

# EXTRACTION OIL & GAS

Location:	COLORADO	Slot:	SLOT#13 LAUNER 2C (792'FSL & 349'FEL,SEC.26)
Field:	WELD COUNTY (NAD83/TRUE NORTH)	Well:	LAUNER 2C
Facility:	SEC.26-T07N-R67W	Wellbore:	LAUNER 2C PWB

Plot reference wellpath is LAUNER 2C (REV-C.0) PWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to CYCLONE 37 (28'KB) (RKB)	North Reference: True north
Measured depths are referenced to CYCLONE 37 (28'KB) (RKB)	Scale: True distance
CYCLONE 37 (28'KB) (RKB) to Mean Sea Level: 4957 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot: SLOT#13 LAUNER 2C (792'FSL & 349'FEL,SEC.26)): 0 feet	Created by: ingmjammr on 2017-08-25
Coordinates are in feet referenced to Slot	Database: WA_DEN_Denver_Defn

## Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.26-T07N-R67W			3179860.101	1444245.219	40°33'03.784"N	104°51'09.932"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#13 LAUNER 2C (792'FSL & 349'FEL,SEC.26)	-4001.38	152.84	3180042.135	1440245.188	40°32'24.245"N	104°51'07.952"W
CYCLONE 37 (28'KB) (RKB) to Mud line (At Slot: SLOT#13 LAUNER 2C (792'FSL & 349'FEL,SEC.26))					4957ft	
Mean Sea Level to Mud line (At Slot: SLOT#13 LAUNER 2C (792'FSL & 349'FEL,SEC.26))					0ft	
CYCLONE 37 (28'KB) (RKB) to Mean Sea Level					4957ft	

## Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
28.00	15101.64	ISCWSA MWD, Rev. 4	ISCWSA MWD, Rev. 4 (Standard)		LAUNER 2C PWB

## Well Profile Data

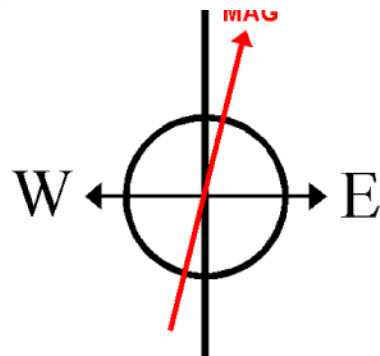
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	28.00	0.000	12.392	28.00	0.00	0.00	0.00	0.00
End of Tangent	1500.00	0.000	12.392	1500.00	0.00	0.00	0.00	0.00
End of Build	2395.30	17.906	12.392	2380.79	135.53	29.78	2.00	1.53
End of Tangent	6912.15	17.906	12.392	6678.86	1491.91	327.80	0.00	16.86
End of 3D Arc	7848.69	90.000	270.426	7260.00	1679.85	-242.61	10.00	614.95
End of Tangent	15101.64	90.000	270.426	7260.00	1733.81	-7495.36	0.00	7693.28

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.26-T07N-R67W		-15.00	4001.34	-152.84	3179860.07	1444245.18	40°33'03.784"N	104°51'09.932"W
SEC.27-T07N-R67W		-15.00	4001.34	-152.84	3179860.07	1444245.18	40°33'03.784"N	104°51'09.932"W
LAUNER 2 BHL ON PLAT REV-1(2534'FSL & 2562'FEL,SEC.27)		7037.00	1733.85	-7495.34	3172534.57	1441924.18	40°32'41.366"N	104°52'45.041"W
LAUNER 2 LANDING		7037.00	1679.89	-110.61	3179919.26	1441924.17	40°32'40.844"N	104°51'09.385"W
LAUNER 2 LANDING REV-1		7037.00	1679.84	-242.63	3179787.24	1441923.16	40°32'40.844"N	104°51'11.095"W
LAUNER 2C BHL ON PLAT REV-2 (2534'FSL & 2562'FEL,SEC.27)	15101.64	7260.00	1733.81	-7495.36	3172534.55	1441924.14	40°32'41.366"N	104°52'45.041"W
LAUNER 2C LANDING REV-2 (2472'FSL & 592'FEL, SEC.26)	7848.69	7260.00	1679.85	-242.61	3179787.26	1441923.16	40°32'40.844"N	104°51'11.095"W
SEC.26-T07N-R67W 460'FEL SETBACK		7260.00	0.00	0.00	3180042.13	1440245.19	40°32'24.245"N	104°51'07.952"W
SEC.27-T07N-R67W (MIDDLE SECTION)		7260.00	0.00	0.00	3180042.13	1440245.19	40°32'24.245"N	104°51'07.952"W

## 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
15101.64	90.000	270.426	7260.00	1733.81	-7495.36	3172534.55	1441924.14	40°32'41.366"N	104°52'45.041"W

