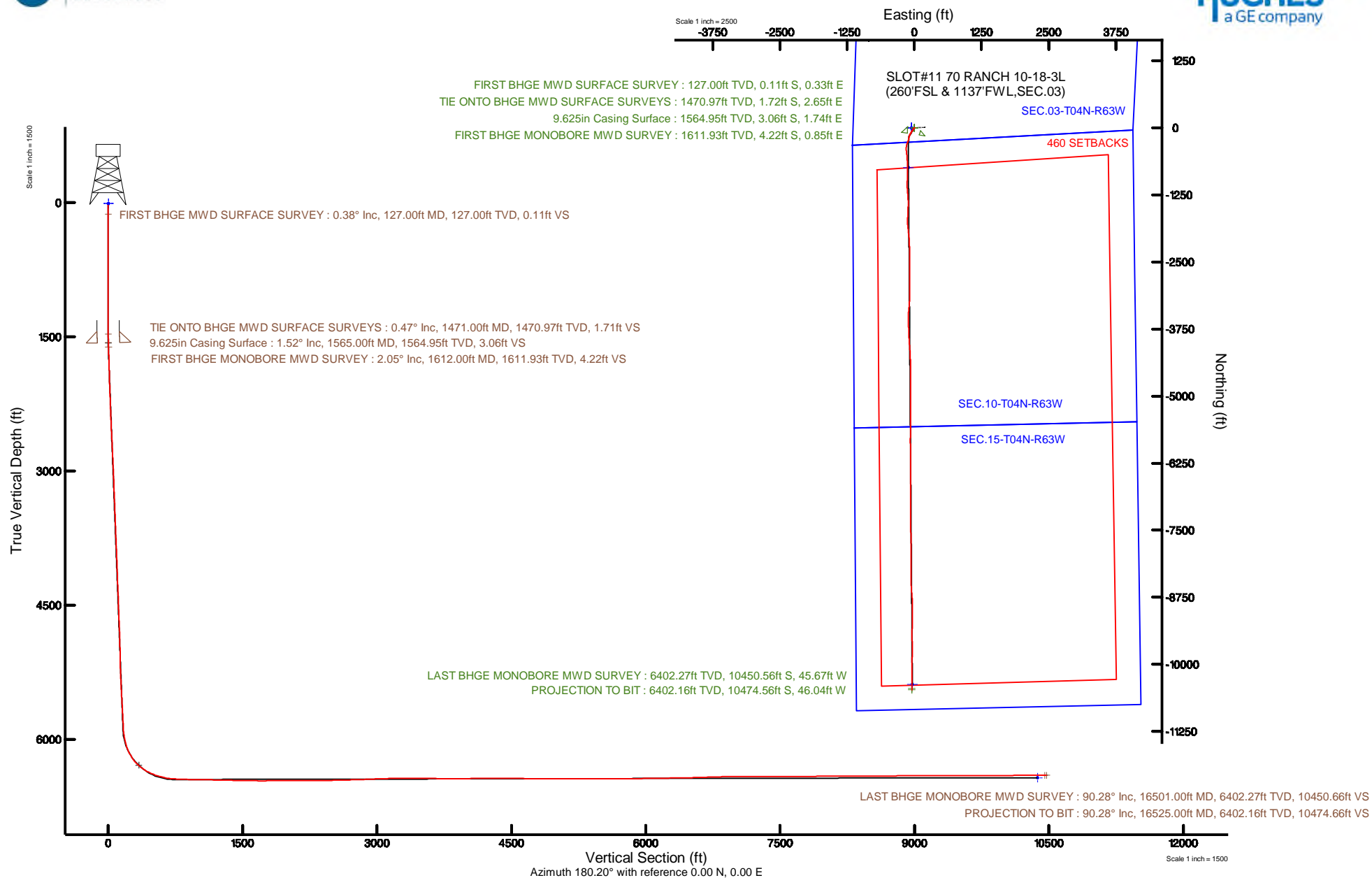


Location:	COLORADO	Slot:	SLOT#11 70 RANCH 10-18-3L (260°FSL & 1137°FWL, SEC.03)
Field:	WELD COUNTY (NAD83, TRUE NORTH)	Well:	70 RANCH 10-18-3L
Facility:	SEC.03-T04N-R63W	Wellbore:	70 RANCH 10-18-3L PWB

Plot reference wellpath is 70 RANCH 10-18-3L PWP (REV-A.0)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to ENSIGN 140 (23) (RKB)	North Reference: True north
Measured depths are referenced to ENSIGN 140 (23) (RKB)	Scale: True distance
ENSIGN 140 (23) (RKB) to Mean Sea Level: 4618 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot: SLOT#11 70 RANCH 10-18-3L (260 FSL & 113 FFWL, SEC.03)): 0 feet	Created by: robale01 on 2019-08-06
Coordinates are in feet referenced to Slot	Database: WA DENVER



