



Verdad Resources



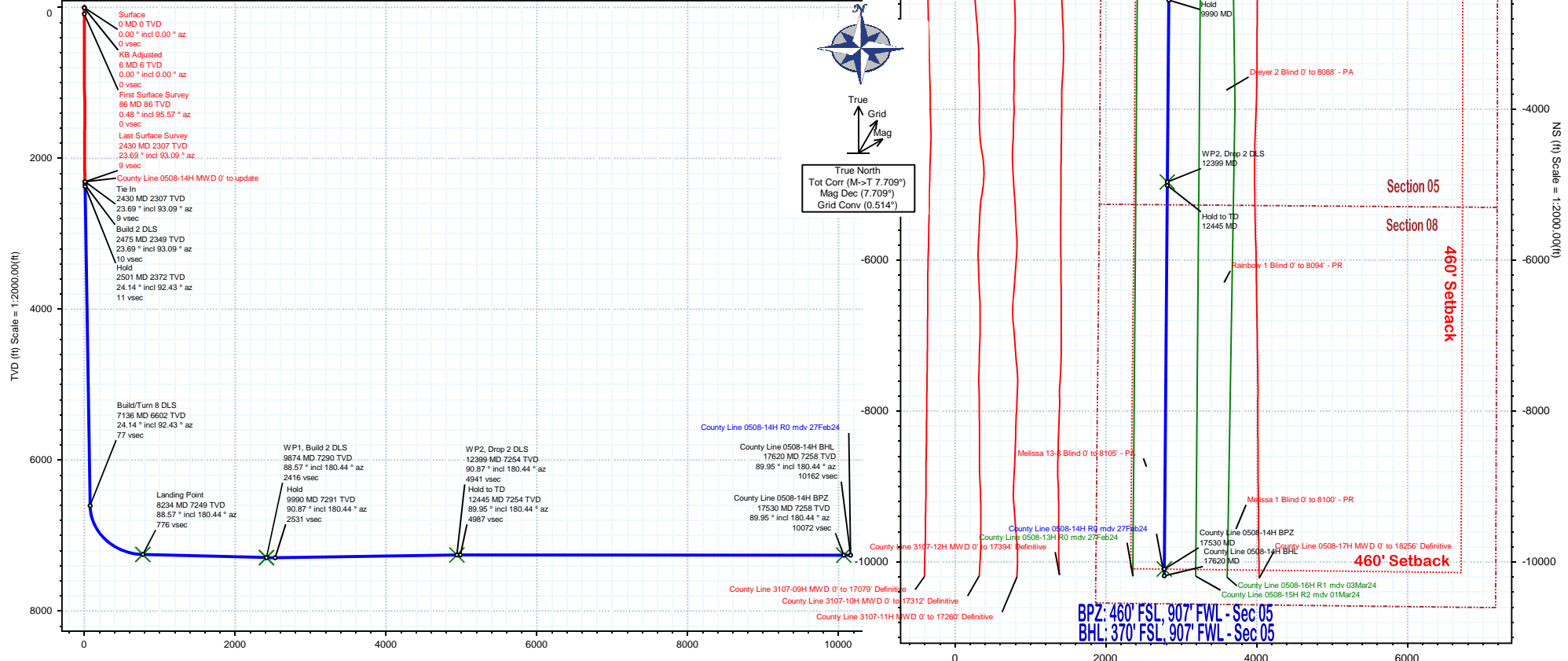
Rev 0

Borehole:	Well:	Field:	Structure:
County Line 0508-14H	County Line 0508-14H	CO, Weld County (NAD 83 NZ) - 2019	Verdad Resources 31-01N-65W (County Line 0508-3229 Pad)

Gravity & Magnetic Parameters	Surface Location	NAD83 Colorado State Plane, Northern Zone, US Feet	Miscellaneous
Model: HDGM 2023 Dip: 66.113° Date: 27-Feb-2024	Lat: N 40 0 5.24 Northing: 1244378.18/EUS Grid Conv: 0.5143°	0.5143°	Slot: County Line 0508-14H
MagDec: 7.709° FS: 51394.038mT Gravity FS: 998.982mgn (9.80665 Based)	Lon: W 104 42 14.54 Easting: 3222983.37/EUS Scale Fact: 0.99996626	0.99996626	Plan: County Line 0508-14H R0 mdy 27Feb24

Target Description	Latitude	Longitude	Northing	Easting	TVD	VSec	N(+)/S(-)	E(+)/W(-)
County Line Pad - Sec 31-30	N 40 0 1.88	W 104 42 52.63	1244011.63	3220022.93	0.00	362.72	-339.97	-2963.72
County Line Pad Sec 05-08	N 40 0 1.90	W 104 41 49.59	1244057.00	3224928.07	0.00	323.71	-338.63	1941.81
County Line Pad Sec 05-08 - 460' SB	N 39 59 57.35	W 104 41 43.71	1243601.38	3225389.58	0.00	779.94	-798.39	2399.23
County Line Pad Sec 05-08 - CL	N 39 59 12.86	W 104 40 42.20	1239143.00	3230217.90	0.00	5244.74	-5300.10	7187.50
County Line 0508-14H TPZ	N 39 59 57.35	W 104 41 37.97	1243605.54	3225836.48	7249.00	776.37	-798.25	2846.16
County Line 0508-14H WP2	N 39 59 16.20	W 104 41 38.39	1239441.42	3225841.60	7254.00	4940.64	-4962.39	2813.90
County Line 0508-14H BHL	N 39 58 25.50	W 104 41 38.91	1234310.42	3225847.92	7258.00	10071.83	-10093.43	2774.16
County Line 0508-14H WP1	N 39 59 41.15	W 104 41 38.14	1241966.02	3225838.50	7290.00	2415.95	-2437.78	2833.46

