

VERDAD RESOURCES

WATTENBERG FIELD

1N-64W-19 CHIVE & SHALLOT PAD

CHIVE 2536-15H

Plan A

Design #1

Anticollision Summary Report

19 May, 2023

Anticollision Summary Report

Company:	VERDAD RESOURCES	Local Co-ordinate Reference:	Well CHIVE 2536-15H
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:	CHIVE 2536-15H	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	18,182.91	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	79.99	72.43	10.569	CC, ES
CHIVE 2536-10H - Plan A - Design #1	2,100.00	2,027.02	191.74	165.69	7.359	SF
CHIVE 2536-11H - Plan A - Design #1	200.00	200.00	63.99	56.42	8.455	CC, ES
CHIVE 2536-11H - Plan A - Design #1	2,100.00	2,042.13	161.21	134.75	6.094	SF
CHIVE 2536-12H - Plan A - Design #1	208.12	208.12	47.99	40.42	6.336	CC, ES
CHIVE 2536-12H - Plan A - Design #1	2,100.00	2,057.58	127.58	100.67	4.741	SF
CHIVE 2536-13H - Plan A - Design #1	203.63	203.63	31.99	24.42	4.226	CC, ES
CHIVE 2536-13H - Plan A - Design #1	18,182.90	18,841.23	1,233.21	676.95	2.217	SF
CHIVE 2536-14H - Plan A - Design #1	208.40	208.40	15.99	8.42	2.111	CC
CHIVE 2536-14H - Plan A - Design #1	299.80	299.70	16.05	8.40	2.097	ES
CHIVE 2536-14H - Plan A - Design #1	18,182.90	18,493.58	616.61	60.30	1.108	Level 2, SF
CHIVE 2536-16H - Plan A - Design #1	299.80	299.80	16.00	8.35	2.090	CC, ES
CHIVE 2536-16H - Plan A - Design #1	16,452.34	16,187.62	515.02	39.19	1.082	Level 2, SF
CHIVE 2536-17H - Plan A - Design #1	299.80	299.80	32.00	24.35	4.181	CC, ES
CHIVE 2536-17H - Plan A - Design #1	18,174.99	17,685.56	1,233.20	676.72	2.216	SF
SHALLOT 1930-18H - Plan A - Design #1	299.80	299.80	48.00	40.35	6.271	CC, ES, SF
SHALLOT 1930-19H - Plan A - Design #1	299.80	299.80	64.00	56.35	8.361	CC, ES, SF
SHALLOT 1930-20H - Plan A - Design #1	299.80	299.80	80.00	72.35	10.451	CC, ES, SF
SHALLOT 1930-21H - Plan A - Design #1	299.80	299.80	96.00	88.35	12.542	CC, ES, SF
SHALLOT 1930-22H - Plan A - Design #1	299.80	299.80	112.01	104.35	14.632	CC, ES, SF
SHALLOT 1930-23H - Plan A - Design #1	203.47	203.47	128.01	120.44	16.908	CC, ES
SHALLOT 1930-23H - Plan A - Design #1	299.80	298.83	128.11	120.46	16.738	SF
SHALLOT 1930-24H - Plan A - Design #1	200.00	200.00	144.01	136.44	19.027	CC, ES
SHALLOT 1930-24H - Plan A - Design #1	299.80	296.44	144.94	137.29	18.944	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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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	225.08	226.09	200.11	192.53	26.404	CC
ONION 1907-01H - VERDAD PR Well - Actual SLB Surv	299.80	300.21	200.17	192.52	26.186	ES
ONION 1907-01H - VERDAD PR Well - Actual SLB Surv	1,400.00	1,375.63	338.57	325.03	25.007	SF
ONION 1907-02H - VERDAD PR Well - Actual SLB Surv	0.00	1.00	202.77			
ONION 1907-02H - VERDAD PR Well - Actual SLB Surv	400.00	398.14	205.92	198.16	26.561	SF
ONION 1907-03H - VERDAD PR Well - Actual SLB Surv	140.23	141.23	205.97	198.44	27.334	CC, ES
ONION 1907-03H - VERDAD PR Well - Actual SLB Surv	400.00	399.18	207.93	200.18	26.828	SF
ONION 1907-04H - VERDAD PR Well - Actual SLB Surv	0.00	1.00	210.37			
ONION 1907-04H - VERDAD PR Well - Actual SLB Surv	400.00	399.13	213.31	205.57	27.546	SF
ONION 1907-05H - VERDAD PR Well - Actual SLB Surv	0.00	1.00	215.87			
ONION 1907-05H - VERDAD PR Well - Actual SLB Surv	400.00	400.54	218.75	211.01	28.249	SF
ONION 1907-06H - VERDAD PR Well - Actual SLB Surv	0.00	1.00	222.40			
ONION 1907-06H - VERDAD PR Well - Actual SLB Surv	400.00	399.39	225.74	218.00	29.159	SF
ONION 1907-07H - VERDAD PR Well - Actual SLB Surv	0.00	1.00	229.84			
ONION 1907-07H - VERDAD PR Well - Actual SLB Surv	400.00	397.58	231.99	224.25	29.972	SF
ONION 1907-08H - VERDAD PR Well - Actual SLB Surv	0.00	1.00	238.14			
ONION 1907-08H - VERDAD PR Well - Actual SLB Surv	299.80	293.48	239.47	231.84	31.413	SF
ONION 1907-09H - VERDAD PR Well - Actual SLB Surv	0.00	1.00	247.17			
ONION 1907-09H - VERDAD PR Well - Actual SLB Surv	187.20	188.20	247.18	239.62	32.717	ES
ONION 1907-09H - VERDAD PR Well - Actual SLB Surv	299.80	297.05	248.01	240.37	32.473	SF
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	8,025.43	17,961.00	963.64	648.92	3.062	CC, ES, SF
SAFI 1224-10H - Verdad PR Well - Actual SLB Surveys						Out of range
SAFI 1224-12H - Verdad PR Well - Actual SLB Surveys	7,666.20	18,108.00	868.95	606.75	3.314	CC
SAFI 1224-12H - Verdad PR Well - Actual SLB Surveys	7,750.00	18,108.00	874.29	602.51	3.217	ES
SAFI 1224-12H - Verdad PR Well - Actual SLB Surveys	7,800.00	18,108.00	882.49	606.60	3.199	SF
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	7,936.42	6,824.55	171.65	74.33	1.764	CC
Meehl 01N-65W-24-2N - Verdad SI Well - Actual Ensign	7,950.00	6,828.08	172.22	71.14	1.704	ES
Meehl 01N-65W-24-2N - Verdad SI Well - Actual Ensign	8,000.00	6,838.56	184.00	73.30	1.662	SF
1N-65W-25 Offsets						
HSR OLIPHANT #3-25 - Mountain Petroleum P&A Well -	9,057.47	6,957.00	1,162.58	843.94	3.649	CC
HSR OLIPHANT #3-25 - Mountain Petroleum P&A Well -	9,100.00	6,957.00	1,163.36	841.30	3.612	ES
HSR OLIPHANT #3-25 - Mountain Petroleum P&A Well -	9,300.00	6,957.00	1,187.61	850.63	3.524	SF
HSR-AMEN #11-25 - KMG P&A Well - No Surveys						Out of range
HSR-HAFFNER #2-25 - HSR P&A Well - No Surveys	8,500.00	6,959.00	91.81	-255.45	0.264	Level 1, ES
HSR-HAFFNER #2-25 - HSR P&A Well - No Surveys	8,573.71	6,959.00	54.73	-254.82	0.177	Level 1, CC, SF
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	14,400.00	6,963.00	264.25	-182.84	0.591	Level 1, ES
ACCO-TERRA-STATE ET AL #41 - Kerr McGee PR Well	14,455.91	6,963.00	258.27	-179.25	0.590	Level 1, CC, SF
RUEBEL ET AL #36-1 - KPK PR Well - No Surveys	17,500.00	6,958.00	732.04	220.07	1.430	Level 3, ES, SF
RUEBEL ET AL #36-1 - KPK PR Well - No Surveys	17,555.12	6,958.00	729.96	221.21	1.435	Level 3, CC
STATE #36-2 - KPK P&A Well - No Surveys						Out of range