Actual Wellpath Report

70 RANCH 10-18-3L AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#11 70 RANCH 10-18-3L (260'FSL & 1137'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-18-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-18-3L AWB
Facility	SEC.03-T04N-R63W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Robiale01
Scale	0.999958	Report Generated	8/6/2019 at 10:08:09 AM
Convergence at slot	0.69° East	Database/Source file	WA DENVER/70_RANCH_10-18-3L_AWP.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	3.64	50.18	3298352.57	1366590.65	40°20'05.100"N	104°25'47.136"W
Facility Reference Pt			3298302.44	1366586.41	40°20'05.064"N	104°25'47.784"W
Field Reference Pt			3230456.90	1245096.09	40°00'11.664"N	104°40'38.424"W

WELLPATH DATUM

Calculation method	Minimum curvature	ENSIGN 140 (23') (RKB) to Facility Vertical Datum	4618.00ft
Horizontal Reference Pt	Slot	ENSIGN 140 (23') (RKB) to Mean Sea Level	4618.00ft
Vertical Reference Pt	ENSIGN 140 (23') (RKB)	ENSIGN 140 (23') (RKB) to Mud Line at Slot (SLOT#11 70 RANCH 10-18-3L (260'FSL & 1137'FWL,SEC.03))	4618.00ft
MD Reference Pt	ENSIGN 140 (23') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	180.20°

Actual Wellpath Report

70 RANCH 10-18-3L AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#11 70 RANCH 10-18-3L (260'FSL & 1137'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-18-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-18-3L AWB
Facility	SEC.03-T04N-R63W		

WELLPATH DATA (187 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	109.300	0.00	0.00	0.00	0.00	40°20'05.100"N	104°25'47.136"W	0.00	
23.00	0.000	109.300	23.00	0.00	0.00	0.00	40°20'05.100"N	104°25'47.136"W	0.00	
127.00	0.380	109.300	127.00	0.11	-0.11	0.33	40°20'05.099"N	104°25'47.132"W	0.37	FIRST BHGE MWD SURFACE SURVEY
218.00	0.620	81.120	218.00	0.13	-0.14	1.10	40°20'05.099"N	104°25'47.122"W	0.37	
310.00	0.260	70.150	309.99	-0.02	0.01	1.78	40°20'05.100"N	104°25'47.113"W	0.40	
399.00	0.650	77.220	398.99	-0.20	0.19	2.47	40°20'05.102"N	104°25'47.104"W	0.44	
489.00	0.910	89.550	488.98	-0.32	0.31	3.68	40°20'05.103"N	104°25'47.088"W	0.34	
578.00	0.160	233.270	577.98	-0.25	0.24	4.29	40°20'05.102"N	104°25'47.081"W	1.17	
667.00	0.190	324.640	666.98	-0.30	0.29	4.10	40°20'05.103"N	104°25'47.083"W	0.28	
757.00	0.150	349.100	756.98	-0.54	0.52	3.99	40°20'05.105"N	104°25'47.084"W	0.09	
846.00	0.220	238.920	845.98	-0.56	0.55	3.82	40°20'05.105"N	104°25'47.087"W	0.34	
935.00	0.290	285.660	934.98	-0.53	0.52	3.46	40°20'05.105"N	104°25'47.091"W	0.24	
1025.00	0.330	267.660	1024.98	-0.58	0.57	2.98	40°20'05.106"N	104°25'47.097"W	0.12	
1114.00	0.210	118.270	1113.97	-0.50	0.49	2.87	40°20'05.105"N	104°25'47.099"W	0.59	
1204.00	0.440	165.710	1203.97	-0.08	0.07	3.10	40°20'05.101"N	104°25'47.096"W	0.37	
1293.00	0.470	203.870	1292.97	0.58	-0.59	3.04	40°20'05.094"N	104°25'47.097"W	0.34	
1382.00	0.300	191.270	1381.97	1.14	-1.15	2.84	40°20'05.089"N	104°25'47.099"W	0.21	
1471.00	0.470	204.310	1470.97	1.71	-1.72	2.65	40°20'05.083"N	104°25'47.102"W	0.21	TIE ONTO BHGE MWD SURFACE SURVEYS
1612.00	2.050	218.370	1611.93	4.22	-4.22	0.85	40°20'05.058"N	104°25'47.125"W	1.13	FIRST BHGE MONOBORE MWD SURVEY
1702.00	2.560	219.670	1701.86	7.03	-7.03	-1.44	40°20'05.031"N	104°25'47.155"W	0.57	
1791.00	3.720	244.280	1790.72	9.83	-9.81	-5.31	40°20'05.003"N	104°25'47.205"W	1.97	
1880.00	1.950	175.610	1879.63	12.60	-12.58	-7.79	40°20'04.976"N	104°25'47.237"W	3.95	
1970.00	1.850	223.900	1969.59	15.18	-15.15	-8.68	40°20'04.950"N	104°25'47.248"W	1.73	
2059.00	2.540	217.810	2058.52	17.78	-17.74	-10.89	40°20'04.925"N	104°25'47.277"W	0.82	
2148.00	3.100	214.840	2147.41	21.32	-21.28	-13.47	40°20'04.890"N	104°25'47.310"W	0.65	
2238.00	2.410	218.260	2237.31	24.82	-24.76	-16.03	40°20'04.855"N	104°25'47.343"W	0.79	
2327.00	2.110	209.930	2326.24	27.71	-27.65	-18.01	40°20'04.827"N	104°25'47.369"W	0.50	
2417.00	4.030	235.670	2416.11	30.94	-30.87	-21.45	40°20'04.795"N	104°25'47.413"W	2.58	
2506.00	3.520	215.180	2504.92	34.96	-34.87	-25.61	40°20'04.755"N	104°25'47.467"W	1.61	
2595.00	3.670	219.980	2593.75	39.38	-39.28	-29.01	40°20'04.712"N	104°25'47.511"W	0.38	

