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2 November 2023

The Railroad Commission of Texas
Oil & Gas Division
PO Box 12967
Austin, TX 78711-2967

ConocoPhillips
UL 20 Gold Spoon B 2902HR
Permit Number: 893449
Survey: UL
Abstract: N/A
Field: PHANTOM (WOLFCAMP)
Loving County, Texas

API Number: 42-301-36569

Please find the attached survey performed on the above referenced well by MS Directional LLC; Operator Number 592486.

Other information required by your office is as follows:

Name of Surveyor	Drainhole Number	Surveyed Depths	Dates Performed	Type of Survey
Blake McDonald	Original Wellbore	141.00' - 24815.00'	09/28/2023 - 10/31/2023	MWD

If any other information is required, please contact the undersigned at the letterhead address and telephone number.

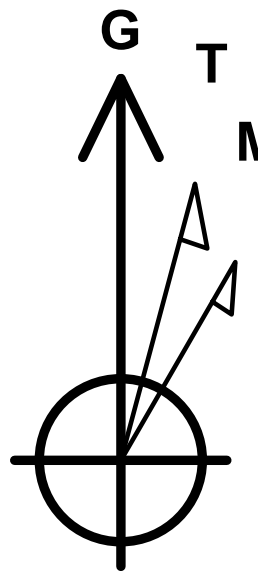
Sincerely,

A handwritten signature in black ink, appearing to read 'CWD' followed by a stylized flourish.

Charles Davis
MWD Operations Manager



Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Texas Central 4203
System Datum: Mean Sea Level



Azimuths to Grid North
True North: 1.54°
Magnetic North: 8.10°

Magnetic Field
Strength: 46913.0nT
Dip Angle: 59.30°
Date: 9/20/2023
Model: IFR

To convert a Magnetic Direction to a Grid Direction, Add 8.105°
 To convert a Magnetic Direction to a True Direction, Add 6.562° East
 To convert a True Direction to a Grid Direction, Add 1.543°

WELL DETAILS: UL 20 Gold Spoon B #2902HR

		GL @ 2776.80	Well @ 2801.80usft (Patterson 884)		
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	742942.26	1068140.78	31° 40' 29.739 N	103° 19' 44.761 W

SURVEY PROGRAM

Depth From	Depth To	Survey/Plan	Tool
0.00	1000.00	Design #1 (Wellbore #1)	r.5 MWD+IFR1
1000.00	11552.88	Design #1 (Wellbore #1)	r.5 MWD+IFR1
11552.88	24913.09	Design #1 (Wellbore #1)	r.5 MWD+IFR1+MS