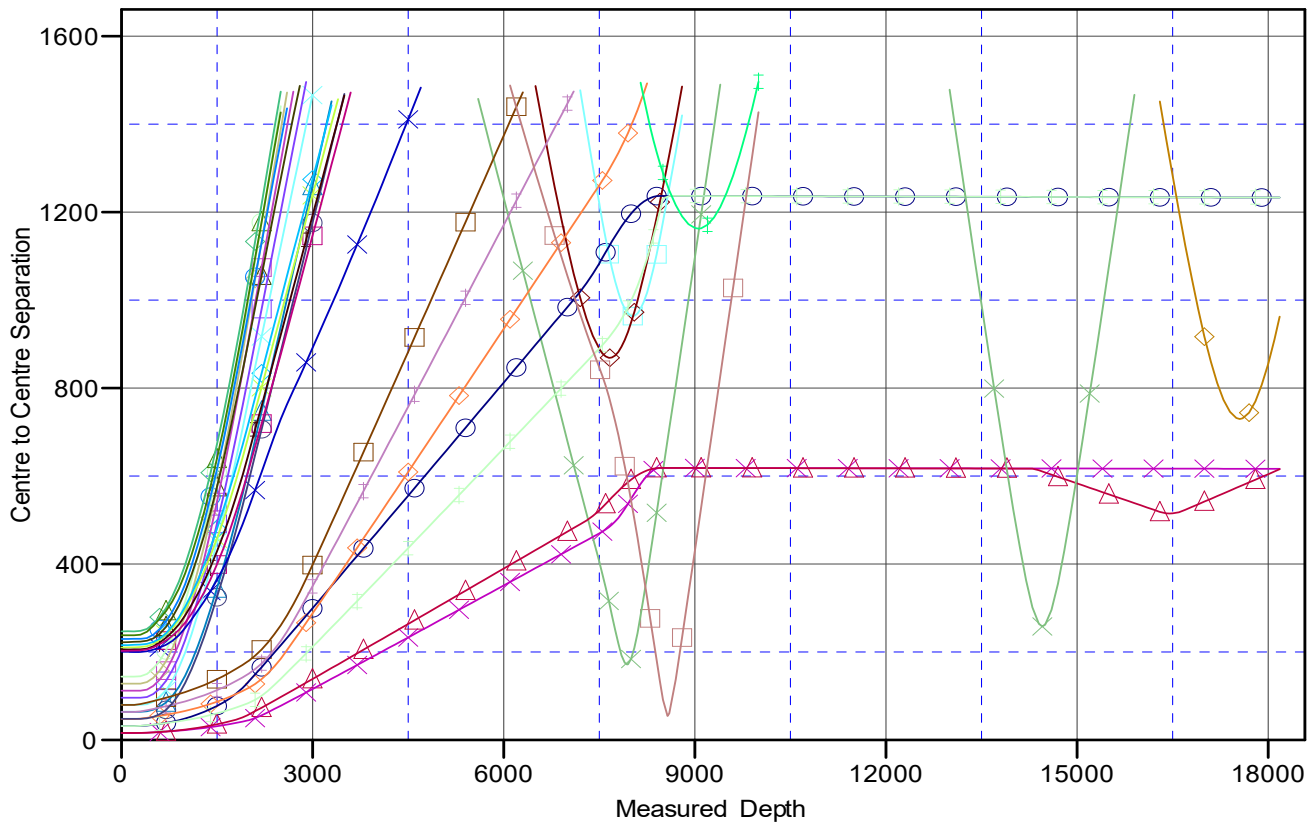
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Reference Depths are relative to RKB = 20' @ 5031.00usft (RIG)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: CHIVE 2536-15H
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.58°