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
Tie In	2430.00	23.69	93.09	2307.41	9.42	-14.39	647.61	1.62
Build 2 DLS	2475.00	23.69	93.09	2348.62	10.26	-15.37	665.66	0.00
Hold	2500.94	24.14	92.43	2372.33	10.68	-15.87	676.16	2.00
Build/Turn 8 DLS	7135.67	24.14	92.43	6601.91	76.57	-96.31	2569.55	0.00
Landing Point	8234.19	88.57	180.44	7249.00	776.37	-798.25	2846.16	8.00
WP1, Build 2 DLS	9874.29	88.57	180.44	7290.00	2415.95	-2437.78	2833.46	0.00
Hold	9989.51	90.87	180.44	7290.57	2531.16	-2552.99	2832.57	2.00
WP2, Drop 2 DLS	12399.27	90.87	180.44	7254.00	4940.64	-4962.39	2813.90	0.00
Hold to TD	12445.18	89.95	180.44	7253.67	4986.55	-5008.31	2813.55	2.00
County Line 0508-14H BPZ	17530.46	89.95	180.44	7258.00	10071.83	-10093.43	2774.16	0.00
County Line 0508-14H BHL	17620.46	89.95	180.44	7258.08	10161.83	-10183.43	2773.47	0.00



Vertical Section (ft) Azim = 180.44° Scale = 1:2000.00(ft) Origin = 0N/-S, 0E/-W

County Line 0508-14H R0 mdv 27Feb24 Proposal Geodetic Report

Def Plan

Report Date: March 06, 2024 - 09:14 PM (UTC 0)
Client: Verdad Ref Survey
Field: CO, Weld County (NAD 83 NZ) - 2019
Structure / Slot: Verdad Resources 31-01N-65W (County Line 0508-3229 Pad) / County
Well: County Line 0508-14H
Borehole: County Line 0508-14H
UBHI / API#: Unknown / Unknown
Survey Name: County Line 0508-14H R0 mdv 27Feb24
Survey Date: March 06, 2024
Tort / AHD / DOI / ERD Ratio: 131.238 ° / 12762.857 ft / 6.607 / 1.751
Coordinate Reference System: NAD83 Colorado State Plane, Northern Zone, US Feet
Location Lat / Long: 40°05.24350'N, 104°42'14.54304'W
Location Grid N/E Y/X: N 1244378.180 RUS, E 3222983.370 RUS
CRS Grid Convergence Angle: 0.514°
Grid Scale Factor: 0.99996626
Version / Patch: 2023.1.0.1