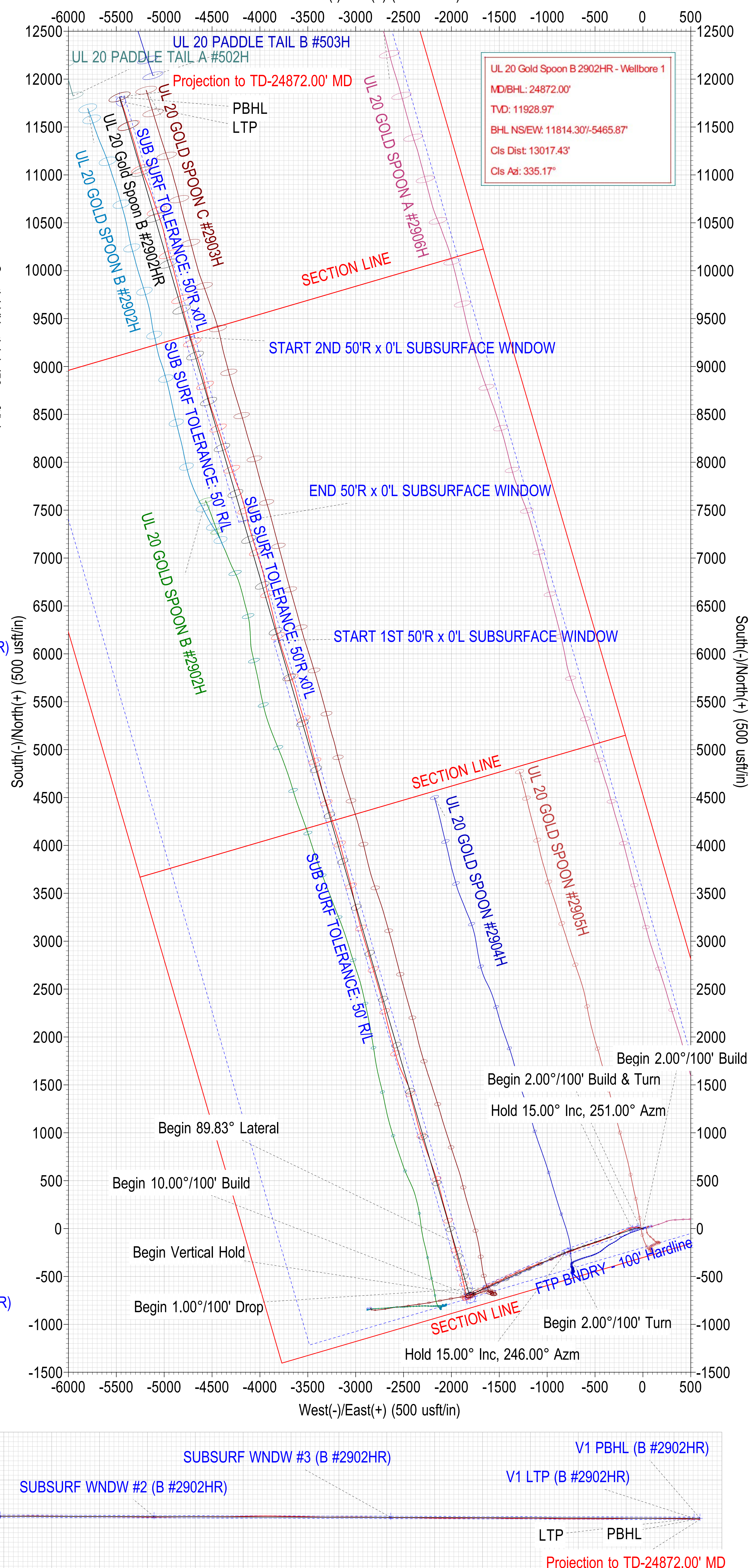
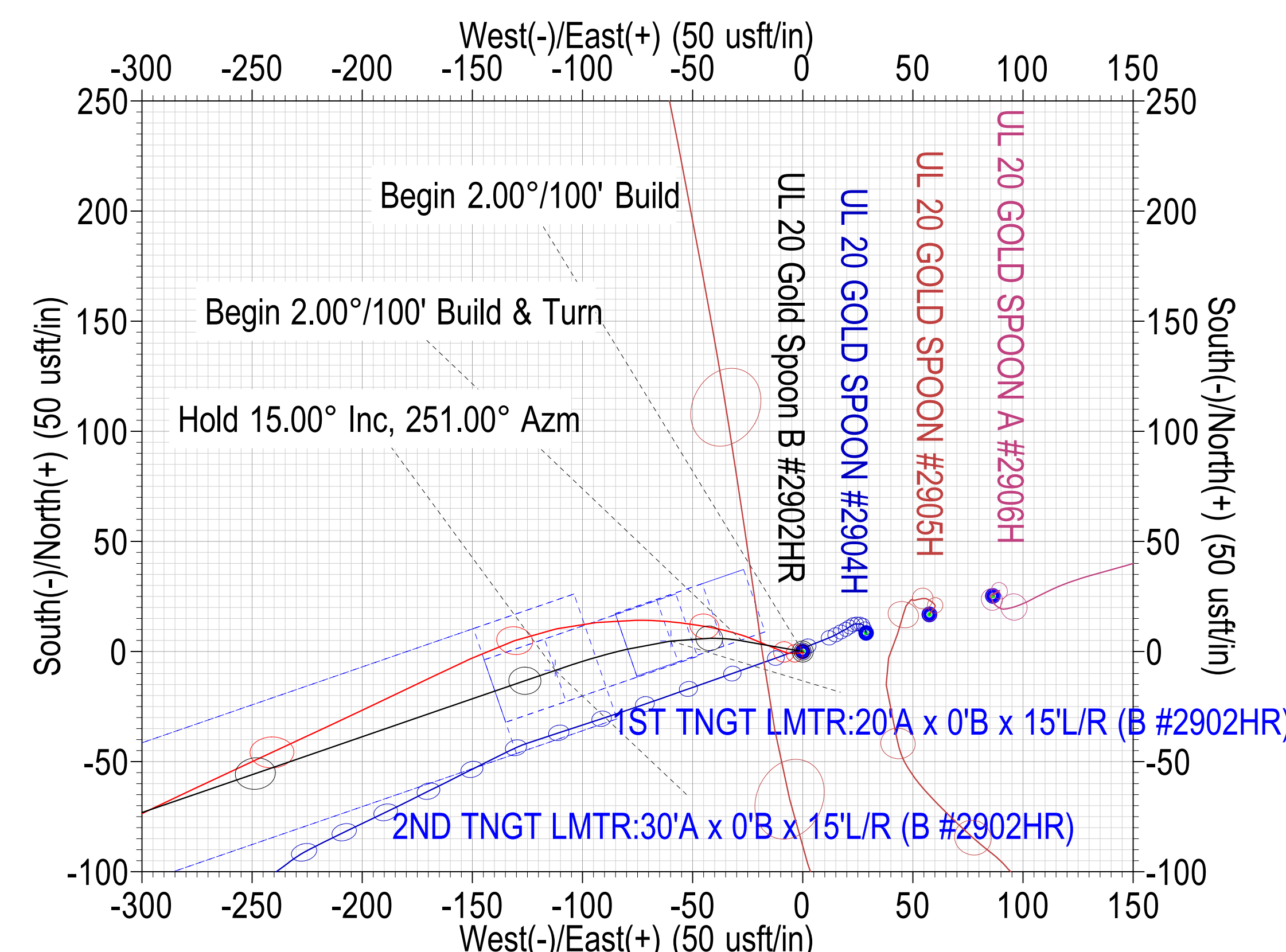
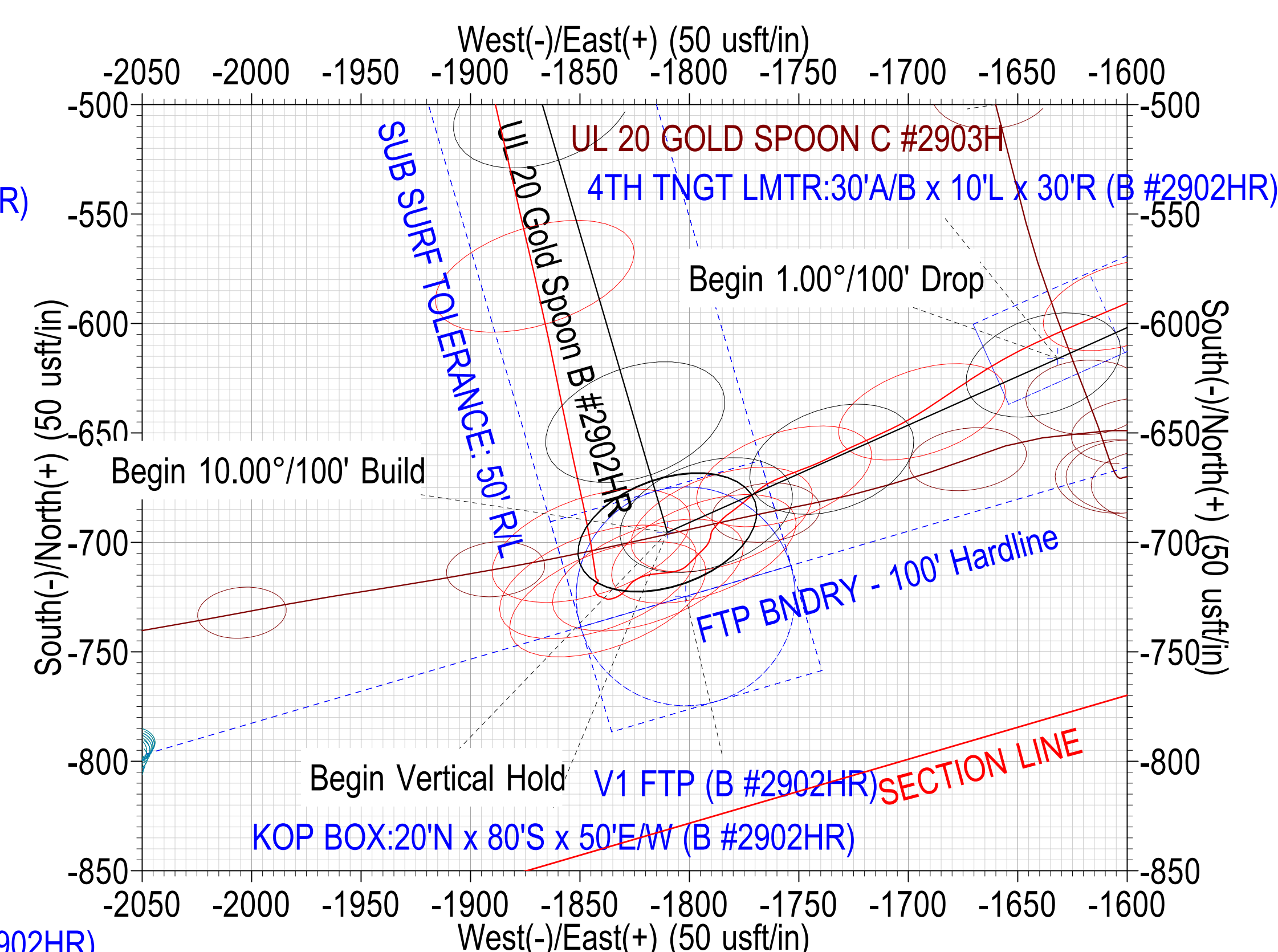
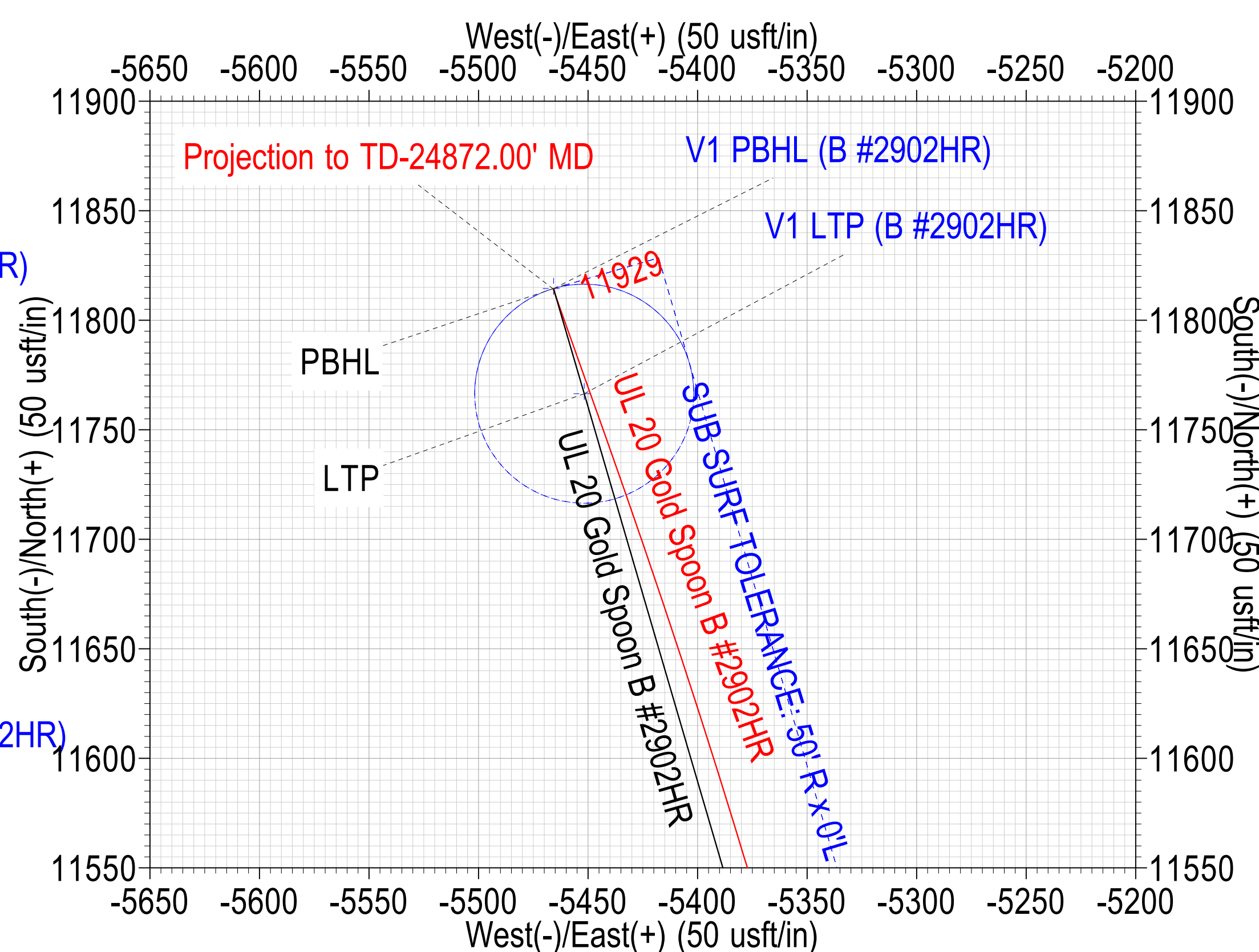
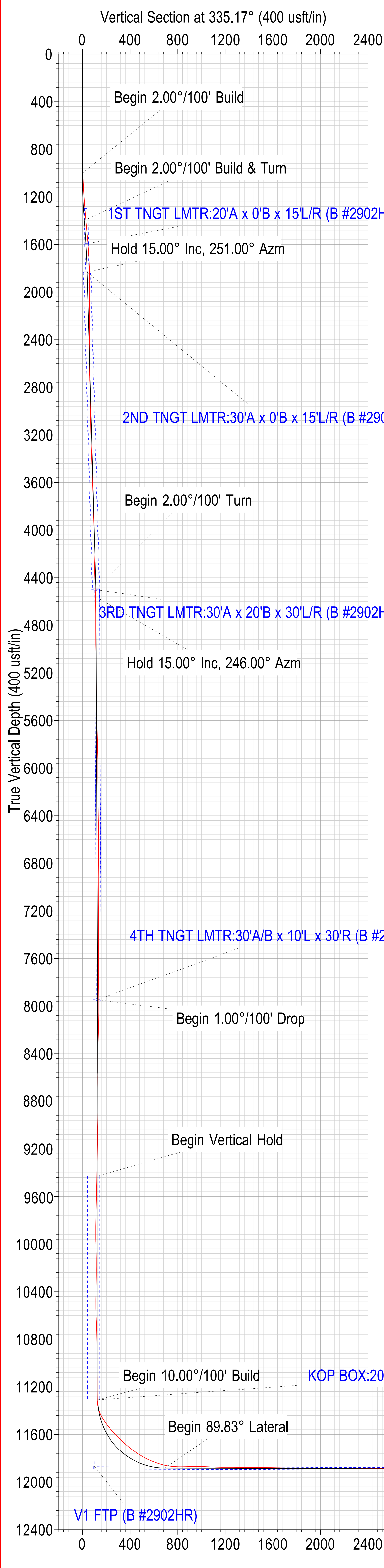
SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.000	0.00	Begin 2.00°/100' Build
1400.00	8.00	280.00	1398.70	4.84	-27.46	2.00	280.000	15.92	Begin 2.00°/100' Build & Turn
1843.70	15.00	251.00	1833.55	-8.52	-112.32	2.00	-54.430	39.44	Hold 15.00° Inc, 251.00° Azm
4604.21	15.00	251.00	4500.00	-241.13	-787.87	0.00	0.000	112.01	Begin 2.00°/100' Turn
4668.89	15.00	246.00	4562.48	-247.26	-803.43	2.00	-92.415	112.98	Hold 15.00° Inc, 246.00° Azm
8171.77	15.00	246.00	7946.00	-616.01	-1631.66	0.00	0.000	126.12	Begin 1.00°/100' Drop
9671.77	0.00	0.00	9428.92	-695.42	-1810.01	1.00	180.000	128.94	Begin Vertical Hold
11552.88	0.00	0.00	11310.04	-695.42	-1810.01	0.00	0.000	128.94	Begin 10.00°/100' Build
12451.16	89.83	343.71	11883.00	-147.12	-1970.24	10.00	343.710	693.84	Begin 89.83° Lateral
24863.09	89.83	343.71	11920.40	11766.49	-5451.72	0.00	0.000	12968.10	LTP
24913.09	89.83	343.71	11920.55	11814.48	-5465.74	0.00	0.000	13017.54	PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