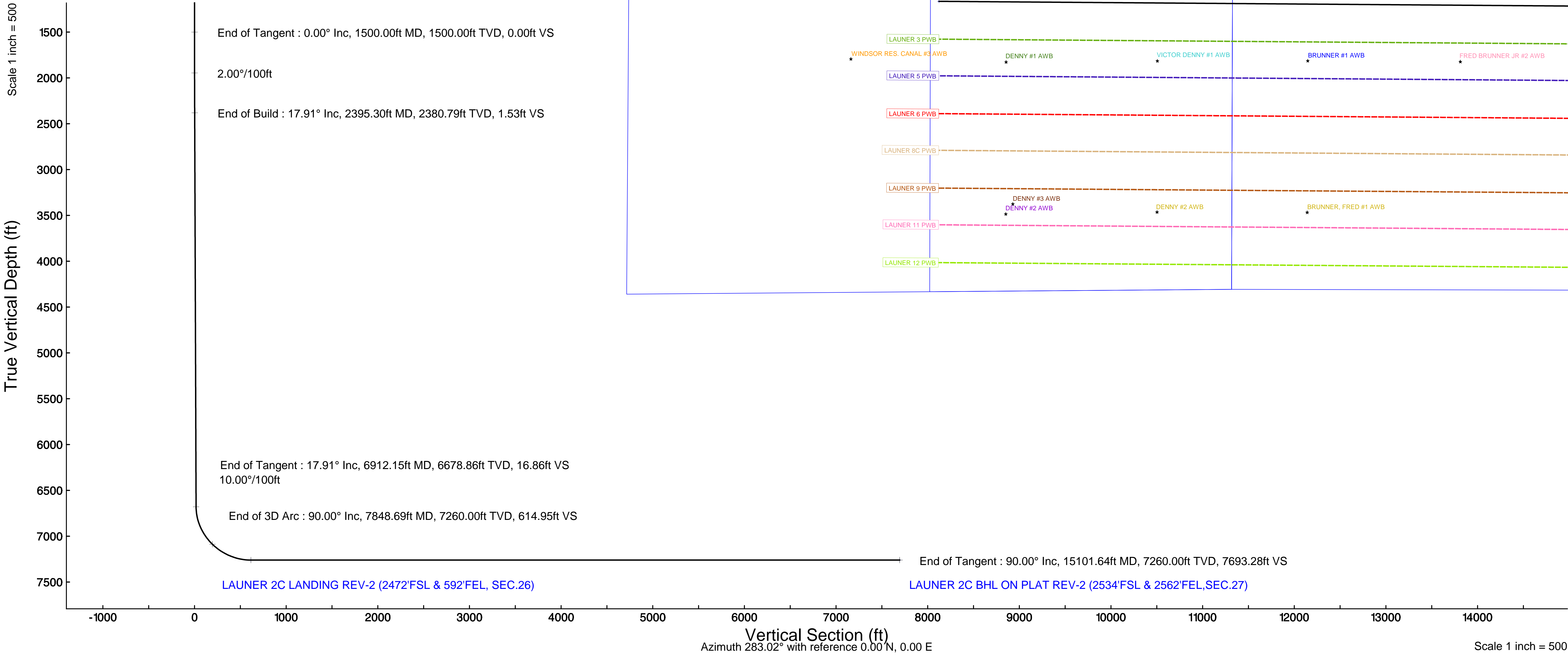


BGGM (1900.0 to 2019.0) Dip: 66.95° Field: 52463.9 nT  
Magnetic North is 8.42 degrees East of True North (at 8/22/2017)

