

VERDAD RESOURCES

WATTENBERG FIELD

1N-64W-19 CHIVE & SHALLOT PAD

SHALLOT 1930-20H

Plan A

Design #1

Anticollision Summary Report

19 May, 2023

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Company:	VERDAD RESOURCES	Local Co-ordinate Reference:	Well SHALLOT 1930-20H
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 1930-20H	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	15,116.44	Design #1 (Plan A)	ISCWSA MWD	Fixed:v2:standard declination

Summary						
Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
1N-64W-19 CHIVE & SHALLOT PAD						
CHIVE 2536-10H - Plan A - Design #1	200.00	200.00	160.00	152.43	21.140	CC, ES
CHIVE 2536-10H - Plan A - Design #1	300.00	294.89	161.57	153.93	21.127	SF
CHIVE 2536-11H - Plan A - Design #1	200.00	200.00	144.00	136.43	19.026	CC, ES
CHIVE 2536-11H - Plan A - Design #1	300.00	296.29	145.03	137.38	18.960	SF
CHIVE 2536-12H - Plan A - Design #1	207.92	207.92	128.00	120.42	16.900	CC, ES
CHIVE 2536-12H - Plan A - Design #1	300.00	297.58	128.56	120.90	16.803	SF
CHIVE 2536-13H - Plan A - Design #1	203.51	203.51	112.00	104.42	14.793	CC, ES
CHIVE 2536-13H - Plan A - Design #1	300.00	298.55	112.26	104.61	14.670	SF
CHIVE 2536-14H - Plan A - Design #1	208.33	208.33	95.99	88.42	12.674	CC
CHIVE 2536-14H - Plan A - Design #1	300.00	299.41	96.06	88.40	12.550	ES, SF
CHIVE 2536-15H - Plan A - Design #1	216.60	216.60	80.00	72.42	10.555	CC
CHIVE 2536-15H - Plan A - Design #1	300.00	299.80	80.00	72.35	10.451	ES
CHIVE 2536-15H - Plan A - Design #1	379.25	377.31	80.96	73.21	10.449	SF
CHIVE 2536-16H - Plan A - Design #1	300.00	300.00	64.00	56.35	8.361	CC, ES
CHIVE 2536-16H - Plan A - Design #1	379.25	378.16	64.50	56.75	8.323	SF
CHIVE 2536-17H - Plan A - Design #1	303.21	303.21	48.00	40.34	6.268	CC, ES
CHIVE 2536-17H - Plan A - Design #1	379.25	378.74	48.21	40.46	6.219	SF
SHALLOT 1930-18H - Plan A - Design #1	305.32	305.32	32.00	24.34	4.177	CC
SHALLOT 1930-18H - Plan A - Design #1	379.25	379.14	32.03	24.28	4.131	ES, SF
SHALLOT 1930-19H - Plan A - Design #1	312.61	312.61	16.00	8.33	2.086	CC
SHALLOT 1930-19H - Plan A - Design #1	379.25	379.25	16.00	8.25	2.063	ES
SHALLOT 1930-19H - Plan A - Design #1	400.00	399.94	16.06	8.28	2.063	SF
SHALLOT 1930-21H - Plan A - Design #1	304.82	304.82	16.00	8.34	2.089	CC, ES
SHALLOT 1930-21H - Plan A - Design #1	379.25	379.13	16.17	8.42	2.086	SF
SHALLOT 1930-22H - Plan A - Design #1	300.00	300.00	32.00	24.35	4.180	CC, ES
SHALLOT 1930-22H - Plan A - Design #1	15,116.44	15,286.03	1,430.73	1,088.30	4.178	SF
SHALLOT 1930-23H - Plan A - Design #1	203.39	203.39	48.00	40.43	6.340	CC, ES
SHALLOT 1930-23H - Plan A - Design #1	300.00	299.63	48.11	40.46	6.286	SF
SHALLOT 1930-24H - Plan A - Design #1	200.00	200.00	64.00	56.43	8.456	CC, ES, SF
1N-64W-19 Offsets						
STEVENS #1 - KPK P/A Well - No Surveys						Out of range
WEIMER #1 - Petro-American Energy D/A Well - No Sur						Out of range