1ST TNGT LMT:20'A x 0'B x 15'L/R (B #2902HR)	1596.03	-4.78	-59.79	742947.04	1068080.99	31° 40' 29.770 N	103° 19' 45.454 W
2ND TNGT LMT:30'A x 0'B x 15'L/R (B #2902HR)	1833.56	-8.52	-112.32	742933.74	1068028.46	31° 40' 29.625 N	103° 19' 46.057 W
3RD TNGT LMT:30'A x 20'B x 30'L/R (B #2902HR)	4500.00	-241.13	-787.87	742701.13	1067352.91	31° 40' 27.144 N	103° 19' 53.799 W
4TH TNGT LMT:30'A/B x 10'L x 30'R (B #2902HR)	7946.00	-616.01	-1631.66	742326.25	1065609.12	31° 40' 23.210 N	103° 20' 3.443 W
KOP BOX:20'N x 80'S x 50'E/W (B #2902HR)	11310.04	-695.42	-1810.01	742246.84	1066330.77	31° 40' 22.376 N	103° 20' 5.481 W
V1 FTP (B #2902HR)	11866.00	-724.64	-1801.67	742217.62	1066339.11	31° 40' 22.090 N	103° 20' 5.376 W
SUBSURF WNDW #1 (B #2902HR)	11902.73	6138.79	-3807.16	754081.05	1064333.62	31° 41' 29.455 N	103° 20' 30.722 W
SUBSURF WNDW #2 (B #2902HR)	11906.65	7386.60	-4171.80	750328.86	1063968.98	31° 41' 41.702 N	103° 20' 35.331 W
SUBSURF WNDW #3 (B #2902HR)	11912.68	9306.30	-4732.79	752248.56	1063407.99	31° 42' 0.543 N	103° 20' 42.424 W
V1 LTP (B #2902HR)	11920.40	11766.49	-5451.72	754708.75	1062689.06	31° 42' 24.690 N	103° 20' 51.514 W
V1 PBHL (B #2902HR)	11920.55	11814.48	-5465.74	754756.74	1062675.04	31° 42' 25.161 N	103° 20' 51.691 W