To correct azimuth from Magnetic to True add 8.42 degrees

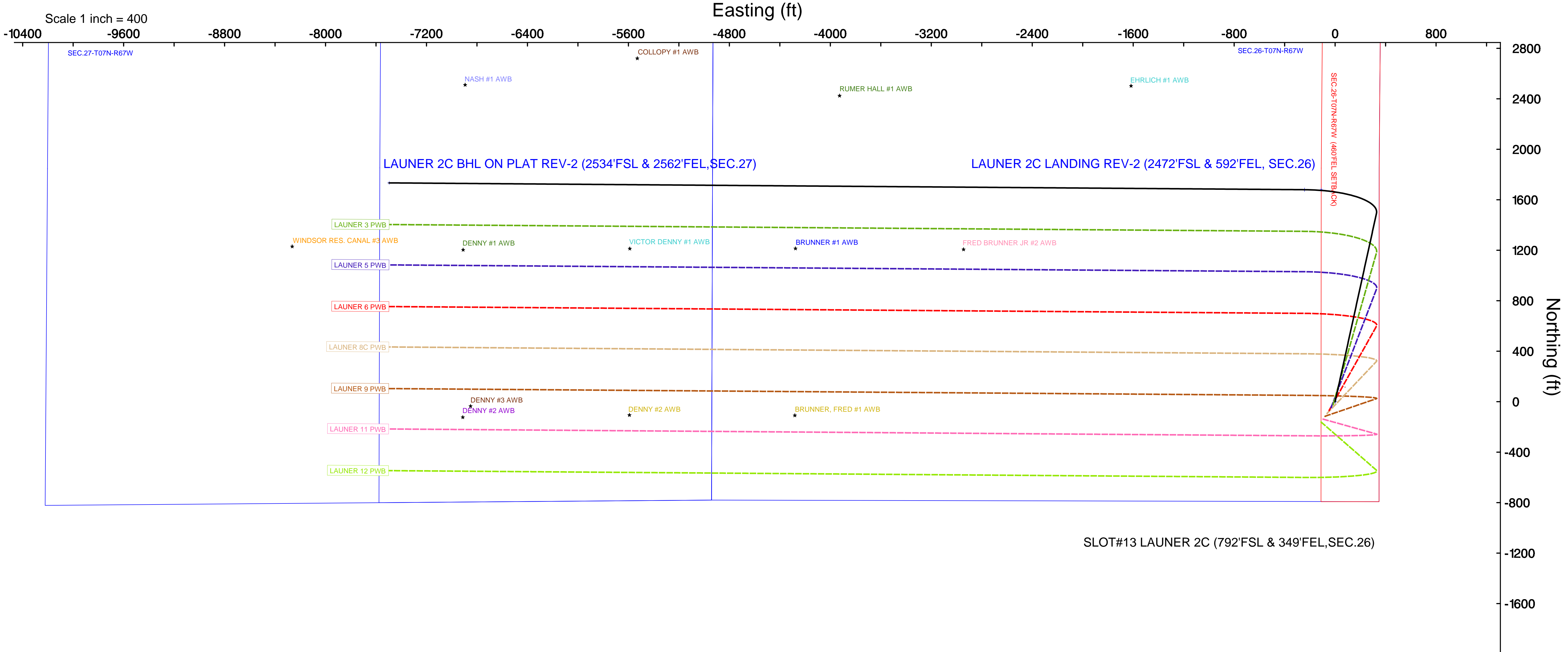
Scale 1 inch = 500

True Vertical Depth (ft)



Vertical Section (ft)  
Azimuth 283.02° with reference 0.00°N, 0.00°E

Scale 1 inch = 500



SLOT#13 LAUNER 2C (792'FSL & 349'FEL,SEC.26)



# Planned Wellpath Report

LAUNER 2C (REV-C.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#13 LAUNER 2C (792'FSL & 349'FEL,SEC.26)
Area	COLORADO	Well	LAUNER 2C
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 2C PWB
Facility	SEC.26-T07N-R67W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Ingmjmr
Scale	0.999970	Report Generated	8/25/2017 at 9:12:44 AM
Convergence at slot	0.42° East	Database/Source file	WA_DEN_Denver_Defn/LAUNER_2C__REV-C.0__PWP.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4001.38	152.84	3180042.14	1440245.19	40°32'24.245"N	104°51'07.952"W
Facility Reference Pt			3179860.10	1444245.22	40°33'03.784"N	104°51'09.932"W
Field Reference Pt			3185481.27	1419166.81	40°28'55.560"N	104°49'59.556"W

## WELLPATH DATUM

Calculation method	Minimum curvature	CYCLONE 37 (28'KB) (RKB) to Facility Vertical Datum	4957.00ft
Horizontal Reference Pt	Slot	CYCLONE 37 (28'KB) (RKB) to Mean Sea Level	4957.00ft
Vertical Reference Pt	CYCLONE 37 (28'KB) (RKB)	CYCLONE 37 (28'KB) (RKB) to Mud Line at Slot (SLOT#13 LAUNER 2C (792'FSL & 349'FEL,SEC.26))	4957.00ft
MD Reference Pt	CYCLONE 37 (28'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	283.02°





# Planned Wellpath Report

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Area	COLORADO	Well	LAUNER 2C
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 2C PWB
Facility	SEC.26-T07N-R67W		

