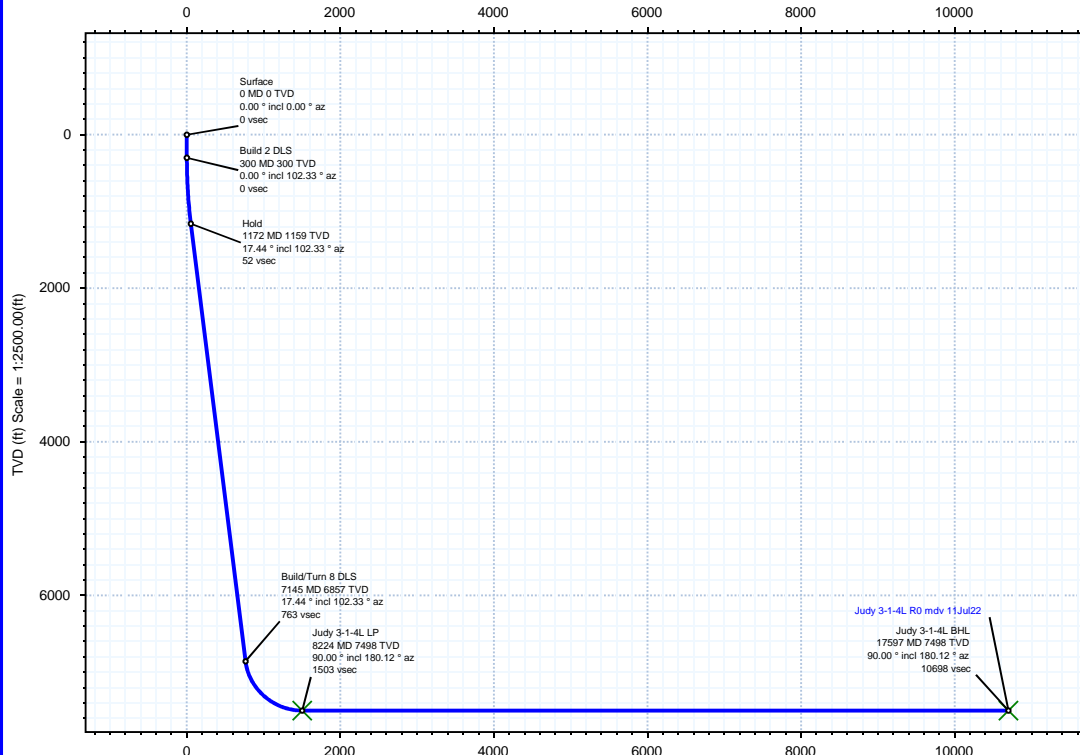


Borehole:	Well:	Field:	Structure:
Original Hole	Judy 3-1-4L	CO, Weld County (NAD 83 NZ) - 2019	Confluence 34-01N-65W (Judy 34 Pad)

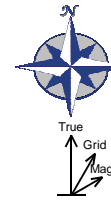
Gravity & Magnetic Parameters	Surface Location	NAD83 Colorado State Plane, Northern Zone, US Feet	Miscellaneous
Model: HDGM 2022 Dip: 66.21° Date: 11-Jul-2022	Lat: N 40 0 9.58 Northing: 1244940.76ftUS Grid Conv: 0.5453°	Lon: W 104 39 21.92 Easting: 3236411.63ftUS Scale Fact: 0.99996617	Slot: Judy 3-1-4L TVD Ref: KB = 23ft(5157ft above MSL)
MagDec: 7.886° FS: 51571.534nT Gravity FS: 998.981mgn (9.80665 Based)			Plan: Judy 3-1-4L R0 mdy 11Jul22

Surface Location		Grid Coord		Local Coord	
North: 1244940.76020469	East: 3236411.6262201	Latitude: N 40 0 9.58	Longitude: W 104 39 21.92	VSec Azimuth: 168.93	
Target Description	Latitude	Longitude	North	East	TVD
Judy 34 Pad Sec 03-10 - Setback	N 40 0 8.10	W 104 39 20.92	1244792.16	3236491.48	5157.00
Judy 34 Pad Sec 03-10 - CL	N 40 0 8.10	W 104 39 20.92	1244792.16	3236491.48	5157.00
Judy 34 Pad Sec 03-10	N 40 0 8.10	W 104 39 20.92	1244792.16	3236491.48	5157.00
Judy 3-1-4L LP	N 39 59 58.45	W 104 38 55.28	1243835.02	3238495.39	7498.00
Judy 3-1-4L BHL	N 39 58 25.82	W 104 38 55.54	1234462.51	3238565.76	7498.00

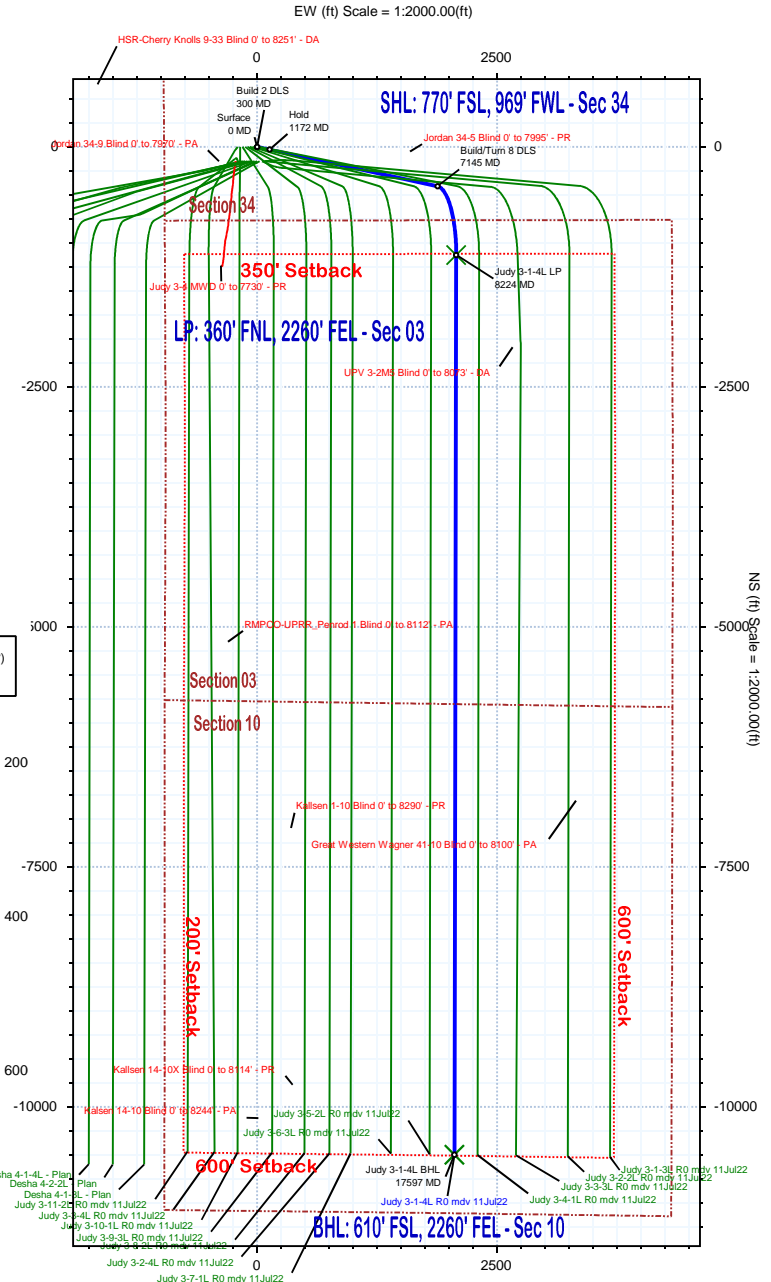
Critical Points							
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)S(-)	E(+)W(-)
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Build 2 DLS	300.00	0.00	102.33	300.00	0.00	0.00	0.00
Hold	1172.14	17.44	102.33	1158.73	52.32	-28.13	128.70
Build/Turn 8 DLS	7144.83	17.44	102.33	6856.78	763.37	-410.41	1877.75
Judy 3-1-4L LP	8224.38	90.00	180.12	7498.00	1502.75	-1125.56	2073.22
Judy 3-1-4L BHL	17597.49	90.00	180.12	7498.00	10697.77	-10498.65	2054.39



Vertical Section (ft) Azim = 168.93° Scale = 1:2500.00(ft) Origin = 0N/-S, 0E/-W



True North
Tot Corr (M->T 7.886°)
Mag Dec (7.886°)
Grid Conv (0.545°)



Judy 3-1-4L R0 mdv 11Jul22 Proposal Geodetic Report

(Def Plan)

