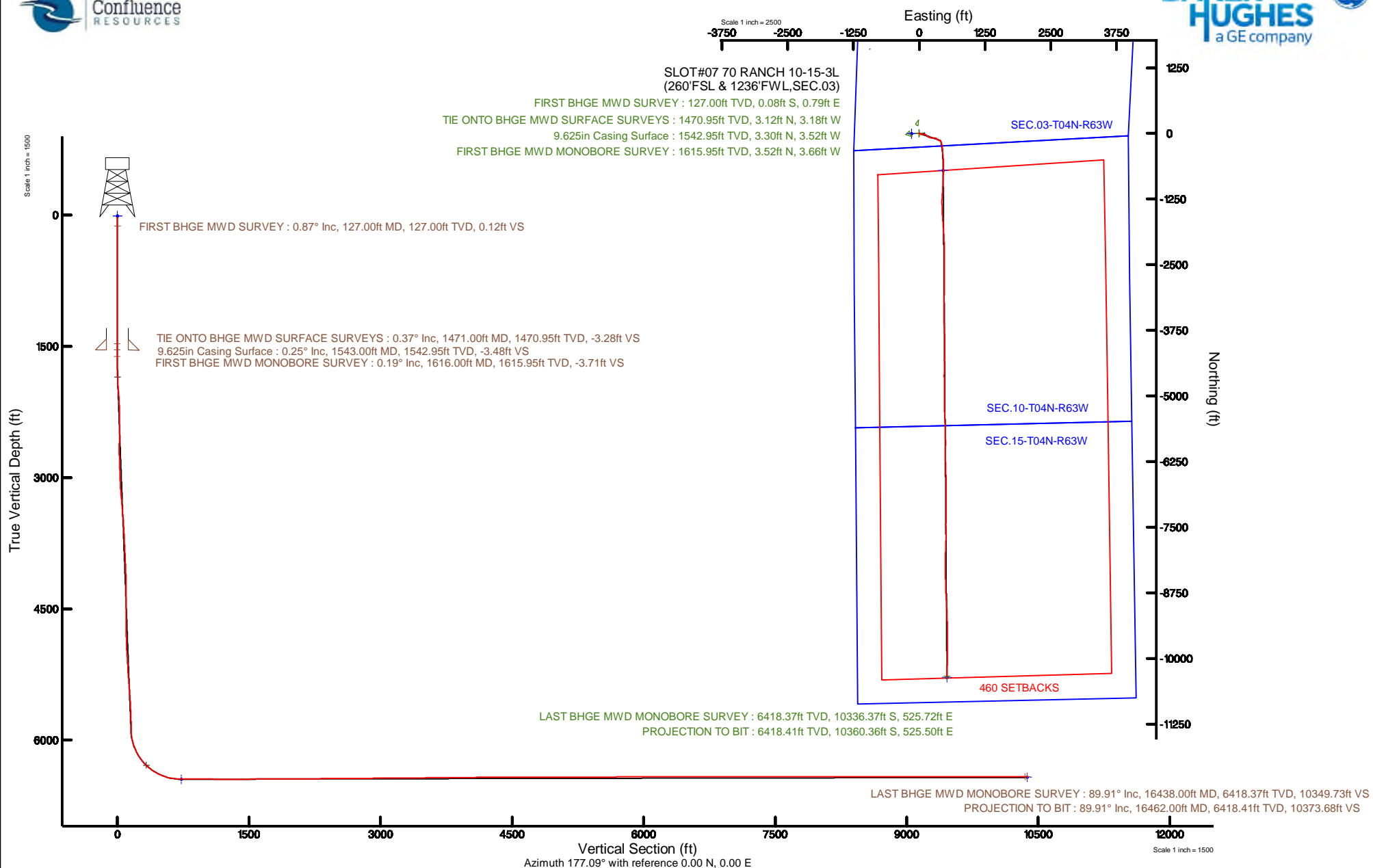


Location:	COLORADO	Slot:	SLOT#07 70 RANCH 10-15-3L (260'FSL & 1236'FWL,SEC.03)
Field:	WELD COUNTY (NAD83, TRUE NORTH)	Well:	70 RANCH 10-15-3L
Facility:	SEC.03-T04N-R63W	Wellbore:	70 RANCH 10-15-3L PWB

Plot reference wellpath is 70 RANCH 10-15-3L 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: 4620 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot: SLOTH07 70 RANCH 10-15-3L (260FSL & 1236FWLSEC.03)): 0 feet	Created by: robale01 on 2019-07-09
Coordinates are in feet referenced to Slot	Database: WA DENVER