## WELLPATH DATA (157 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	12.392	0.00	0.00	0.00	0.00	40°32'24.245"N	104°51'07.952"W	0.00	
28.00	0.000	12.392	28.00	0.00	0.00	0.00	40°32'24.245"N	104°51'07.952"W	0.00	Tie On
128.00†	0.000	12.392	128.00	0.00	0.00	0.00	40°32'24.245"N	104°51'07.952"W	0.00	
228.00†	0.000	12.392	228.00	0.00	0.00	0.00	40°32'24.245"N	104°51'07.952"W	0.00	
328.00†	0.000	12.392	328.00	0.00	0.00	0.00	40°32'24.245"N	104°51'07.952"W	0.00	
428.00†	0.000	12.392	428.00	0.00	0.00	0.00	40°32'24.245"N	104°51'07.952"W	0.00	
528.00†	0.000	12.392	528.00	0.00	0.00	0.00	40°32'24.245"N	104°51'07.952"W	0.00	
628.00†	0.000	12.392	628.00	0.00	0.00	0.00	40°32'24.245"N	104°51'07.952"W	0.00	
728.00†	0.000	12.392	728.00	0.00	0.00	0.00	40°32'24.245"N	104°51'07.952"W	0.00	
828.00†	0.000	12.392	828.00	0.00	0.00	0.00	40°32'24.245"N	104°51'07.952"W	0.00	
928.00†	0.000	12.392	928.00	0.00	0.00	0.00	40°32'24.245"N	104°51'07.952"W	0.00	
1028.00†	0.000	12.392	1028.00	0.00	0.00	0.00	40°32'24.245"N	104°51'07.952"W	0.00	
1128.00†	0.000	12.392	1128.00	0.00	0.00	0.00	40°32'24.245"N	104°51'07.952"W	0.00	
1228.00†	0.000	12.392	1228.00	0.00	0.00	0.00	40°32'24.245"N	104°51'07.952"W	0.00	
1328.00†	0.000	12.392	1328.00	0.00	0.00	0.00	40°32'24.245"N	104°51'07.952"W	0.00	
1428.00†	0.000	12.392	1428.00	0.00	0.00	0.00	40°32'24.245"N	104°51'07.952"W	0.00	
1500.00	0.000	12.392	1500.00	0.00	0.00	0.00	40°32'24.245"N	104°51'07.952"W	0.00	End of Tangent
1528.00†	0.560	12.392	1528.00	0.00	0.13	0.03	40°32'24.246"N	104°51'07.952"W	2.00	
1628.00†	2.560	12.392	1627.96	0.03	2.79	0.61	40°32'24.272"N	104°51'07.944"W	2.00	
1728.00†	4.560	12.392	1727.76	0.10	8.86	1.95	40°32'24.332"N	104°51'07.927"W	2.00	
1828.00†	6.560	12.392	1827.28	0.21	18.32	4.03	40°32'24.426"N	104°51'07.900"W	2.00	
1928.00†	8.560	12.392	1926.41	0.35	31.17	6.85	40°32'24.553"N	104°51'07.864"W	2.00	
2028.00†	10.560	12.392	2025.02	0.54	47.39	10.41	40°32'24.713"N	104°51'07.818"W	2.00	
2128.00†	12.560	12.392	2122.98	0.76	66.96	14.71	40°32'24.906"N	104°51'07.762"W	2.00	
2228.00†	14.560	12.392	2220.19	1.02	89.86	19.74	40°32'25.133"N	104°51'07.697"W	2.00	
2328.00†	16.560	12.392	2316.52	1.31	116.06	25.50	40°32'25.392"N	104°51'07.622"W	2.00	
2395.30	17.906	12.392	2380.79	1.53	135.53	29.78	40°32'25.584"N	104°51'07.567"W	2.00	End of Build
2428.00†	17.906	12.392	2411.91	1.64	145.35	31.94	40°32'25.681"N	104°51'07.539"W	0.00	
2528.00†	17.906	12.392	2507.07	1.98	175.38	38.53	40°32'25.978"N	104°51'07.453"W	0.00	
2628.00†	17.906	12.392	2602.23	2.32	205.41	45.13	40°32'26.275"N	104°51'07.368"W	0.00	



# Planned Wellpath Report

LAUNER 2C (REV-C.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#13 LAUNER 2C (792'FSL & 349'FEL, SEC.26)
Area	COLORADO	Well	LAUNER 2C
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 2C PWB
Facility	SEC.26-T07N-R67W		

## WELLPATH DATA (157 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2728.00†	17.906	12.392	2697.38	2.66	235.44	51.73	40°32'26.571"N	104°51'07.282"W	0.00	
2828.00†	17.906	12.392	2792.54	3.00	265.47	58.33	40°32'26.868"N	104°51'07.197"W	0.00	
2928.00†	17.906	12.392	2887.69	3.34	295.50	64.93	40°32'27.165"N	104°51'07.111"W	0.00	
3028.00†	17.906	12.392	2982.85	3.68	325.53	71.52	40°32'27.461"N	104°51'07.026"W	0.00	
3128.00†	17.906	12.392	3078.01	4.02	355.56	78.12	40°32'27.758"N	104°51'06.941"W	0.00	
3228.00†	17.906	12.392	3173.16	4.36	385.58	84.72	40°32'28.055"N	104°51'06.855"W	0.00	
3328.00†	17.906	12.392	3268.32	4.70	415.61	91.32	40°32'28.352"N	104°51'06.770"W	0.00	
3428.00†	17.906	12.392	3363.48	5.04	445.64	97.92	40°32'28.648"N	104°51'06.684"W	0.00	
3528.00†	17.906	12.392	3458.63	5.38	475.67	104.51	40°32'28.945"N	104°51'06.599"W	0.00	
3628.00†	17.906	12.392	3553.79	5.72	505.70	111.11	40°32'29.242"N	104°51'06.513"W	0.00	
3728.00†	17.906	12.392	3648.94	6.06	535.73	117.71	40°32'29.539"N	104°51'06.428"W	0.00	
3828.00†	17.906	12.392	3744.10	6.39	565.76	124.31	40°32'29.835"N	104°51'06.342"W	0.00	
3928.00†	17.906	12.392	3839.26	6.73	595.79	130.90	40°32'30.132"N	104°51'06.257"W	0.00	
4028.00†	17.906	12.392	3934.41	7.07	625.82	137.50	40°32'30.429"N	104°51'06.171"W	0.00	
4128.00†	17.906	12.392	4029.57	7.41	655.85	144.10	40°32'30.725"N	104°51'06.086"W	0.00	
4228.00†	17.906	12.392	4124.73	7.75	685.88	150.70	40°32'31.022"N	104°51'06.000"W	0.00	
4328.00†	17.906	12.392	4219.88	8.09	715.91	157.30	40°32'31.319"N	104°51'05.915"W	0.00	
4428.00†	17.906	12.392	4315.04	8.43	745.94	163.89	40°32'31.616"N	104°51'05.830"W	0.00	
4528.00†	17.906	12.392	4410.19	8.77	775.96	170.49	40°32'31.912"N	104°51'05.744"W	0.00	
4628.00†	17.906	12.392	4505.35	9.11	805.99	177.09	40°32'32.209"N	104°51'05.659"W	0.00	
4728.00†	17.906	12.392	4600.51	9.45	836.02	183.69	40°32'32.506"N	104°51'05.573"W	0.00	
4828.00†	17.906	12.392	4695.66	9.79	866.05	190.29	40°32'32.803"N	104°51'05.488"W	0.00	
4928.00†	17.906	12.392	4790.82	10.13	896.08	196.88	40°32'33.099"N	104°51'05.402"W	0.00	
5028.00†	17.906	12.392	4885.98	10.47	926.11	203.48	40°32'33.396"N	104°51'05.317"W	0.00	
5128.00†	17.906	12.392	4981.13	10.81	956.14	210.08	40°32'33.693"N	104°51'05.231"W	0.00	
5228.00†	17.906	12.392	5076.29	11.15	986.17	216.68	40°32'33.990"N	104°51'05.146"W	0.00	
5328.00†	17.906	12.392	5171.44	11.49	1016.20	223.28	40°32'34.286"N	104°51'05.060"W	0.00	
5428.00†	17.906	12.392	5266.60	11.83	1046.23	229.87	40°32'34.583"N	104°51'04.975"W	0.00	
5528.00†	17.906	12.392	5361.76	12.16	1076.26	236.47	40°32'34.880"N	104°51'04.889"W	0.00	
5628.00†	17.906	12.392	5456.91	12.50	1106.29	243.07	40°32'35.176"N	104°51'04.804"W	0.00	



