

CONFLUENCE RESOURCES

Location: COLORADO	Slot: SLOT#03 WILLOW 22-20-2L (185°FSL & 1096°FWL, SEC.22)	
Field: WELD COUNTY (NAD83, TRUE NORTH)	Well: WILLOW 22-20-2L	
Facility: SEC.22-T01N-R65W	Wellbore: WILLOW 22-20-2L PWB	

Plot reference wellpath is WILLOW 22-20-2L PWP (REV-A.0)

True vertical depths are referenced to RIG (17) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to RIG (17) (RKB)	North Reference: True north
RIG (17) (RKB) to Mean Sea Level: 5107 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#03 WILLOW 22-20-2L (185°FSL & 1096°FWL, SEC.22)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robalo01 on 2019-02-27
	Database: WA DENVER

Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.22-T01N-R65W	3236383.461	1254962.137	40°01'48.612"N	104°39'21.060"W

Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#03 WILLOW 22-20-2L (185°FSL & 1096°FWL, SEC.22)	0.00	47.61	3236431.064	1254962.590	40°01'48.612"N	104°39'20.448"W

RIG (17) (RKB) to Mud line (At Slot: SLOT#03 WILLOW 22-20-2L (185°FSL & 1096°FWL, SEC.22))

Mean Sea Level to Mud line (At Slot: SLOT#03 WILLOW 22-20-2L (185°FSL & 1096°FWL, SEC.22))

RIG (17) (RKB) to Mean Sea Level

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
HARDLINES SEC.10.15-22-T01N-R65W 460°NS&EW		-1.00	0.00	-47.61	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W
SEC.10-T01N-R65W		-1.00	0.00	-47.61	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W
SEC.15-T01N-R65W		-1.00	0.00	-47.61	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W
SEC.22-T01N-R65W		-1.00	0.00	-47.61	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W
WILLOW 22-20-2L BHL ON PLAT (2180°FSL & 687°FWL, SEC.10)	19920.88	7275.00	12587.37	-393.37	3235917.88	1267545.17	40°03'53.004"N	104°39'25.507"W
WILLOW 22-20-2L LP ON PLAT (470°FSL & 687°FWL, SEC.22)	7621.30	7275.00	287.79	-406.05	3236022.30	1255246.49	40°01'51.456"N	104°39'25.698"W

Survey Program

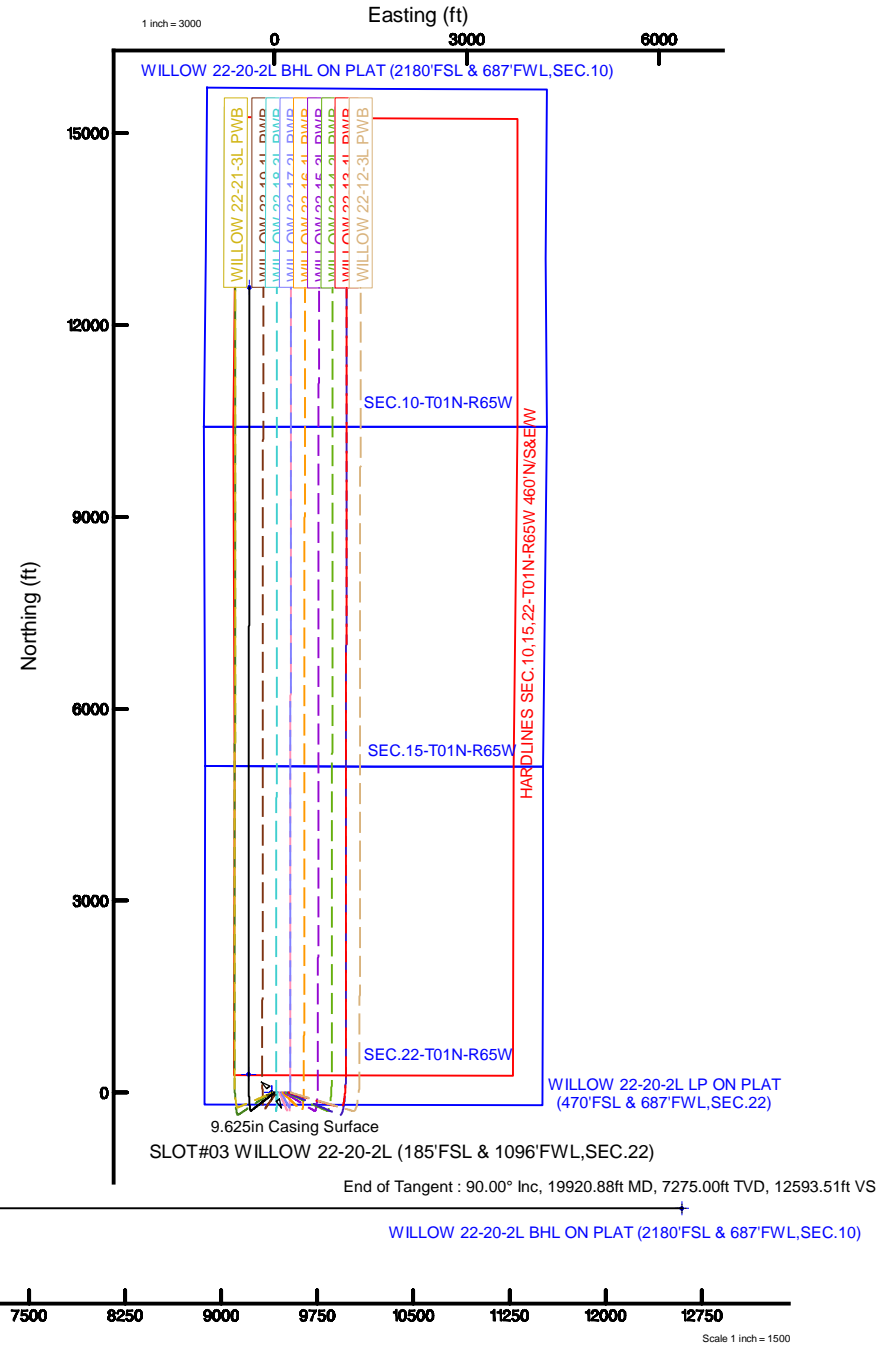
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	1500.00	BHL NavTrak	BHL NavTrak (Rotating+Axial Corr)		WILLOW 22-20-2L PWB
1500.00	19920.88	BHL AutoTrak Curve	BHL AutoTrak Curve (Axial Corr, Short spacing)		WILLOW 22-20-2L PWB