Actual Wellpath Report

70 RANCH 10-15-3L AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#07 70 RANCH 10-15-3L (260'FSL & 1236'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-15-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-15-3L 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	7/9/2019 at 3:18:16 PM
Convergence at slot	0.69° East	Database/Source file	WA DENVER/70_RANCH_10-15-3L_AWP.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	7.29	147.76	3298450.09	1366595.47	40°20'05.136"N	104°25'45.876"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	4620.00ft
Horizontal Reference Pt	Slot	ENSIGN 140 (23') (RKB) to Mean Sea Level	4620.00ft
Vertical Reference Pt	ENSIGN 140 (23') (RKB)	ENSIGN 140 (23') (RKB) to Mud Line at Slot (SLOT#07 70 RANCH 10-15-3L (260'FSL & 1236'FWL,SEC.03))	4620.00ft
MD Reference Pt	ENSIGN 140 (23') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	177.09°

Actual Wellpath Report

70 RANCH 10-15-3L AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#07 70 RANCH 10-15-3L (260'FSL & 1236'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-15-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-15-3L AWB
Facility	SEC.03-T04N-R63W		

WELLPATH DATA (185 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	95.580	0.00	0.00	0.00	0.00	40°20'05.136"N	104°25'45.876"W	0.00	
23.00	0.000	95.580	23.00	0.00	0.00	0.00	40°20'05.136"N	104°25'45.876"W	0.00	
127.00	0.870	95.580	127.00	0.12	-0.08	0.79	40°20'05.135"N	104°25'45.866"W	0.84	FIRST BHGE MWD SURVEY
218.00	0.540	68.210	217.99	0.08	0.02	1.87	40°20'05.136"N	104°25'45.852"W	0.51	
310.00	0.420	81.060	309.99	-0.10	0.23	2.61	40°20'05.138"N	104°25'45.842"W	0.17	
399.00	0.370	95.260	398.98	-0.09	0.25	3.22	40°20'05.138"N	104°25'45.834"W	0.12	
489.00	0.110	250.350	488.98	-0.02	0.20	3.42	40°20'05.138"N	104°25'45.832"W	0.52	
578.00	0.640	282.020	577.98	-0.13	0.27	2.86	40°20'05.139"N	104°25'45.839"W	0.62	
667.00	0.430	266.040	666.98	-0.25	0.35	2.04	40°20'05.139"N	104°25'45.850"W	0.29	
757.00	0.430	282.220	756.97	-0.33	0.40	1.37	40°20'05.140"N	104°25'45.858"W	0.13	
846.00	0.640	311.040	845.97	-0.76	0.80	0.67	40°20'05.144"N	104°25'45.867"W	0.38	
935.00	0.590	279.730	934.97	-1.21	1.20	-0.16	40°20'05.148"N	104°25'45.878"W	0.38	
1025.00	0.300	269.150	1024.96	-1.32	1.28	-0.85	40°20'05.149"N	104°25'45.887"W	0.33	
1204.00	0.390	338.100	1203.96	-1.91	1.83	-1.55	40°20'05.154"N	104°25'45.896"W	0.22	
1293.00	0.460	284.780	1292.96	-2.31	2.21	-2.00	40°20'05.158"N	104°25'45.902"W	0.43	
1382.00	0.590	321.950	1381.96	-2.79	2.66	-2.63	40°20'05.162"N	104°25'45.910"W	0.40	
1471.00	0.370	290.740	1470.95	-3.28	3.12	-3.18	40°20'05.167"N	104°25'45.917"W	0.38	TIE ONTO BHGE MWD SURFACE SURVEYS
1616.00	0.190	351.440	1615.95	-3.71	3.52	-3.66	40°20'05.171"N	104°25'45.923"W	0.22	FIRST BHGE MWD MONOBORE SURVEY
1705.00	1.140	108.970	1704.95	-3.52	3.38	-2.84	40°20'05.169"N	104°25'45.913"W	1.39	
1794.00	3.490	114.330	1793.87	-1.95	1.98	0.47	40°20'05.156"N	104°25'45.870"W	2.65	
1884.00	4.950	121.700	1883.62	1.51	-1.19	6.27	40°20'05.124"N	104°25'45.795"W	1.73	
1973.00	7.050	127.650	1972.13	7.24	-6.54	13.86	40°20'05.071"N	104°25'45.697"W	2.46	
2063.00	6.580	126.160	2061.49	14.08	-12.96	22.39	40°20'05.008"N	104°25'45.587"W	0.56	
2152.00	6.640	112.480	2149.91	19.50	-17.94	31.27	40°20'04.959"N	104°25'45.472"W	1.77	
2241.00	4.890	81.100	2238.47	21.31	-19.32	39.77	40°20'04.945"N	104°25'45.362"W	3.98	
2331.00	4.760	80.640	2328.16	20.50	-18.12	47.24	40°20'04.957"N	104°25'45.266"W	0.15	
2420.00	6.000	90.220	2416.76	20.33	-17.54	55.54	40°20'04.963"N	104°25'45.159"W	1.72	
2509.00	6.880	88.720	2505.20	20.74	-17.43	65.52	40°20'04.964"N	104°25'45.030"W	1.01	
2598.00	5.370	79.730	2593.69	20.36	-16.57	74.95	40°20'04.972"N	104°25'44.908"W	2.01	
2688.00	5.940	86.630	2683.26	19.78	-15.55	83.74	40°20'04.982"N	104°25'44.795"W	0.98	
2777.00	5.790	101.210	2771.79	20.84	-16.15	92.74	40°20'04.976"N	104°25'44.678"W	1.68	
2866.00	5.850	106.730	2860.34	23.46	-18.33	101.49	40°20'04.955"N	104°25'44.565"W	0.63	
2956.00	5.630	110.100	2949.89	26.73	-21.17	110.03	40°20'04.927"N	104°25'44.455"W	0.45	
3045.00	5.250	113.030	3038.48	30.22	-24.26	117.88	40°20'04.896"N	104°25'44.354"W	0.53	
3134.00	6.450	124.310	3127.02	35.02	-28.67	125.75	40°20'04.853"N	104°25'44.252"W	1.86	
3224.00	6.600	133.800	3216.44	41.85	-35.10	133.66	40°20'04.789"N	104°25'44.150"W	1.21	