West(-)/East(+) (500 usft/in)





**ConocoPhillips
Loving County, Texas (NAD 27)
42-301-36569
UL 20 Gold Spoon B 2902HR
Wellbore 1**

**MS MWD + Surcon
Certified Survey Report
2 November 2023**

Field	Loving County, Texas (NAD 27) - ConocoPhillips		
CRS	US-SPC27-EXACT / Texas Central 4203	North Reference	GRID
Apply Scale Factor	NO	Scale Factor	1.000
System Datum	Mean Sea Level	Depth Datum->MSL	2801.80Usft

Well	UL 20 Gold Spoon B 2902HR		
Local North	0.000Usft	Local East	0.000Usft
Map Northing	742942.260UsFt	Map Easting	1068140.780UsFt
Latitude	31° 40' 29.739" N	Longitude	103° 19' 44.761" W
Depth Datum / Rig	Well-Patterson 884 / Patterson 884	Datum Elevation	2801.80Usft
GL Elevation	2776.80Usft	Grid Convergence	-1.543

Wellbore	UL 20 Gold Spoon B 2902HR - Wellbore 1		
Magnetic Model	User defined	Date	20/09/2023
Total Field (nT)	46913.00	Dip Angle (deg)	59.300
Declination	6.562		
VS Origin	Well	VS Azimuth	335.17
VS Origin NS	0.00Usft	VS Origin EW	0.00Usft

Survey Program	UL 20 Gold Spoon B 2902HR - Wellbore 1		
Depth From Usft	0.00	Survey	MS MWD + Surcon
Depth To Usft	24872.00	Survey Tool	r.5 MWD+IFR1+MS

MD	INC	AZI	TVD	NS	EW	VS	DLS	BR	TR
Usft	deg	deg	Usft	Usft	Usft	Usft	deg/100Usft	deg/100Usft	deg/100Usft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
141.00	0.44	125.26	141.00	-0.31	0.44	-0.47	0.31	0.31	0.00
230.00	1.01	266.77	229.99	-0.55	-0.06	-0.48	1.55	0.64	159.00
319.00	0.70	264.48	318.98	-0.65	-1.39	-0.01	0.35	-0.34	-2.57
407.00	0.77	265.70	406.98	-0.75	-2.52	0.38	0.08	0.08	1.39
496.00	0.73	267.07	495.97	-0.82	-3.68	0.80	0.06	-0.05	1.54
587.00	0.73	270.88	586.96	-0.84	-4.84	1.27	0.05	0.00	4.18
675.00	0.67	274.38	674.96	-0.79	-5.91	1.76	0.08	-0.07	3.98
764.00	0.59	282.92	763.95	-0.65	-6.88	2.30	0.14	-0.09	9.59
852.00	0.56	287.19	851.95	-0.42	-7.73	2.86	0.06	-0.04	4.85
941.00	0.48	293.32	940.94	-0.15	-8.49	3.43	0.11	-0.09	6.89
1029.00	2.47	291.39	1028.91	0.69	-10.59	5.07	2.26	2.26	-2.20
1056.00	3.05	291.57	1055.88	1.16	-11.79	6.01	2.15	2.15	0.68
1218.00	5.57	292.39	1217.41	5.74	-23.07	14.90	1.56	1.56	0.50
1308.00	7.14	284.99	1306.85	8.85	-32.52	21.69	1.96	1.74	-8.22
1399.00	8.54	279.70	1397.00	11.46	-44.65	29.15	1.73	1.54	-5.81
1489.00	10.14	276.01	1485.80	13.41	-59.11	36.99	1.89	1.77	-4.10
1579.00	11.17	269.60	1574.26	14.18	-75.71	44.66	1.75	1.15	-7.12
1670.00	11.49	264.14	1663.48	13.19	-93.54	51.25	1.23	0.35	-6.01
1760.00	12.18	258.06	1751.57	10.31	-111.76	56.29	1.58	0.77	-6.75
1850.00	13.21	250.68	1839.38	4.94	-130.75	59.40	2.13	1.14	-8.20
1941.00	15.39	244.88	1927.55	-3.62	-151.50	60.33	2.87	2.40	-6.38
2032.00	16.42	244.47	2015.07	-14.30	-174.05	60.11	1.14	1.13	-0.45
2122.00	15.92	244.63	2101.51	-25.07	-196.68	59.84	0.56	-0.56	0.18
2212.00	15.68	244.92	2188.11	-35.51	-218.85	59.67	0.29	-0.27	0.32
2303.00	15.41	245.13	2275.78	-45.81	-240.95	59.61	0.30	-0.29	0.23
2393.00	14.78	244.90	2362.67	-55.71	-262.20	59.55	0.70	-0.70	-0.26
2484.00	14.12	244.62	2450.79	-65.39	-282.74	59.38	0.74	-0.73	-0.31
2574.00	13.63	244.51	2538.17	-74.66	-302.22	59.15	0.54	-0.54	-0.12
2665.00	14.83	247.36	2626.37	-83.76	-322.65	59.48	1.53	1.32	3.14
2756.00	16.15	250.15	2714.07	-92.54	-345.31	61.02	1.67	1.45	3.07
2846.00	15.44	250.28	2800.67	-100.83	-368.37	63.18	0.79	-0.79	0.14
2937.00	15.00	249.70	2888.47	-109.01	-390.82	65.19	0.51	-0.48	-0.63
3027.00	14.29	249.72	2975.55	-116.90	-412.17	66.99	0.79	-0.79	0.02
3117.00	14.11	248.76	3062.80	-124.72	-432.81	68.56	0.33	-0.20	-1.07
3208.00	13.57	248.16	3151.16	-132.71	-453.05	69.81	0.61	-0.59	-0.66
3298.00	14.93	250.81	3238.39	-140.45	-473.80	71.50	1.67	1.50	2.95
3389.00	16.24	252.76	3326.04	-148.07	-497.02	74.33	1.55	1.44	2.15
3480.00	16.28	252.44	3413.40	-155.69	-521.34	77.62	0.11	0.05	-0.36
3570.00	16.07	253.09	3499.84	-163.12	-545.28	80.94	0.31	-0.23	0.72
3662.00	14.75	252.89	3588.53	-170.27	-568.66	84.26	1.44	-1.44	-0.22
3752.00	13.53	252.73	3675.80	-176.77	-589.66	87.19	1.35	-1.35	-0.17
3843.00	13.92	252.05	3764.20	-183.30	-610.25	89.90	0.47	0.43	-0.75
3934.00	14.87	252.53	3852.34	-190.18	-631.80	92.71	1.04	1.04	0.52
4024.00	13.44	251.58	3939.61	-196.96	-652.74	95.36	1.60	-1.58	-1.05
4114.00	13.41	246.83	4027.15	-204.37	-672.26	96.83	1.23	-0.04	-5.29