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

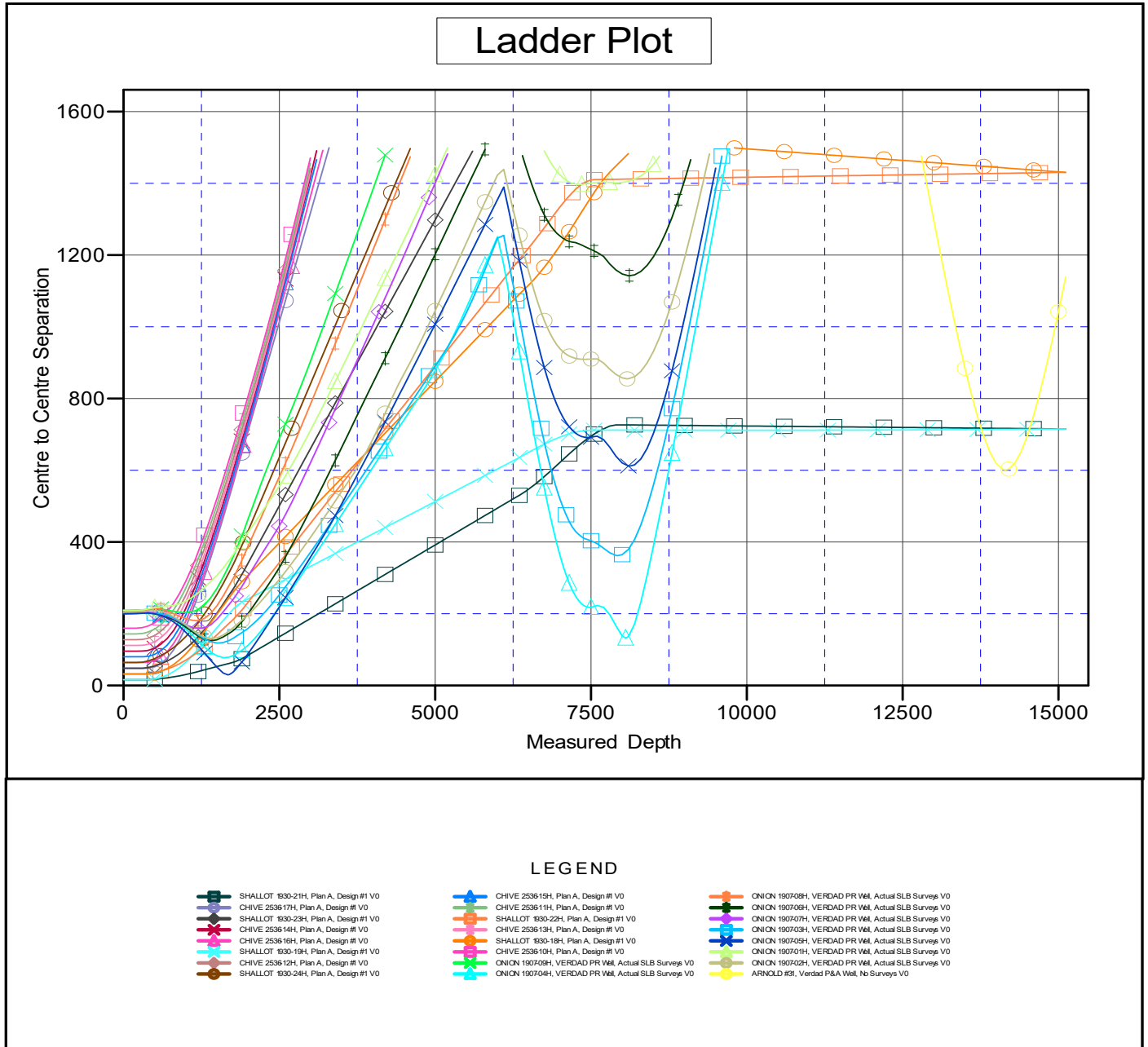
Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
1N-64W-19 ONION 1907 PAD						
ONION 1907-01H - VERDAD PR Well - Actual SLB Surv	192.02	193.03	209.29	201.73	27.690	CC, ES
ONION 1907-01H - VERDAD PR Well - Actual SLB Surv	1,500.00	1,444.42	307.19	294.51	24.218	SF
ONION 1907-02H - VERDAD PR Well - Actual SLB Surv	1,424.07	1,402.66	131.33	119.31	10.928	CC, ES
ONION 1907-02H - VERDAD PR Well - Actual SLB Surv	1,500.00	1,475.15	133.00	120.43	10.577	SF
ONION 1907-03H - VERDAD PR Well - Actual SLB Surv	1,530.07	1,505.87	118.56	105.73	9.242	CC, ES
ONION 1907-03H - VERDAD PR Well - Actual SLB Surv	7,900.00	7,092.41	362.54	317.97	8.136	SF
ONION 1907-04H - VERDAD PR Well - Actual SLB Surv	1,623.77	1,597.65	77.77	64.21	5.734	CC, ES
ONION 1907-04H - VERDAD PR Well - Actual SLB Surv	8,056.70	7,013.91	132.44	88.49	3.014	SF
ONION 1907-05H - VERDAD PR Well - Actual SLB Surv	1,674.01	1,648.57	29.72	15.77	2.130	CC, ES, SF