WELLPATH DATA (185 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3313.00	6.610	140.310	3304.85	49.67	-42.58	140.63	40°20'04.715"N	104°25'44.060"W	0.84	
3403.00	6.810	137.000	3394.24	57.90	-50.47	147.57	40°20'04.637"N	104°25'43.970"W	0.48	
3493.00	6.790	126.680	3483.61	65.38	-57.55	155.48	40°20'04.567"N	104°25'43.868"W	1.36	
3582.00	6.720	114.390	3571.99	71.12	-62.84	164.44	40°20'04.515"N	104°25'43.753"W	1.62	
3671.00	6.710	111.040	3660.38	75.62	-66.86	174.04	40°20'04.475"N	104°25'43.629"W	0.44	
3761.00	6.180	114.600	3749.81	79.99	-70.77	183.35	40°20'04.437"N	104°25'43.508"W	0.74	
3850.00	5.950	108.210	3838.32	83.87	-74.20	192.09	40°20'04.403"N	104°25'43.396"W	0.80	
3939.00	5.870	113.900	3926.84	87.58	-77.49	200.63	40°20'04.370"N	104°25'43.285"W	0.66	
4029.00	5.790	115.570	4016.38	91.82	-81.31	208.93	40°20'04.332"N	104°25'43.178"W	0.21	

Actual Wellpath Report

70 RANCH 10-15-3L AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#07 70 RANCH 10-15-3L (260'FSL & 1236'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-15-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-15-3L AWB
Facility	SEC.03-T04N-R63W		