Actual Wellpath Report

70 RANCH 10-18-3L AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#11 70 RANCH 10-18-3L (260'FSL & 1137'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-18-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-18-3L AWB
Facility	SEC.03-T04N-R63W		

WELLPATH DATA (187 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2684.00	3.090	212.710	2682.59	43.59	-43.48	-32.14	40°20'04.670"N	104°25'47.551"W	0.81	
2773.00	3.260	211.210	2771.46	47.79	-47.67	-34.74	40°20'04.629"N	104°25'47.585"W	0.21	
2863.00	3.260	201.690	2861.31	52.36	-52.23	-37.02	40°20'04.584"N	104°25'47.614"W	0.60	
2952.00	2.660	211.070	2950.19	56.49	-56.35	-39.02	40°20'04.543"N	104°25'47.640"W	0.86	
3041.00	2.520	198.950	3039.10	60.11	-59.97	-40.72	40°20'04.507"N	104°25'47.662"W	0.63	
3131.00	2.400	222.530	3129.02	63.38	-63.23	-42.64	40°20'04.475"N	104°25'47.687"W	1.12	
3221.00	2.850	207.850	3218.93	66.76	-66.60	-44.95	40°20'04.442"N	104°25'47.716"W	0.89	
3310.00	2.440	210.500	3307.83	70.35	-70.19	-46.95	40°20'04.406"N	104°25'47.742"W	0.48	
3399.00	2.660	212.350	3396.74	73.74	-73.56	-49.02	40°20'04.373"N	104°25'47.769"W	0.26	
3489.00	2.400	210.170	3486.66	77.14	-76.96	-51.08	40°20'04.340"N	104°25'47.796"W	0.31	
3579.00	2.560	213.390	3576.57	80.45	-80.27	-53.13	40°20'04.307"N	104°25'47.822"W	0.24	
3668.00	2.570	209.430	3665.48	83.86	-83.66	-55.21	40°20'04.273"N	104°25'47.849"W	0.20	
3758.00	2.610	214.700	3755.39	87.31	-87.11	-57.37	40°20'04.239"N	104°25'47.877"W	0.27	
3847.00	2.680	212.550	3844.30	90.73	-90.52	-59.64	40°20'04.205"N	104°25'47.906"W	0.14	
3936.00	2.540	206.570	3933.20	94.26	-94.04	-61.64	40°20'04.171"N	104°25'47.932"W	0.34	
4025.00	2.640	211.620	4022.11	97.77	-97.55	-63.60	40°20'04.136"N	104°25'47.957"W	0.28	
4115.00	2.620	211.500	4112.02	101.30	-101.07	-65.76	40°20'04.101"N	104°25'47.985"W	0.02	
4204.00	2.380	213.200	4200.93	104.59	-104.35	-67.83	40°20'04.069"N	104°25'48.012"W	0.28	
4293.00	2.590	212.120	4289.85	107.84	-107.60	-69.91	40°20'04.037"N	104°25'48.039"W	0.24	
4383.00	2.590	215.460	4379.76	111.23	-110.98	-72.18	40°20'04.003"N	104°25'48.068"W	0.17	
4472.00	1.790	199.650	4468.69	114.18	-113.93	-73.81	40°20'03.974"N	104°25'48.089"W	1.12	
4561.00	2.780	205.410	4557.62	117.45	-117.19	-75.20	40°20'03.942"N	104°25'48.107"W	1.14	
4651.00	2.560	215.850	4647.52	121.06	-120.79	-77.32	40°20'03.906"N	104°25'48.134"W	0.59	
4740.00	2.610	204.980	4736.43	124.51	-124.23	-79.34	40°20'03.872"N	104°25'48.160"W	0.55	
4829.00	2.500	198.080	4825.35	128.20	-127.92	-80.80	40°20'03.836"N	104°25'48.179"W	0.37	
4919.00	1.060	183.870	4915.30	130.90	-130.61	-81.46	40°20'03.809"N	104°25'48.188"W	1.66	
5008.00	0.780	204.890	5004.29	132.27	-131.98	-81.77	40°20'03.796"N	104°25'48.192"W	0.49	
5098.00	1.480	205.190	5094.27	133.88	-133.59	-82.52	40°20'03.780"N	104°25'48.202"W	0.78	
5187.00	2.080	211.910	5183.23	136.29	-136.00	-83.87	40°20'03.756"N	104°25'48.219"W	0.71	
5277.00	2.270	193.560	5273.16	139.42	-139.12	-85.15	40°20'03.725"N	104°25'48.235"W	0.80	