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	232.404	17.00	0.00	0.00	0.00	0.00
End of Tangent	600.00	0.000	232.404	600.00	0.00	0.00	0.00	0.00
End of Build	823.58	4.472	232.404	823.36	-5.32	-6.91	2.00	-5.10
End of Tangent	6694.00	4.472	232.404	6675.90	-284.55	-369.55	0.00	-272.87
End of 3D Arc	7621.30	90.000	0.059	7275.00	287.79	-406.05	10.00	300.33
End of Tangent	19920.88	90.000	0.059	7275.00	12587.37	-393.37	0.00	12593.51

Bottom Hole Location

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
19920.88	90.000	0.059	7275.00	12587.37	-393.37	3235917.88	1267545.17	40°03'53.004"N	104°39'25.507"W



Planned Wellpath Report

WILLOW 22-20-2L PWP (REV-A.0)

Page 1 of 8

REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#03 WILLOW 22-20-2L (185'FSL & 1096'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-20-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-20-2L PWB
Facility	SEC.22-T01N-R65W		

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	0.999964	Report Generated	2/27/2019 at 12:32:45 PM
Convergence at slot	0.55° East	Database/Source file	WA DENVER/WILLOW_22-20-2L_PWP__REV-A.0_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	47.61	3236431.06	1254962.59	40°01'48.612"N	104°39'20.448"W
Facility Reference Pt			3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W
Field Reference Pt			3230456.90	1245096.09	40°00'11.664"N	104°40'38.424"W

WELLPATH DATUM

Calculation method	Minimum curvature	RIG (17') (RKB) to Facility Vertical Datum	5107.00ft
Horizontal Reference Pt	Slot	RIG (17') (RKB) to Mean Sea Level	5107.00ft
Vertical Reference Pt	RIG (17') (RKB)	RIG (17') (RKB) to Mud Line at Slot (SLOT#03 WILLOW 22-20-2L (185'FSL & 1096'FWL,SEC.22))	5107.00ft
MD Reference Pt	RIG (17') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	358.21°

Planned Wellpath Report

WILLOW 22-20-2L PWP (REV-A.0)

Page 2 of 8

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Area	COLORADO	Well	WILLOW 22-20-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-20-2L PWB
Facility	SEC.22-T01N-R65W		