Report Date: July 13, 2022 - 11:33 AM
Client: Confluence DJ
Field: CO, Weld County (NAD 83 NZ) - 2019
Structure / Slot: Confluence 34-01N-65W (Judy 34 Pad) / Judy 3-1-4L
Well: Judy 3-1-4L
Borehole: Original Hole
UWI / API#: 05-123-45927
Survey Name: Judy 3-1-4L R0 mdv 11Jul22
Survey Date: July 11, 2022
Tort / AHD / DDI / ERD Ratio: 103.807 ° / 12064.727 ft / 6.468 / 1.609
Coordinate Reference System: NAD83 Colorado State Plane, Northern Zone, US Feet
Location Lat / Long: N 40° 0' 9.57600", W 104° 39' 21.92400"
Location Grid N/E Y/X: N 1244940.760 ftUS, E 3236411.626 ftUS
CRS Grid Convergence Angle: 0.5453 °
Grid Scale Factor: 0.99996617
Version / Patch: 2.10.829.1

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 168.928 ° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: KB = 23ft
TVD Reference Elevation: 5157.000 ft above MSL
Seabed / Ground Elevation: 5134.000 ft above MSL
Magnetic Declination: 7.886 °
Total Gravity Field Strength: 998.9810mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 51571.534 nT
Magnetic Dip Angle: 66.210 °
Declination Date: July 11, 2022
Magnetic Declination Model: HDGM 2022
North Reference: True North
Grid Convergence Used: 0.0000 °
Total Corr Mag North->True North: 7.8856 °
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
Surface	0.00	0.00	0.00	0.00	-5157.00	0.00	0.00	0.00	N/A	1244940.76	3236411.63	40.002660	-104.656090
	100.00	0.00	102.33	100.00	-5057.00	0.00	0.00	0.00	0.00	1244940.76	3236411.63	40.002660	-104.656090
	200.00	0.00	102.33	200.00	-4957.00	0.00	0.00	0.00	0.00	1244940.76	3236411.63	40.002660	-104.656090
	300.00	0.00	102.33	300.00	-4857.00	0.00	0.00	0.00	0.00	1244940.76	3236411.63	40.002660	-104.656090
	400.00	2.00	102.33	399.98	-4757.02	0.69	-0.37	1.70	2.00	1244940.40	3236413.33	40.002659	-104.656084
	500.00	4.00	102.33	499.84	-4657.16	2.77	-1.49	6.82	2.00	1244939.34	3236418.46	40.002656	-104.656066
	600.00	6.00	102.33	599.45	-4557.55	6.23	-3.35	15.33	2.00	1244937.56	3236426.99	40.002651	-104.656035
	700.00	8.00	102.33	698.70	-4458.30	11.07	-5.95	27.24	2.00	1244935.07	3236438.92	40.002644	-104.655993
	800.00	10.00	102.33	797.47	-4359.53	17.29	-9.29	42.52	2.00	1244931.87	3236454.23	40.002634	-104.655938
	900.00	12.00	102.33	895.62	-4261.38	24.86	-13.37	61.16	2.00	1244927.98	3236472.91	40.002623	-104.655872
Hold	1000.00	14.00	102.33	993.06	-4163.94	33.80	-18.17	83.13	2.00	1244923.38	3236494.93	40.002610	-104.655793
	1100.00	16.00	102.33	1089.64	-4067.36	44.08	-23.70	108.42	2.00	1244918.10	3236520.26	40.002595	-104.655703
	1172.14	17.44	102.33	1158.73	-3998.27	52.32	-28.13	128.70	2.00	1244913.86	3236540.58	40.002583	-104.655631
	1200.00	17.44	102.33	1185.31	-3971.69	55.64	-29.91	136.85	2.00	1244912.15	3236548.75	40.002578	-104.655602
	1300.00	17.44	102.33	1280.71	-3876.29	67.54	-36.31	166.14	0.00	1244906.03	3236578.10	40.002560	-104.655497
	1400.00	17.44	102.33	1376.11	-3780.89	79.45	-42.71	195.42	0.00	1244899.91	3236607.44	40.002543	-104.655382
	1500.00	17.44	102.33	1471.51	-3685.49	91.35	-49.11	224.71	0.00	1244893.79	3236636.78	40.002525	-104.655288
	1600.00	17.44	102.33	1566.92	-3590.08	103.26	-55.51	253.99	0.00	1244887.67	3236666.12	40.002508	-104.655183
	1700.00	17.44	102.33	1662.32	-3494.68	115.16	-61.91	283.27	0.00	1244881.55	3236695.47	40.002490	-104.655079
	1800.00	17.44	102.33	1757.72	-3399.28	127.07	-68.31	312.56	0.00	1244875.43	3236724.81	40.002472	-104.654974
Build 2 DLS	1900.00	17.44	102.33	1853.12	-3303.88	138.97	-74.71	341.84	0.00	1244869.30	3236754.15	40.002455	-104.654870
	2000.00	17.44	102.33	1948.52	-3208.48	150.88	-81.12	371.13	0.00	1244863.18	3236783.49	40.002437	-104.654765
	2100.00	17.44	102.33	2043.92	-3113.08	162.78	-87.52	400.41	0.00	1244857.06	3236812.84	40.002420	-104.654661
	2200.00	17.44	102.33	2139.33	-3017.67	174.69	-93.92	429.69	0.00	1244850.94	3236842.18	40.002402	-104.654556
	2300.00	17.44	102.33	2234.73	-2922.27	186.59	-100.32	458.98	0.00	1244844.82	3236871.52	40.002385	-104.654452
	2400.00	17.44	102.33	2330.13	-2826.87	198.50	-106.72	488.26	0.00	1244838.70	3236900.87	40.002367	-104.654347
	2500.00	17.44	102.33	2425.53	-2731.47	210.40	-113.12	517.55	0.00	1244832.58	3236930.21	40.002349	-104.654243
	2600.00	17.44	102.33	2520.93	-2636.07	222.31	-119.52	546.83	0.00	1244826.46	3236959.55	40.002332	-104.654138
	2700.00	17.44	102.33	2616.33	-2540.67	234.21	-125.92	576.12	0.00	1244820.33	3236988.89	40.002314	-104.654034
	2800.00	17.44	102.33	2711.74	-2445.26	246.12	-132.32	605.40	0.00	1244814.21	3237018.24	40.002297	-104.653929
	2900.00	17.44	102.33	2807.14	-2349.86	258.02	-138.72	634.68	0.00	1244808.09	3237047.58	40.002279	-104.653825
	3000.00	17.44	102.33	2902.54	-2254.46	269.93	-145.12	663.97	0.00	1244801.97	3237076.92	40.002262	-104.653720
	3100.00	17.44	102.33	2997.94	-2159.06	281.83	-151.52	693.25	0.00	1244795.85	3237106.26	40.002244	-104.653615
	3200.00	17.44	102.33	3093.34	-2063.66	293.74	-157.92	722.54	0.00	1244789.73	3237135.61	40.002226	-104.653511
	3300.00	17.44	102.33	3188.74	-1968.26	305.64	-164.32	751.82	0.00	1244783.61	3237164.95	40.002209	-104.653406
	3400.00	17.44	102.33	3284.15	-1872.85	317.55	-170.72	781.10	0.00	1244777.49	3237194.29	40.002191	-104.653302
	3500.00	17.44	102.33	3379.55	-1777.45	329.45	-177.12	810.39	0.00	1244771.36	3237223.63	40.002174	-104.653197
	3600.00	17.44	102.33	3474.95	-1682.05	341.36	-183.52	839.67	0.00	1244765.24	3237252.98	40.002156	-104.653093
	3700.00	17.44	102.33	3570.35	-1586.65	353.26	-189.92	868.96	0.00	1244759.12	3237282.32	40.002139	-104.652988
	3800.00	17.44	102.33	3665.75	-1491.25	365.17	-196.32	898.24	0.00	1244753.00	3237311.66	40.002121	-104.652884
	3900.00	17.44	102.33	3761.15	-1395.85	377.07	-202.72	927.53	0.00	1244746.88	3237341.01	40.002103	-104.652779
	4000.00	17.44	102.33	3856.56	-1300.44	388.98	-209.13	956.81	0.00	1244740.76	3237370.35	40.002086	-104.652675
	4100.00	17.44	102.33	3951.96	-1205.04	400.88	-215.53	986.09	0.00	1244734.64	3237399.69	40.002068	-104.652570
	4200.00	17.44	102.33	4047.36	-1109.64	412.79	-221.93	1015.38	0.00	1244728.51	3237429.03	40.002051	-104.652466
	4300.00	17.44	102.33	4142.76	-1014.24	424.69	-228.33	1044.66	0.00	1244722.39	3237458.38	40.002033	-104.652361
	4400.00	17.44	102.33	4238.16	-918.84	436.60	-234.73	1073.95	0.00	1244716.27	3237487.72	40.002016	-104.652257
	4500.00	17.44	102.33	4333.56	-823.44	448.50	-241.13	1103.23	0.00	1244710.15	3237517.06	40.001998	-104.652152
	4600.00	17.44	102.33	4428.97	-728.03	460.41	-247.53	1132.51	0.00	1244704.03	3237546.40	40.001980	-104.652048
	4700.00	17.44	102.33	4524.37	-632.63	472.31	-253.93	1161.80	0.00	1244697.91	3237575.75	40.001963	-104.651943
	4800.00	17.44	102.33	4619.77	-537.23	484.22	-260.33	1191.08	0.00	1244691.79	3237605.09	40.001945	-104.651838
	4900.00	17.44	102.33	4715.17	-441.83	496.12	-266.73	1220.37	0.00	1244685.67	3237634.43	40.001928	-104.651734
	5000.00	17.44	102.33	4810.57	-346.43	508.03	-273.13	1249.65	0.00	1244679.54	3237663.78	40.001910	-104.651629
	5100.00	17.44	102.33	4905.97	-251.03	519.93	-279.53	1278.94	0.00	1244673.42	3237693.12	40.001893	-104.651525
	5200.00	17.44	102.33	5001.37	-155.63	531.84	-285.93	1308.22	0.00	1244667.30	3237722.46	40.001875	-104.651420
	5300.00	17.44	102.33	5096.78	-60.22	543.74	-292.33	1337.50	0.00	1244661.18	3237751.80	40.001857	-104.651316
	5400.00	17.44	102.33	5192.18	35.18	555.65	-298.73	1366.79	0.00	1244655.06	3237781.15	40.001840	-104.651211
	5500.00	17.44	102.33	5287.58	130.58	567.55	-305.13	1396.07	0.00	1244648.94	3237810.49	40.001822	-104.651107
	5600.00	17.44	102.33	5382.98	225.98	579.46	-311.53	1425.36	0.00	1244642.82	3237839.83	40.001805	-104.651002
	5700.00	17.44	102.33	5478.38	321.38	591.36	-317.93	1454.64	0.00	1244636.70	3237869.17	40.001787	-104.650898
	5800.00	17.44	102.33	5573.78	416.78	603.27	-324.33	1483.92	0.00	1244630.57	3237898.52	40.001770	-104.650793
	5900.00	17.44	102.33	5669.19	512.19	615.17	-330.73	1513.21	0.00	1244624.45	3237927.86	40.001752	-104.650689
	6000.00	17.44	102.33	5764.59	607.59	627.08	-337.14	1542.49	0.00	1244618.33	3237957.20	40.001734	-104.650584
	6100.00	17.44	102.33	5859.99	702.99	638.98	-343.54	1571.78	0.00	1244612.21	3237986.54	40.001717	-104.650480
	6200.00	17.44	102.33	5955.39	798.39	650.89	-349.94	1601.06	0.00	1244606.09	3238015.89	40.001699	-104.650375
	6300.00	17.44	102.33	6050.79	893.79	662.79	-356.34	1630.34	0.00	1244599.97	3238045.23	40.001682	-104.650271
	6400.00	17.44	102.33	6146.19	989.19	674.70	-362.74	1659.63	0.00	1244593.85	3238074.57	40.001664	-104.650166
	6500.00	17.44	102.33	6241.60	1084.60	686.60	-369.14	1688.91	0.00	1244587.72	3238103.92	40.001647	-104.650062
	6600.00	17.44	102.33	6337.00	1180.00	698.51	-375.54	1718.20	0.00	1244581.60	3238133.26	40.001629	-104.649957
	6700.00	17.44	102.33	6432.40	1275.40	710.41	-381.94	1747.48	0.00	1244575.48	3238162.60	40.001611	-104.649852
	6800.00	17.44	102.33	6527.80	1370.80	722.32	-388.34	1776.77	0.00	1244569.36	3238191.94	40.001594	-104.649748
690													