# Planned Wellpath Report

LAUNER 2C (REV-C.0) PWP

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Area	COLORADO	Well	LAUNER 2C
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 2C PWB
Facility	SEC.26-T07N-R67W		

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5728.00†	17.906	12.392	5552.07	12.84	1136.32	249.67	40°32'35.473"N	104°51'04.718"W	0.00	
5828.00†	17.906	12.392	5647.23	13.18	1166.35	256.27	40°32'35.770"N	104°51'04.633"W	0.00	
5928.00†	17.906	12.392	5742.38	13.52	1196.37	262.86	40°32'36.067"N	104°51'04.548"W	0.00	
6028.00†	17.906	12.392	5837.54	13.86	1226.40	269.46	40°32'36.363"N	104°51'04.462"W	0.00	
6128.00†	17.906	12.392	5932.69	14.20	1256.43	276.06	40°32'36.660"N	104°51'04.377"W	0.00	
6228.00†	17.906	12.392	6027.85	14.54	1286.46	282.66	40°32'36.957"N	104°51'04.291"W	0.00	
6328.00†	17.906	12.392	6123.01	14.88	1316.49	289.26	40°32'37.254"N	104°51'04.206"W	0.00	
6428.00†	17.906	12.392	6218.16	15.22	1346.52	295.85	40°32'37.550"N	104°51'04.120"W	0.00	
6528.00†	17.906	12.392	6313.32	15.56	1376.55	302.45	40°32'37.847"N	104°51'04.035"W	0.00	
6628.00†	17.906	12.392	6408.48	15.90	1406.58	309.05	40°32'38.144"N	104°51'03.949"W	0.00	
6728.00†	17.906	12.392	6503.63	16.24	1436.61	315.65	40°32'38.440"N	104°51'03.864"W	0.00	
6828.00†	17.906	12.392	6598.79	16.58	1466.64	322.24	40°32'38.737"N	104°51'03.778"W	0.00	
6912.15	17.906	12.392	6678.86	16.86	1491.91	327.80	40°32'38.987"N	104°51'03.706"W	0.00	End of Tangent
6928.00†	17.659	7.263	6693.96	17.13	1496.67	328.62	40°32'39.034"N	104°51'03.696"W	10.00	
7028.00†	19.199	335.619	6789.06	28.67	1526.77	323.74	40°32'39.331"N	104°51'03.759"W	10.00	
7128.00†	24.880	313.393	6881.88	56.88	1556.27	301.61	40°32'39.623"N	104°51'04.046"W	10.00	
7228.00†	32.602	300.044	6969.58	100.90	1584.28	262.91	40°32'39.900"N	104°51'04.547"W	10.00	
7328.00†	41.229	291.569	7049.51	159.40	1609.95	208.80	40°32'40.153"N	104°51'05.248"W	10.00	
7428.00†	50.292	285.644	7119.23	230.59	1632.50	140.94	40°32'40.376"N	104°51'06.127"W	10.00	
7528.00†	59.585	281.120	7176.64	312.32	1651.23	61.39	40°32'40.561"N	104°51'07.157"W	10.00	
7628.00†	69.007	277.393	7219.97	402.10	1665.59	-27.44	40°32'40.703"N	104°51'08.308"W	10.00	
7728.00†	78.500	274.114	7247.92	497.20	1675.14	-122.84	40°32'40.797"N	104°51'09.544"W	10.00	
7828.00†	88.027	271.050	7259.64	594.74	1679.58	-221.92	40°32'40.841"N	104°51'10.827"W	10.00	
7848.69	90.000	270.426	7260.00†	614.95	1679.85	-242.61	40°32'40.844"N	104°51'11.095"W	10.00	End of 3D Arc
7928.00†	90.000	270.426	7260.00	692.35	1680.44	-321.92	40°32'40.850"N	104°51'12.122"W	0.00	
8028.00†	90.000	270.426	7260.00	789.94	1681.18	-421.91	40°32'40.857"N	104°51'13.418"W	0.00	
8128.00†	90.000	270.426	7260.00	887.53	1681.92	-521.91	40°32'40.864"N	104°51'14.713"W	0.00	
8228.00†	90.000	270.426	7260.00	985.13	1682.67	-621.91	40°32'40.872"N	104°51'16.008"W	0.00	
8328.00†	90.000	270.426	7260.00	1082.72	1683.41	-721.91	40°32'40.879"N	104°51'17.303"W	0.00	
8428.00†	90.000	270.426	7260.00	1180.31	1684.16	-821.90	40°32'40.886"N	104°51'18.599"W	0.00	