MD	INC	AZI	TVD	NS	EW	VS	DLS	BR	TR
Usft	deg	deg	Usft	Usft	Usft	Usft	deg/100Usft	deg/100Usft	deg/100Usft
4205.00	14.43	244.45	4115.48	-213.41	-692.19	96.99	1.29	1.13	-2.61
4295.00	13.62	248.06	4202.80	-222.21	-712.14	97.38	1.32	-0.90	4.01
4386.00	13.80	254.06	4291.21	-229.19	-732.51	99.60	1.57	0.19	6.59
4476.00	14.59	253.06	4378.46	-235.44	-753.67	102.81	0.92	0.88	-1.11
4567.00	15.88	251.81	4466.26	-242.66	-776.47	105.83	1.46	1.41	-1.37
4657.00	14.75	251.37	4553.07	-250.17	-799.02	108.49	1.26	-1.26	-0.49
4747.00	13.42	249.16	4640.36	-257.54	-819.63	110.45	1.59	-1.47	-2.45
4838.00	14.21	246.60	4728.73	-265.73	-839.75	111.47	1.10	0.87	-2.82
4928.00	14.87	244.69	4815.84	-275.06	-860.33	111.65	0.90	0.72	-2.12
5019.00	14.16	243.97	4903.94	-284.93	-880.88	111.32	0.80	-0.78	-0.79
5047.00	14.71	245.43	4931.06	-287.91	-887.19	111.26	2.35	1.96	5.20
5110.00	15.42	249.32	4991.89	-294.19	-902.30	111.91	1.96	1.13	6.18
5200.00	14.21	247.26	5078.90	-302.69	-923.68	113.17	1.47	-1.35	-2.30
5290.00	11.95	244.47	5166.56	-310.97	-942.28	113.46	2.60	-2.50	-3.10
5381.00	13.83	246.41	5255.26	-319.39	-960.76	113.58	2.12	2.06	2.14
5471.00	16.36	249.20	5342.15	-328.20	-982.47	114.71	2.92	2.80	3.10
5562.00	17.26	249.57	5429.26	-337.46	-1007.10	116.64	0.99	0.99	0.41
5652.00	17.91	248.47	5515.06	-347.20	-1032.48	118.46	0.81	0.72	-1.23
5742.00	17.88	249.28	5600.71	-357.16	-1058.27	120.25	0.28	-0.02	0.91
5833.00	16.90	250.49	5687.55	-366.52	-1083.81	122.48	1.15	-1.08	1.33
5923.00	15.79	250.26	5773.91	-375.03	-1107.66	124.78	1.24	-1.23	-0.25
6014.00	15.79	251.33	5861.48	-383.17	-1131.04	127.21	0.32	-0.00	1.17
6104.00	16.14	244.99	5948.01	-392.38	-1153.98	128.48	1.97	0.39	-7.04
6195.00	13.73	245.47	6035.93	-402.21	-1175.26	128.50	2.65	-2.65	0.53
6285.00	13.86	247.03	6123.34	-410.85	-1194.90	128.90	0.44	0.15	1.73
6375.00	15.28	246.64	6210.44	-419.76	-1215.72	129.56	1.58	1.57	-0.43
6465.00	15.26	247.67	6297.26	-428.96	-1237.56	130.38	0.30	-0.02	1.14
6556.00	15.22	248.32	6385.06	-437.93	-1259.74	131.56	0.19	-0.04	0.72
6647.00	14.59	249.67	6473.00	-446.32	-1281.59	133.11	0.80	-0.70	1.48
6737.00	14.91	247.60	6560.04	-454.67	-1302.92	134.49	0.69	0.36	-2.30
6828.00	15.48	245.39	6647.85	-464.19	-1324.79	135.04	0.89	0.63	-2.43
6918.00	14.86	245.78	6734.72	-473.93	-1346.24	135.21	0.70	-0.69	0.43
7009.00	13.71	247.33	6822.90	-482.87	-1366.84	135.74	1.33	-1.26	1.71
7100.00	13.76	245.43	6911.30	-491.53	-1386.64	136.19	0.50	0.05	-2.09
7190.00	14.11	244.52	6998.65	-500.70	-1406.28	136.12	0.46	0.39	-1.01
7281.00	14.65	243.60	7086.79	-510.59	-1426.60	135.68	0.64	0.59	-1.00
7371.00	15.04	244.05	7173.79	-520.76	-1447.30	135.14	0.46	0.44	0.50
7462.00	14.04	245.28	7261.87	-530.55	-1467.95	134.93	1.16	-1.11	1.34
7553.00	13.53	244.15	7350.25	-539.81	-1487.56	134.76	0.63	-0.56	-1.24
7643.00	11.51	241.96	7438.11	-548.62	-1504.96	134.07	2.31	-2.25	-2.42
7734.00	13.64	245.59	7526.92	-557.32	-1522.74	133.64	2.50	2.35	3.98
7824.00	11.90	244.99	7614.69	-565.63	-1540.82	133.69	1.94	-1.93	-0.67
7915.00	11.87	247.61	7703.74	-573.16	-1557.97	134.06	0.59	-0.04	2.88
8005.00	16.46	247.29	7790.98	-581.62	-1578.30	134.92	5.11	5.11	-0.35
8096.00	16.56	247.24	7878.23	-591.61	-1602.16	135.87	0.11	0.11	-0.05
8186.00	14.36	246.48	7964.96	-601.03	-1624.23	136.59	2.46	-2.45	-0.85
8277.00	13.64	244.86	8053.26	-610.10	-1644.29	136.79	0.90	-0.79	-1.78
8368.00	13.38	238.23	8141.75	-620.20	-1662.96	135.45	1.72	-0.28	-7.28
8458.00	12.11	235.88	8229.53	-630.98	-1679.63	132.67	1.53	-1.41	-2.62
8548.00	9.56	237.09	8317.92	-640.34	-1693.72	130.10	2.84	-2.83	1.35
8639.00	10.92	244.47	8407.47	-648.16	-1707.85	128.93	2.07	1.49	8.11
8730.00	10.07	245.89	8496.95	-655.12	-1722.89	128.92	0.97	-0.93	1.56
8820.00	7.22	243.05	8585.91	-660.90	-1735.11	128.81	3.20	-3.16	-3.15
8911.00	7.97	249.16	8676.12	-665.74	-1746.11	129.04	1.21	0.82	6.71
9001.00	6.49	248.67	8765.40	-669.81	-1756.68	129.79	1.64	-1.64	-0.54
9092.00	3.62	240.45	8856.04	-673.10	-1763.97	129.86	3.24	-3.15	-9.03
9182.00	4.64	231.29	8945.80	-676.78	-1769.28	128.76	1.34	1.12	-10.18
9273.00	5.32	229.71	9036.46	-681.80	-1775.37	126.75	0.77	0.75	-1.73
9363.00	3.70	235.62	9126.18	-686.14	-1780.95	125.16	1.87	-1.80	6.56
9454.00	3.18	224.82	9217.01	-689.59	-1785.15	123.79	0.91	-0.57	-11.87
9544.00	2.42	220.36	9306.91	-692.81	-1788.14	122.13	0.87	-0.84	-4.95
9635.00	1.03	205.35	9397.86	-695.01	-1789.74	120.80	1.60	-1.53	-16.49
9726.00	1.32	185.73	9488.84	-696.80	-1790.19	119.37	0.55	0.33	-21.57
9816.00	2.26	201.03	9578.80	-699.49	-1790.93	117.24	1.16	1.04	17.00
9906.00	3.26	225.37	9668.70	-702.94	-1793.39	115.14	1.69	1.11	27.05
9996.00	3.87	223.49	9758.52	-706.94	-1797.30	113.15	0.69	0.68	-2.09
10087.00	3.30	229.06	9849.34	-710.88	-1801.39	111.29	0.74	-0.63	6.12
10178.00	3.88	258.23	9940.17	-713.22	-1806.38	111.26	2.08	0.64	32.06
10268.00	4.71	265.46	10029.92	-714.14	-1813.05	113.23	1.10	0.93	8.03
10359.00	2.78	257.34	10120.72	-714.92	-1818.93	114.99	2.19	-2.12	-8.92
10450.00	2.64	244.60	10211.62	-716.30	-1822.97	115.43	0.68	-0.16	-14.00
10540.00	1.93	230.93	10301.55	-718.14	-1826.02	115.04	0.99	-0.79	-15.19
10631.00	2.96	213.63	10392.47	-721.06	-1828.51	113.43	1.38	1.13	-19.02
10722.00	3.68	239.57	10483.32	-724.50	-1832.33	111.92	1.81	0.79	28.51
10805.00	3.70	267.37	10566.15	-725.97	-1837.30	112.67	2.13	0.02	33.49
10895.00	3.10	318.28	10656.01	-724.29	-1841.82	116.10	3.30	-0.66	56.57
10986.00	1.38	349.15	10746.94	-721.37	-1843.67	119.52	2.24	-1.89	33.92
11076.00	0.69	54.97	10836.93	-719.99	-1843.43	120.67	1.41	-0.77	73.14