WELLPATH DATA (185 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4118.00	6.350	107.300	4104.88	95.66	-84.71	217.68	40°20'04.299"N	104°25'43.065"W	1.17	
4208.00	6.530	96.490	4194.32	98.22	-86.77	227.52	40°20'04.279"N	104°25'42.938"W	1.36	
4297.00	5.770	87.140	4282.81	99.05	-87.12	237.02	40°20'04.275"N	104°25'42.815"W	1.41	
4386.00	5.750	85.530	4371.36	98.93	-86.55	245.93	40°20'04.281"N	104°25'42.700"W	0.18	
4475.00	5.660	91.490	4459.92	99.15	-86.32	254.76	40°20'04.283"N	104°25'42.586"W	0.67	
4565.00	5.720	83.690	4549.47	99.22	-85.94	263.65	40°20'04.287"N	104°25'42.471"W	0.86	
4654.00	6.430	85.300	4637.97	98.81	-85.04	273.03	40°20'04.296"N	104°25'42.350"W	0.82	
4744.00	6.340	91.050	4727.42	98.99	-84.72	283.02	40°20'04.299"N	104°25'42.221"W	0.72	
4833.00	6.330	94.870	4815.87	100.00	-85.23	292.82	40°20'04.294"N	104°25'42.095"W	0.47	
4923.00	6.460	103.870	4905.32	102.13	-86.86	302.68	40°20'04.278"N	104°25'41.968"W	1.12	
5012.00	5.950	120.230	4993.80	106.10	-90.38	311.53	40°20'04.243"N	104°25'41.853"W	2.06	
5101.00	6.120	128.320	5082.31	111.75	-95.65	319.24	40°20'04.191"N	104°25'41.754"W	0.97	
5191.00	4.830	120.280	5171.90	116.98	-100.53	326.27	40°20'04.143"N	104°25'41.663"W	1.66	
5280.00	6.410	128.970	5260.47	122.35	-105.55	333.37	40°20'04.093"N	104°25'41.571"W	2.01	
5370.00	6.300	131.720	5349.92	129.17	-111.99	340.96	40°20'04.029"N	104°25'41.473"W	0.36	
5458.00	6.380	132.600	5437.38	136.05	-118.52	348.17	40°20'03.965"N	104°25'41.380"W	0.14	
5548.00	6.400	124.980	5526.82	142.70	-124.78	355.96	40°20'03.903"N	104°25'41.280"W	0.94	
5637.00	6.390	120.770	5615.27	148.50	-130.16	364.28	40°20'03.850"N	104°25'41.172"W	0.53	
5727.00	6.330	105.890	5704.72	152.87	-134.08	373.35	40°20'03.811"N	104°25'41.055"W	1.83	
5816.00	6.440	93.840	5793.17	155.04	-135.75	383.05	40°20'03.794"N	104°25'40.930"W	1.51	
5905.00	6.390	96.460	5881.62	156.44	-136.65	392.95	40°20'03.786"N	104°25'40.802"W	0.33	
5994.00	10.650	138.000	5969.69	163.63	-143.32	403.39	40°20'03.720"N	104°25'40.667"W	8.12	
6084.00	18.720	161.180	6056.75	184.03	-163.22	413.64	40°20'03.523"N	104°25'40.535"W	10.93	
6173.00	27.690	162.620	6138.46	217.86	-196.54	424.45	40°20'03.194"N	104°25'40.395"W	10.10	
6262.00	35.660	171.820	6214.19	263.81	-242.06	434.34	40°20'02.744"N	104°25'40.267"W	10.45	
6352.00	44.880	176.100	6282.80	321.82	-299.84	440.24	40°20'02.173"N	104°25'40.191"W	10.69	
6441.00	54.340	174.690	6340.41	389.50	-367.32	445.74	40°20'01.506"N	104°25'40.120"W	10.70	
6531.00	63.540	174.500	6386.79	466.44	-443.99	453.00	40°20'00.749"N	104°25'40.027"W	10.22	
6620.00	72.340	176.030	6420.19	548.80	-526.11	459.77	40°19'59.937"N	104°25'39.939"W	10.01	
6709.00	83.210	179.040	6439.01	635.63	-612.88	463.45	40°19'59.080"N	104°25'39.892"W	12.65	
6799.00	90.150	183.310	6444.22	725.18	-702.63	461.60	40°19'58.193"N	104°25'39.916"W	9.05	
6888.00	90.180	182.890	6443.96	813.69	-791.50	456.79	40°19'57.315"N	104°25'39.978"W	0.47	
6977.00	90.180	182.370	6443.68	902.27	-880.41	452.70	40°19'56.436"N	104°25'40.030"W	0.58	
7066.00	90.090	181.610	6443.47	990.94	-969.35	449.61	40°19'55.557"N	104°25'40.070"W	0.86	
7156.00	87.780	183.420	6445.15	1080.52	-1059.24	445.67	40°19'54.669"N	104°25'40.121"W	3.26	
7246.00	89.940	185.580	6446.94	1169.74	-1148.93	438.61	40°19'53.782"N	104°25'40.213"W	3.39	