Ladder Plot



LEGEND

<ul style="list-style-type: none"> Meehl 01N-6W-24-2N, Verdad SI Well, Actual Ensign Surveys V0 SAFI 122408H, Verdad PR Well, Actual SLB Surveys V0 SAFI 122412H, Verdad PR Well, Actual SLB Surveys V0 SHALLOT 1930-21H, Plan A, Design #1 V0 CHIVE 2536-17H, Plan A, Design #1 V0 SHALLOT 1930-23H, Plan A, Design #1 V0 SHALLOT 1930-20H, Plan A, Design #1 V0 CHIVE 2536-14H, Plan A, Design #1 V0 CHIVE 2536-16H, Plan A, Design #1 V0 CHIVE 2536-12H, Plan A, Design #1 V0 	<ul style="list-style-type: none"> SHALLOT 1930-24H, Plan A, Design #1 V0 SHALLOT 1930-19H, Plan A, Design #1 V0 CHIVE 2536-11H, Plan A, Design #1 V0 SHALLOT 1930-22H, Plan A, Design #1 V0 CHIVE 2536-13H, Plan A, Design #1 V0 SHALLOT 1930-18H, Plan A, Design #1 V0 CHIVE 2536-10H, Plan A, Design #1 V0 ONION 190705H, VERDAD PR Well, Actual SLB Surveys V0 ONION 190704H, VERDAD PR Well, Actual SLB Surveys V0 ONION 190708H, VERDAD PR Well, Actual SLB Surveys V0 	<ul style="list-style-type: none"> ONION 190703H, VERDAD PR Well, Actual SLB Surveys V0 ONION 190709H, VERDAD PR Well, Actual SLB Surveys V0 ONION 190701H, VERDAD PR Well, Actual SLB Surveys V0 ONION 190702H, VERDAD PR Well, Actual SLB Surveys V0 ONION 190706H, VERDAD PR Well, Actual SLB Surveys V0 ONION 190707H, VERDAD PR Well, Actual SLB Surveys V0 RUEBEL ET AL #36-1, KPK PR Well, No Surveys V0 ACCO-TERRA-STATIE ET AL #41, Kerr McGee PR Well, No Surveys V0 HSR-HAFNER #2-25, HSR P&A Well, No Surveys V0 HSR CLIPWANT #5-25, Mountain Petroleum P&A Well, No Surveys V0
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Offset Depths are relative to Offset Datum