WELLPATH DATA (206 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	232.404	0.00	0.00	0.00	0.00	40°01'48.612"N	104°39'20.448"W	0.00	
17.00	0.000	232.404	17.00	0.00	0.00	0.00	40°01'48.612"N	104°39'20.448"W	0.00	Tie On
117.00†	0.000	232.404	117.00	0.00	0.00	0.00	40°01'48.612"N	104°39'20.448"W	0.00	
217.00†	0.000	232.404	217.00	0.00	0.00	0.00	40°01'48.612"N	104°39'20.448"W	0.00	
317.00†	0.000	232.404	317.00	0.00	0.00	0.00	40°01'48.612"N	104°39'20.448"W	0.00	
417.00†	0.000	232.404	417.00	0.00	0.00	0.00	40°01'48.612"N	104°39'20.448"W	0.00	
517.00†	0.000	232.404	517.00	0.00	0.00	0.00	40°01'48.612"N	104°39'20.448"W	0.00	
600.00	0.000	232.404	600.00	0.00	0.00	0.00	40°01'48.612"N	104°39'20.448"W	0.00	End of Tangent
617.00†	0.340	232.404	617.00	-0.03	-0.03	-0.04	40°01'48.612"N	104°39'20.449"W	2.00	
717.00†	2.340	232.404	716.97	-1.40	-1.46	-1.89	40°01'48.598"N	104°39'20.472"W	2.00	
817.00†	4.340	232.404	816.79	-4.81	-5.01	-6.51	40°01'48.562"N	104°39'20.532"W	2.00	
823.58	4.472	232.404	823.36	-5.10	-5.32	-6.91	40°01'48.559"N	104°39'20.537"W	2.00	End of Build
917.00†	4.472	232.404	916.49	-9.36	-9.76	-12.68	40°01'48.516"N	104°39'20.611"W	0.00	
1017.00†	4.472	232.404	1016.18	-13.92	-14.52	-18.86	40°01'48.469"N	104°39'20.690"W	0.00	
1117.00†	4.472	232.404	1115.88	-18.49	-19.28	-25.04	40°01'48.421"N	104°39'20.770"W	0.00	
1217.00†	4.472	232.404	1215.58	-23.05	-24.03	-31.21	40°01'48.374"N	104°39'20.849"W	0.00	
1317.00†	4.472	232.404	1315.27	-27.61	-28.79	-37.39	40°01'48.327"N	104°39'20.929"W	0.00	
1417.00†	4.472	232.404	1414.97	-32.17	-33.55	-43.57	40°01'48.280"N	104°39'21.008"W	0.00	
1517.00†	4.472	232.404	1514.66	-36.73	-38.30	-49.74	40°01'48.233"N	104°39'21.087"W	0.00	
1617.00†	4.472	232.404	1614.36	-41.29	-43.06	-55.92	40°01'48.186"N	104°39'21.167"W	0.00	
1717.00†	4.472	232.404	1714.05	-45.85	-47.82	-62.10	40°01'48.139"N	104°39'21.246"W	0.00	
1817.00†	4.472	232.404	1813.75	-50.42	-52.57	-68.28	40°01'48.092"N	104°39'21.326"W	0.00	
1917.00†	4.472	232.404	1913.44	-54.98	-57.33	-74.45	40°01'48.045"N	104°39'21.405"W	0.00	
2017.00†	4.472	232.404	2013.14	-59.54	-62.09	-80.63	40°01'47.998"N	104°39'21.485"W	0.00	
2117.00†	4.472	232.404	2112.84	-64.10	-66.84	-86.81	40°01'47.951"N	104°39'21.564"W	0.00	
2217.00†	4.472	232.404	2212.53	-68.66	-71.60	-92.99	40°01'47.904"N	104°39'21.643"W	0.00	
2317.00†	4.472	232.404	2312.23	-73.22	-76.36	-99.16	40°01'47.857"N	104°39'21.723"W	0.00	
2417.00†	4.472	232.404	2411.92	-77.78	-81.11	-105.34	40°01'47.810"N	104°39'21.802"W	0.00	
2517.00†	4.472	232.404	2511.62	-82.34	-85.87	-111.52	40°01'47.763"N	104°39'21.882"W	0.00	
2617.00†	4.472	232.404	2611.31	-86.91	-90.63	-117.70	40°01'47.716"N	104°39'21.961"W	0.00	
2717.00†	4.472	232.404	2711.01	-91.47	-95.38	-123.87	40°01'47.669"N	104°39'22.040"W	0.00	
2817.00†	4.472	232.404	2810.71	-96.03	-100.14	-130.05	40°01'47.622"N	104°39'22.120"W	0.00	
2917.00†	4.472	232.404	2910.40	-100.59	-104.90	-136.23	40°01'47.575"N	104°39'22.199"W	0.00	
3017.00†	4.472	232.404	3010.10	-105.15	-109.65	-142.41	40°01'47.528"N	104°39'22.279"W	0.00	
3117.00†	4.472	232.404	3109.79	-109.71	-114.41	-148.58	40°01'47.481"N	104°39'22.358"W	0.00	
3217.00†	4.472	232.404	3209.49	-114.27	-119.17	-154.76	40°01'47.434"N	104°39'22.437"W	0.00	

WELLPATH DATA (206 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3317.00†	4.472	232.404	3309.18	-118.84	-123.92	-160.94	40°01'47.387"N	104°39'22.517"W	0.00	
3417.00†	4.472	232.404	3408.88	-123.40	-128.68	-167.12	40°01'47.340"N	104°39'22.596"W	0.00	
3517.00†	4.472	232.404	3508.57	-127.96	-133.44	-173.29	40°01'47.293"N	104°39'22.676"W	0.00	
3617.00†	4.472	232.404	3608.27	-132.52	-138.19	-179.47	40°01'47.246"N	104°39'22.755"W	0.00	
3717.00†	4.472	232.404	3707.97	-137.08	-142.95	-185.65	40°01'47.199"N	104°39'22.835"W	0.00	
3817.00†	4.472	232.404	3807.66	-141.64	-147.71	-191.83	40°01'47.152"N	104°39'22.914"W	0.00	
3917.00†	4.472	232.404	3907.36	-146.20	-152.46	-198.00	40°01'47.105"N	104°39'22.993"W	0.00	
4017.00†	4.472	232.404	4007.05	-150.76	-157.22	-204.18	40°01'47.058"N	104°39'23.073"W	0.00	
4117.00†	4.472	232.404	4106.75	-155.33	-161.98	-210.36	40°01'47.011"N	104°39'23.152"W	0.00	

Planned Wellpath Report

WILLOW 22-20-2L PWP (REV-A.0)

Page 3 of 8

REFERENCE WELLPATH IDENTIFICATION

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Area	COLORADO	Well	WILLOW 22-20-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-20-2L PWB
Facility	SEC.22-T01N-R65W		