WELLPATH DATA (185 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7335.00	90.340	182.280	6446.72	1258.09	-1237.71	432.51	40°19'52.905"N	104°25'40.291"W	3.73	
7424.00	90.090	179.160	6446.39	1346.90	-1326.69	431.39	40°19'52.026"N	104°25'40.306"W	3.52	
7514.00	90.370	178.290	6446.02	1436.86	-1416.67	433.39	40°19'51.137"N	104°25'40.280"W	1.02	
7603.00	90.430	176.520	6445.40	1525.85	-1505.57	437.42	40°19'50.258"N	104°25'40.228"W	1.99	
7692.00	90.310	176.020	6444.83	1614.84	-1594.38	443.21	40°19'49.381"N	104°25'40.153"W	0.58	
7782.00	90.250	175.880	6444.39	1704.82	-1684.16	449.57	40°19'48.494"N	104°25'40.071"W	0.17	
7871.00	90.310	176.700	6443.95	1793.81	-1772.97	455.33	40°19'47.616"N	104°25'39.997"W	0.92	
7960.00	90.370	175.760	6443.43	1882.80	-1861.77	461.18	40°19'46.738"N	104°25'39.921"W	1.06	
8050.00	89.940	176.880	6443.18	1972.79	-1951.58	466.95	40°19'45.851"N	104°25'39.847"W	1.33	

Actual Wellpath Report

70 RANCH 10-15-3L AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#07 70 RANCH 10-15-3L (260'FSL & 1236'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-15-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-15-3L AWB
Facility	SEC.03-T04N-R63W		

WELLPATH DATA (185 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8139.00	90.400	177.040	6442.92	2061.79	-2040.46	471.67	40°19'44.973"N	104°25'39.786"W	0.55	
8228.00	90.490	177.370	6442.23	2150.79	-2129.35	476.01	40°19'44.094"N	104°25'39.730"W	0.38	
8317.00	90.620	178.810	6441.36	2239.77	-2218.29	478.98	40°19'43.215"N	104°25'39.692"W	1.62	
8407.00	90.580	180.290	6440.42	2329.68	-2308.28	479.69	40°19'42.326"N	104°25'39.682"W	1.64	
8496.00	90.400	180.410	6439.66	2418.53	-2397.28	479.14	40°19'41.447"N	104°25'39.689"W	0.24	
8585.00	90.430	180.340	6439.02	2507.38	-2486.27	478.56	40°19'40.567"N	104°25'39.697"W	0.09	
8674.00	90.490	180.610	6438.30	2596.22	-2575.27	477.82	40°19'39.688"N	104°25'39.707"W	0.31	
8764.00	90.550	180.030	6437.48	2686.07	-2665.26	477.32	40°19'38.798"N	104°25'39.713"W	0.65	
8853.00	90.430	179.650	6436.72	2774.97	-2754.26	477.57	40°19'37.919"N	104°25'39.710"W	0.45	
8942.00	90.490	180.160	6436.01	2863.86	-2843.26	477.72	40°19'37.040"N	104°25'39.708"W	0.58	
9031.00	90.430	180.630	6435.29	2952.70	-2932.25	477.10	40°19'36.160"N	104°25'39.716"W	0.53	
9121.00	90.460	181.380	6434.60	3042.49	-3022.23	475.52	40°19'35.271"N	104°25'39.736"W	0.83	
9210.00	90.520	181.580	6433.83	3131.23	-3111.20	473.23	40°19'34.392"N	104°25'39.766"W	0.23	
9299.00	90.460	181.420	6433.07	3219.96	-3200.17	470.90	40°19'33.513"N	104°25'39.796"W	0.19	
9388.00	90.460	181.930	6432.36	3308.67	-3289.13	468.29	40°19'32.634"N	104°25'39.830"W	0.57	
9478.00	90.580	180.610	6431.54	3398.43	-3379.10	466.30	40°19'31.745"N	104°25'39.856"W	1.47	
9567.00	90.520	178.470	6430.69	3487.33	-3468.09	467.01	40°19'30.865"N	104°25'39.846"W	2.41	
9657.00	90.520	177.880	6429.87	3577.31	-3558.04	469.88	40°19'29.976"N	104°25'39.809"W	0.66	
9746.00	90.400	177.200	6429.16	3666.31	-3646.95	473.70	40°19'29.098"N	104°25'39.760"W	0.78	
9835.00	90.370	177.230	6428.56	3755.31	-3735.84	478.02	40°19'28.219"N	104°25'39.704"W	0.05	
9925.00	90.400	177.480	6427.95	3845.30	-3825.74	482.18	40°19'27.331"N	104°25'39.651"W	0.28	
10014.00	90.580	178.840	6427.19	3934.28	-3914.69	485.04	40°19'26.452"N	104°25'39.614"W	1.54	
10103.00	90.650	179.530	6426.24	4023.22	-4003.68	486.30	40°19'25.573"N	104°25'39.597"W	0.78	
10192.00	90.490	180.310	6425.35	4112.10	-4092.67	486.43	40°19'24.693"N	104°25'39.596"W	0.89	
10281.00	90.580	180.960	6424.52	4200.93	-4181.66	485.44	40°19'23.814"N	104°25'39.609"W	0.74	
10371.00	90.650	182.110	6423.55	4290.65	-4271.62	483.03	40°19'22.925"N	104°25'39.640"W	1.28	
10460.00	90.620	182.290	6422.57	4379.29	-4360.55	479.61	40°19'22.046"N	104°25'39.684"W	0.21	
10549.00	90.550	182.070	6421.66	4467.93	-4449.48	476.23	40°19'21.167"N	104°25'39.728"W	0.26	
10639.00	89.970	180.860	6421.25	4557.67	-4539.45	473.93	40°19'20.278"N	104°25'39.757"W	1.49	
10728.00	89.970	179.800	6421.30	4646.53	-4628.45	473.41	40°19'19.399"N	104°25'39.764"W	1.19	
10817.00	89.970	179.740	6421.34	4735.43	-4717.45	473.77	40°19'18.519"N	104°25'39.759"W	0.07	
10907.00	89.820	180.050	6421.51	4825.32	-4807.45	473.94	40°19'17.630"N	104°25'39.757"W	0.38	
10996.00	90.090	180.020	6421.58	4914.20	-4896.45	473.88	40°19'16.750"N	104°25'39.758"W	0.31	
11086.00	89.970	179.560	6421.53	5004.10	-4986.45	474.21	40°19'15.861"N	104°25'39.754"W	0.53	
11175.00	90.030	179.050	6421.53	5093.03	-5075.44	475.29	40°19'14.982"N	104°25'39.740"W	0.58	
11264.00	90.120	178.780	6421.42	5181.99	-5164.42	476.98	40°19'14.102"N	104°25'39.718"W	0.32	

