SLB Surveys V0	
CHIVE 253612H, Plan A, Design #1 V0	ONION 190703H, VERDAD PR Well, Actual SLB Surveys V0	