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4217.00†	4.472	232.404	4206.44	-159.89	-166.73	-216.54	40°01'46.964"N	104°39'23.232"W	0.00	
4317.00†	4.472	232.404	4306.14	-164.45	-171.49	-222.71	40°01'46.917"N	104°39'23.311"W	0.00	
4417.00†	4.472	232.404	4405.83	-169.01	-176.25	-228.89	40°01'46.870"N	104°39'23.390"W	0.00	
4517.00†	4.472	232.404	4505.53	-173.57	-181.00	-235.07	40°01'46.823"N	104°39'23.470"W	0.00	
4617.00†	4.472	232.404	4605.23	-178.13	-185.76	-241.25	40°01'46.776"N	104°39'23.549"W	0.00	
4717.00†	4.472	232.404	4704.92	-182.69	-190.52	-247.42	40°01'46.729"N	104°39'23.629"W	0.00	
4817.00†	4.472	232.404	4804.62	-187.26	-195.27	-253.60	40°01'46.682"N	104°39'23.708"W	0.00	
4917.00†	4.472	232.404	4904.31	-191.82	-200.03	-259.78	40°01'46.635"N	104°39'23.787"W	0.00	
5017.00†	4.472	232.404	5004.01	-196.38	-204.79	-265.96	40°01'46.588"N	104°39'23.867"W	0.00	
5117.00†	4.472	232.404	5103.70	-200.94	-209.54	-272.13	40°01'46.541"N	104°39'23.946"W	0.00	
5217.00†	4.472	232.404	5203.40	-205.50	-214.30	-278.31	40°01'46.494"N	104°39'24.026"W	0.00	
5317.00†	4.472	232.404	5303.10	-210.06	-219.06	-284.49	40°01'46.447"N	104°39'24.105"W	0.00	
5417.00†	4.472	232.404	5402.79	-214.62	-223.81	-290.67	40°01'46.400"N	104°39'24.185"W	0.00	
5517.00†	4.472	232.404	5502.49	-219.19	-228.57	-296.84	40°01'46.353"N	104°39'24.264"W	0.00	
5617.00†	4.472	232.404	5602.18	-223.75	-233.33	-303.02	40°01'46.306"N	104°39'24.343"W	0.00	
5717.00†	4.472	232.404	5701.88	-228.31	-238.08	-309.20	40°01'46.259"N	104°39'24.423"W	0.00	
5817.00†	4.472	232.404	5801.57	-232.87	-242.84	-315.38	40°01'46.212"N	104°39'24.502"W	0.00	
5917.00†	4.472	232.404	5901.27	-237.43	-247.60	-321.55	40°01'46.165"N	104°39'24.582"W	0.00	
6017.00†	4.472	232.404	6000.96	-241.99	-252.35	-327.73	40°01'46.118"N	104°39'24.661"W	0.00	
6117.00†	4.472	232.404	6100.66	-246.55	-257.11	-333.91	40°01'46.071"N	104°39'24.740"W	0.00	
6217.00†	4.472	232.404	6200.36	-251.11	-261.87	-340.09	40°01'46.024"N	104°39'24.820"W	0.00	
6317.00†	4.472	232.404	6300.05	-255.68	-266.62	-346.26	40°01'45.977"N	104°39'24.899"W	0.00	
6417.00†	4.472	232.404	6399.75	-260.24	-271.38	-352.44	40°01'45.930"N	104°39'24.979"W	0.00	
6517.00†	4.472	232.404	6499.44	-264.80	-276.13	-358.62	40°01'45.883"N	104°39'25.058"W	0.00	
6617.00†	4.472	232.404	6599.14	-269.36	-280.89	-364.79	40°01'45.836"N	104°39'25.137"W	0.00	
6694.00	4.472	232.404	6675.90	-272.87	-284.55	-369.55	40°01'45.800"N	104°39'25.199"W	0.00	End of Tangent
6717.00†	3.569	263.141	6698.85	-273.46	-285.19	-370.97	40°01'45.794"N	104°39'25.217"W	10.00	
6817.00†	10.199	339.931	6798.21	-265.31	-277.22	-377.12	40°01'45.872"N	104°39'25.296"W	10.00	
6917.00†	19.876	350.198	6894.69	-240.00	-252.09	-383.06	40°01'46.121"N	104°39'25.372"W	10.00	
7017.00†	29.763	353.843	6985.35	-198.31	-210.56	-388.63	40°01'46.531"N	104°39'25.444"W	10.00	
7117.00†	39.703	355.783	7067.43	-141.51	-153.88	-393.66	40°01'47.091"N	104°39'25.509"W	10.00	
7217.00†	49.664	357.045	7138.44	-71.32	-83.79	-397.98	40°01'47.784"N	104°39'25.564"W	10.00	
7317.00†	59.635	357.980	7196.23	10.14	-2.40	-401.48	40°01'48.588"N	104°39'25.609"W	10.00	
7417.00†	69.611	358.740	7239.03	100.37	87.79	-404.03	40°01'49.480"N	104°39'25.642"W	10.00	
7517.00†	79.591	359.407	7265.55	196.65	184.07	-405.58	40°01'50.431"N	104°39'25.662"W	10.00	
7617.00†	89.571	0.033	7274.98	296.04	283.50	-406.06	40°01'51.414"N	104°39'25.668"W	10.00	