MD	INC	AZI	TVD	NS	EW	VS	DLS	BR	TR
Usft	deg	deg	Usft	Usft	Usft	Usft	deg/100Usft	deg/100Usft	deg/100Usft
11167.00	0.79	36.50	10927.92	-719.17	-1842.61	121.07	0.29	0.12	-20.30
11257.00	1.00	32.91	11017.91	-718.01	-1841.81	121.79	0.24	0.23	-3.99
11348.00	0.23	316.79	11108.91	-717.22	-1841.50	122.38	1.07	-0.85	-83.65
11425.00	0.34	248.08	11185.91	-717.19	-1841.82	122.54	0.43	0.15	-89.23
11549.00	1.06	335.10	11309.90	-716.29	-1842.64	123.70	0.88	0.58	70.18
11594.00	9.53	353.66	11354.67	-712.20	-1843.23	127.66	18.96	18.82	41.24
11639.00	18.28	350.37	11398.31	-701.52	-1844.82	138.02	19.52	19.45	-7.30
11684.00	28.22	348.06	11439.60	-684.11	-1846.21	155.25	22.18	22.10	-5.14
11730.00	32.39	347.51	11479.30	-661.42	-1853.13	177.90	9.09	9.07	-1.19
11775.00	37.94	348.77	11516.08	-636.07	-1858.43	203.14	12.43	12.32	2.80
11820.00	41.42	348.47	11550.70	-607.90	-1864.10	231.08	7.76	7.74	-0.67
11865.00	42.81	346.67	11584.08	-578.43	-1870.60	260.56	4.08	3.08	-4.00
11910.00	45.50	346.98	11616.37	-547.91	-1877.74	291.25	6.00	5.98	0.67
11956.00	47.92	347.52	11647.90	-515.26	-1885.13	323.99	5.33	5.26	1.19
12001.00	48.32	347.28	11677.95	-482.56	-1892.44	356.74	0.97	0.89	-0.53
12047.00	51.29	346.80	11707.63	-448.32	-1900.32	391.12	6.51	6.46	-1.04
12092.00	54.45	347.14	11734.79	-413.37	-1908.40	426.23	7.03	7.01	0.75
12137.00	58.16	345.60	11759.75	-377.00	-1917.23	462.95	8.74	8.26	-3.42
12182.00	59.34	344.18	11783.09	-339.86	-1927.26	500.87	3.77	2.62	-3.17
12227.00	63.74	345.68	11804.53	-301.66	-1937.54	539.85	10.19	9.76	3.33
12272.00	68.71	346.04	11822.67	-261.74	-1947.59	580.30	11.08	11.06	0.80
12317.00	69.88	344.97	11838.58	-220.99	-1958.13	621.71	3.42	2.60	-2.36
12362.00	74.16	345.73	11852.46	-179.59	-1968.95	663.83	9.63	9.50	1.68
12408.00	80.45	346.27	11862.57	-136.07	-1979.80	707.88	13.72	13.67	1.18
12453.00	84.42	346.31	11868.49	-92.74	-1990.37	751.64	8.82	8.82	0.08
12543.00	91.30	346.27	11871.86	-5.42	-2011.67	839.84	7.65	7.65	-0.04
12634.00	91.40	345.55	11869.72	82.82	-2033.82	929.22	0.80	0.11	-0.79
12724.00	87.68	343.72	11870.44	169.58	-2057.66	1017.97	4.60	-4.13	-2.03
12815.00	87.32	344.53	11874.41	257.02	-2082.53	1107.78	0.97	-0.39	0.88
12905.00	90.19	347.10	11876.36	344.24	-2104.58	1196.19	4.28	3.19	2.86
12996.00	89.70	343.79	11876.45	432.31	-2127.45	1285.72	3.67	-0.55	-3.63
13086.00	88.81	341.67	11877.62	518.24	-2154.16	1374.92	2.56	-0.98	-2.36
13177.00	89.89	340.75	11878.65	604.38	-2183.47	1465.41	1.56	1.19	-1.01
13267.00	89.36	340.36	11879.24	689.25	-2213.43	1555.01	0.73	-0.58	-0.44
13358.00	88.83	338.96	11880.67	774.56	-2245.06	1645.72	1.64	-0.59	-1.54
13448.00	90.05	341.68	11881.56	859.29	-2275.36	1735.34	3.31	1.36	3.02
13566.00	89.47	340.64	11882.05	970.96	-2313.46	1852.69	1.01	-0.49	-0.88
13656.00	89.39	343.95	11882.95	1056.69	-2340.83	1941.98	3.68	-0.09	3.68
13747.00	90.82	347.02	11882.79	1144.77	-2363.63	2031.50	3.72	1.57	3.37
13837.00	88.05	344.35	11883.68	1231.95	-2385.87	2119.96	4.28	-3.07	-2.97
13927.00	89.72	344.49	11885.43	1318.63	-2410.05	2208.77	1.86	1.85	0.16
14018.00	90.42	352.95	11885.32	1407.79	-2427.84	2297.16	9.33	0.77	9.30
14108.00	89.36	337.00	11885.49	1494.43	-2451.09	2385.56	17.76	-1.18	-17.72
14198.00	89.65	333.42	11886.26	1576.12	-2488.83	2475.54	3.99	0.32	-3.98
14289.00	90.01	336.45	11886.53	1658.54	-2527.37	2566.53	3.36	0.39	3.34
14379.00	91.30	341.84	11885.51	1742.60	-2559.40	2656.27	6.15	1.43	5.98
14470.00	90.89	344.87	11883.77	1829.76	-2585.46	2746.32	3.36	-0.45	3.33
14560.00	88.15	345.44	11884.53	1916.75	-2608.51	2834.94	3.11	-3.04	0.64
14651.00	87.99	345.21	11887.59	2004.73	-2631.55	2924.47	0.30	-0.17	-0.25
14741.00	87.61	344.84	11891.04	2091.61	-2654.79	3013.07	0.59	-0.42	-0.42
14832.00	90.06	347.06	11892.88	2179.86	-2676.87	3102.44	3.63	2.69	2.44
14922.00	90.87	348.12	11892.14	2267.75	-2696.21	3190.33	1.48	0.90	1.17
15013.00	89.50	345.84	11891.85	2356.40	-2716.71	3279.39	2.92	-1.50	-2.50
15103.00	89.21	344.50	11892.86	2443.39	-2739.75	3368.02	1.53	-0.33	-1.49
15194.00	89.01	342.85	11894.28	2530.71	-2765.32	3458.00	1.82	-0.22	-1.81
15285.00	89.59	344.00	11895.40	2617.92	-2791.28	3548.05	1.41	0.64	1.26
15376.00	89.38	343.45	11896.22	2705.27	-2816.78	3638.03	0.65	-0.23	-0.60
15466.00	89.41	343.14	11897.17	2791.47	-2842.65	3727.13	0.34	0.04	-0.34
15556.00	90.37	344.96	11897.34	2878.00	-2867.38	3816.04	2.28	1.07	2.02
15647.00	88.38	341.46	11898.32	2965.10	-2893.66	3906.12	4.43	-2.19	-3.85
15737.00	91.81	343.86	11898.17	3050.98	-2920.49	3995.34	4.65	3.81	2.67
15828.00	92.46	344.49	11894.78	3138.47	-2945.29	4085.15	1.00	0.72	0.69
15918.00	91.56	345.87	11891.62	3225.42	-2968.29	4173.72	1.83	-1.00	1.54
16009.00	92.45	347.31	11888.44	3313.89	-2989.38	4262.86	1.85	0.97	1.58
16099.00	89.61	347.67	11886.83	3401.73	-3008.86	4350.77	3.18	-3.15	0.40
16189.00	90.12	348.31	11887.04	3489.76	-3027.59	4438.52	0.91	0.56	0.71
16280.00	90.00	346.16	11886.95	3578.50	-3047.69	4527.51	2.37	-0.13	-2.36
16370.00	88.93	345.06	11887.79	3665.67	-3070.06	4616.01	1.71	-1.18	-1.23
16461.00	88.31	344.26	11889.98	3753.40	-3094.13	4705.74	1.10	-0.68	-0.87
16552.00	88.54	345.30	11892.48	3841.18	-3118.00	4795.42	1.17	0.25	1.14
16642.00	88.20	345.17	11895.04	3928.17	-3140.93	4884.00	0.41	-0.38	-0.15
16733.00	90.15	343.98	11896.35	4015.88	-3165.13	4973.76	2.51	2.15	-1.31
16823.00	89.15	342.05	11896.90	4101.94	-3191.42	5062.92	2.42	-1.11	-2.15
16913.00	91.85	341.93	11896.12	4187.52	-3219.25	5152.27	3.01	3.01	-0.14
17004.00	92.19	341.28	11892.91	4273.82	-3247.95	5242.64	0.80	0.37	-0.71
17095.00	90.50	341.60	11890.77	4360.06	-3276.91	5333.07	1.90	-1.86	0.36
17185.00	89.60	340.98	11890.70	4445.30	-3305.77	5422.55	1.21	-0.99	-0.69