# Planned Wellpath Report

LAUNER 2C (REV-C.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#13 LAUNER 2C (792'FSL & 349'FEL, SEC.26)
Area	COLORADO	Well	LAUNER 2C
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 2C PWB
Facility	SEC.26-T07N-R67W		

## WELLPATH DATA (157 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8528.00†	90.000	270.426	7260.00	1277.90	1684.90	-921.90	40°32'40.894"N	104°51'19.894"W	0.00	
8628.00†	90.000	270.426	7260.00	1375.50	1685.64	-1021.90	40°32'40.901"N	104°51'21.189"W	0.00	
8728.00†	90.000	270.426	7260.00	1473.09	1686.39	-1121.89	40°32'40.908"N	104°51'22.484"W	0.00	
8828.00†	90.000	270.426	7260.00	1570.68	1687.13	-1221.89	40°32'40.916"N	104°51'23.780"W	0.00	
8928.00†	90.000	270.426	7260.00	1668.27	1687.88	-1321.89	40°32'40.923"N	104°51'25.075"W	0.00	
9028.00†	90.000	270.426	7260.00	1765.87	1688.62	-1421.89	40°32'40.930"N	104°51'26.370"W	0.00	
9128.00†	90.000	270.426	7260.00	1863.46	1689.36	-1521.88	40°32'40.938"N	104°51'27.666"W	0.00	
9228.00†	90.000	270.426	7260.00	1961.05	1690.11	-1621.88	40°32'40.945"N	104°51'28.961"W	0.00	
9328.00†	90.000	270.426	7260.00	2058.64	1690.85	-1721.88	40°32'40.952"N	104°51'30.256"W	0.00	
9428.00†	90.000	270.426	7260.00	2156.24	1691.60	-1821.87	40°32'40.959"N	104°51'31.551"W	0.00	
9528.00†	90.000	270.426	7260.00	2253.83	1692.34	-1921.87	40°32'40.967"N	104°51'32.847"W	0.00	
9628.00†	90.000	270.426	7260.00	2351.42	1693.08	-2021.87	40°32'40.974"N	104°51'34.142"W	0.00	
9728.00†	90.000	270.426	7260.00	2449.01	1693.83	-2121.87	40°32'40.981"N	104°51'35.437"W	0.00	
9828.00†	90.000	270.426	7260.00	2546.60	1694.57	-2221.86	40°32'40.989"N	104°51'36.733"W	0.00	
9928.00†	90.000	270.426	7260.00	2644.20	1695.32	-2321.86	40°32'40.996"N	104°51'38.028"W	0.00	
10028.00†	90.000	270.426	7260.00	2741.79	1696.06	-2421.86	40°32'41.003"N	104°51'39.323"W	0.00	
10128.00†	90.000	270.426	7260.00	2839.38	1696.80	-2521.86	40°32'41.010"N	104°51'40.618"W	0.00	
10228.00†	90.000	270.426	7260.00	2936.97	1697.55	-2621.85	40°32'41.018"N	104°51'41.914"W	0.00	
10328.00†	90.000	270.426	7260.00	3034.57	1698.29	-2721.85	40°32'41.025"N	104°51'43.209"W	0.00	
10428.00†	90.000	270.426	7260.00	3132.16	1699.04	-2821.85	40°32'41.032"N	104°51'44.504"W	0.00	
10528.00†	90.000	270.426	7260.00	3229.75	1699.78	-2921.84	40°32'41.039"N	104°51'45.799"W	0.00	
10628.00†	90.000	270.426	7260.00	3327.34	1700.52	-3021.84	40°32'41.047"N	104°51'47.095"W	0.00	
10728.00†	90.000	270.426	7260.00	3424.94	1701.27	-3121.84	40°32'41.054"N	104°51'48.390"W	0.00	
10828.00†	90.000	270.426	7260.00	3522.53	1702.01	-3221.84	40°32'41.061"N	104°51'49.685"W	0.00	
10928.00†	90.000	270.426	7260.00	3620.12	1702.76	-3321.83	40°32'41.068"N	104°51'50.981"W	0.00	
11028.00†	90.000	270.426	7260.00	3717.71	1703.50	-3421.83	40°32'41.075"N	104°51'52.276"W	0.00	
11128.00†	90.000	270.426	7260.00	3815.31	1704.25	-3521.83	40°32'41.083"N	104°51'53.571"W	0.00	
11228.00†	90.000	270.426	7260.00	3912.90	1704.99	-3621.83	40°32'41.090"N	104°51'54.866"W	0.00	
11328.00†	90.000	270.426	7260.00	4010.49	1705.73	-3721.82	40°32'41.097"N	104°51'56.162"W	0.00	
11428.00†	90.000	270.426	7260.00	4108.08	1706.48	-3821.82	40°32'41.104"N	104°51'57.457"W	0.00	