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7621.30	90.000	0.059	7275.00†	300.33	287.79	-406.05	40°01'51.456"N	104°39'25.668"W	10.00	End of 3D Arc
7717.00†	90.000	0.059	7275.00	395.99	383.50	-405.95	40°01'52.402"N	104°39'25.667"W	0.00	
7817.00†	90.000	0.059	7275.00	495.94	483.50	-405.85	40°01'53.390"N	104°39'25.665"W	0.00	
7917.00†	90.000	0.059	7275.00	595.88	583.50	-405.75	40°01'54.378"N	104°39'25.664"W	0.00	
8017.00†	90.000	0.059	7275.00	695.83	683.50	-405.65	40°01'55.366"N	104°39'25.663"W	0.00	
8117.00†	90.000	0.059	7275.00	795.78	783.50	-405.54	40°01'56.355"N	104°39'25.662"W	0.00	
8217.00†	90.000	0.059	7275.00	895.73	883.50	-405.44	40°01'57.343"N	104°39'25.660"W	0.00	
8317.00†	90.000	0.059	7275.00	995.68	983.50	-405.34	40°01'58.331"N	104°39'25.659"W	0.00	
8417.00†	90.000	0.059	7275.00	1095.62	1083.50	-405.23	40°01'59.319"N	104°39'25.658"W	0.00	

Planned Wellpath Report

WILLOW 22-20-2L PWP (REV-A.0)

Page 4 of 8

REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#03 WILLOW 22-20-2L (185'FSL & 1096'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-20-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-20-2L PWB
Facility	SEC.22-T01N-R65W		

WELLPATH DATA (206 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8517.00†	90.000	0.059	7275.00	1195.57	1183.50	-405.13	40°02'00.308"N	104°39'25.656"W	0.00	
8617.00†	90.000	0.059	7275.00	1295.52	1283.50	-405.03	40°02'01.296"N	104°39'25.655"W	0.00	
8717.00†	90.000	0.059	7275.00	1395.47	1383.49	-404.92	40°02'02.284"N	104°39'25.654"W	0.00	
8817.00†	90.000	0.059	7275.00	1495.42	1483.49	-404.82	40°02'03.272"N	104°39'25.652"W	0.00	
8917.00†	90.000	0.059	7275.00	1595.36	1583.49	-404.72	40°02'04.260"N	104°39'25.651"W	0.00	
9017.00†	90.000	0.059	7275.00	1695.31	1683.49	-404.61	40°02'05.249"N	104°39'25.650"W	0.00	
9117.00†	90.000	0.059	7275.00	1795.26	1783.49	-404.51	40°02'06.237"N	104°39'25.648"W	0.00	
9217.00†	90.000	0.059	7275.00	1895.21	1883.49	-404.41	40°02'07.225"N	104°39'25.647"W	0.00	
9317.00†	90.000	0.059	7275.00	1995.16	1983.49	-404.30	40°02'08.213"N	104°39'25.646"W	0.00	
9417.00†	90.000	0.059	7275.00	2095.10	2083.49	-404.20	40°02'09.202"N	104°39'25.645"W	0.00	
9517.00†	90.000	0.059	7275.00	2195.05	2183.49	-404.10	40°02'10.190"N	104°39'25.643"W	0.00	
9617.00†	90.000	0.059	7275.00	2295.00	2283.49	-404.00	40°02'11.178"N	104°39'25.642"W	0.00	
9717.00†	90.000	0.059	7275.00	2394.95	2383.49	-403.89	40°02'12.166"N	104°39'25.641"W	0.00	
9817.00†	90.000	0.059	7275.00	2494.90	2483.49	-403.79	40°02'13.155"N	104°39'25.639"W	0.00	
9917.00†	90.000	0.059	7275.00	2594.84	2583.49	-403.69	40°02'14.143"N	104°39'25.638"W	0.00	
10017.00†	90.000	0.059	7275.00	2694.79	2683.49	-403.58	40°02'15.131"N	104°39'25.637"W	0.00	
10117.00†	90.000	0.059	7275.00	2794.74	2783.49	-403.48	40°02'16.119"N	104°39'25.635"W	0.00	
10217.00†	90.000	0.059	7275.00	2894.69	2883.49	-403.38	40°02'17.107"N	104°39'25.634"W	0.00	
10317.00†	90.000	0.059	7275.00	2994.63	2983.49	-403.27	40°02'18.096"N	104°39'25.633"W	0.00	
10417.00†	90.000	0.059	7275.00	3094.58	3083.49	-403.17	40°02'19.084"N	104°39'25.632"W	0.00	
10517.00†	90.000	0.059	7275.00	3194.53	3183.49	-403.07	40°02'20.072"N	104°39'25.630"W	0.00	
10617.00†	90.000	0.059	7275.00	3294.48	3283.49	-402.96	40°02'21.060"N	104°39'25.629"W	0.00	
10717.00†	90.000	0.059	7275.00	3394.43	3383.49	-402.86	40°02'22.049"N	104°39'25.628"W	0.00	
10817.00†	90.000	0.059	7275.00	3494.37	3483.49	-402.76	40°02'23.037"N	104°39'25.626"W	0.00	
10917.00†	90.000	0.059	7275.00	3594.32	3583.49	-402.65	40°02'24.025"N	104°39'25.625"W	0.00	
11017.00†	90.000	0.059	7275.00	3694.27	3683.49	-402.55	40°02'25.013"N	104°39'25.624"W	0.00	
11117.00†	90.000	0.059	7275.00	3794.22	3783.49	-402.45	40°02'26.001"N	104°39'25.622"W	0.00	
11217.00†	90.000	0.059	7275.00	3894.17	3883.49	-402.35	40°02'26.990"N	104°39'25.621"W	0.00	
11317.00†	90.000	0.059	7275.00	3994.11	3983.49	-402.24	40°02'27.978"N	104°39'25.620"W	0.00	
11417.00†	90.000	0.059	7275.00	4094.06	4083.49	-402.14	40°02'28.966"N	104°39'25.618"W	0.00	
11517.00†	90.000	0.059	7275.00	4194.01	4183.49	-402.04	40°02'29.954"N	104°39'25.617"W	0.00	
11617.00†	90.000	0.059	7275.00	4293.96	4283.49	-401.93	40°02'30.943"N	104°39'25.616"W	0.00	
11717.00†	90.000	0.059	7275.00	4393.91	4383.49	-401.83	40°02'31.931"N	104°39'25.615"W	0.00	
11817.00†	90.000	0.059	7275.00	4493.85	4483.49	-401.73	40°02'32.919"N	104°39'25.613"W	0.00	
11917.00†	90.000	0.059	7275.00	4593.80	4583.49	-401.62	40°02'33.907"N	104°39'25.612"W	0.00	
12017.00†	90.000	0.059	7275.00	4693.75	4683.49	-401.52	40°02'34.895"N	104°39'25.611"W	0.00	