MD	INC	AZI	TVD	NS	EW	VS	DLS	BR	TR
Usft	deg	deg	Usft	Usft	Usft	Usft	deg/100Usft	deg/100Usft	deg/100Usft
17275.00	91.28	342.24	11890.00	4530.69	-3334.17	5511.98	2.33	1.87	1.40
17366.00	92.62	346.19	11886.89	4618.19	-3358.91	5601.77	4.59	1.47	4.35
17457.00	89.10	346.40	11885.53	4706.58	-3380.46	5691.04	3.88	-3.87	0.23
17547.00	88.35	345.18	11887.52	4793.80	-3402.55	5779.47	1.59	-0.83	-1.35
17638.00	88.62	345.24	11889.93	4881.75	-3425.77	5869.05	0.30	0.29	0.06
17728.00	88.53	344.86	11892.16	4968.68	-3448.99	5957.69	0.43	-0.10	-0.42
17819.00	88.85	345.14	11894.25	5056.55	-3472.54	6047.33	0.47	0.35	0.31
17910.00	90.10	346.23	11895.08	5144.72	-3495.03	6136.79	1.83	1.38	1.20
18001.00	89.63	345.43	11895.29	5232.95	-3517.30	6226.22	1.02	-0.52	-0.88
18091.00	88.39	342.40	11896.85	5319.41	-3542.23	6315.15	3.63	-1.38	-3.36
18181.00	89.61	343.77	11898.42	5405.50	-3568.41	6404.27	2.04	1.35	1.52
18272.00	89.22	343.66	11899.35	5492.84	-3593.92	6494.26	0.44	-0.43	-0.12
18363.00	90.36	346.82	11899.68	5580.82	-3617.11	6583.84	3.69	1.25	3.47
18453.00	89.82	342.39	11899.54	5667.57	-3641.00	6672.60	4.96	-0.60	-4.92
18544.00	88.51	339.85	11900.87	5753.66	-3670.44	6763.09	3.14	-1.44	-2.79
18635.00	90.51	342.61	11901.65	5839.80	-3699.72	6853.57	3.75	2.20	3.03
18725.00	89.61	341.09	11901.57	5925.32	-3727.76	6942.95	1.96	-1.00	-1.69
18816.00	89.37	341.57	11902.38	6011.52	-3756.89	7033.43	0.59	-0.26	0.53
18907.00	90.91	343.96	11902.16	6098.43	-3783.85	7123.62	3.13	1.70	2.63
18997.00	88.57	343.09	11902.57	6184.73	-3809.37	7212.65	2.78	-2.61	-0.96
19088.00	91.09	346.58	11902.84	6272.54	-3833.17	7302.34	4.73	2.77	3.84
19178.00	90.90	347.25	11901.28	6360.19	-3853.53	7390.44	0.77	-0.22	0.74
19269.00	89.06	346.36	11901.32	6448.78	-3874.30	7479.57	2.24	-2.01	-0.98
19359.00	89.75	346.65	11902.25	6536.29	-3895.31	7567.81	0.83	0.76	0.32
19450.00	89.45	345.28	11902.90	6624.57	-3917.37	7657.19	1.54	-0.33	-1.50
19541.00	89.02	348.70	11904.12	6713.21	-3937.85	7746.24	3.79	-0.47	3.76
19631.00	90.45	348.32	11904.53	6801.41	-3955.78	7833.81	1.65	1.59	-0.43
19721.00	88.79	342.75	11905.13	6888.51	-3978.26	7922.30	6.46	-1.85	-6.19
19812.00	89.81	342.98	11906.25	6975.46	-4005.08	8012.48	1.15	1.12	0.25
19903.00	89.51	341.81	11906.79	7062.20	-4032.60	8102.75	1.32	-0.33	-1.28
19993.00	89.95	343.37	11907.22	7148.07	-4059.52	8191.99	1.80	0.50	1.73
20084.00	88.71	342.93	11908.28	7235.16	-4085.90	8282.10	1.45	-1.37	-0.49
20175.00	89.63	344.05	11909.60	7322.39	-4111.75	8372.13	1.60	1.01	1.23
20265.00	90.05	349.56	11909.86	7409.98	-4132.29	8460.25	6.13	0.46	6.12
20356.00	90.60	346.71	11909.35	7499.03	-4151.00	8548.92	3.18	0.60	-3.12
20446.00	90.67	343.21	11908.35	7585.93	-4174.34	8637.59	3.89	0.08	-3.89
20536.00	90.63	341.38	11907.33	7671.66	-4201.71	8726.88	2.03	-0.04	-2.03
20627.00	89.86	337.43	11906.93	7756.82	-4233.71	8817.61	4.43	-0.85	-4.35
20717.00	90.16	341.76	11906.91	7841.15	-4265.09	8907.33	4.82	0.33	4.81
20808.00	89.90	341.77	11906.86	7927.58	-4293.57	8997.72	0.29	-0.29	0.01
20898.00	90.61	341.25	11906.46	8012.93	-4322.11	9087.17	0.98	0.79	-0.58
20989.00	91.52	340.92	11904.77	8099.00	-4351.61	9177.67	1.07	1.00	-0.36
21079.00	91.02	342.50	11902.77	8184.43	-4379.85	9267.06	1.84	-0.56	1.76
21170.00	91.14	342.26	11901.05	8271.15	-4407.39	9357.32	0.29	0.14	-0.26
21261.00	88.35	341.09	11901.45	8357.52	-4435.99	9447.73	3.33	-3.07	-1.28
21351.00	89.43	341.43	11903.20	8442.73	-4464.90	9537.20	1.25	1.20	0.37
21445.00	88.86	339.23	11904.60	8531.23	-4496.53	9630.80	2.41	-0.61	-2.33
21539.00	88.76	345.09	11906.55	8620.65	-4525.31	9724.04	6.23	-0.10	6.23
21633.00	88.67	345.82	11908.66	8711.62	-4548.91	9816.51	0.78	-0.10	0.78
21727.00	89.16	345.88	11910.44	8802.75	-4571.88	9908.86	0.53	0.52	0.06
21821.00	91.45	346.49	11909.94	8894.02	-4594.32	10001.12	2.52	2.44	0.65
21914.00	89.14	342.96	11909.47	8983.72	-4618.81	10092.81	4.54	-2.49	-3.79
22008.00	89.92	342.67	11910.24	9073.57	-4646.43	10185.95	0.85	0.84	-0.10
22101.00	88.65	340.50	11911.39	9161.84	-4675.65	10278.33	2.90	-1.37	-2.55
22195.00	89.29	341.75	11913.09	9250.77	-4706.06	10371.81	1.50	0.68	1.34
22289.00	89.86	345.21	11913.79	9340.87	-4732.78	10464.80	3.73	0.61	3.68
22382.00	89.79	343.57	11914.07	9430.44	-4757.80	10556.60	1.77	-0.08	-1.76
22476.00	88.66	345.43	11915.35	9521.01	-4782.92	10649.34	2.32	-1.20	1.98
22570.00	88.65	346.93	11917.55	9612.26	-4805.36	10741.58	1.59	-0.01	1.59
22664.00	89.70	347.73	11918.91	9703.96	-4825.97	10833.46	1.40	1.11	0.85
22758.00	90.01	346.28	11919.15	9795.55	-4847.11	10925.46	1.58	0.33	-1.54
22851.00	90.08	345.63	11919.09	9885.77	-4869.68	11016.82	0.70	0.08	-0.70
22963.00	91.45	345.92	11917.59	9994.32	-4897.20	11126.89	1.25	1.23	0.26
23056.00	89.07	339.23	11917.16	10082.99	-4925.03	11219.05	7.64	-2.56	-7.20
23150.00	89.05	347.17	11918.71	10172.90	-4952.17	11312.05	8.45	-0.02	8.45
23244.00	88.22	346.36	11920.95	10264.37	-4973.68	11404.10	1.23	-0.88	-0.86
23338.00	91.32	349.00	11921.33	10356.19	-4993.74	11495.85	4.33	3.30	2.80
23431.00	90.82	344.43	11919.60	10446.66	-5015.10	11586.93	4.94	-0.53	-4.91
23525.00	88.97	339.47	11919.77	10536.00	-5044.22	11680.23	5.63	-1.97	-5.27
23619.00	88.39	341.97	11921.93	10624.70	-5075.24	11773.76	2.73	-0.62	2.66
23713.00	88.71	340.53	11924.31	10713.68	-5105.44	11867.20	1.57	0.34	-1.53
23807.00	90.73	342.05	11924.77	10802.71	-5135.59	11960.66	2.69	2.15	1.62
23900.00	89.93	338.10	11924.23	10890.12	-5167.28	12053.29	4.34	-0.86	-4.25
23995.00	89.09	337.52	11925.03	10978.08	-5203.16	12148.19	1.07	-0.88	-0.60
24089.00	91.98	343.33	11924.16	11066.60	-5234.63	12241.74	6.90	3.07	6.18
24182.00	91.07	343.62	11921.69	11155.72	-5261.07	12333.73	1.02	-0.98	0.31
24278.00	90.60	345.23	11920.29	11248.19	-5286.84	12428.47	1.75	-0.49	1.68
24372.00	90.33	343.07	11919.54	11338.61	-5312.50	12521.30	2.31	-0.29	-2.30