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 180.040 (TRUE North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 5058.000 ft above MSL
Seabed / Ground Elevation: 5037.000 ft above MSL
Magnetic Declination: 7.709°
Total Gravity Field Strength: 998.9825mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 51394.03n T
Magnetic Dip Angle: 66.113°
Declination Date: February 27, 2024
Magnetic Declination Model: HDGM 2023
North Reference: True North
Grid Convergence Used: 0°
Total Corr Mag North→True North: 7.709°
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (RUS)	Easting (RUS)	Latitude (°)	Longitude (°)
Surface	0.00	0.00	0.00	0.00	-5,058.00	0.00	0.00	0.00		1,244,378.18	3,222,983.37	40.00145563	-104.70403973
KB Adjusted	6.00	0.00	0.00	6.00	-5,052.00	0.00	0.00	0.00	0.00	1,244,378.18	3,222,983.37	40.00145563	-104.70403973
First Surface Survey	86.00	0.48	95.57	86.00	-4,972.00	0.03	-0.03	0.33	0.60	1,244,378.15	3,222,983.70	40.00145644	-104.70403854
	176.00	0.40	175.17	176.00	-4,892.00	0.04	-0.25	0.97	0.26	1,244,377.94	3,222,984.34	40.00145584	-104.70403629
	269.00	0.31	137.13	268.99	-4,789.01	0.61	-0.62	1.40	0.12	1,244,377.57	3,222,984.78	40.00145482	-104.70403473
	360.00	1.32	99.95	359.98	-4,698.02	0.96	-0.98	2.60	1.20	1,244,377.22	3,222,985.98	40.00145383	-104.70403045
	450.00	2.77	93.88	449.93	-4,608.07	1.26	-1.31	5.79	1.63	1,244,376.92	3,222,989.17	40.00145294	-104.70401906
	539.00	5.01	89.84	538.71	-4,519.29	1.35	-1.44	11.83	2.53	1,244,376.84	3,222,995.21	40.00145257	-104.70399752
	629.00	7.47	90.28	628.17	-4,429.83	1.30	-1.46	21.61	2.73	1,244,376.91	3,223,004.99	40.00145252	-104.70396261
	718.00	10.06	90.63	716.13	-4,341.87	1.31	-1.58	35.17	2.91	1,244,376.92	3,223,018.55	40.00145220	-104.70391421
	808.00	9.71	90.49	804.79	-4,253.21	1.88	-2.27	50.59	0.85	1,244,376.37	3,223,033.98	40.00145030	-104.70385915
	897.00	11.29	89.84	892.30	-4,165.70	2.33	-2.85	66.79	2.02	1,244,375.93	3,223,050.18	40.00144872	-104.70380194
	986.00	14.11	89.75	979.11	-4,078.89	2.11	-2.77	86.35	3.17	1,244,376.18	3,223,069.74	40.00144891	-104.70373151
	1,075.00	17.49	93.18	1,064.74	-3,993.26	2.62	-3.47	110.56	3.94	1,244,375.70	3,223,093.95	40.00144701	-104.70364509
	1,165.00	18.37	94.41	1,150.37	-3,907.63	4.25	-5.31	138.21	1.06	1,244,374.11	3,223,121.61	40.00144195	-104.70354642
	1,255.00	21.23	93.97	1,235.04	-3,822.96	6.23	-7.53	168.61	3.18	1,244,372.17	3,223,152.03	40.00143586	-104.70343790
	1,344.00	21.67	93.53	1,317.88	-3,740.12	8.11	-9.66	201.08	0.53	1,244,370.33	3,223,184.53	40.00143002	-104.70332198
	1,434.00	21.40	89.49	1,401.80	-3,656.40	8.73	-10.53	234.09	1.67	1,244,369.75	3,223,217.54	40.00142761	-104.70320417
	1,523.00	23.03	88.70	1,483.99	-3,574.01	7.94	-9.99	267.79	1.86	1,244,370.59	3,223,251.17	40.00142599	-104.70314773
	1,612.00	23.51	87.55	1,565.75	-3,492.25	6.51	-8.84	302.87	0.74	1,244,372.06	3,223,286.30	40.00143226	-104.70295865
	1,702.00	25.62	89.05	1,647.60	-3,410.40	5.14	-7.75	340.27	2.44	1,244,373.49	3,223,323.68	40.00143525	-104.70282518
	1,791.00	25.62	89.75	1,727.85	-3,330.15	4.44	-7.35	378.75	0.34	1,244,374.23	3,223,362.16	40.00143635	-104.70268782
	1,881.00	25.00	88.61	1,809.21	-3,248.79	3.60	-6.80	417.22	0.88	1,244,375.13	3,223,400.62	40.00143785	-104.70255050
	1,970.00	25.84	91.16	1,889.60	-3,168.40	3.24	-6.74	455.41	1.55	1,244,375.53	3,223,438.81	40.00143802	-104.70241417
	2,059.00	24.92	91.60	1,970.01	-3,087.99	3.86	-7.65	493.55	1.06	1,244,374.96	3,223,476.95	40.00143551	-104.70227805
	2,148.00	23.55	92.35	2,051.16	-3,008.84	4.82	-8.95	530.06	2.00	1,244,374.05	3,223,513.47	40.00143211	-104.70214773
	2,238.00	24.79	92.13	2,133.27	-2,924.73	5.96	-10.31	566.88	1.38	1,244,372.96	3,223,550.30	40.00142820	-104.70201630
	2,327.00	25.84	93.00	2,213.72	-2,844.28	7.38	-12.02	604.90	1.25	1,244,371.59	3,223,588.33	40.00142351	-104.70188060
	2,417.00	23.51	93.36	2,295.50	-2,762.50	9.17	-14.10	642.41	2.59	1,244,369.85	3,223,625.86	40.00141780	-104.70174671
Tie In	2,430.00	23.69	93.09	2,307.41	-2,750.59	9.42	-14.39	647.61	1.62	1,244,369.60	3,223,631.06	40.00141700	-104.70172816