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
Judy 3-1-4L LP	8224.38	90.00	180.12	7498.00	2341.00	1502.75	-1125.56	2073.22	8.00	1243835.02	3238495.39	39.995970	-104.648690
	8300.00	90.00	180.12	7498.00	2341.00	1576.93	-1201.18	2073.07	0.00	1243759.41	3238495.96	39.99362	-104.648691
	8400.00	90.00	180.12	7498.00	2341.00	1675.03	-1301.18	2072.87	0.00	1243659.41	3238496.71	39.99088	-104.648691
	8500.00	90.00	180.12	7498.00	2341.00	1773.13	-1401.18	2072.67	0.00	1243559.42	3238497.46	39.99813	-104.648692
	8600.00	90.00	180.12	7498.00	2341.00	1871.23	-1501.18	2072.47	0.00	1243459.43	3238498.21	39.998539	-104.648693
	8700.00	90.00	180.12	7498.00	2341.00	1969.33	-1601.18	2072.27	0.00	1243359.43	3238498.96	39.998264	-104.648694
	8800.00	90.00	180.12	7498.00	2341.00	2067.43	-1701.18	2072.07	0.00	1243259.44	3238499.71	39.997990	-104.648694
	8900.00	90.00	180.12	7498.00	2341.00	2165.53	-1801.18	2071.87	0.00	1243159.45	3238500.47	39.997715	-104.648695
	9000.00	90.00	180.12	7498.00	2341.00	2263.63	-1901.18	2071.67	0.00	1243059.45	3238501.22	39.997441	-104.648696
	9100.00	90.00	180.12	7498.00	2341.00	2361.73	-2001.18	2071.46	0.00	1242959.46	3238501.97	39.997166	-104.648697
	9200.00	90.00	180.12	7498.00	2341.00	2459.83	-2101.18	2071.26	0.00	1242859.47	3238502.72	39.996892	-104.648697
	9300.00	90.00	180.12	7498.00	2341.00	2557.93	-2201.18	2071.06	0.00	1242759.47	3238503.47	39.996617	-104.648698
	9400.00	90.00	180.12	7498.00	2341.00	2656.03	-2301.18	2070.86	0.00	1242659.48	3238504.22	39.996343	-104.648699
	9500.00	90.00	180.12	7498.00	2341.00	2754.13	-2401.18	2070.66	0.00	1242559.48	3238504.97	39.996068	-104.648700
	9600.00	90.00	180.12	7498.00	2341.00	2852.23	-2501.18	2070.46	0.00	1242459.49	3238505.72	39.995794	-104.648700
	9700.00	90.00	180.12	7498.00	2341.00	2950.33	-2601.18	2070.26	0.00	1242359.50	3238506.47	39.995519	-104.648701
	9800.00	90.00	180.12	7498.00	2341.00	3048.43	-2701.18	2070.06	0.00	1242259.50	3238507.22	39.995245	-104.648702
	9900.00	90.00	180.12	7498.00	2341.00	3146.53	-2801.17	2069.86	0.00	1242159.51	3238507.97	39.994970	-104.648703
	10000.00	90.00	180.12	7498.00	2341.00	3244.63	-2901.17	2069.66	0.00	1242059.52	3238508.72	39.994696	-104.648703
	10100.00	90.00	180.12	7498.00	2341.00	3342.73	-3001.17	2069.45	0.00	1241959.52	3238509.47	39.994421	-104.648704
	10200.00	90.00	180.12	7498.00	2341.00	3440.83	-3101.17	2069.25	0.00	1241859.53	3238510.22	39.994147	-104.648705
	10300.00	90.00	180.12	7498.00	2341.00	3538.93	-3201.17	2069.05	0.00	1241759.54	3238510.97	39.993872	-104.648706
	10400.00	90.00	180.12	7498.00	2341.00	3637.03	-3301.17	2068.85	0.00	1241659.54	3238511.73	39.993598	-104.648706
	10500.00	90.00	180.12	7498.00	2341.00	3735.13	-3401.17	2068.65	0.00	1241559.55	3238512.48	39.993323	-104.648707
	10600.00	90.00	180.12	7498.00	2341.00	3833.23	-3501.17	2068.45	0.00	1241459.56	3238513.23	39.993049	-104.648708
	10700.00	90.00	180.12	7498.00	2341.00	3931.33	-3601.17	2068.25	0.00	1241359.56	3238513.98	39.992774	-104.648708
	10800.00	90.00	180.12	7498.00	2341.00	4029.43	-3701.17	2068.05	0.00	1241259.57	3238514.73	39.992500	-104.648709
	10900.00	90.00	180.12	7498.00	2341.00	4127.53	-3801.17	2067.85	0.00	1241159.57	3238515.48	39.992225	-104.648710
	11000.00	90.00	180.12	7498.00	2341.00	4225.63	-3901.17	2067.65	0.00	1241059.58	3238516.23	39.991951	-104.648711
	11100.00	90.00	180.12	7498.00	2341.00	4323.73	-4001.17	2067.44	0.00	1240959.59	3238516.98	39.991676	-104.648711
	11200.00	90.00	180.12	7498.00	2341.00	4421.83	-4101.17	2067.24	0.00	1240859.59	3238517.73	39.991402	-104.648712
	11300.00	90.00	180.12	7498.00	2341.00	4519.93	-4201.17	2067.04	0.00	1240759.60	3238518.48	39.991127	-104.648713
	11400.00	90.00	180.12	7498.00	2341.00	4618.03	-4301.17	2066.84	0.00	1240659.61	3238519.23	39.990853	-104.648714
	11500.00	90.00	180.12	7498.00	2341.00	4716.13	-4401.17	2066.64	0.00	1240559.61	3238519.98	39.990578	-104.648714
	11600.00	90.00	180.12	7498.00	2341.00	4814.23	-4501.17	2066.44	0.00	1240459.62	3238520.73	39.990304	-104.648715
	11700.00	90.00	180.12	7498.00	2341.00	4912.33	-4601.17	2066.24	0.00	1240359.63	3238521.48	39.990029	-104.648716
	11800.00	90.00	180.12	7498.00	2341.00	5010.43	-4701.17	2066.04	0.00	1240259.63	3238522.24	39.989755	-104.648717
	11900.00	90.00	180.12	7498.00	2341.00	5108.53	-4801.17	2065.84	0.00	1240159.64	3238522.99	39.989480	-104.648717
	12000.00	90.00	180.12	7498.00	2341.00	5206.63	-4901.17	2065.64	0.00	1240059.64	3238523.74	39.989206	-104.648718
	12100.00	90.00	180.12	7498.00	2341.00	5304.73	-5001.17	2065.44	0.00	1239959.65	3238524.49	39.988931	-104.648719
	12200.00	90.00	180.12	7498.00	2341.00	5402.83	-5101.17	2065.23	0.00	1239859.66	3238525.24	39.988657	-104.648720
	12300.00	90.00	180.12	7498.00	2341.00	5500.93	-5201.17	2065.03	0.00	1239759.66	3238525.99	39.988382	-104.648720
	12400.00	90.00	180.12	7498.00	2341.00	5599.03	-5301.17	2064.83	0.00	1239659.67	3238526.74	39.988108	-104.648721
	12500.00	90.00	180.12	7498.00	2341.00	5697.13	-5401.17	2064.63	0.00	1239559.68	3238527.49	39.987833	-104.648722
	12600.00	90.00	180.12	7498.00	2341.00	5795.23	-5501.17	2064.43	0.00	1239459.68	3238528.24	39.987559	-104.648723
	12700.00	90.00	180.12	7498.00	2341.00	5893.33	-5601.17	2064.23	0.00	1239359.69	3238528.99	39.987284	-104.648723
	12800.00	90.00	180.12	7498.00	2341.00	5991.43	-5701.17	2064.03	0.00	1239259.70	3238529.74	39.987010	-104.648724
	12900.00	90.00	180.12	7498.00	2341.00	6089.53	-5801.17	2063.83	0.00	1239159.70	3238530.49	39.986735	-104.648725
	13000.00	90.00	180.12	7498.00	2341.00	6187.63	-5901.17	2063.63	0.00	1239059.71	3238531.24	39.986461	-104.648726
	13100.00	90.00	180.12	7498.00	2341.00	6285.73	-6001.17	2063.43	0.00	1238959.72	3238531.99	39.986186	-104.648726
	13200.00	90.00	180.12	7498.00	2341.00	6383.83	-6101.17	2063.22	0.00	1238859.72	3238532.74	39.985912	-104.648727
	13300.00	90.00	180.12	7498.00	2341.00	6481.93	-6201.17	2063.02	0.00	1238759.73	3238533.50	39.985637	-104.648728
	13400.00	90.00	180.12	7498.00	2341.00	6580.03	-6301.17	2062.82	0.00	1238659.73	3238534.25	39.985362	-104.648729
	13500.00	90.00	180.12	7498.00	2341.00	6678.13	-6401.17	2062.62	0.00	1238559.74	3238535.00	39.985088	-104.648729
	13600.00	90.00	180.12	7498.00	2341.00	6776.23	-6501.17	2062.42	0.00	1238459.75	3238535.75	39.984813	-104.648730
	13700.00	90.00	180.12	7498.00	2341.00	6874.33	-6601.17	2062.22	0.00	1238359.75	3238536.50	39.984539	-104.648731
	13800.00	90.00	180.12	7498.00	2341.00	6972.43	-6701.17	2062.02	0.00	1238259.76	3238537.25	39.984264	-104.648732
	13900.00	90.00	180.12	7498.00	2341.00	7070.53	-6801.17	2061.82	0.00	1238159.77	3238538.00	39.983990	-104.648732
	14000.00	90.00	180.12	7498.00	2341.00	7168.63	-6901.17	2061.62	0.00	1238059.77	3238538.75	39.983715	-104.648733
	14100.00	90.00	180.12	7498.00	2341.00	7266.73	-7001.17	2061.42	0.00	1237959.78	3238539.50	39.983441	-104.648734
	14200.00	90.00	180.12	7498.00	2341.00	7364.83	-7101.17	2061.21	0.00	1237859.79	3238540.25	39.983166	-104.648735
	14300.00	90.00	180.12	7498.00	2341.00	7462.93	-7201.17	2061.01	0.00	1237759.79	3238541.00	39.982892	-104.648735
	14400.00	90.00	180.12	7498.00	2341.00	7561.03	-7301.17	2060.81	0.00	1237659.80	3238541.75	39.982617	-104.648736