WELLPATH DATA (206 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12117.00†	90.000	0.059	7275.00	4793.70	4783.49	-401.42	40°02'35.884"N	104°39'25.609"W	0.00	
12217.00†	90.000	0.059	7275.00	4893.65	4883.49	-401.31	40°02'36.872"N	104°39'25.608"W	0.00	
12317.00†	90.000	0.059	7275.00	4993.59	4983.49	-401.21	40°02'37.860"N	104°39'25.607"W	0.00	
12417.00†	90.000	0.059	7275.00	5093.54	5083.49	-401.11	40°02'38.848"N	104°39'25.605"W	0.00	
12517.00†	90.000	0.059	7275.00	5193.49	5183.49	-401.00	40°02'39.837"N	104°39'25.604"W	0.00	
12617.00†	90.000	0.059	7275.00	5293.44	5283.49	-400.90	40°02'40.825"N	104°39'25.603"W	0.00	
12717.00†	90.000	0.059	7275.00	5393.39	5383.49	-400.80	40°02'41.813"N	104°39'25.601"W	0.00	
12817.00†	90.000	0.059	7275.00	5493.33	5483.49	-400.70	40°02'42.801"N	104°39'25.600"W	0.00	
12917.00†	90.000	0.059	7275.00	5593.28	5583.49	-400.59	40°02'43.790"N	104°39'25.599"W	0.00	

Planned Wellpath Report

WILLOW 22-20-2L PWP (REV-A.0)

Page 5 of 8

REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#03 WILLOW 22-20-2L (185'FSL & 1096'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-20-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-20-2L PWB
Facility	SEC.22-T01N-R65W		