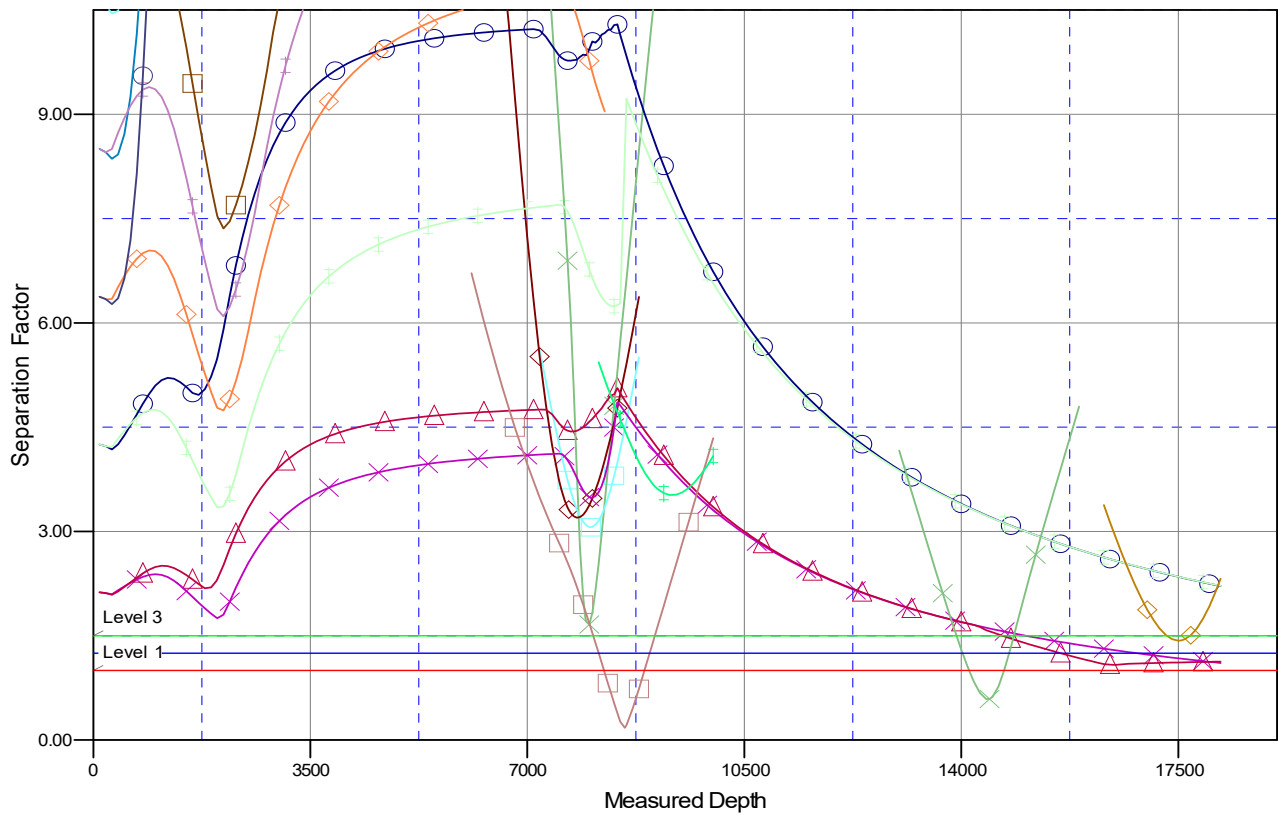
Central Meridian is -105.500000

Coordinates are relative to: CHIVE 2536-15H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.58°

Separation Factor Plot



LEGEND

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