WELLPATH DATA (185 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11353.00	90.030	178.080	6421.30	5270.96	-5253.39	479.41	40°19'13.223"N	104°25'39.687"W	0.79	
11443.00	90.030	177.730	6421.25	5360.95	-5343.33	482.70	40°19'12.334"N	104°25'39.644"W	0.39	
11532.00	90.090	177.290	6421.16	5449.95	-5432.25	486.57	40°19'11.456"N	104°25'39.594"W	0.50	
11621.00	90.180	177.600	6420.95	5538.95	-5521.16	490.54	40°19'10.577"N	104°25'39.543"W	0.36	
11711.00	90.150	177.970	6420.69	5628.94	-5611.09	494.02	40°19'09.688"N	104°25'39.498"W	0.41	
11800.00	90.120	178.740	6420.48	5717.92	-5700.05	496.57	40°19'08.809"N	104°25'39.465"W	0.87	
11890.00	90.090	179.420	6420.32	5807.86	-5790.04	498.02	40°19'07.920"N	104°25'39.447"W	0.76	
11979.00	90.340	179.900	6419.98	5896.77	-5879.04	498.55	40°19'07.041"N	104°25'39.440"W	0.61	
12068.00	90.150	180.350	6419.60	5985.65	-5968.04	498.35	40°19'06.161"N	104°25'39.442"W	0.55	

Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#07 70 RANCH 10-15-3L (260'FSL & 1236'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-15-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-15-3L AWB
Facility	SEC.03-T04N-R63W		