Build 2 DLS	2,475.00	23.69	93.09	2,348.62	-2,709.38	10.26	-15.37	665.66	0.00	1,244,368.79	3,223,649.12	40.00141432	-104.70166372
	2,500.00	24.12	92.46	2,371.47	-2,686.53	10.67	-15.86	675.78	2.00	1,244,368.39	3,223,659.24	40.00141297	-104.70162760
	2,500.94	24.14	92.43	2,372.33	-2,685.62	10.67	-15.87	676.16	2.00	1,244,368.38	3,223,659.26	40.00141293	-104.70162623
	2,600.00	24.14	92.43	2,462.73	-2,595.27	12.09	-17.59	716.63	0.00	1,244,367.02	3,223,700.10	40.00140821	-104.70148178
	2,700.00	24.14	92.43	2,553.99	-2,504.01	13.51	-19.33	757.48	0.00	1,244,365.65	3,223,740.97	40.00140344	-104.70133596
	2,800.00	24.14	92.43	2,645.25	-2,412.75	14.93	-21.06	798.33	0.00	1,244,364.28	3,223,781.83	40.00139867	-104.70119015
	2,900.00	24.14	92.43	2,736.51	-2,321.49	16.35	-22.80	839.19	0.00	1,244,362.91	3,223,822.70	40.00139390	-104.70104433
	3,000.00	24.14	92.43	2,827.77	-2,230.23	17.78	-24.53	880.04	0.00	1,244,361.55	3,223,863.56	40.00138914	-104.70089851
	3,100.00	24.14	92.43	2,919.02	-2,138.98	19.20	-26.27	920.89	0.00	1,244,360.18	3,223,904.43	40.00138437	-104.70075269
	3,200.00	24.14	92.43	3,010.28	-2,047.72	20.62	-28.01	961.74	0.00	1,244,358.81	3,223,945.29	40.00137960	-104.70060687
	3,300.00	24.14	92.43	3,101.54	-1,956.46	22.04	-29.74	1,002.59	0.00	1,244,357.44	3,223,986.16	40.00137483	-104.70046105
	3,400.00	24.14	92.43	3,192.80	-1,865.20	23.46	-31.48	1,043.45	0.00	1,244,356.07	3,224,027.02	40.00137006	-104.70032154
	3,500.00	24.14	92.43	3,284.06	-1,773.94	24.88	-33.21	1,084.30	0.00	1,244,354.70	3,224,067.88	40.00136530	-104.70016942
	3,600.00	24.14	92.43	3,375.32	-1,682.68	26.31	-34.95	1,125.15	0.00	1,244,353.33	3,224,108.75	40.00136053	-104.70002360
	3,700.00	24.14	92.43	3,466.57	-1,591.43	27.73	-36.68	1,166.00	0.00	1,244,351.97	3,224,149.61	40.00135576	-104.69987778
	3,800.00	24.14	92.43	3,557.83	-1,500.17	29.15	-38.42	1,206.86	0.00	1,244,350.60	3,224,190.48	40.00135099	-104.69973197
	3,900.00	24.14	92.43	3,649.09	-1,408.91	30.57	-40.15	1,247.71	0.00	1,244,349.23	3,224,231.34	40.00134622	-104.69958615
	4,000.00	24.14	92.43	3,740.35	-1,317.65	31.99	-41.89	1,288.56	0.00	1,244,347.86	3,224,272.21	40.00134145	-104.69944033
	4,100.00	24.14	92.43	3,831.61	-1,226.39	33.41	-43.62	1,329.41	0.00	1,244,346.49	3,224,313.07	40.00133668	-104.69929451
	4,200.00	24.14	92.43	3,922.87	-1,135.13	34.84	-45.36	1,370.26	0.00	1,244,345.12	3,224,353.94	40.00133191	-104.69914870
	4,300.00	24.14	92.43	4,014.12	-1,043.88	36.26	-47.09	1,411.12	0.00	1,244,343.75	3,224,394.80	40.00132714	-104.69900288
	4,400.00	24.14	92.43	4,105.38	-952.62	37.68	-48.83	1,451.97	0.00	1,244,342.39	3,224,435.67	40.00132237	-104.69885706
	4,500.00	24.14	92.43	4,196.64	-861.36	39.10	-50.57	1,492.82	0.00	1,244,341.02	3,224,476.53	40.00131760	-104.69871124
	4,600.00	24.14	92.43	4,287.90	-770.10	40.52	-52.30	1,533.67	0.00	1,244,339.65	3,224,517.40	40.00131283	-104.69856542
	4,700.00	24.14	92.43	4,379.16	-678.84	41.94	-54.04	1,574.52	0.00	1,244,338.28	3,224,558.26	40.00130806	-104.69841961
	4,800.00	24.14	92.43	4,470.42	-587.58	43.37	-55.77	1,615.38	0.00	1,244,336.91	3,224,599.12	40.00130329	-104.69827379
	4,900.00	24.14	92.43	4,561.67	-496.33	44.79	-57.51	1,656.23	0.00	1,244,335.54	3,224,639.99	40.00129852	-104.69812797
	5,000.00	24.14	92.43	4,652.93	-405.07	46.21	-59.24	1,697.08	0.00	1,244,334.17	3,224,680.85	40.00129374	-104.69798215
	5,100.00	24.14	92.43	4,744.19	-313.81	47.63	-60.98	1,737.93	0.00	1,244,332.81	3,224,721.72	40.00128897	-104.69783634
	5,200.00	24.14	92.43	4,835.45	-222.55	49.05	-62.71	1,778.79	0.00	1,244,331.44	3,224,762.58	40.00128420	-104.69769052
	5,300.00	24.14	92.43	4,926.71	-131.29	50.47	-64.45	1,819.64	0.00	1,244,330.07	3,224,803.45	40.00127943	-104.69754470
	5,400.00	24.14	92.43	5,017.97	-40.03	51.89	-66.18	1,860.49	0.00	1,244,328.70	3,224,844.31	40.00127466	-104.69739888
	5,500.00	24.14	92.43	5,109.23	51.23	53.32	-67.92	1,901.34	0.00	1,244,327.33	3,224,885.18	40.00126988	-104.69725307
	5,600.00	24.14	92.43	5,200.48	142.48	54.74	-69.65	1,942.19	0.00	1,244,325.96	3,224,926.04	40.00126511	-104.69710725