ONION 1907-06H - VERDAD PR Well - Actual SLB Surv	1,409.40	1,374.75	124.83	113.55	11.067	CC, ES
ONION 1907-06H - VERDAD PR Well - Actual SLB Surv	1,700.00	1,656.59	145.66	131.83	10.530	SF
ONION 1907-07H - VERDAD PR Well - Actual SLB Surv	1,215.33	1,177.30	159.18	148.94	15.544	CC, ES
ONION 1907-07H - VERDAD PR Well - Actual SLB Surv	1,400.00	1,349.56	169.16	157.82	14.914	SF
ONION 1907-08H - VERDAD PR Well - Actual SLB Surv	1,173.77	1,134.98	180.90	170.78	17.876	CC, ES
ONION 1907-08H - VERDAD PR Well - Actual SLB Surv	1,300.00	1,248.00	187.15	176.36	17.348	SF
ONION 1907-09H - VERDAD PR Well - Actual SLB Surv	969.02	937.29	203.41	194.03	21.693	CC, ES
ONION 1907-09H - VERDAD PR Well - Actual SLB Surv	1,200.00	1,148.78	212.39	201.94	20.321	SF
1N-64W-30 Offsets						
ANDREWS #13 - Verdad P&A Well - No Surveys						Out of range
ARNOLD #31 - Verdad P&A Well - No Surveys	14,148.74	6,940.00	601.29	207.58	1.527	CC, ES, SF
1N-64W-31 Offsets						
UPRR TIPPETT #1 - Rocky Mtn P&A Well - No Surveys						Out of range