WELLPATH DATA (206 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13017.00†	90.000	0.059	7275.00	5693.23	5683.49	-400.49	40°02'44.778"N	104°39'25.598"W	0.00	
13117.00†	90.000	0.059	7275.00	5793.18	5783.49	-400.39	40°02'45.766"N	104°39'25.596"W	0.00	
13217.00†	90.000	0.059	7275.00	5893.12	5883.49	-400.28	40°02'46.754"N	104°39'25.595"W	0.00	
13317.00†	90.000	0.059	7275.00	5993.07	5983.49	-400.18	40°02'47.742"N	104°39'25.594"W	0.00	
13417.00†	90.000	0.059	7275.00	6093.02	6083.49	-400.08	40°02'48.731"N	104°39'25.592"W	0.00	
13517.00†	90.000	0.059	7275.00	6192.97	6183.49	-399.97	40°02'49.719"N	104°39'25.591"W	0.00	
13617.00†	90.000	0.059	7275.00	6292.92	6283.49	-399.87	40°02'50.707"N	104°39'25.590"W	0.00	
13717.00†	90.000	0.059	7275.00	6392.86	6383.49	-399.77	40°02'51.695"N	104°39'25.588"W	0.00	
13817.00†	90.000	0.059	7275.00	6492.81	6483.49	-399.66	40°02'52.684"N	104°39'25.587"W	0.00	
13917.00†	90.000	0.059	7275.00	6592.76	6583.49	-399.56	40°02'53.672"N	104°39'25.586"W	0.00	
14017.00†	90.000	0.059	7275.00	6692.71	6683.49	-399.46	40°02'54.660"N	104°39'25.585"W	0.00	
14117.00†	90.000	0.059	7275.00	6792.66	6783.49	-399.35	40°02'55.648"N	104°39'25.583"W	0.00	
14217.00†	90.000	0.059	7275.00	6892.60	6883.49	-399.25	40°02'56.636"N	104°39'25.582"W	0.00	
14317.00†	90.000	0.059	7275.00	6992.55	6983.49	-399.15	40°02'57.625"N	104°39'25.581"W	0.00	
14417.00†	90.000	0.059	7275.00	7092.50	7083.49	-399.05	40°02'58.613"N	104°39'25.579"W	0.00	
14517.00†	90.000	0.059	7275.00	7192.45	7183.49	-398.94	40°02'59.601"N	104°39'25.578"W	0.00	
14617.00†	90.000	0.059	7275.00	7292.40	7283.49	-398.84	40°03'00.589"N	104°39'25.577"W	0.00	
14717.00†	90.000	0.059	7275.00	7392.34	7383.49	-398.74	40°03'01.578"N	104°39'25.575"W	0.00	
14817.00†	90.000	0.059	7275.00	7492.29	7483.49	-398.63	40°03'02.566"N	104°39'25.574"W	0.00	
14917.00†	90.000	0.059	7275.00	7592.24	7583.49	-398.53	40°03'03.554"N	104°39'25.573"W	0.00	
15017.00†	90.000	0.059	7275.00	7692.19	7683.49	-398.43	40°03'04.542"N	104°39'25.571"W	0.00	
15117.00†	90.000	0.059	7275.00	7792.14	7783.49	-398.32	40°03'05.530"N	104°39'25.570"W	0.00	
15217.00†	90.000	0.059	7275.00	7892.08	7883.49	-398.22	40°03'06.519"N	104°39'25.569"W	0.00	
15317.00†	90.000	0.059	7275.00	7992.03	7983.49	-398.12	40°03'07.507"N	104°39'25.568"W	0.00	
15417.00†	90.000	0.059	7275.00	8091.98	8083.49	-398.01	40°03'08.495"N	104°39'25.566"W	0.00	
15517.00†	90.000	0.059	7275.00	8191.93	8183.49	-397.91	40°03'09.483"N	104°39'25.565"W	0.00	
15617.00†	90.000	0.059	7275.00	8291.88	8283.49	-397.81	40°03'10.472"N	104°39'25.564"W	0.00	
15717.00†	90.000	0.059	7275.00	8391.82	8383.49	-397.70	40°03'11.460"N	104°39'25.562"W	0.00	
15817.00†	90.000	0.059	7275.00	8491.77	8483.49	-397.60	40°03'12.448"N	104°39'25.561"W	0.00	
15917.00†	90.000	0.059	7275.00	8591.72	8583.49	-397.50	40°03'13.436"N	104°39'25.560"W	0.00	
16017.00†	90.000	0.059	7275.00	8691.67	8683.49	-397.40	40°03'14.424"N	104°39'25.558"W	0.00	
16117.00†	90.000	0.059	7275.00	8791.61	8783.49	-397.29	40°03'15.413"N	104°39'25.557"W	0.00	
16217.00†	90.000	0.059	7275.00	8891.56	8883.49	-397.19	40°03'16.401"N	104°39'25.556"W	0.00	
16317.00†	90.000	0.059	7275.00	8991.51	8983.49	-397.09	40°03'17.389"N	104°39'25.555"W	0.00	
16417.00†	90.000	0.059	7275.00	9091.46	9083.49	-396.98	40°03'18.377"N	104°39'25.553"W	0.00	
16517.00†	90.000	0.059	7275.00	9191.41	9183.49	-396.88	40°03'19.366"N	104°39'25.552"W	0.00	

WELLPATH DATA (206 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16617.00†	90.000	0.059	7275.00	9291.35	9283.49	-396.78	40°03'20.354"N	104°39'25.551"W	0.00	
16717.00†	90.000	0.059	7275.00	9391.30	9383.49	-396.67	40°03'21.342"N	104°39'25.549"W	0.00	
16817.00†	90.000	0.059	7275.00	9491.25	9483.49	-396.57	40°03'22.330"N	104°39'25.548"W	0.00	
16917.00†	90.000	0.059	7275.00	9591.20	9583.49	-396.47	40°03'23.318"N	104°39'25.547"W	0.00	
17017.00†	90.000	0.059	7275.00	9691.15	9683.49	-396.36	40°03'24.307"N	104°39'25.545"W	0.00	
17117.00†	90.000	0.059	7275.00	9791.09	9783.49	-396.26	40°03'25.295"N	104°39'25.544"W	0.00	
17217.00†	90.000	0.059	7275.00	9891.04	9883.49	-396.16	40°03'26.283"N	104°39'25.543"W	0.00	
17317.00†	90.000	0.059	7275.00	9990.99	9983.49	-396.05	40°03'27.271"N	104°39'25.541"W	0.00	
17417.00†	90.000	0.059	7275.00	10090.94	10083.49	-395.95	40°03'28.260"N	104°39'25.540"W	0.00	

Planned Wellpath Report

WILLOW 22-20-2L PWP (REV-A.0)

Page 6 of 8

REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#03 WILLOW 22-20-2L (185'FSL & 1096'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-20-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-20-2L PWB
Facility	SEC.22-T01N-R65W		