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
WP1, Build 2 DLS	9,300.00	88.57	180.44	7,275.63	2,217.63	1,841.84	-1,863.69	2,837.91	0.00	1,242,540.11	3,225,837.79	39.99634009	-104.69391081
	9,400.00	88.57	180.44	7,278.13	2,220.13	1,941.81	-1,963.65	2,837.13	0.00	1,242,440.14	3,225,837.91	39.99606568	-104.69391361
	9,500.00	88.57	180.44	7,280.63	2,222.63	2,041.78	-2,063.62	2,836.36	0.00	1,242,340.18	3,225,838.04	39.99579126	-104.69391641
	9,600.00	88.57	180.44	7,283.13	2,225.13	2,141.75	-2,163.59	2,835.59	0.00	1,242,240.21	3,225,838.16	39.99551685	-104.69391922
	9,700.00	88.57	180.44	7,285.64	2,227.64	2,241.71	-2,263.55	2,834.81	0.00	1,242,140.25	3,225,838.28	39.99524244	-104.69392202
	9,800.00	88.57	180.44	7,288.14	2,230.14	2,341.68	-2,363.52	2,834.04	0.00	1,242,040.28	3,225,838.41	39.99496802	-104.69392482
	9,874.29	88.57	180.44	7,290.00	2,232.00	2,415.95	-2,437.78	2,833.46	0.00	1,241,966.02	3,225,838.50	39.99476417	-104.69392690
	9,900.00	89.08	180.44	7,290.53	2,232.53	2,441.65	-2,463.48	2,833.27	2.00	1,241,940.31	3,225,838.53	39.99469360	-104.69392762
	9,989.51	90.87	180.44	7,290.57	2,232.57	2,531.16	-2,552.99	2,832.57	2.00	1,241,850.81	3,225,838.64	39.99444791	-104.69393013
	10,000.00	90.87	180.44	7,290.41	2,232.41	2,541.65	-2,563.48	2,832.49	0.00	1,241,840.32	3,225,838.65	39.99441911	-104.69393043
	10,100.00	90.87	180.44	7,288.89	2,230.89	2,641.64	-2,663.46	2,831.72	0.00	1,241,740.34	3,225,838.78	39.99414464	-104.69393323
	10,200.00	90.87	180.44	7,287.37	2,229.37	2,741.63	-2,763.45	2,830.94	0.00	1,241,640.35	3,225,838.90	39.99387017	-104.69393604
	10,300.00	90.87	180.44	7,285.86	2,227.86	2,841.62	-2,863.43	2,830.17	0.00	1,241,540.37	3,225,839.02	39.99359570	-104.69393885
	10,400.00	90.87	180.44	7,284.34	2,226.34	2,941.60	-2,963.42	2,829.39	0.00	1,241,440.38	3,225,839.15	39.99332124	-104.69394165
Hold	10,500.00	90.87	180.44	7,282.82	2,224.82	3,041.59	-3,063.40	2,828.62	0.00	1,241,340.40	3,225,839.27	39.99304677	-104.69394446
	10,600.00	90.87	180.44	7,281.30	2,223.30	3,141.58	-3,163.39	2,827.84	0.00	1,241,240.41	3,225,839.39	39.99277230	-104.69394726
	10,700.00	90.87	180.44	7,279.79	2,221.79	3,241.57	-3,263.38	2,827.07	0.00	1,241,140.43	3,225,839.51	39.99249783	-104.69395007
	10,800.00	90.87	180.44	7,278.27	2,220.27	3,341.56	-3,363.36	2,826.29	0.00	1,241,040.44	3,225,839.64	39.99222336	-104.69395287
	10,900.00	90.87	180.44	7,276.75	2,218.75	3,441.55	-3,463.35	2,825.52	0.00	1,240,940.46	3,225,839.76	39.99194889	-104.69395568
	11,000.00	90.87	180.44	7,275.23	2,217.23	3,541.53	-3,563.33	2,824.74	0.00	1,240,840.47	3,225,839.88	39.99167442	-104.69395848
	11,100.00	90.87	180.44	7,273.72	2,215.72	3,641.52	-3,663.32	2,823.97	0.00	1,240,740.49	3,225,840.01	39.99139995	-104.69396129
	11,200.00	90.87	180.44	7,272.20	2,214.20	3,741.51	-3,763.30	2,823.19	0.00	1,240,640.50	3,225,840.13	39.99112548	-104.69396410
	11,300.00	90.87	180.44	7,270.68	2,212.68	3,841.50	-3,863.29	2,822.42	0.00	1,240,540.52	3,225,840.25	39.99085101	-104.69396690
	11,400.00	90.87	180.44	7,269.16	2,211.16	3,941.49	-3,963.27	2,821.64	0.00	1,240,440.53	3,225,840.37	39.99057655	-104.69396971
	11,500.00	90.87	180.44	7,267.65	2,209.65	4,041.48	-4,063.26	2,820.87	0.00	1,240,340.55	3,225,840.50	39.99030208	-104.69397251
	11,600.00	90.87	180.44	7,266.13	2,208.13	4,141.47	-4,163.24	2,820.10	0.00	1,240,240.56	3,225,840.62	39.99002761	-104.69397532
	11,700.00	90.87	180.44	7,264.61	2,206.61	4,241.45	-4,263.23	2,819.32	0.00	1,240,140.58	3,225,840.74	39.98975314	-104.69397812
	11,800.00	90.87	180.44	7,263.09	2,205.09	4,341.44	-4,363.22	2,818.55	0.00	1,240,040.59	3,225,840.86	39.98947867	-104.69398093
WP2, Drop 2 DLS	11,900.00	90.87	180.44	7,261.58	2,203.58	4,441.43	-4,463.20	2,817.77	0.00	1,239,940.61	3,225,840.98	39.98920420	-104.69398373
	12,000.00	90.87	180.44	7,260.06	2,202.06	4,541.42	-4,563.19	2,817.00	0.00	1,239,840.62	3,225,841.11	39.98892973	-104.69398654