# Planned Wellpath Report

LAUNER 2C (REV-C.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#13 LAUNER 2C (792'FSL & 349'FEL, SEC.26)
Area	COLORADO	Well	LAUNER 2C
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 2C PWB
Facility	SEC.26-T07N-R67W		

## WELLPATH DATA (157 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11528.00†	90.000	270.426	7260.00	4205.68	1707.22	-3921.82	40°32'41.111"N	104°51'58.752"W	0.00	
11628.00†	90.000	270.426	7260.00	4303.27	1707.97	-4021.81	40°32'41.119"N	104°52'00.048"W	0.00	
11728.00†	90.000	270.426	7260.00	4400.86	1708.71	-4121.81	40°32'41.126"N	104°52'01.343"W	0.00	
11828.00†	90.000	270.426	7260.00	4498.45	1709.45	-4221.81	40°32'41.133"N	104°52'02.638"W	0.00	
11928.00†	90.000	270.426	7260.00	4596.04	1710.20	-4321.81	40°32'41.140"N	104°52'03.933"W	0.00	
12028.00†	90.000	270.426	7260.00	4693.64	1710.94	-4421.80	40°32'41.147"N	104°52'05.229"W	0.00	
12128.00†	90.000	270.426	7260.00	4791.23	1711.69	-4521.80	40°32'41.155"N	104°52'06.524"W	0.00	
12228.00†	90.000	270.426	7260.00	4888.82	1712.43	-4621.80	40°32'41.162"N	104°52'07.819"W	0.00	
12328.00†	90.000	270.426	7260.00	4986.41	1713.17	-4721.79	40°32'41.169"N	104°52'09.115"W	0.00	
12428.00†	90.000	270.426	7260.00	5084.01	1713.92	-4821.79	40°32'41.176"N	104°52'10.410"W	0.00	
12528.00†	90.000	270.426	7260.00	5181.60	1714.66	-4921.79	40°32'41.183"N	104°52'11.705"W	0.00	
12628.00†	90.000	270.426	7260.00	5279.19	1715.41	-5021.79	40°32'41.190"N	104°52'13.000"W	0.00	
12728.00†	90.000	270.426	7260.00	5376.78	1716.15	-5121.78	40°32'41.197"N	104°52'14.296"W	0.00	
12828.00†	90.000	270.426	7260.00	5474.38	1716.89	-5221.78	40°32'41.205"N	104°52'15.591"W	0.00	
12928.00†	90.000	270.426	7260.00	5571.97	1717.64	-5321.78	40°32'41.212"N	104°52'16.886"W	0.00	
13028.00†	90.000	270.426	7260.00	5669.56	1718.38	-5421.78	40°32'41.219"N	104°52'18.181"W	0.00	
13128.00†	90.000	270.426	7260.00	5767.15	1719.13	-5521.77	40°32'41.226"N	104°52'19.477"W	0.00	
13228.00†	90.000	270.426	7260.00	5864.75	1719.87	-5621.77	40°32'41.233"N	104°52'20.772"W	0.00	
13328.00†	90.000	270.426	7260.00	5962.34	1720.61	-5721.77	40°32'41.240"N	104°52'22.067"W	0.00	
13428.00†	90.000	270.426	7260.00	6059.93	1721.36	-5821.76	40°32'41.247"N	104°52'23.363"W	0.00	
13528.00†	90.000	270.426	7260.00	6157.52	1722.10	-5921.76	40°32'41.255"N	104°52'24.658"W	0.00	
13628.00†	90.000	270.426	7260.00	6255.12	1722.85	-6021.76	40°32'41.262"N	104°52'25.953"W	0.00	
13728.00†	90.000	270.426	7260.00	6352.71	1723.59	-6121.76	40°32'41.269"N	104°52'27.248"W	0.00	
13828.00†	90.000	270.426	7260.00	6450.30	1724.33	-6221.75	40°32'41.276"N	104°52'28.544"W	0.00	
13928.00†	90.000	270.426	7260.00	6547.89	1725.08	-6321.75	40°32'41.283"N	104°52'29.839"W	0.00	
14028.00†	90.000	270.426	7260.00	6645.48	1725.82	-6421.75	40°32'41.290"N	104°52'31.134"W	0.00	
14128.00†	90.000	270.426	7260.00	6743.08	1726.57	-6521.74	40°32'41.297"N	104°52'32.430"W	0.00	
14228.00†	90.000	270.426	7260.00	6840.67	1727.31	-6621.74	40°32'41.304"N	104°52'33.725"W	0.00	
14328.00†	90.000	270.426	7260.00	6938.26	1728.05	-6721.74	40°32'41.311"N	104°52'35.020"W	0.00	
14428.00†	90.000	270.426	7260.00	7035.85	1728.80	-6821.74	40°32'41.318"N	104°52'36.315"W	0.00	