Judy 3-1-4L R0 mdv 11Jul22 Anti-Collision Summary Report

Analysis Date-24hr Time: July 13, 2022 - 11:36
Client: Confluence DJ
Field: CO, Weld County (NAD 83 NZ) - 2019
Structure: Confluence 34-01N-65W (Judy 34 Pad)
Slot: Judy 3-1-4L
Well: Judy 3-1-4L
Borehole: Original Hole
Scan MD Range: 0.00ft ~ 17597.49ft

Analysis Method: 3D Least Distance
Reference Trajectory: Judy 3-1-4L R0 mdv 11Jul22 (Def Plan)
Depth Interval: Every 10.00 Measured Depth (ft)
Rule Set: NAL Procedure: D&M AntiCollision Standard S002
Min Pts: All local minima indicated.
Version / Patch: 2.10.829.1
Database \ Project: us1455vsm3175\drilling-CO, Weld County 2.10_RESTORE

Trajectory Error Model: ISCWSA3 3-D 95.000% Confidence 2.7955 sigma, for subject well. For offset wells, error model version is specified with each well respectively.

Offset Selection Criteria

Wellhead distance scan: Not performed!
 Selection filters: Definitive Surveys - Definitive Plans - Definitive surveys exclude definitive plans
 - All Non-Def Surveys when no Def-Survey is set in a borehole - All Non-Def Plans when no Def-Plan is set in a borehole

Offset Trajectories Summary

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		

Results highlighted: Sep-Factor separation <= 1.50 ft

Judy 3-5-2L R0 mdv 11Jul22 (Def Plan)											Fail Major		
25.21	20.36	24.23	4.85	N/A	MAS = 6.21 (m)	0.00	0.00	CtCt<=15m<15.00			Enter Alert		
25.21	20.36	24.23	4.85	N/A	MAS = 6.21 (m)	23.00	23.00					WRP	
25.21	20.36	21.84	4.85	10.14	MAS = 6.21 (m)	300.00	300.00					MinPts	
25.37	20.36	21.70	5.00	9.07	MAS = 6.21 (m)	330.00	330.00					MINPT-O-EQU	
51.43	26.83	33.22	24.60	2.93	OSF1.50	1700.00	1662.32					MinPt-O-SF	
176.09	105.41	105.49	70.69	2.52	OSF1.50	7010.00	6728.14					MinPt-O-ADP	
186.10	113.18	110.31	72.92	2.47	OSF1.50	7120.00	6833.09					MinPt-O-SF	
331.92	100.37	264.67	231.54	4.99	OSF1.50	8000.00	7464.67	OSF>5.00				Exit Alert	
340.27	102.98	271.29	237.29	4.99	OSF1.50	8680.00	7498.00	OSF<5.00				Enter Alert	
339.19	339.30	112.66	-0.11	1.50	OSF1.50	13570.00	7498.00	OSF<1.50				Enter Minor	
338.49	507.74	-0.33	-169.25	1.00	OSF1.50	16760.00	7498.00	OSF<1.00				Enter Major	
338.31	551.82	-29.90	-213.52	0.92	OSF1.50	17590.00	7498.00					MinPts	
338.32	551.17	-29.46	-212.85	0.92	OSF1.50	17597.49	7498.00					TD	