Actual Wellpath Report

70 RANCH 10-18-3L AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#11 70 RANCH 10-18-3L (260'FSL & 1137'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-18-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-18-3L AWB
Facility	SEC.03-T04N-R63W		

WELLPATH DATA (187 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5366.00	2.350	199.590	5362.09	142.85	-142.55	-86.17	40°20'03.691"N	104°25'48.249"W	0.29	
5455.00	3.130	196.890	5450.99	146.90	-146.60	-87.49	40°20'03.651"N	104°25'48.266"W	0.89	
5544.00	3.870	192.260	5539.82	152.17	-151.86	-88.83	40°20'03.599"N	104°25'48.283"W	0.89	
5634.00	3.400	206.670	5629.64	157.53	-157.21	-90.68	40°20'03.546"N	104°25'48.307"W	1.14	
5723.00	3.080	189.400	5718.50	162.25	-161.93	-92.25	40°20'03.500"N	104°25'48.327"W	1.15	
5812.00	2.770	200.410	5807.39	166.63	-166.30	-93.39	40°20'03.457"N	104°25'48.342"W	0.72	
5902.00	4.290	211.590	5897.22	171.54	-171.21	-95.91	40°20'03.408"N	104°25'48.375"W	1.85	
5991.00	9.610	180.100	5985.56	181.82	-181.48	-97.67	40°20'03.307"N	104°25'48.397"W	7.14	
6080.00	17.930	192.870	6071.94	202.66	-202.31	-100.74	40°20'03.101"N	104°25'48.437"W	9.90	
6170.00	28.440	201.170	6154.58	236.29	-235.90	-111.60	40°20'02.769"N	104°25'48.577"W	12.20	
6259.00	37.890	200.440	6229.00	281.82	-281.38	-128.84	40°20'02.320"N	104°25'48.800"W	10.63	
6348.00	49.730	190.820	6293.18	341.12	-340.61	-144.83	40°20'01.734"N	104°25'49.006"W	15.23	
6438.00	58.740	175.860	6345.92	413.64	-413.12	-148.52	40°20'01.018"N	104°25'49.054"W	16.76	
6527.00	67.550	172.790	6386.10	492.52	-492.04	-140.60	40°20'00.238"N	104°25'48.951"W	10.36	
6616.00	73.490	176.160	6415.77	575.96	-575.50	-132.57	40°19'59.413"N	104°25'48.848"W	7.57	
6706.00	82.130	178.170	6434.76	663.72	-663.28	-128.25	40°19'58.546"N	104°25'48.792"W	9.84	
6795.00	86.800	178.680	6443.34	752.24	-751.81	-125.81	40°19'57.671"N	104°25'48.761"W	5.28	
6884.00	88.310	180.640	6447.14	841.15	-840.72	-125.29	40°19'56.792"N	104°25'48.754"W	2.78	
6974.00	89.140	182.840	6449.14	931.09	-930.65	-128.02	40°19'55.904"N	104°25'48.789"W	2.61	
7063.00	89.450	183.550	6450.23	1019.96	-1019.50	-132.98	40°19'55.026"N	104°25'48.853"W	0.87	
7152.00	88.490	176.220	6451.84	1108.88	-1108.42	-132.80	40°19'54.147"N	104°25'48.851"W	8.30	
7242.00	88.710	173.600	6454.04	1198.46	-1198.03	-124.82	40°19'53.261"N	104°25'48.748"W	2.92	
7331.00	88.710	176.430	6456.04	1287.07	-1286.67	-117.09	40°19'52.385"N	104°25'48.648"W	3.18	
7421.00	88.580	179.340	6458.17	1376.96	-1376.57	-113.77	40°19'51.497"N	104°25'48.605"W	3.24	
7510.00	88.740	180.960	6460.25	1465.93	-1465.54	-114.00	40°19'50.618"N	104°25'48.608"W	1.83	
7599.00	88.800	182.070	6462.16	1554.89	-1554.49	-116.35	40°19'49.739"N	104°25'48.638"W	1.25	
7688.00	89.750	183.510	6463.29	1643.79	-1643.37	-120.69	40°19'48.861"N	104°25'48.694"W	1.94	
7778.00	90.090	181.030	6463.41	1733.72	-1733.30	-124.25	40°19'47.972"N	104°25'48.740"W	2.78	
7867.00	90.090	175.330	6463.27	1822.63	-1822.21	-121.42	40°19'47.093"N	104°25'48.704"W	6.40	
7956.00	90.090	173.390	6463.13	1911.16	-1910.78	-112.68	40°19'46.218"N	104°25'48.591"W	2.18	