MD	INC	AZI	TVD	NS	EW	VS	DLS	BR	TR
Usft	deg	deg	Usft	Usft	Usft	Usft	deg/100Usft	deg/100Usft	deg/100Usft
24466.00	88.85	342.48	11920.21	11428.38	-5340.34	12614.47	1.69	-1.57	-0.64
24559.00	89.03	343.58	11921.93	11517.32	-5367.48	12706.58	1.20	0.19	1.19
24654.00	89.26	342.44	11923.35	11608.16	-5395.23	12800.68	1.22	0.24	-1.20
24748.00	88.57	340.99	11925.13	11697.40	-5424.72	12894.05	1.71	-0.74	-1.54
24815.00	88.10	340.47	11927.08	11760.61	-5446.82	12960.70	1.05	-0.70	-0.79
24872.00	88.10	340.47	11928.97	11814.30	-5465.87	13017.43	0.01	0.00	0.01 PTB



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Conroe, Texas 77303
936.442.2500 (office)
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MS Directional LLC Survey Data Certification

MS Directional LLC Job Number: MSMO-113282
Survey Type: MWD
Operating Company: ConocoPhillips
Well Name and Number: UL 20 Gold Spoon B 2902HR
Drainhole Number: Original Wellbore
Location: Loving, Texas
API Number: 42-301-36569
Tie In Depth: 0.00
Surveyed Depths: 141.00' - 24815.00'
Projected TD Survey: 24872.00'
Dates Performed: 09/28/2023 - 10/31/2023

To the best of my knowledge, I certify the following:

1. The data is true, correct and complete and within the limitations of the tool set forth by MS Directional LLC or if applicable, contain corrected surveys by a third party named Magnetic Variation Services LLC;
2. I am authorized and qualified to make this report; and
3. I have reviewed this report and find it conforms to the principles and procedures as set forth by MS Directional LLC

MWD Surveyor Name: Blake McDonald

MWD Operations Manager: Charles Davis

Signature: 

Date: 11/02/2023

Email: charles.davis@msdir.com