	12,100.00	90.87	180.44	7,258.54	2,200.54	4,641.41	-4,663.17	2,816.22	0.00	1,239,740.64	3,225,841.23	39.98865526	-104.69398934
	12,200.00	90.87	180.44	7,257.02	2,199.02	4,741.40	-4,763.16	2,815.45	0.00	1,239,640.66	3,225,841.36	39.98838079	-104.69399215
	12,300.00	90.87	180.44	7,255.51	2,197.51	4,841.38	-4,863.14	2,814.67	0.00	1,239,540.67	3,225,841.48	39.98810632	-104.69399496
	12,399.27	90.87	180.44	7,254.00	2,196.00	4,940.64	-4,962.39	2,813.90	0.00	1,239,441.42	3,225,841.60	39.98783387	-104.69399776
	12,400.00	90.85	180.44	7,253.99	2,195.99	4,941.37	-4,963.13	2,813.90	2.00	1,239,440.69	3,225,841.60	39.98783185	-104.69399774
	12,445.18	89.95	180.44	7,253.67	2,195.67	4,986.55	-5,008.31	2,813.15	2.00	1,239,395.51	3,225,841.66	39.98770784	-104.69399973
	12,500.00	89.95	180.44	7,253.72	2,195.72	5,041.37	-5,063.12	2,813.12	0.00	1,239,340.69	3,225,841.72	39.98755736	-104.69400058
	12,600.00	89.95	180.44	7,253.80	2,195.80	5,141.37	-5,163.12	2,812.35	0.00	1,239,240.69	3,225,841.85	39.98728286	-104.69400337
	12,700.00	89.95	180.44	7,253.89	2,195.89	5,241.37	-5,263.12	2,811.57	0.00	1,239,140.70	3,225,841.97	39.98700836	-104.69400617
	12,800.00	89.95	180.44	7,253.97	2,195.97	5,341.37	-5,363.11	2,810.80	0.00	1,239,040.70	3,225,842.09	39.98673386	-104.69400898
	12,900.00	89.95	180.44	7,254.06	2,196.06	5,441.37	-5,463.11	2,810.02	0.00	1,238,940.71	3,225,842.22	39.98645936	-104.69401178
	13,000.00	89.95	180.44	7,254.14	2,196.14	5,541.37	-5,563.11	2,809.25	0.00	1,238,840.71	3,225,842.34	39.98618485	-104.69401459
Hold to TD	13,100.00	89.95	180.44	7,254.23	2,196.23	5,641.37	-5,663.10	2,808.48	0.00	1,238,740.71	3,225,842.46	39.98591035	-104.69401739
	13,200.00	89.95	180.44	7,254.31	2,196.31	5,741.37	-5,763.10	2,807.70	0.00	1,238,640.72	3,225,842.59	39.98563585	-104.69402019
	13,300.00	89.95	180.44	7,254.40	2,196.40	5,841.37	-5,863.10	2,806.93	0.00	1,238,540.72	3,225,842.71	39.98536135	-104.69402300
	13,400.00	89.95	180.44	7,254.48	2,196.48	5,941.37	-5,963.10	2,806.15	0.00	1,238,440.73	3,225,842.83	39.98508685	-104.69402580
	13,500.00	89.95	180.44	7,254.57	2,196.57	6,041.37	-6,063.09	2,805.38	0.00	1,238,340.73	3,225,842.96	39.98481235	-104.69402861
	13,600.00	89.95	180.44	7,254.65	2,196.65	6,141.37	-6,163.09	2,804.60	0.00	1,238,240.73	3,225,843.08	39.98453785	-104.69403141
	13,700.00	89.95	180.44	7,254.74	2,196.74	6,241.37	-6,263.09	2,803.83	0.00	1,238,140.74	3,225,843.20	39.98426335	-104.69403421
	13,800.00	89.95	180.44	7,254.82	2,196.82	6,341.37	-6,363.08	2,803.05	0.00	1,238,040.74	3,225,843.32	39.98398885	-104.69403702
	13,900.00	89.95	180.44	7,254.91	2,196.91	6,441.37	-6,463.08	2,802.28	0.00	1,237,940.74	3,225,843.45	39.98371435	-104.69403982
	14,000.00	89.95	180.44	7,254.99	2,196.99	6,541.37	-6,563.08	2,801.51	0.00	1,237,840.75	3,225,843.57	39.98343985	-104.69404263
	14,100.00	89.95	180.44	7,255.08	2,197.08	6,641.37	-6,663.08	2,800.73	0.00	1,237,740.75	3,225,843.69	39.98316535	-104.69404543
	14,200.00	89.95	180.44	7,255.16	2,197.16	6,741.37	-6,763.07	2,799.96	0.00	1,237,640.75	3,225,843.82	39.98289085	-104.69404823
	14,300.00	89.95	180.44	7,255.25	2,197.25	6,841.37	-6,863.07	2,799.18	0.00	1,237,540.76	3,225,843.94	39.98261634	-104.69405104
	14,400.00	89.95	180.44	7,255.34	2,197.34	6,941.37	-6,963.07	2,798.41	0.00	1,237,440.76	3,225,844.06	39.98234184	-104.69405384
County Line 0508-14H BPZ	14,500.00	89.95	180.44	7,255.42	2,197.42	7,041.37	-7,063.06	2,797.63	0.00	1,237,340.76	3,225,844.19	39.98206734	-104.69405664
	14,600.00	89.95	180.44	7,255.51	2,197.51	7,141.37	-7,163.06	2,796.86	0.00	1,237,240.77	3,225,844.31	39.98179284	-104.69405945
	14,700.00	89.95	180.44	7,255.59	2,197.59	7,241.37	-7,263.06	2,796.08	0.00	1,237,140.77	3,225,844.43	39.98151834	-104.69406225
	14,800.00	89.95	180.44	7,255.68	2,197.68	7,341.37	-7,363.05	2,795.31	0.00	1,237,040.78	3,225,844.56	39.98124384	-104.69406506
	14,900.00	89.95	180.44	7,255.76	2,197.76	7,441.37	-7,463.05	2					