Actual Wellpath Report

70 RANCH 10-18-3L AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#11 70 RANCH 10-18-3L (260'FSL & 1137'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-18-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-18-3L AWB
Facility	SEC.03-T04N-R63W		

WELLPATH DATA (187 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8046.00	90.120	173.680	6462.97	2000.55	-2000.21	-102.54	40°19'45.334"N	104°25'48.460"W	0.32	
8135.00	90.090	175.240	6462.80	2089.10	-2088.79	-93.95	40°19'44.459"N	104°25'48.349"W	1.75	
8224.00	90.220	179.080	6462.56	2177.96	-2177.66	-89.54	40°19'43.581"N	104°25'48.292"W	4.32	
8313.00	90.120	179.520	6462.30	2266.95	-2266.65	-88.46	40°19'42.701"N	104°25'48.278"W	0.51	
8403.00	90.800	179.860	6461.58	2356.94	-2356.65	-87.97	40°19'41.812"N	104°25'48.272"W	0.84	
8492.00	91.350	179.730	6459.91	2445.92	-2445.63	-87.65	40°19'40.933"N	104°25'48.268"W	0.63	
8581.00	91.480	179.580	6457.71	2534.89	-2534.60	-87.12	40°19'40.054"N	104°25'48.261"W	0.22	
8670.00	91.510	179.330	6455.39	2623.86	-2623.57	-86.27	40°19'39.175"N	104°25'48.250"W	0.28	
8760.00	91.450	179.430	6453.06	2713.82	-2713.53	-85.30	40°19'38.286"N	104°25'48.237"W	0.13	
8849.00	91.630	178.980	6450.67	2802.77	-2802.49	-84.06	40°19'37.406"N	104°25'48.221"W	0.54	
8938.00	92.490	179.730	6447.47	2891.70	-2891.43	-83.06	40°19'36.528"N	104°25'48.208"W	1.28	
9027.00	93.020	179.400	6443.19	2980.59	-2980.32	-82.39	40°19'35.649"N	104°25'48.200"W	0.70	
9117.00	91.630	181.240	6439.54	3070.51	-3070.24	-82.89	40°19'34.761"N	104°25'48.206"W	2.56	
9206.00	90.280	182.010	6438.06	3159.47	-3159.19	-85.41	40°19'33.882"N	104°25'48.239"W	1.75	
9295.00	90.180	183.870	6437.70	3248.36	-3248.07	-89.98	40°19'33.003"N	104°25'48.298"W	2.09	
9384.00	90.220	185.560	6437.39	3337.08	-3336.76	-97.29	40°19'32.127"N	104°25'48.392"W	1.90	
9474.00	90.060	185.260	6437.17	3426.71	-3426.36	-105.78	40°19'31.242"N	104°25'48.502"W	0.38	
9563.00	89.780	180.150	6437.30	3515.60	-3515.23	-109.98	40°19'30.363"N	104°25'48.556"W	5.75	
9653.00	89.540	178.510	6437.83	3605.58	-3605.22	-108.92	40°19'29.474"N	104°25'48.542"W	1.84	
9742.00	89.630	178.350	6438.47	3694.54	-3694.19	-106.49	40°19'28.595"N	104°25'48.511"W	0.21	
9832.00	89.850	177.760	6438.88	3784.47	-3784.13	-103.43	40°19'27.706"N	104°25'48.471"W	0.70	
9921.00	90.120	177.400	6438.91	3873.38	-3873.05	-99.67	40°19'26.827"N	104°25'48.423"W	0.51	
10010.00	90.220	176.440	6438.64	3962.23	-3961.92	-94.89	40°19'25.949"N	104°25'48.361"W	1.08	
10099.00	90.220	175.250	6438.30	4050.97	-4050.69	-88.44	40°19'25.072"N	104°25'48.278"W	1.34	
10188.00	90.120	176.040	6438.04	4139.69	-4139.43	-81.68	40°19'24.195"N	104°25'48.191"W	0.89	
10277.00	90.220	177.210	6437.77	4228.52	-4228.27	-76.44	40°19'23.317"N	104°25'48.123"W	1.32	
10367.00	90.180	177.730	6437.46	4318.41	-4318.19	-72.47	40°19'22.429"N	104°25'48.072"W	0.58	
10456.00	90.030	178.760	6437.30	4407.36	-4407.14	-69.75	40°19'21.550"N	104°25'48.036"W	1.17	
10545.00	89.750	179.100	6437.47	4496.34	-4496.13	-68.08	40°19'20.670"N	104°25'48.015"W	0.49	
10635.00	89.540	179.560	6438.02	4586.32	-4586.12	-67.03	40°19'19.781"N	104°25'48.001"W	0.56	

Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#11 70 RANCH 10-18-3L (260'FSL & 1137'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-18-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-18-3L AWB
Facility	SEC.03-T04N-R63W		

WELLPATH DATA (187 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10724.00	90.030	179.340	6438.36	4675.32	-4675.11	-66.18	40°19'18.902"N	104°25'47.990"W	0.60	
10814.00	89.720	179.830	6438.55	4765.31	-4765.11	-65.53	40°19'18.012"N	104°25'47.982"W	0.64	
10903.00	89.850	180.120	6438.89	4854.31	-4854.11	-65.49	40°19'17.133"N	104°25'47.981"W	0.36	
10992.00	89.750	180.220	6439.20	4943.31	-4943.11	-65.75	40°19'16.253"N	104°25'47.985"W	0.16	
11082.00	89.910	179.820	6439.47	5033.31	-5033.11	-65.78	40°19'15.364"N	104°25'47.985"W	0.48	
11171.00	89.720	180.200	6439.75	5122.31	-5122.11	-65.80	40°19'14.485"N	104°25'47.985"W	0.48	
11260.00	89.780	180.710	6440.14	5211.30	-5211.10	-66.50	40°19'13.605"N	104°25'47.995"W	0.58	
11350.00	89.690	180.760	6440.56	5301.30	-5301.09	-67.66	40°19'12.716"N	104°25'48.009"W	0.11	
11439.00	89.660	182.020	6441.06	5390.28	-5390.07	-69.82	40°19'11.837"N	104°25'48.037"W	1.42	
11528.00	90.030	180.840	6441.30	5479.25	-5479.04	-72.04	40°19'10.957"N	104°25'48.066"W	1.39	
11618.00	89.940	179.690	6441.33	5569.25	-5569.03	-72.46	40°19'10.068"N	104°25'48.071"W	1.28	
11707.00	90.030	180.030	6441.35	5658.25	-5658.03	-72.24	40°19'09.189"N	104°25'48.069"W	0.40	
11796.00	90.060	180.250	6441.28	5747.25	-5747.03	-72.46	40°19'08.309"N	104°25'48.071"W	0.25	
11886.00	90.950	180.080	6440.49	5837.25	-5837.03	-72.71	40°19'07.420"N	104°25'48.075"W	1.01	
11975.00	90.980	178.910	6438.99	5926.23	-5926.01	-71.93	40°19'06.541"N	104°25'48.065"W	1.31	
12064.00	90.980	179.650	6437.47	6015.20	-6014.99	-70.81	40°19'05.661"N	104°25'48.050"W	0.83	
12154.00	90.980	179.820	6435.93	6105.18	-6104.97	-70.40	40°19'04.772"N	104°25'48.045"W	0.19	
12243.00	90.980	179.540	6434.40	6194.17	-6193.96	-69.90	40°19'03.893"N	104°25'48.038"W	0.31	
12333.00	90.950	179.540	6432.89	6284.15	-6283.94	-69.18	40°19'03.004"N	104°25'48.029"W	0.03	
12422.00	91.080	179.440	6431.31	6373.13	-6372.93	-68.38	40°19'02.124"N	104°25'48.019"W	0.18	
12511.00	91.020	179.370	6429.68	6462.10	-6461.91	-67.46	40°19'01.245"N	104°25'48.007"W	0.10	
12601.00	91.690	179.500	6427.55	6552.07	-6551.88	-66.57	40°19'00.356"N	104°25'47.995"W	0.76	
12690.00	92.000	179.880	6424.69	6641.02	-6640.83	-66.09	40°18'59.477"N	104°25'47.989"W	0.55	
12779.00	91.970	180.210	6421.60	6729.97	-6729.78	-66.16	40°18'58.598"N	104°25'47.990"W	0.37	
12869.00	91.290	179.920	6419.04	6819.93	-6819.74	-66.26	40°18'57.709"N	104°25'47.991"W	0.82	
12959.00	90.860	179.710	6417.36	6909.91	-6909.72	-65.97	40°18'56.820"N	104°25'47.988"W	0.53	
13049.00	90.550	179.730	6416.25	6999.90	-6999.71	-65.53	40°18'55.930"N	104°25'47.982"W	0.35	
13139.00	90.060	179.960	6415.77	7089.90	-7089.71	-65.29	40°18'55.041"N	104°25'47.979"W	0.60	
13229.00	90.060	179.320	6415.68	7179.89	-7179.71	-64.72	40°18'54.152"N	104°25'47.972"W	0.71	
13319.00	90.370	180.390	6415.34	7269.89	-7269.71	-64.50	40°18'53.262"N	104°25'47.969"W	1.24	