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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 1930-20H
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.58°



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Offset Depths are relative to Offset Datum

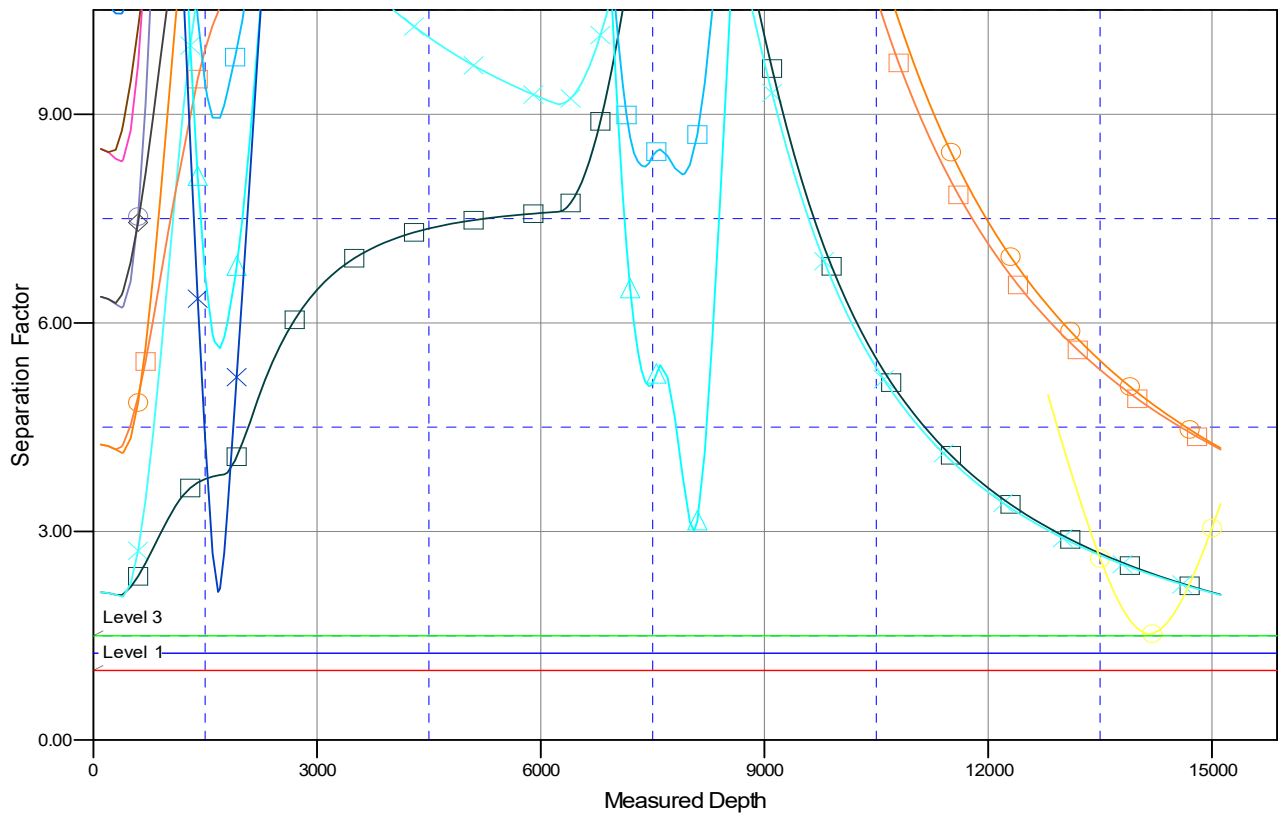
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Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.58°

Separation Factor Plot



LEGEND

SHALLOT 1930-21H, Plan A, Design #1 V0	CHIVE 2536-11H, Plan A, Design #1 V0	ONION 190708H, VERDAD PR Well, Actual SLB Surveys V0
CHIVE 2536-11H, Plan A, Design #1 V0	SHALLOT 1930-23H, Plan A, Design #1 V0	ONION 190709H, VERDAD PR Well, Actual SLB Surveys V0
SHALLOT 1930-23H, Plan A, Design #1 V0	CHIVE 2536-14H, Plan A, Design #1 V0	ONION 190707H, VERDAD PR Well, Actual SLB Surveys V0
CHIVE 2536-14H, Plan A, Design #1 V0	SHALLOT 1930-19H, Plan A, Design #1 V0	ONION 190703H, VERDAD PR Well, Actual SLB Surveys V0
SHALLOT 1930-19H, Plan A, Design #1 V0	CHIVE 2536-12H, Plan A, Design #1 V0	ONION 190705H, VERDAD PR Well, Actual SLB Surveys V0
CHIVE 2536-12H, Plan A, Design #1 V0	SHALLOT 1930-24H, Plan A, Design #1 V0	ONION 190701H, VERDAD PR Well, Actual SLB Surveys V0
SHALLOT 1930-24H, Plan A, Design #1 V0		ONION 190702H, VERDAD PR Well, Actual SLB Surveys V0
		ARNOLD #31, Verdad P&A Well, No Surveys V0