County Line 0508-14H R0 mdv 27Feb24 Proposal Geodetic Report

Def Plan

Report Date:	Mon 06, 2024 - 09:14 PM (UTC)
Client:	Vertical Resources
Field:	CO, Weld County (NAD 83) (UTC)
Well / Interval / Shot:	Vertical Resources 31-011465W (County Line 0508-3222 PL)
Borehole:	County Line 0508-14H
Interval / APPL:	Unknown / Unknown
Survey:	County Line 0508-14H RD rds 2776A2D
Survey Date:	Mon 06, 2024
Ten / AHD / DOI / ERI RADCS:	131.282 / 132762.807 / 6 / 6.007 / 1.751
Reference System:	NAD83 Colorado State Plane, North American, US Feet
Location Lat / Long:	40.05324557N, 104.04124543W
Location Lat NED YJK:	N 1240371.780 IJUS, E 1243307.370 IJUS
CRS Grid Convergence Angle:	0.514°
Grid Scale Factor:	0.99996826
Version / Patch:	2023.1.0.1

Survey / DLS Computation:	Minimum Curvature / Lubinski
Vertical Section Azimuth:	180.440 (TRUE North)
Vertical Section Origin:	0.000 ft, 0.000 ft
Vertical Reference Datum:	RMS
TVD Reference Elevation:	5058.000 above MSL
Sealed / Ground Elevation:	5057.000 above MSL
Magnetic Declination:	7.937 (East)
Total Gravity Field Strength:	985.9625ppm (3.80665 Gauss)
Gravity Model:	CARNO
Total Magnetic Field Strength:	0.1844102 nT
Magnetic Dip Angle:	66.113°
Declination Date:	February 27, 2024
Magnetic Declination Model:	IGAD2020 IGRF
North Reference:	True North
Grid Convergence Used:	0°
Total Cor Mag North-True North:	7.937°
Local Cord Reference To:	Weld Head

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)
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[illegible]