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#11 70 RANCH 10-18-3L (260'FSL & 1137'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-18-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-18-3L AWB
Facility	SEC.03-T04N-R63W		

WELLPATH DATA (187 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13408.00	90.120	180.600	6414.96	7358.89	-7358.70	-65.27	40°18'52.383"N	104°25'47.979"W	0.37	
13498.00	90.000	179.550	6414.86	7448.89	-7448.70	-65.38	40°18'51.494"N	104°25'47.980"W	1.17	
13588.00	90.090	179.070	6414.79	7538.87	-7538.70	-64.30	40°18'50.604"N	104°25'47.966"W	0.54	
13678.00	90.180	179.240	6414.58	7628.86	-7628.69	-62.97	40°18'49.715"N	104°25'47.949"W	0.21	
13767.00	90.090	179.730	6414.37	7717.85	-7717.68	-62.17	40°18'48.836"N	104°25'47.939"W	0.56	
13856.00	90.400	180.500	6413.99	7806.85	-7806.68	-62.35	40°18'47.956"N	104°25'47.941"W	0.93	
13946.00	90.430	180.590	6413.34	7896.85	-7896.67	-63.21	40°18'47.067"N	104°25'47.952"W	0.11	
14036.00	90.370	180.310	6412.71	7986.84	-7986.67	-63.91	40°18'46.178"N	104°25'47.961"W	0.32	
14126.00	90.000	179.260	6412.42	8076.84	-8076.67	-63.58	40°18'45.288"N	104°25'47.957"W	1.24	
14216.00	90.090	179.570	6412.35	8166.83	-8166.66	-62.66	40°18'44.399"N	104°25'47.945"W	0.36	
14305.00	90.150	179.890	6412.16	8255.83	-8255.66	-62.24	40°18'43.519"N	104°25'47.939"W	0.37	
14395.00	90.180	179.440	6411.90	8345.82	-8345.66	-61.71	40°18'42.630"N	104°25'47.933"W	0.50	
14484.00	90.920	180.410	6411.05	8434.82	-8434.65	-61.60	40°18'41.751"N	104°25'47.931"W	1.37	
14574.00	90.400	175.220	6410.01	8524.70	-8524.55	-58.16	40°18'40.862"N	104°25'47.887"W	5.80	
14664.00	90.340	175.430	6409.43	8614.37	-8614.25	-50.83	40°18'39.976"N	104°25'47.792"W	0.24	
14753.00	90.280	175.320	6408.95	8703.06	-8702.96	-43.65	40°18'39.099"N	104°25'47.699"W	0.14	
14843.00	90.430	176.490	6408.39	8792.80	-8792.72	-37.23	40°18'38.212"N	104°25'47.617"W	1.31	
14932.00	90.550	180.710	6407.63	8881.74	-8881.67	-35.05	40°18'37.333"N	104°25'47.588"W	4.74	
15022.00	90.150	179.780	6407.08	8971.74	-8971.67	-35.44	40°18'36.444"N	104°25'47.593"W	1.12	
15111.00	90.250	180.770	6406.77	9060.74	-9060.67	-35.86	40°18'35.565"N	104°25'47.599"W	1.12	
15200.00	90.250	180.900	6406.38	9149.73	-9149.66	-37.16	40°18'34.685"N	104°25'47.616"W	0.15	
15289.00	90.280	180.600	6405.97	9238.73	-9238.65	-38.33	40°18'33.806"N	104°25'47.631"W	0.34	
15379.00	90.250	180.470	6405.55	9328.72	-9328.64	-39.17	40°18'32.916"N	104°25'47.642"W	0.15	
15468.00	90.370	180.550	6405.07	9417.72	-9417.64	-39.96	40°18'32.037"N	104°25'47.652"W	0.16	
15557.00	90.000	179.390	6404.78	9506.72	-9506.64	-39.91	40°18'31.158"N	104°25'47.651"W	1.37	
15647.00	89.970	179.320	6404.81	9596.71	-9596.63	-38.90	40°18'30.268"N	104°25'47.638"W	0.08	
15736.00	90.000	179.810	6404.83	9685.70	-9685.63	-38.22	40°18'29.389"N	104°25'47.629"W	0.55	
15825.00	90.120	180.420	6404.74	9774.70	-9774.63	-38.40	40°18'28.509"N	104°25'47.632"W	0.70	
15914.00	90.220	180.680	6404.47	9863.70	-9863.62	-39.26	40°18'27.630"N	104°25'47.643"W	0.31	
16004.00	90.090	180.120	6404.23	9953.70	-9953.62	-39.89	40°18'26.741"N	104°25'47.651"W	0.64	

Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#11 70 RANCH 10-18-3L (260'FSL & 1137'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-18-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-18-3L AWB
Facility	SEC.03-T04N-R63W		

WELLPATH DATA (187 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16093.00	90.430	180.290	6403.83	10042.70	-10042.62	-40.20	40°18'25.861"N	104°25'47.655"W	0.43	
16182.00	90.490	181.650	6403.11	10131.68	-10131.60	-41.71	40°18'24.982"N	104°25'47.674"W	1.53	
16272.00	90.400	180.930	6402.41	10221.66	-10221.57	-43.74	40°18'24.093"N	104°25'47.701"W	0.81	
16361.00	89.880	180.170	6402.20	10310.66	-10310.57	-44.59	40°18'23.213"N	104°25'47.712"W	1.03	
16450.00	89.910	180.450	6402.36	10399.66	-10399.57	-45.07	40°18'22.334"N	104°25'47.718"W	0.32	
16501.00	90.280	180.890	6402.27	10450.66	-10450.56	-45.67	40°18'21.830"N	104°25'47.725"W	1.13	LAST BHGE MONOBORE MWD SURVEY
16525.00	90.280	180.890	6402.16	10474.66	-10474.56	-46.04	40°18'21.593"N	104°25'47.730"W	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: 70 RANCH 10-18-3L AWB Ref Wellpath: 70 RANCH 10-18-3L AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
13.5in Open Hole	23.00	1565.00	1542.00	23.00	1564.95	0.00	0.00	-3.06	1.74
9.625in Casing Surface	23.00	1565.00	1542.00	23.00	1564.95	0.00	0.00	-3.06	1.74

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#11 70 RANCH 10-18-3L (260'FSL & 1137'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-18-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-18-3L AWB
Facility	SEC.03-T04N-R63W		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.03-T04N-R63W	9.00	-3.64	-50.18	3298302.44	1366586.40	40°20'05.064"N	104°25'47.784"W	polygon
SEC.10-T04N-R63W	9.00	-3.64	-50.18	3298302.44	1366586.40	40°20'05.064"N	104°25'47.784"W	polygon
SEC.15-T04N-R63W	9.00	-3.64	-50.18	3298302.44	1366586.40	40°20'05.064"N	104°25'47.784"W	polygon
460 SETBACKS	6381.00	-3.64	-50.18	3298302.44	1366586.40	40°20'05.064"N	104°25'47.784"W	polygon
70 RANCH 10-18-3L BHL (470'FNL & 1040'FWL,SEC.15)	6428.50	-10371.82	-36.26	3298441.49	1356219.61	40°18'22.608"N	104°25'47.604"W	point
70 RANCH 10-18-3L LP (470'FNL & 1040'FWL,SEC.10)	6449.50	-739.54	-108.73	3298252.77	1365849.88	40°19'57.792"N	104°25'48.540"W	point

WELLPATH COMPOSITION - Ref Wellbore: 70 RANCH 10-18-3L AWB Ref Wellpath: 70 RANCH 10-18-3L AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
23.00	1471.00	BHI NaviTrak (Rotating+Axial Corr)	13 1/2" Surface Navitrak (Rotating+Axial Corr) <127-1471>	70 RANCH 10-18-3L AWB
1471.00	16501.00	BHI AutoTrak Curve (Short)	8.5" Monobore AutoTrak Curve (Short) <1612-16501>	70 RANCH 10-18-3L AWB
16501.00	16525.00	Blind Drilling (std)	Projection to bit	70 RANCH 10-18-3L AWB

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#11 70 RANCH 10-18-3L (260'FSL & 1137'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-18-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-18-3L AWB
Facility	SEC.03-T04N-R63W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
127.00	0.380	109.300	127.00	FIRST BHGE MWD SURFACE SURVEY
1471.00	0.470	204.310	1470.97	TIE ONTO BHGE MWD SURFACE SURVEYS
1612.00	2.050	218.370	1611.93	FIRST BHGE MONOBORE MWD SURVEY
16501.00	90.280	180.890	6402.27	LAST BHGE MONOBORE MWD SURVEY
16525.00	90.280	180.890	6402.16	PROJECTION TO BIT