WELLPATH DATA (185 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12158.00	90.580	180.790	6419.03	6075.48	-6058.03	497.46	40°19'05.272"N	104°25'39.454"W	0.68	
12247.00	90.180	180.030	6418.44	6164.33	-6147.02	496.82	40°19'04.393"N	104°25'39.462"W	0.96	
12337.00	89.940	178.630	6418.34	6254.26	-6237.02	497.87	40°19'03.503"N	104°25'39.449"W	1.58	
12426.00	90.000	177.710	6418.39	6343.24	-6325.97	500.71	40°19'02.624"N	104°25'39.412"W	1.04	
12515.00	89.970	178.140	6418.41	6432.23	-6414.91	503.94	40°19'01.745"N	104°25'39.370"W	0.48	
12605.00	89.940	178.270	6418.48	6522.21	-6504.87	506.75	40°19'00.856"N	104°25'39.334"W	0.15	
12694.00	89.850	179.240	6418.65	6611.17	-6593.84	508.69	40°18'59.977"N	104°25'39.309"W	1.09	
12783.00	89.940	179.850	6418.81	6700.09	-6682.84	509.40	40°18'59.098"N	104°25'39.300"W	0.69	
12873.00	89.910	180.520	6418.93	6789.96	-6772.84	509.10	40°18'58.208"N	104°25'39.304"W	0.75	
12962.00	90.090	180.470	6418.93	6878.80	-6861.84	508.34	40°18'57.329"N	104°25'39.314"W	0.21	
13053.00	90.090	180.260	6418.78	6969.65	-6952.83	507.76	40°18'56.430"N	104°25'39.321"W	0.23	
13143.00	90.150	179.370	6418.60	7059.55	-7042.83	508.05	40°18'55.540"N	104°25'39.318"W	0.99	
13233.00	89.940	179.510	6418.53	7149.47	-7132.83	508.93	40°18'54.651"N	104°25'39.306"W	0.28	
13323.00	89.910	180.030	6418.64	7239.37	-7222.83	509.29	40°18'53.762"N	104°25'39.302"W	0.58	
13412.00	89.910	180.800	6418.78	7328.22	-7311.82	508.64	40°18'52.882"N	104°25'39.310"W	0.87	
13502.00	89.910	181.200	6418.92	7418.01	-7401.81	507.07	40°18'51.993"N	104°25'39.330"W	0.44	
13592.00	90.000	178.700	6418.99	7507.89	-7491.80	507.15	40°18'51.104"N	104°25'39.329"W	2.78	
13681.00	89.880	179.510	6419.09	7596.84	-7580.79	508.54	40°18'50.224"N	104°25'39.311"W	0.92	
13771.00	89.850	180.900	6419.30	7686.70	-7670.79	508.22	40°18'49.335"N	104°25'39.315"W	1.54	
13860.00	89.850	181.430	6419.53	7775.48	-7759.77	506.41	40°18'48.456"N	104°25'39.339"W	0.60	
13950.00	89.940	182.530	6419.70	7865.15	-7849.71	503.30	40°18'47.567"N	104°25'39.379"W	1.23	
14040.00	90.030	182.130	6419.72	7954.77	-7939.64	499.64	40°18'46.678"N	104°25'39.426"W	0.46	
14130.00	90.060	181.910	6419.65	8044.44	-8029.58	496.47	40°18'45.789"N	104°25'39.467"W	0.25	
14219.00	90.090	181.160	6419.53	8133.17	-8118.55	494.08	40°18'44.910"N	104°25'39.498"W	0.84	
14309.00	89.970	180.570	6419.49	8222.97	-8208.54	492.73	40°18'44.021"N	104°25'39.516"W	0.67	
14398.00	90.030	178.370	6419.49	8311.89	-8297.53	493.55	40°18'43.142"N	104°25'39.505"W	2.47	
14488.00	90.030	178.530	6419.44	8401.86	-8387.50	495.98	40°18'42.253"N	104°25'39.474"W	0.18	
14578.00	90.120	178.990	6419.32	8491.83	-8477.48	497.93	40°18'41.363"N	104°25'39.448"W	0.52	
14668.00	90.090	178.310	6419.16	8581.79	-8567.45	500.05	40°18'40.474"N	104°25'39.421"W	0.76	
14757.00	90.000	179.440	6419.09	8670.75	-8656.43	501.80	40°18'39.595"N	104°25'39.399"W	1.27	
14846.00	90.180	176.860	6418.95	8759.72	-8745.38	504.67	40°18'38.716"N	104°25'39.362"W	2.91	
14936.00	90.180	175.590	6418.66	8849.71	-8835.18	510.60	40°18'37.829"N	104°25'39.285"W	1.41	
15026.00	90.090	176.360	6418.45	8939.69	-8924.96	516.91	40°18'36.942"N	104°25'39.204"W	0.86	
15115.00	89.940	177.580	6418.43	9028.69	-9013.83	521.62	40°18'36.063"N	104°25'39.143"W	1.38	
15204.00	90.000	177.500	6418.48	9117.69	-9102.75	525.44	40°18'35.185"N	104°25'39.094"W	0.11	
15293.00	90.090	177.730	6418.41	9206.68	-9191.67	529.14	40°18'34.306"N	104°25'39.046"W	0.28	