WELLPATH DATA (206 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17517.00†	90.000	0.059	7275.00	10190.89	10183.49	-395.85	40°03'29.248"N	104°39'25.539"W	0.00	
17617.00†	90.000	0.059	7275.00	10290.83	10283.49	-395.75	40°03'30.236"N	104°39'25.538"W	0.00	
17717.00†	90.000	0.059	7275.00	10390.78	10383.49	-395.64	40°03'31.224"N	104°39'25.536"W	0.00	
17817.00†	90.000	0.059	7275.00	10490.73	10483.49	-395.54	40°03'32.212"N	104°39'25.535"W	0.00	
17917.00†	90.000	0.059	7275.00	10590.68	10583.49	-395.44	40°03'33.201"N	104°39'25.534"W	0.00	
18017.00†	90.000	0.059	7275.00	10690.63	10683.49	-395.33	40°03'34.189"N	104°39'25.532"W	0.00	
18117.00†	90.000	0.059	7275.00	10790.57	10783.49	-395.23	40°03'35.177"N	104°39'25.531"W	0.00	
18217.00†	90.000	0.059	7275.00	10890.52	10883.49	-395.13	40°03'36.165"N	104°39'25.530"W	0.00	
18317.00†	90.000	0.059	7275.00	10990.47	10983.49	-395.02	40°03'37.154"N	104°39'25.528"W	0.00	
18417.00†	90.000	0.059	7275.00	11090.42	11083.49	-394.92	40°03'38.142"N	104°39'25.527"W	0.00	
18517.00†	90.000	0.059	7275.00	11190.37	11183.49	-394.82	40°03'39.130"N	104°39'25.526"W	0.00	
18617.00†	90.000	0.059	7275.00	11290.31	11283.49	-394.71	40°03'40.118"N	104°39'25.524"W	0.00	
18717.00†	90.000	0.059	7275.00	11390.26	11383.49	-394.61	40°03'41.107"N	104°39'25.523"W	0.00	
18817.00†	90.000	0.059	7275.00	11490.21	11483.49	-394.51	40°03'42.095"N	104°39'25.522"W	0.00	
18917.00†	90.000	0.059	7275.00	11590.16	11583.49	-394.40	40°03'43.083"N	104°39'25.521"W	0.00	
19017.00†	90.000	0.059	7275.00	11690.10	11683.49	-394.30	40°03'44.071"N	104°39'25.519"W	0.00	
19117.00†	90.000	0.059	7275.00	11790.05	11783.49	-394.20	40°03'45.059"N	104°39'25.518"W	0.00	
19217.00†	90.000	0.059	7275.00	11890.00	11883.49	-394.09	40°03'46.048"N	104°39'25.517"W	0.00	
19317.00†	90.000	0.059	7275.00	11989.95	11983.49	-393.99	40°03'47.036"N	104°39'25.515"W	0.00	
19417.00†	90.000	0.059	7275.00	12089.90	12083.49	-393.89	40°03'48.024"N	104°39'25.514"W	0.00	
19517.00†	90.000	0.059	7275.00	12189.84	12183.49	-393.79	40°03'49.012"N	104°39'25.513"W	0.00	
19617.00†	90.000	0.059	7275.00	12289.79	12283.49	-393.68	40°03'50.001"N	104°39'25.511"W	0.00	
19717.00†	90.000	0.059	7275.00	12389.74	12383.49	-393.58	40°03'50.989"N	104°39'25.510"W	0.00	
19817.00†	90.000	0.059	7275.00	12489.69	12483.49	-393.48	40°03'51.977"N	104°39'25.509"W	0.00	
19917.00†	90.000	0.059	7275.00	12589.64	12583.49	-393.37	40°03'52.965"N	104°39'25.507"W	0.00	
19920.88	90.000	0.059	7275.00 ²	12593.51	12587.37	-393.37	40°03'53.004"N	104°39'25.507"W	0.00	End of Tangent

HOLE & CASING SECTIONS - Ref Wellbore: WILLOW 22-20-2L PWB Ref Wellpath: WILLOW 22-20-2L PWP (REV-A.0)

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]
9.625in Casing Surface	17.00	1500.00	1483.00	17.00	1497.71	0.00	0.00	-37.49	-48.69

Planned Wellpath Report

WILLOW 22-20-2L PWP (REV-A.0)

Page 7 of 8

REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#03 WILLOW 22-20-2L (185'FSL & 1096'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-20-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-20-2L PWB
Facility	SEC.22-T01N-R65W		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
HARDLINES SEC.10,15,22-T01N-R65W 460'N/S&E/W		-1.00	0.00	-47.61	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W	polygon
SEC.10-T01N-R65W		-1.00	0.00	-47.61	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W	polygon
SEC.15-T01N-R65W		-1.00	0.00	-47.61	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W	polygon
SEC.22-T01N-R65W		-1.00	0.00	-47.61	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W	polygon
2) WILLOW 22-20-2L BHL ON PLAT (2180'FSL & 687'FWL,SEC.10)	19920.88	7275.00	12587.37	-393.37	3235917.88	1267545.17	40°03'53.004"N	104°39'25.507"W	point
1) WILLOW 22-20-2L LP ON PLAT (470'FSL & 687'FWL,SEC.22)	7621.30	7275.00	287.79	-406.05	3236022.30	1255246.49	40°01'51.456"N	104°39'25.668"W	point

SURVEY PROGRAM - Ref Wellbore: WILLOW 22-20-2L PWB Ref Wellpath: WILLOW 22-20-2L PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1500.00	BHI NaviTrak (Rotating+Axial Corr)		WILLOW 22-20-2L PWB
1500.00	19920.88	BHI AutoTrak Curve (Axial Corr, Short spacing)		WILLOW 22-20-2L PWB

Planned Wellpath Report

WILLOW 22-20-2L PWP (REV-A.0)

Page 8 of 8

REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#03 WILLOW 22-20-2L (185'FSL & 1096'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-20-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-20-2L PWB
Facility	SEC.22-T01N-R65W		

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	232.404	17.00	Tie On
600.00	0.000	232.404	600.00	End of Tangent
823.58	4.472	232.404	823.36	End of Build
6694.00	4.472	232.404	6675.90	End of Tangent
7621.30	90.000	0.059	7275.00	End of 3D Arc
19920.88	90.000	0.059	7275.00	End of Tangent