# Planned Wellpath Report

LAUNER 2C (REV-C.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#13 LAUNER 2C (792'FSL & 349'FEL, SEC.26)
Area	COLORADO	Well	LAUNER 2C
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 2C PWB
Facility	SEC.26-T07N-R67W		

## WELLPATH DATA (157 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14528.00†	90.000	270.426	7260.00	7133.45	1729.54	-6921.73	40°32'41.325"N	104°52'37.611"W	0.00	
14628.00†	90.000	270.426	7260.00	7231.04	1730.29	-7021.73	40°32'41.333"N	104°52'38.906"W	0.00	
14728.00†	90.000	270.426	7260.00	7328.63	1731.03	-7121.73	40°32'41.340"N	104°52'40.201"W	0.00	
14828.00†	90.000	270.426	7260.00	7426.22	1731.77	-7221.73	40°32'41.347"N	104°52'41.497"W	0.00	
14928.00†	90.000	270.426	7260.00	7523.82	1732.52	-7321.72	40°32'41.354"N	104°52'42.792"W	0.00	
15028.00†	90.000	270.426	7260.00	7621.41	1733.26	-7421.72	40°32'41.361"N	104°52'44.087"W	0.00	
15101.64	90.000	270.426	7260.00 <sup>2</sup>	7693.28	1733.81	-7495.36	40°32'41.366"N	104°52'45.041"W	0.00	End of Tangent





# Planned Wellpath Report

LAUNER 2C (REV-C.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#13 LAUNER 2C (792'FSL & 349'FEL, SEC.26)
Area	COLORADO	Well	LAUNER 2C
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 2C PWB
Facility	SEC.26-T07N-R67W		

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.26-T07N-R67W		-15.00	4001.34	-152.84	3179860.07	1444245.18	40°33'03.784"N	104°51'09.932"W	polygon
SEC.27-T07N-R67W		-15.00	4001.34	-152.84	3179860.07	1444245.18	40°33'03.784"N	104°51'09.932"W	polygon
LAUNER 2 BHL ON PLAT REV-1 (2534'FSL & 2562'FEL, SEC.27)		7037.00	1733.85	-7495.34	3172534.57	1441924.18	40°32'41.366"N	104°52'45.041"W	point
LAUNER 2 LANDING		7037.00	1679.89	-110.61	3179919.26	1441924.17	40°32'40.844"N	104°51'09.385"W	point
LAUNER 2 LANDING REV-1		7037.00	1679.84	-242.63	3179787.24	1441923.16	40°32'40.844"N	104°51'11.095"W	point
2) LAUNER 2C BHL ON PLAT REV-2 (2534'FSL & 2562'FEL, SEC.27)	15101.64	7260.00	1733.81	-7495.36	3172534.55	1441924.14	40°32'41.366"N	104°52'45.041"W	point
1) LAUNER 2C LANDING REV-2 (2472'FSL & 592'FEL, SEC.26)	7848.69	7260.00	1679.85	-242.61	3179787.26	1441923.16	40°32'40.844"N	104°51'11.095"W	point
SEC.26-T07N-R67W 460'FEL SETBACK		7260.00	0.00	0.00	3180042.13	1440245.19	40°32'24.245"N	104°51'07.952"W	polygon
SEC.27-T07N-R67W (MIDDLE SECTION)		7260.00	0.00	0.00	3180042.13	1440245.19	40°32'24.245"N	104°51'07.952"W	polygon

## SURVEY PROGRAM - Ref Wellbore: LAUNER 2C PWB Ref Wellpath: LAUNER 2C (REV-C.0) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
28.00	15101.64	ISCWSA MWD, Rev. 4 (Standard)		LAUNER 2C PWB



# Planned Wellpath Report

LAUNER 2C (REV-C.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#13 LAUNER 2C (792'FSL & 349'FEL,SEC.26)
Area	COLORADO	Well	LAUNER 2C
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 2C PWB
Facility	SEC.26-T07N-R67W		

## DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
28.00	0.000	12.392	28.00	Tie On
1500.00	0.000	12.392	1500.00	End of Tangent
2395.30	17.906	12.392	2380.79	End of Build
6912.15	17.906	12.392	6678.86	End of Tangent
7848.69	90.000	270.426	7260.00	End of 3D Arc
15101.64	90.000	270.426	7260.00	End of Tangent