WELLPATH DATA (185 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
15382.00	90.030	179.030	6418.31	9295.66	-9280.63	531.66	40°18'33.427"N	104°25'39.013"W	1.46	
15472.00	89.880	178.530	6418.38	9385.62	-9370.61	533.57	40°18'32.538"N	104°25'38.989"W	0.58	
15561.00	89.880	178.700	6418.57	9474.59	-9459.59	535.73	40°18'31.658"N	104°25'38.961"W	0.19	
15650.00	89.850	178.740	6418.78	9563.55	-9548.56	537.71	40°18'30.779"N	104°25'38.935"W	0.06	
15740.00	89.880	180.470	6418.99	9653.46	-9638.56	538.33	40°18'29.890"N	104°25'38.927"W	1.92	
15829.00	89.940	179.470	6419.13	9742.35	-9727.56	538.38	40°18'29.010"N	104°25'38.927"W	1.13	
15918.00	89.780	179.970	6419.35	9831.25	-9816.56	538.82	40°18'28.131"N	104°25'38.921"W	0.59	
16008.00	89.880	181.240	6419.62	9921.08	-9906.55	537.87	40°18'27.242"N	104°25'38.933"W	1.42	
16097.00	90.000	181.800	6419.71	10009.82	-9995.52	535.50	40°18'26.362"N	104°25'38.964"W	0.64	

Actual Wellpath Report

70 RANCH 10-15-3L AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#07 70 RANCH 10-15-3L (260'FSL & 1236'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-15-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-15-3L AWB
Facility	SEC.03-T04N-R63W		

WELLPATH DATA (185 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16186.00	89.970	181.500	6419.73	10098.53	-10084.48	532.94	40°18'25.483"N	104°25'38.997"W	0.34	
16276.00	90.280	181.840	6419.54	10188.24	-10174.44	530.32	40°18'24.594"N	104°25'39.031"W	0.51	
16365.00	90.710	182.010	6418.77	10276.92	-10263.39	527.33	40°18'23.715"N	104°25'39.069"W	0.52	
16438.00	89.910	180.520	6418.37	10349.73	-10336.37	525.72	40°18'22.994"N	104°25'39.090"W	2.32	LAST BHGE MWD MONOBORE SURVEY
16462.00	89.910	180.520	6418.41	10373.68	-10360.36	525.50	40°18'22.757"N	104°25'39.093"W	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: 70 RANCH 10-15-3L AWB Ref Wellpath: 70 RANCH 10-15-3L 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	1550.00	1527.00	23.00	1549.95	0.00	0.00	3.32	-3.54
9.625in Casing Surface	23.00	1543.00	1520.00	23.00	1542.95	0.00	0.00	3.30	-3.52
8.5in Open Hole	1550.00	16462.00	14912.00	1549.95	6418.41	3.32	-3.54	-10360.36	525.50

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.03-T04N-R63W	11.00	-7.29	-147.76	3298302.44	1366586.40	40°20'05.064"N	104°25'47.784"W	polygon
SEC.10-T04N-R63W	11.00	-7.29	-147.76	3298302.44	1366586.40	40°20'05.064"N	104°25'47.784"W	polygon
SEC.15-T04N-R63W	11.00	-7.29	-147.76	3298302.44	1366586.40	40°20'05.064"N	104°25'47.784"W	polygon
460 SETBACKS	6383.00	-7.29	-147.76	3298302.44	1366586.40	40°20'05.064"N	104°25'47.784"W	polygon
70 RANCH 10-15-3L BHL (470'FNL & 1700'FWL,SEC.15)	6425.50	-10360.88	527.14	3299102.24	1356242.16	40°18'22.752"N	104°25'39.072"W	point
70 RANCH 10-15-3L LP (470'FNL & 1700'FWL,SEC.10)	6447.50	-706.75	454.44	3298913.01	1365894.29	40°19'58.152"N	104°25'40.008"W	point

WELLPATH COMPOSITION - Ref Wellbore: 70 RANCH 10-15-3L AWB Ref Wellpath: 70 RANCH 10-15-3L 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 10-15-3L AWB
1471.00	16438.00	BHI AutoTrak Curve (Short)	8.5" Monobore AutoTrak Curve (Short) <1616-16438>	70 RANCH 10-15-3L AWB
16438.00	16462.00	Blind Drilling (std)	Projection to bit	70 RANCH 10-15-3L AWB

Actual Wellpath Report

70 RANCH 10-15-3L AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#07 70 RANCH 10-15-3L (260'FSL & 1236'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-15-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-15-3L AWB
Facility	SEC.03-T04N-R63W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
127.00	0.870	95.580	127.00	FIRST BHGE MWD SURVEY
1471.00	0.370	290.740	1470.95	TIE ONTO BHGE MWD SURFACE SURVEYS
1616.00	0.190	351.440	1615.95	FIRST BHGE MWD MONOBORE SURVEY
16438.00	89.910	180.520	6418.37	LAST BHGE MWD MONOBORE SURVEY
16462.00	89.910	180.520	6418.41	PROJECTION TO BIT