Judy 3-4-1L R0 mdv 11Jul22 (Def Plan)											Fail Minor
25.21	20.36	24.23	4.85	N/A	MAS = 6.21 (m)	0.00	0.00	CtCt<=15m<15.00		Enter Alert	
25.21	20.36	24.23	4.85	N/A	MAS = 6.21 (m)	23.00	23.00			WRP	
25.21	20.36	22.34	4.85	12.83	MAS = 6.21 (m)	250.00	250.00			MinPts	
25.37	20.36	22.20	5.00	11.16	MAS = 6.21 (m)	280.00	280.00			MINPT-O-EQU	
41.35	20.36	28.54	20.99	3.41	MAS = 6.21 (m)	1240.00	1223.47			MinPt-O-SF	
102.20	31.36	80.96	70.83	5.00	OSF1.50	2540.00	2463.69	OSF>5.00		Exit Alert	
222.83	67.56	177.46	155.27	5.00	OSF1.50	5110.00	4915.51	OSF<5.00		Enter Alert	
306.88	98.04	241.19	208.84	4.73	OSF1.50	6900.00	6623.20			MinPt-O-SF	
333.68	100.83	266.13	232.85	5.00	OSF1.50	7220.00	6928.12	OSF>5.00		Exit Alert	
440.99	133.18	351.87	307.81	4.99	OSF1.50	9030.00	7498.00	OSF<5.00		Enter Alert	
442.22	442.64	146.80	-0.42	1.50	OSF1.50	16380.00	7498.00	OSF<1.50		Enter Minor	
442.43	496.68	110.98	-54.25	1.34	OSF1.50	17597.49	7498.00			MinPts	

Judy 3-3-3L R0 mdv 11Jul22 (Def Plan)											Fail Minor
157.64	32.81	156.66	124.83	N/A	MAS = 10.00 (m)	0.00	0.00			Surface	
157.64	32.81	156.66	124.83	N/A	MAS = 10.00 (m)	23.00	23.00			WRP	
157.64	32.81	154.77	124.83	82.93	MAS = 10.00 (m)	250.00	250.00			MinPts	
157.82	32.81	154.56	125.02	68.88	MAS = 10.00 (m)	290.00	290.00			MINPT-O-EQU	
187.65	32.81	167.35	154.84	9.66	MAS = 10.00 (m)	1700.00	1662.32			MINPT-O-EQU	
191.06	32.81	169.59	158.25	9.28	MAS = 10.00 (m)	1890.00	1843.58			MinPt-O-SF	
199.56	33.22	177.09	166.34	9.24	OSF1.50	2190.00	2129.79			MinPt-O-SF	
202.79	33.76	179.96	169.03	9.23	OSF1.50	2280.00	2215.65			MinPt-O-SF	
204.33	34.01	181.32	170.32	9.24	OSF1.50	2320.00	2253.81			MinPt-O-SF	
205.92	34.28	182.74	171.64	9.23	OSF1.50	2360.00	2291.97			MinPt-O-SF	
209.69	34.88	186.11	174.81	9.24	OSF1.50	2450.00	2377.83			MinPt-O-SF	
259.64	42.58	230.93	217.07	9.33	OSF1.50	3350.00	3236.44			MinPt-O-SF	
689.72	174.81	572.86	514.92	5.94	OSF1.50	9140.00	7498.00			MinPt-O-ADP	
689.03	207.40	550.43	481.62	5.00	OSF1.50	9840.00	7498.00	OSF<5.00		Enter Alert	
660.99	661.27	219.82	-0.28	1.50	OSF1.50	17350.00	7498.00		OSF<1.50	Enter Minor	
660.07	676.76	208.57	-16.69	1.46	OSF1.50	17597.49	7498.00			MinPts	

Jordan 34-5 Blind 0' to 7995' - PR (Def Survey)													Fail Minor
1593.45	32.81	1591.63	1560.64	N/A	MAS = 10.00 (m)	0.00	0.00					Surface	
1593.16	32.81	1591.31	1560.35	49399.80	MAS = 10.00 (m)	20.00	20.00					MinPt-O-SF	
1593.14	32.81	1591.29	1560.33	55841.73	MAS = 10.00 (m)	23.00	23.00					WRP	
715.35	217.00	570.15	498.35	4.97	OSF1.50	3780.00	3646.67	OSF<5.00				Enter Alert	
321.28	323.09	105.35	-1.81	1.49	OSF1.50	5520.00	5306.66		OSF<1.50			Enter Minor	
293.45	350.70	59.11	-57.26	1.25	OSF1.50	5960.00	5726.43					MinPt-CtCt	
295.77	357.77	56.72	-62.00	1.24	OSF1.50	6080.00	5840.91					MINPT-O-EQU	
297.03	359.50	56.83	-62.47	1.24	OSF1.50	6110.00	5869.53					MinPt-O-SF	
299.13	361.78	57.40	-62.66	1.24	OSF1.50	6150.00	5907.69					MinPt-O-ADP	
399.33	400.09	132.07	-0.75	1.50	OSF1.50	6860.00	6585.04					Exit Minor	
1511.77	456.43	1206.95	1055.34	4.98	OSF1.50	8580.00	7498.00	OSF>5.00				Exit Alert	
10461.19	460.16	10153.88	10001.03	34.21	OSF1.50	17597.49	7498.00					TD	

Judy 3-6-3L R0 mdv 11Jul22 (Def Plan)										Warning Alert	
50.43	32.81	49.44	17.62	N/A	MAS = 10.00 (m)	0.00	0.00		Surface		
50.43	32.81	49.44	17.62	N/A	MAS = 10.00 (m)	23.00	23.00		WRP		
50.43	32.81	47.05	17.62	20.69	MAS = 10.00 (m)	300.00	300.00		MinPts		
50.58	32.81	46.91	17.77	18.46	MAS = 10.00 (m)	330.00	330.00		MINPT-O-EQU		
83.25	32.81	70.82	50.44	7.19	MAS = 10.00 (m)	1190.00	1175.77		MinPt-O-SF		
92.07	32.81	78.42	59.26	7.19	MAS = 10.00 (m)	1300.00	1280.71		MinPt-O-SF		
122.53	32.81	104.60	89.73	7.17	MAS = 10.00 (m)	1680.00	1643.24		MinPt-O-SF		
596.02	109.91	522.42	486.12	8.19	OSF1.50	7380.00	7074.80		MinPt-O-SF		
672.06	202.45	536.76	469.61	5.00	OSF1.50	9990.00	7498.00	OSF<5.00	Enter Alert		
674.51	669.80	227.65	4.71	1.51	OSF1.50	17590.00	7498.00		MinPts		
674.57	668.95	228.28	5.62	1.51	OSF1.50	17597.49	7498.00		TD		

...Confluence 34-01N-65W (Judy 34 Pad)\Judy 3-1-4L\Original Hole\Judy 3-1-4L R0 mdv 11Jul22