Comments	MD (ft)	Incl (°)	Actm (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	AHD (ft)	NS (ft)	EW (ft)	Detlmd (ft)	DetlTVD (ft)	DLS (ft) (FTHB)	BR (ft) (FTHB)	TR (ft) (FTHB)	GTF (°)	MTF (°)	TF (°)	Northing (ft)	Easting (ft)	Latitude (°)	Longitude (°)	Latitude (°)	Longitude (°)	Closure (ft)	Closure Adjunct (ft)	Directional Index	Torsionity (°)	ESD Ratio	Exclosure Zone Aert	Geolign Tag (BPT)	Exclosure Zone Angle (BPT)	Exclosure Zone Tolvrance (ft)	Alert Zone Tolvrance (ft)
WPLD Zone 2 DLS	10,800.00	90.87	180.44	7,276.27	2,230.27	3,341.55	5,965.58	3,340.28	2,806.29	100.00	-1.52	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,241,240.44	3,225,839.64	39°59'32.0406"N	104°18'38.2404"W	39.9922336	-104.3092267	4,380.126	0.06	130.32	0.82		46,717.24	65.45	4,000.00	6,000.00
	10,900.00	90.87	180.44	7,276.75	2,231.75	3,441.55	6,042.57	3,463.35	2,826.52	100.00	-1.52	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,240,940.45	3,225,839.76	39°59'31.6106"N	104°18'38.3404"W	39.9919489	-104.6399568	4,469.71	0.07	130.32	0.83		46,717.24	65.45	4,000.00	6,000.00
	11,000.00	90.87	180.44	7,277.23	2,232.73	3,541.53	6,142.55	3,563.33	2,824.74	100.00	-1.52	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,240,640.47	3,225,839.88	39°59'30.2797"N	104°18'38.2504"W	39.9916742	-104.6399568	4,547.14	0.08	130.32	0.84		46,717.24	65.45	4,000.00	6,000.00
	11,100.00	90.87	180.44	7,277.72	2,233.72	3,641.52	6,242.55	3,663.32	2,823.97	100.00	-1.52	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,240,340.49	3,225,840.01	39°59'29.0367"N	104°18'38.3604"W	39.9913906	-104.6399568	4,626.44	0.09	130.32	0.86		46,717.24	65.45	4,000.00	6,000.00
	11,200.00	90.87	180.44	7,278.20	2,234.20	3,741.51	6,342.54	3,763.30	2,823.19	100.00	-1.52	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,240,040.50	3,225,840.13	39°59'28.0517"N	104°18'38.2704"W	39.9911258	-104.6399610	4,704.56	0.10	130.32	0.87		46,717.24	65.45	4,000.00	6,000.00
	11,300.00	90.87	180.44	7,278.68	2,234.68	3,841.50	6,443.53	3,863.29	2,822.42	100.00	-1.52	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,239,740.52	3,225,840.25	39°59'27.0395"N	104°18'38.3804"W	39.9908501	-104.6399650	4,784.66	0.11	130.32	0.89		46,717.24	65.45	4,000.00	6,000.00
	11,400.00	90.87	180.44	7,289.16	2,244.16	3,941.49	6,542.52	3,963.27	2,821.64	100.00	-1.52	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,240,440.53	3,225,840.37	39°59'26.0554"N	104°18'38.2904"W	39.9905765	-104.6399671	4,865.10	0.12	130.32	0.90		46,717.24	65.45	4,000.00	6,000.00
	11,500.00	90.87	180.44	7,290.64	2,245.64	4,041.48	6,643.51	3,963.26	2,820.75	100.00	-1.52	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,240,140.55	3,225,840.49	39°59'25.0407"N	104°18'38.3004"W	39.9903021	-104.6399725	4,946.16	0.13	130.32	0.92		46,717.24	65.45	4,000.00	6,000.00
	11,600.00	90.87	180.44	7,296.13	2,250.13	4,141.47	6,742.49	4,163.24	2,819.00	100.00	-1.52	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,240,240.56	3,225,840.62	39°59'24.0936"N	104°18'38.3114"W	39.9900761	-104.6399732	5,026.27	0.14	130.32	0.93		46,717.24	65.45	4,000.00	6,000.00
	11,700.00	90.87	180.44	7,296.61	2,250.61	4,241.46	6,842.48	4,264.23	2,818.11	100.00	-1.52	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,239,940.58	3,225,840.74	39°59'23.1473"N	104°18'38.3214"W	39.9897912	-104.6399782	5,106.38	0.15	130.32	0.96		46,717.24	65.45	4,000.00	6,000.00
H&L to TD	11,800.00	90.87	180.44	7,297.10	2,251.10	4,341.45	6,943.47	4,365.22	2,817.22	100.00	-1.52	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,240,040.59	3,225,840.87	39°59'22.1232"N	104°18'38.3314"W	39.9895167	-104.6399832	5,186.49	0.16	130.32	0.98		46,717.24	65.45	4,000.00	6,000.00
	11,900.00	90.87	180.44	7,297.58	2,251.58	4,441.43	7,042.46	4,463.20	2,817.77	100.00	-1.52	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,239,740.61	3,225,840.99	39°59'21.1810"N	104°18'38.3414"W	39.9892400	-104.6399873	5,276.26	0.17	130.32	0.97		46,717.24	65.45	4,000.00	6,000.00
	12,000.00	90.87	180.44	7,298.06	2,252.06	4,541.42	7,142.45	4,563.19	2,817.20	100.00	-1.52	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,239,440.62	3,225,841.11	39°59'20.1470"N	104°18'38.3514"W	39.9889673	-104.6399904	5,362.86	0.18	130.32	0.98		46,717.24	65.45	4,000.00	6,000.00
	12,100.00	90.87	180.44	7,298.54	2,252.54	4,641.41	7,242.43	4,663.17	2,816.22	100.00	-1.52	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,239,140.64	3,225,841.23	39°59'19.1894"N	104°18'38.3614"W	39.9886926	-104.6399934	5,447.89	0.19	130.32	1.00		46,717.24	65.45	4,000.00	6,000.00
	12,200.00	90.87	180.44	7,299.02	2,253.02	4,741.40	7,342.42	4,763.16	2,815.25	100.00	-1.52	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,238,840.65	3,225,841.35	39°59'18.2037"N	104°18'38.3714"W	39.9884079	-104.6399974	5,533.03	0.20	130.32	1.01		46,717.24	65.45	4,000.00	6,000.00
	12,300.00	90.87	180.44	7,299.51	2,253.51	4,841.38	7,442.41	4,863.14	2,814.67	100.00	-1.52	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,238,540.67	3,225,841.48	39°59'17.2675"N	104°18'38.3814"W	39.9881032	-104.6399996	5,618.94	0.21	130.32	1.03		46,717.24	65.45	4,000.00	6,000.00
	12,399.37	90.87	180.44	7,254.50	2,199.50	4,900.35	7,062.38	2,913.50	99.37	-1.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	LS	1,238,49.42	3,225,841.60	39°59'16.2015"N	104°18'38.3916"W	39.9878387	-104.6399974	5,704.68	0.22	130.32			46,717.24	65.45	4,000.00	6,000.00
	12,400.00	90.86	180.44	7,253.99	2,198.99	4,941.37	7,062.40	4,903.13	2,913.50	0.73	-0.01	2.00	-2.00	0.00	0.00	0.00	0.00	LS	1,238,49.69	3,225,841.60	39°59'16.1946"N	104°18'38.3919"W	39.9878316	-104.6399978	5,705.32	0.22	130.33	1.04		46,752.70	65.46	4,000.00	6,000.00
	12,449.16	89.96	180.44	7,253.97	2,198.97	4,986.35	7,067.38	4,903.31	2,913.55	46.18	-4.32	2.00	-2.00	0.00	0.00	0.00	0.00	HS	1,238,390.51	3,225,841.68	39°59'15.4622"N	104°18'38.3900"N	39.9877074	-104.6399993	5,744.49	0.23	131.24	1.05		47,082.96	66.36	4,000.00	6,000.00
	12,500.00	89.96	180.44	7,253.72	2,198.72	5,041.37	7,062.40	5,003.12	2,913.52	54.82	0.05	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,238,390.69	3,225,841.72	39°59'15.2646"N	104°18'38.3903"W	39.9875767	-104.6400037	5,792.14	0.24	131.24	1.05		47,082.96	66.36	4,000.00	6,000.00
County Line 0508-14H BPZ	12,600.00	89.96	180.44	7,253.80	2,198.80	5,141.37	7,062.40	5,103.12	2,912.55	100.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,238,240.69	3,225,841.85	39°59'14.1826"N	104°18'38.4113"W	39.9872636	-104.6400037	5,879.38	0.25	131.24	1.07		47,082.96	66.36	4,000.00	6,000.00
	12,700.00	89.96	180.44	7,253.89	2,198.89	5,241.37	7,062.40	5,203.12	2,911.57	100.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,238,140.70	3,225,841.97	39°59'13.2300"N	104°18'38.4222"W	39.9869736	-104.6400087	5,967.02	0.26	131.24	1.08		47,082.96	66.36	4,000.00	6,000.00
	12,800.00	89.96	180.44	7,253.97	2,198.97	5,341.37	7,062.40	5,303.11	2,910.80	100.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,238,040.70	3,225,842.09	39°59'12.2418"N	104°18'38.4330"W	39.9867336	-104.6400098	6,055.05	0.26	131.24	1.09		47,082.96	66.36	4,000.00	6,000.00
	12,900.00	89.96	180.44	7,254.06	2,199.06	5,441.37	7,062.40	5,403.11	2,910.02	100.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,237,940.71	3,225,842.22	39°59'11.2307"N	104°18'38.4441"W	39.9864936	-104.6400178	6,143.44	0.27	131.24	1.11		47,082.96	66.36	4,000.00	6,000.00
	13,000.00	89.96	180.44	7,254.14	2,199.14	5,541.37	7,062.40	5,503.11	2,909.25	100.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,238,840.71	3,225,842.34	39°59'10.2647"N	104°18'38.4550"W	39.9861485	-104.6400459	6,232.18	0.28	131.24	1.12		47,082.96	66.36	4,000.00	6,000.00
	13,100.00	89.96	180.44	7,254.23	2,199.23	5,641.37	7,062.40	5,603.11	2,908.46	100.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,238,740.71	3,225,842.46	39°59'09.2722"N	104°18'38.4659"W	39.9859105	-104.6400739	6,321.26	0.29	131.24	1.14		47,082.96	66.36	4,000.00	6,000.00
	13,200.00	89.96	180.44	7,254.31	2,199.31	5,741.37	7,062.40	5,703.10	2,907.70	100.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,238,640.72	3,225,842.59	39°59'08.2807"N	104°18'38.4769"W	39.9856635	-104.6400919	6,410.36	0.30	131.24	1.15		47,082.96	66.36	4,000.00	6,000.00
	13,300.00	89.96	180.44	7,254.40	2,199.40	5,841.37	7,062.40	5,803.10	2,906.93	100.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,238,540.72	3,225,842.71	39°59'07.3008"N	104°18'38.4879"W	39.9853813	-104.6400200	6,500.37	0.31	131.24	1.16		47,082.96	66.36	4,000.00	6,000.00
	13,400.00	89.96	180.44	7,254.48	2,199.48	5,941.37	7,062.40	5,903.10	2,906.15	100.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,238,440.72	3,225,842.83	39°59'06.3198"N	104°18'38.4989"W	39.9850985	-104.6400260	6,590.37	0.31	131.24	1.18		47,082.96	66.36	4,000.00	6,000.00
	13,500.00	89.96	180.44	7,254.57	2,199.57	6,041.37	7,062.40	6,003.09	2,905.38	100.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	HS	1,238,340.73	3,225,842.95	39°59'05.3448"N												