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status	
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major			
Judy 3-7-1L R0 mdv 11Jul22 (Def Plan)														
	75.64	32.81	74.66	42.83	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Warning Alert	
	75.64	32.81	74.66	42.83	N/A	MAS = 10.00 (m)	23.00	23.00				WRP		
	75.64	32.81	72.27	42.83	31.24	MAS = 10.00 (m)	300.00	300.00				MinPts		
	75.79	32.81	72.12	42.99	27.84	MAS = 10.00 (m)	330.00	330.00				MINPT-O-EOU		
	123.43	32.81	111.52	90.62	11.21	MAS = 10.00 (m)	1140.00	1128.02				MinPt-O-SF		
	921.40	100.45	854.10	820.95	13.88	OSF1.50	7070.00	6785.39				MinPt-O-SF		
	1137.60	342.35	909.04	795.25	4.99	OSF1.50	12540.00	7498.00	OSF<5.00			Enter Alert		
	1139.26	651.40	704.67	487.86	2.63	OSF1.50	17590.00	7498.00				MinPts		
	1139.32	651.06	704.95	488.26	2.63	OSF1.50	17597.49	7498.00				TD		
Judy 3-2-4L R0 mdv 11Jul22 (Def Plan)														
	100.85	32.81	99.87	68.05	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Warning Alert	
	100.85	32.81	99.87	68.05	N/A	MAS = 10.00 (m)	23.00	23.00				WRP		
	100.85	32.81	97.48	68.05	41.79	MAS = 10.00 (m)	300.00	300.00				MinPts		
	101.01	32.81	97.34	68.20	37.22	MAS = 10.00 (m)	330.00	330.00				MINPT-O-EOU		
	158.43	32.81	148.81	125.63	18.22	MAS = 10.00 (m)	930.00	924.93				MinPt-O-SF		
	1299.97	123.76	1217.13	1176.20	15.87	OSF1.50	8230.00	7498.00				MinPt-CtCt		
	1300.23	391.19	1039.11	909.04	4.99	OSF1.50	12970.00	7498.00	OSF<5.00			Enter Alert		
	1300.49	684.97	843.52	615.53	2.85	OSF1.50	17590.00	7498.00				MinPts		
	1300.54	684.74	843.72	615.80	2.85	OSF1.50	17597.49	7498.00				TD		
Judy 3-8-2L R0 mdv 11Jul22 (Def Plan)														
	126.07	32.81	125.08	93.26	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Warning Alert	
	126.07	32.81	125.08	93.26	N/A	MAS = 10.00 (m)	23.00	23.00				WRP		
	126.07	32.81	122.69	93.26	52.33	MAS = 10.00 (m)	300.00	300.00				MinPts		
	126.22	32.81	122.55	93.41	46.61	MAS = 10.00 (m)	330.00	330.00				MINPT-O-EOU		
	197.72	32.81	187.29	164.91	20.81	MAS = 10.00 (m)	1010.00	1002.75				MinPt-O-SF		
	1572.52	118.84	1492.97	1453.68	20.00	OSF1.50	8230.00	7498.00				MinPt-CtCt		
	1572.93	472.65	1257.51	1100.28	5.00	OSF1.50	14350.00	7498.00	OSF<5.00			Enter Alert		
	1573.17	678.15	1120.74	895.02	3.48	OSF1.50	17590.00	7498.00				MinPts		
	1573.22	678.03	1120.88	895.20	3.48	OSF1.50	17597.49	7498.00				TD		
Judy 3-1-3L R0 mdv 11Jul22 (Def Plan)														
	168.70	32.81	167.72	135.90	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Warning Alert	
	168.70	32.81	167.72	135.90	N/A	MAS = 10.00 (m)	23.00	23.00				WRP		
	168.70	32.81	165.83	135.90	88.79	MAS = 10.00 (m)	250.00	250.00				MinPts		
	139.96	32.81	125.47	107.15	10.29	MAS = 10.00 (m)	1330.00	1309.33				MinPts		
	140.15	32.81	125.31	107.34	10.05	MAS = 10.00 (m)	1360.00	1337.95				MINPT-O-EOU		
	150.66	32.81	133.62	117.85	9.32	MAS = 10.00 (m)	1570.00	1538.30				MinPt-O-SF		
	1609.68	158.16	1503.91	1451.52	15.35	OSF1.50	8130.00	7492.06				MinPt-O-SF		
	1628.14	139.90	1534.55	1488.24	17.57	OSF1.50	8224.38	7498.00				MinPt-CtCt		
	1628.58	489.34	1302.03	1139.24	5.00	OSF1.50	14480.00	7498.00	OSF<5.00			Enter Alert		
	1628.80	686.56	1170.77	942.24	3.56	OSF1.50	17597.49	7498.00				MinPts		
Judy 3-9-3L R0 mdv 11Jul22 (Def Plan)														
	151.28	32.81	150.30	118.47	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Warning Alert	
	151.28	32.81	150.30	118.47	N/A	MAS = 10.00 (m)	23.00	23.00				WRP		
	151.28	32.81	147.91	118.47	62.88	MAS = 10.00 (m)	300.00	300.00				MinPts		
	151.44	32.81	147.76	118.63	55.99	MAS = 10.00 (m)	330.00	330.00				MINPT-O-EOU		
	240.42	32.81	229.37	207.61	23.78	MAS = 10.00 (m)	1070.00	1060.76				MinPt-O-SF		
	1903.05	120.21	1822.58	1782.84	23.93	OSF1.50	8230.00	7498.00				MinPt-CtCt		
	1903.67	572.02	1522.00	1331.65	5.00	OSF1.50	15850.00	7498.00	OSF<5.00			Enter Alert		
	1903.82	682.81	1448.28	1221.00	4.19	OSF1.50	17580.00	7498.00				MinPts		
	1903.90	682.76	1448.40	1221.14	4.19	OSF1.50	17597.49	7498.00				TD		
Judy 3-2-2L R0 mdv 11Jul22 (Def Plan)														
	162.66	32.81	161.68	129.86	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Warning Alert	
	162.66	32.81	161.68	129.86	N/A	MAS = 10.00 (m)	23.00	23.00				WRP		
	162.66	32.81	159.79	129.86	85.59	MAS = 10.00 (m)	250.00	250.00				MinPts		
	153.71	32.81	139.46	120.90	11.51	MAS = 10.00 (m)	1290.00	1271.17				MinPts		
	154.04	32.81	139.15	121.23	11.01	MAS = 10.00 (m)	1340.00	1318.87				MINPT-O-EOU		
	175.92	32.81	157.00	143.11	9.76	MAS = 10.00 (m)	1690.00	1652.78				MinPt-O-SF		
	1186.90	137.69	1094.78	1049.21	13.01	OSF1.50	8000.00	7464.67				MinPt-O-SF		
	1199.65	137.53	1107.63	1062.12	13.17	OSF1.50	8224.38	7498.00				MinPt-CtCt		
	1199.86	361.15	958.76	838.70	4.99	OSF1.50	12440.00	7498.00	OSF<5.00			Enter Alert		
	1200.12	682.56	744.75	517.56	2.64	OSF1.50	17597.49	7498.00				MinPts		
UPV 3-2M5 Blind 0' to 8073' - DA (Def Survey)														
	3381.57	32.81	3379.51	3348.77	13626.88	MAS = 10.00 (m)	0.00	0.00				Surface	Warning Alert	
	3381.57	32.81	3378.99	3348.77	4408.70	MAS = 10.00 (m)	23.00	23.00				WRP		
	1497.20	452.00	1195.33	1045.20	4.98	OSF1.50	7800.00	7381.28	OSF<5.00			Enter Alert		
	589.28	462.02	280.73	127.26	1.91	OSF1.50	9180.00	7498.00				MinPt-CtCt		
	589.46	462.76	280.42	126.70	1.91	OSF1.50	9200.00	7498.00				MINPT-O-EOU		
	589.80	463.13	280.51	126.67	1.91	OSF1.50	9210.00	7498.00				MinPts		
	1579.20	474.99	1262.00	1104.21	5.00	OSF1.50	10650.00	7498.00	OSF>5.00			Exit Alert		
	8433.24	472.37	8117.80	7960.87	26.87	OSF1.50	17597.49	7498.00				TD		
Great Western Wagner 41-10 Blind 0' to 8100' - PA (Def Survey)														
	7576.97	32.81	7574.98	7544.16	42930.88	MAS = 10.00 (m)	0.00	0.00				Surface		Warning Alert
	7576.97	32.81	7574.40	7544.16	10017.21	MAS = 10.00 (m)	23.00	23.00				WRP		
	1600.00	481.93	1278.18	1118.08	4.99	OSF1.50	12920.00	7498.00	OSF<5.00			Enter Alert		
	1259.76	548.56	893.52	711.20	3.45	OSF1.50	13910.00	7498.00				MinPt-CtCt		
	1260.51	550.89	892.72	709.63	3.44	OSF1.50	13950.00	7498.00				MINPT-O-EOU		
	1261.36	551.99	892.83	709.37	3.43	OSF1.50	13970.00	7498.00				MinPt-O-ADP		
	1266.82	555.52	895.94	711.30	3.43	OSF1.50	14040.00	7498.00				MinPt-O-SF		
	1827.25	551.40	1459.12	1275.86	4.98	OSF1.50	15230.00	7498.00	OSF>5.00			Exit Alert		
	3900.13	511.64	3558.50	3388.49	11.47	OSF1.50	17597.49	7498.00				TD		
Kallsen 14-10X Blind 0' to 8114' - PR (Def Survey)														
	9776.77	32.81	9774.01	9743.96	10320.70	MAS = 10.00 (m)	0.00	0.00				Surface	Warning Alert	
	9776.77	32.81	9773.40	9743.96	6297.37	MAS = 10.00 (m)	23.00	23.00				WRP		
	1972.22	593.93	1575.73	1378.29	4.99	OSF1.50	15850.00	7498.00	OSF<5.00			Enter Alert		
	1686.74	636.57	1261.83	1050.17	3.98	OSF1.50	16870.00	7498.00				MinPts		

...Confluence 34-01N-65W (Judy 34 Pad)\Judy 3-1-4L\Original Hole\Judy 3-1-4L R0 mdv 11Jul22

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Cl-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
	1836.14	612.93	1426.99	1223.21	4.50	OSF1.50	17597.49	7498.00				TD	
Kalsen 1-10 Blind 0' to 8290' - PR (Def Survey)													Warning Alert
	7103.63	32.81	7100.71	7070.82	6428.57	MAS = 10.00 (m)	0.00	0.00				Surface	
	7103.63	32.81	7100.10	7070.82	4153.84	MAS = 10.00 (m)	23.00	23.00				WRP	
	6855.83	413.24	6579.80	6442.59	24.98	OSF1.50	6940.00	6661.36				MinPt-CtCt	
	1816.19	546.90	1451.05	1269.28	4.99	OSF1.50	13580.00	7498.00	OSF<5.00			Enter Alert	
	1708.13	557.68	1335.81	1150.46	4.60	OSF1.50	14200.00	7498.00				MinPts	
	1818.16	547.53	1452.60	1270.63	4.99	OSF1.50	14820.00	7498.00	OSF<5.00			Exit Alert	
	3805.30	483.04	3482.74	3322.26	11.85	OSF1.50	17597.49	7498.00				TD	
Kalsen 14-10 Blind 0' to 8244' - PA (Def Survey)													Warning Alert
	10116.25	32.81	10113.22	10083.44	8355.02	MAS = 10.00 (m)	0.00	0.00				Surface	
	10116.25	32.81	10112.62	10083.44	5570.01	MAS = 10.00 (m)	23.00	23.00				WRP	
	2109.71	634.99	1685.84	1474.71	4.99	OSF1.50	16690.00	7498.00	OSF<5.00			Enter Alert	
	2042.26	648.27	1609.54	1393.99	4.73	OSF1.50	17220.00	7498.00				MinPt-CtCt	
	2042.29	648.39	1609.53	1393.96	4.73	OSF1.50	17230.00	7498.00				MinPts	
	2042.49	648.42	1609.68	1394.07	4.73	OSF1.50	17250.00	7498.00				MinPt-O-SF	
	2077.00	645.26	1646.30	1431.75	4.84	OSF1.50	17597.49	7498.00				TD	
Desha 4-1-3L - Plan (Def Plan)													Pass
	151.47	32.81	150.49	118.66	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	151.47	32.81	150.47	118.66	8494.74	MAS = 10.00 (m)	23.00	23.00				WRP	
	140.53	32.81	131.32	107.72	16.97	MAS = 10.00 (m)	870.00	866.25				MinPts	
	140.77	32.81	131.12	107.96	16.14	MAS = 10.00 (m)	910.00	905.40				MINPT-O-EOU	
	156.17	32.81	144.11	123.37	14.00	MAS = 10.00 (m)	1130.00	1118.44				MinPt-O-SF	
	3232.58	726.12	2748.18	2506.47	6.68	OSF1.50	17597.49	7498.00				MinPts	
Desha 4-2-2L - Plan (Def Plan)													Pass
	149.36	32.81	148.37	116.55	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	149.36	32.81	148.36	116.55	8375.45	MAS = 10.00 (m)	23.00	23.00				WRP	
	147.60	32.81	141.54	114.79	28.91	MAS = 10.00 (m)	570.00	569.60				MinPts	
	147.79	32.81	141.34	114.98	26.87	MAS = 10.00 (m)	610.00	609.40				MINPT-O-EOU	
	179.17	32.81	169.28	146.36	20.00	MAS = 10.00 (m)	950.00	944.44				MinPt-O-SF	
	3562.75	725.10	3079.02	2837.65	7.38	OSF1.50	17597.49	7498.00				MinPts	
Desha 4-1-4L - Plan (Def Plan)													Pass
	151.47	32.81	150.49	118.66	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	151.47	32.81	150.47	118.66	7078.95	MAS = 10.00 (m)	23.00	23.00				WRP	
	151.30	32.81	145.92	118.49	34.22	MAS = 10.00 (m)	500.00	499.84				MinPts	
	151.52	32.81	145.75	118.71	31.48	MAS = 10.00 (m)	540.00	539.72				MINPT-O-EOU	
	190.22	32.81	180.56	157.41	21.82	MAS = 10.00 (m)	930.00	924.93				MinPt-O-SF	
	3032.27	83.36	2976.36	2948.91	55.20	OSF1.50	6620.00	6356.08				MinPt-O-SF	
	3808.81	725.99	3324.48	3082.82	7.88	OSF1.50	17597.49	7498.00				MinPts	
Desha 4-3-1L - Plan (Def Plan)													Pass
	157.64	32.81	156.66	124.83	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	157.64	32.81	156.64	124.83	7369.19	MAS = 10.00 (m)	23.00	23.00				WRP	
	157.64	32.81	154.24	124.83	64.90	MAS = 10.00 (m)	300.00	300.00				MinPts	
	158.46	32.81	153.18	125.65	36.67	MAS = 10.00 (m)	490.00	489.86				MINPT-O-EOU	
	203.41	32.81	193.88	170.60	23.67	MAS = 10.00 (m)	920.00	915.17				MinPt-O-SF	
	4015.75	723.30	3533.22	3292.45	8.34	OSF1.50	17597.49	7498.00				MinPts	
Desha 4-4-3L - Plan (Def Plan)													Pass
	167.42	32.81	166.44	134.61	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	167.42	32.81	166.41	134.61	7829.18	MAS = 10.00 (m)	23.00	23.00				WRP	
	167.42	32.81	164.02	134.61	68.95	MAS = 10.00 (m)	300.00	300.00				MinPts	
	167.96	32.81	163.47	135.15	47.67	MAS = 10.00 (m)	410.00	409.97				MINPT-O-EOU	
	223.37	32.81	213.75	190.56	25.76	MAS = 10.00 (m)	930.00	924.93				MinPt-O-SF	
	4289.21	725.44	3805.25	3563.77	8.88	OSF1.50	17597.49	7498.00				MinPts	
Judy 3-10-1L R0 mdv 11Jul22 (Def Plan)													Pass
	176.50	32.81	175.51	143.69	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	176.50	32.81	175.51	143.69	N/A	MAS = 10.00 (m)	23.00	23.00				WRP	
	176.50	32.81	173.12	143.69	73.43	MAS = 10.00 (m)	300.00	300.00				MinPts	
	176.65	32.81	172.99	143.84	65.54	MAS = 10.00 (m)	330.00	330.00				MINPT-O-EOU	
	296.29	32.81	284.53	263.48	27.42	MAS = 10.00 (m)	1140.00	1128.02				MinPt-O-SF	
	2282.98	116.78	2204.80	2166.20	29.56	OSF1.50	8230.00	7498.00				MinPt-CtCt	
	2283.92	676.88	1832.37	1607.09	5.07	OSF1.50	17590.00	7498.00				MinPts	
	2283.98	676.87	1832.40	1607.10	5.07	OSF1.50	17597.49	7498.00				MinPt-O-SF	
Desha 4-5-2L - Plan (Def Plan)													Pass
	180.22	32.81	179.24	147.41	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	180.22	32.81	179.22	147.41	8431.35	MAS = 10.00 (m)	23.00	23.00				WRP	
	180.22	32.81	176.82	147.41	74.25	MAS = 10.00 (m)	300.00	300.00				MinPts	
	180.64	32.81	176.45	147.83	56.04	MAS = 10.00 (m)	380.00	379.99				MINPT-O-EOU	
	245.86	32.81	236.17	213.05	28.14	MAS = 10.00 (m)	940.00	934.69				MinPt-O-SF	
	4618.61	725.18	4134.83	3893.43	9.58	OSF1.50	17597.49	7498.00				MinPts	
Desha 4-2-4L - Plan (Def Plan)													Pass
	195.45	32.81	194.47	162.64	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	195.45	32.81	194.45	162.64	9147.79	MAS = 10.00 (m)	23.00	23.00				WRP	
	195.45	32.81	192.05	162.64	80.56	MAS = 10.00 (m)	300.00	300.00				MinPts	
	195.75	32.81	191.75	162.94	64.75	MAS = 10.00 (m)	360.00	360.00				MINPT-O-EOU	
	268.98	32.81	259.22	236.18	30.53	MAS = 10.00 (m)	950.00	944.44				MinPt-O-SF	
	3036.04	62.96	2993.74	2973.08	73.46	OSF1.50	5600.00	5382.98				MinPt-O-SF	
	4865.48	725.78	4381.33	4139.75	10.07	OSF1.50	17597.49	7498.00				MinPts	
Judy 3-3-4L R0 mdv 11Jul22 (Def Plan)													Pass
	201.71	32.81	200.73	168.90	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	201.71	32.81	200.73	168.90	N/A	MAS = 10.00 (m)	23.00	23.00				WRP	
	201.71	32.81	198.84	168.90	106.26	MAS = 10.00 (m)	250.00	250.00				MinPts	
	201.92	32.81	198.47	169.12	81.35	MAS = 10.00 (m)	310.00	310.00				MINPT-O-EOU	
	360.46	32.81	348.00	327.65	31.34	MAS = 10.00 (m)	1210.00	1194.85				MinPt-O-SF	
	512.77	32.81	495.30	479.96	31.03	MAS = 10.00 (m)	1700.00	1662.32				MinPt-O-SF	

...Confluence 34-01N-65W (Judy 34 Pad)\Judy 3-1-4L\Original Hole\Judy 3-1-4L R0 mdv 11Jul22

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Cl-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
	1385.24	52.35	1350.01	1332.88	40.42	OSF1.50	4620.00	4448.05				MinPt-O-SF	
	2500.07	684.55	2043.38	1815.52	5.48	OSF1.50	17570.00	7498.00				MinPt-CtCt	
	2500.13	684.81	2043.26	1815.32	5.48	OSF1.50	17590.00	7498.00				MINPT-O-EOU	
	2500.19	684.89	2043.26	1815.30	5.48	OSF1.50	17597.49	7498.00				MinPts	
Desha 4-6-1L - Plan (Def Plan)													Pass
	212.59	32.81	211.61	179.78	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	212.59	32.81	211.58	179.78	9953.98	MAS = 10.00 (m)	23.00	23.00				WRP	
	212.59	32.81	209.19	179.78	87.66	MAS = 10.00 (m)	300.00	300.00				MinPts	
	212.83	32.81	208.93	180.02	72.82	MAS = 10.00 (m)	350.00	350.00				MINPT-O-EOU	
	296.84	32.81	286.92	264.03	33.09	MAS = 10.00 (m)	970.00	963.91				MinPt-O-SF	
	5066.57	724.49	4583.25	4342.08	10.50	OSF1.50	17597.49	7498.00				MinPts	
Desha 4-7-3L - Plan (Def Plan)													Pass
	231.21	32.81	230.23	198.40	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	231.21	32.81	230.21	198.40	10829.98	MAS = 10.00 (m)	23.00	23.00				WRP	
	231.21	32.81	227.81	198.40	95.37	MAS = 10.00 (m)	300.00	300.00				MinPts	
	231.48	32.81	227.58	198.67	79.23	MAS = 10.00 (m)	350.00	350.00				MINPT-O-EOU	
	329.07	32.81	318.89	296.26	35.68	MAS = 10.00 (m)	1000.00	993.06				MinPt-O-SF	
	5345.77	725.61	4861.70	4620.18	11.06	OSF1.50	17597.49	7498.00				MinPts	
Judy 3-11-2L R0 mdv 11Jul22 (Def Plan)													Pass
	250.99	32.81	250.00	218.18	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	250.99	32.81	250.00	218.18	N/A	MAS = 10.00 (m)	23.00	23.00				WRP	
	250.91	32.81	247.43	218.10	100.27	MAS = 10.00 (m)	310.00	310.00				MinPts	
	251.20	32.81	247.12	218.39	80.99	MAS = 10.00 (m)	370.00	369.99				MINPT-O-EOU	
	500.76	32.81	483.05	467.95	29.88	MAS = 10.00 (m)	1700.00	1662.32				MinPt-O-SF	
	1190.42	45.48	1159.78	1144.94	40.10	OSF1.50	4050.00	3904.26				MinPt-O-SF	
	2789.65	676.78	2338.13	2112.87	6.19	OSF1.50	17597.49	7498.00				MinPts	
Judy 3-4 MWD 0' to 7730' - PR (Def Survey)													Pass
	271.72	32.81	269.91	238.91	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	271.66	32.81	269.83	238.86	14927.56	MAS = 10.00 (m)	23.00	23.00				WRP	
	270.74	32.81	266.37	237.93	105.24	MAS = 10.00 (m)	320.00	320.00				MinPts	
	270.95	32.81	266.19	238.14	91.20	MAS = 10.00 (m)	360.00	360.00				MINPT-O-EOU	
	510.44	32.81	492.30	477.63	31.15	MAS = 10.00 (m)	1680.00	1643.24				MinPt-O-SF	
	874.17	39.20	847.50	834.97	34.82	OSF1.50	2770.00	2683.12				MinPt-O-SF	
	935.49	42.09	906.89	893.40	34.60	OSF1.50	2950.00	2854.84				MinPt-O-SF	
	1041.22	46.89	1009.42	994.33	34.44	OSF1.50	3250.00	3141.04				MinPt-O-SF	
	1284.37	59.18	1244.38	1225.18	33.42	OSF1.50	3960.00	3818.39				MinPt-O-SF	
	1341.35	61.75	1299.65	1279.61	33.41	OSF1.50	4120.00	3971.04				MinPt-O-SF	
	1474.75	69.08	1428.16	1405.66	32.75	OSF1.50	4500.00	4333.56				MinPt-O-SF	
	1632.56	77.99	1580.04	1554.58	32.03	OSF1.50	4940.00	4753.33				MinPt-O-SF	
	1775.46	84.22	1718.78	1691.24	32.21	OSF1.50	5340.00	5134.94				MinPt-O-SF	
	1827.27	87.03	1768.71	1740.24	32.06	OSF1.50	5480.00	5268.50				MinPt-O-SF	
	2085.33	101.37	2017.21	1983.96	31.33	OSF1.50	6200.00	5955.39				MinPt-O-SF	
	2170.91	106.99	2099.05	2063.92	30.88	OSF1.50	6450.00	6193.90				MinPt-O-SF	
	2446.72	135.39	2355.93	2311.34	27.42	OSF1.50	8350.00	7498.00				MinPt-CtCt	
	2446.75	135.43	2355.93	2311.32	27.41	OSF1.50	8360.00	7498.00				MinPts	
	2454.25	136.22	2362.90	2318.03	27.33	OSF1.50	8540.00	7498.00				MinPt-O-SF	
	9563.76	137.44	9471.60	9426.32	105.60	OSF1.50	17597.49	7498.00				TD	
Jordan 34-9 Blind 0' to 7970' - PA (Def Survey)													Pass
	424.09	32.81	422.28	391.28	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	423.74	32.81	421.88	390.93	9057.53	MAS = 10.00 (m)	10.00	10.00				MinPt-O-SF	
	423.62	32.81	421.75	390.81	6764.68	MAS = 10.00 (m)	23.00	23.00				WRP	
	423.62	32.81	412.32	390.81	44.46	MAS = 10.00 (m)	300.00	300.00				MinPts	
	426.49	32.81	409.54	393.69	28.05	MAS = 10.00 (m)	440.00	439.94				MINPT-O-EOU	
	2333.54	420.28	2052.82	1913.27	8.35	OSF1.50	7290.00	6993.43				MinPt-O-SF	
	10635.53	458.95	10329.02	10176.57	34.88	OSF1.50	17597.49	7498.00				TD	
Jordan 34-3 Blind 0' to 8006' - PR (Def Survey)													Pass
	1104.67	32.81	1102.85	1071.86	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1103.84	32.81	1101.92	1071.04	9569.55	MAS = 10.00 (m)	23.00	23.00				MinPt-O-SF	
	1009.98	129.19	923.33	880.80	11.86	OSF1.50	2220.00	2158.41				MinPt-CtCt	
	1018.74	154.81	915.00	863.93	9.96	OSF1.50	2660.00	2578.17				MINPT-O-EOU	
	1029.44	167.63	917.15	861.81	9.29	OSF1.50	2880.00	2788.06				MinPt-O-ADP	
	1789.76	413.54	1513.53	1376.21	6.51	OSF1.50	7144.83	6856.78				MinPt-O-SF	
	11476.69	456.15	11172.06	11020.55	37.87	OSF1.50	17597.49	7498.00				TD	
HSR-Cherry Knolls 9-33 Blind 0' to 8251' - DA (Def Survey)													Pass
	1786.20	32.81	1784.39	1753.39	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1786.07	32.81	1784.24	1753.26	89693.03	MAS = 10.00 (m)	10.00	10.00				MinPt-O-SF	
	1785.99	32.81	1784.16	1753.18	140375.93	MAS = 10.00 (m)	23.00	23.00				WRP	
	1785.98	32.81	1774.98	1753.17	194.26	MAS = 10.00 (m)	300.00	300.00				MinPts	
	1788.46	32.81	1772.61	1755.65	127.31	MAS = 10.00 (m)	420.00	419.96				MINPT-O-EOU	
	3850.42	434.37	3560.30	3416.05	13.34	OSF1.50	7570.00	7231.56				MinPt-O-SF	
	11754.00	463.67	11444.35	11290.32	38.15	OSF1.50	17597.49	7498.00				TD	
RMPCO-UPRR Penrod 1 Blind 0' to 8112' - PA (Def Survey)													Pass
	5163.61	32.81	5161.67	5130.81	39257.15	MAS = 10.00 (m)	0.00	0.00				Surface	
	5163.61	32.81	5161.07	5130.81	7010.20	MAS = 10.00 (m)	23.00	23.00				WRP	
	5100.70	202.01	4965.49	4898.68	38.17	OSF1.50	3410.00	3293.69				MinPt-CtCt	
	5145.34	335.47	4921.16	4809.87	23.11	OSF1.50	5670.00	5449.76				MINPT-O-EOU	
	5203.07	404.68	4932.75	4798.39	19.36	OSF1.50	6840.00	6565.96				MinPt-O-ADP	
	2369.15	509.33	2029.07	1859.82	6.99	OSF1.50	12260.00	7498.00				MinPt-CtCt	
	2369.18	509.38	2029.05	1859.79	6.99	OSF1.50	12270.00	7498.00				MinPts	
	2369.96	509.66	2029.65	1860.29	6.99	OSF1.50	12320.00	7498.00				MinPt-O-SF	
	5841.27	474.87	5524.15	5366.40	18.51	OSF1.50	17597.49	7498.00				TD	

...Confluence 34-01N-65W (Judy 34 Pad)\Judy 3-1-4L\Original Hole\Judy 3-1-4L R0 mdv 11Jul22