

# EXTRACTION OIL & GAS

|           |                                |           |  |
|-----------|--------------------------------|-----------|--|
| Location: | COLORADO                       | Slot:     | SLOT#19 LAUNER 11 (653'FSL & 443'FEL,SEC.26) |
| Field:    | WELD COUNTY (NAD83/TRUE NORTH) | Well:     | LAUNER 11                                    |
| Facility: | SEC.26-T07N-R67W               | Wellbore: | LAUNER 11 PWB                                |

|  |  |
|--|--|
| Plot reference wellpath is LAUNER 11 (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: 4954 feet                                      | Depths are in feet   |
| Mean Sea Level to Mud line (At Slot: SLOT#19 LAUNER 11 (653'FSL & 443'FEL,SEC.26)): 0 feet | Created by: ingmjmr 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        |
| SLOT#19 LAUNER 11 (653'FSL & 443'FEL,SEC.26)   | -4139.82     | 58.06             | 3179948.372        | 1440106.062        | 40°32'22.877"N  |
| CYCLONE 37 (28'KB) (RKB) to Mud line (At Slot: SLOT#19 LAUNER 11 (653'FSL & 443'FEL,SEC.26)) |              |                   |                    | 4954ft             |                 |
| Mean Sea Level to Mud line (At Slot: SLOT#19 LAUNER 11 (653'FSL & 443'FEL,SEC.26))           |              |                   |                    | 0ft                |                 |
| CYCLONE 37 (28'KB) (RKB) to Mean Sea Level   |              |                   |                    | 4954ft             |                 |

## Survey Program

|               |             |                    |                               |                  |               |
|---------------|-------------|--------------------|-------------------------------|------------------|---------------|
| Start MD (ft) | End MD (ft) | Tool               | Model                         | Log Name/Comment | Wellbore      |
| 28.00         | 14515.00    | ISCWSA MWD, Rev. 4 | ISCWSA MWD, Rev. 4 (Standard) |                  | LAUNER 11 PWB |

## Well Profile Data

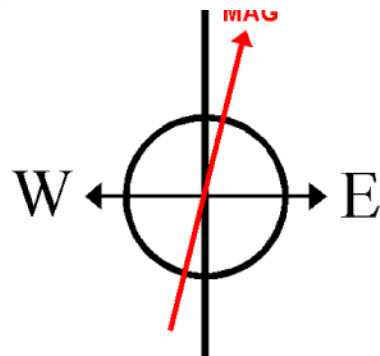
| Design Comment | MD (ft)  | Inc (°) | Az (°)  | TVD (ft) | Local N (ft) | Local E (ft) | DLS (°/100ft) | VS (ft) |
|----------------|----------|---------|---------|----------|--------------|--------------|---------------|---------|
| Tie On         | 28.00    | 0.000   | 105.593 | 28.00    | 0.00         | 0.00         | 0.00          | 0.00    |
| End of Tangent | 2100.00  | 0.000   | 105.593 | 2100.00  | 0.00         | 0.00         | 0.00          | 0.00    |
| End of Build   | 2411.94  | 6.239   | 105.593 | 2411.33  | -4.56        | 16.34        | 2.00          | -16.29  |
| End of Tangent | 6295.82  | 6.239   | 105.593 | 6272.20  | -118.02      | 422.88       | 0.00          | -421.62 |
| End of 3D Arc  | 7256.03  | 90.000  | 270.426 | 6905.00  | -131.88      | -147.03      | 10.00         | 148.41  |
| End of Tangent | 14514.24 | 90.000  | 270.426 | 6905.00  | -77.95       | -7405.05     | 0.00          | 7405.46 |

## 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  |         | -18.00   | 4139.79      | -58.08       | 3179860.07        | 1444245.18         | 40°33'03.784"N | 104°51'09.932"W |
| SEC.27-T07N-R67W  |         | -18.00   | 4139.79      | -58.08       | 3179860.07        | 1444245.18         | 40°33'03.784"N | 104°51'09.932"W |
| LAUNER 11 BHL ON PLAT REV-2 (584'FSL & 2561'FEL,SEC.27) |         | 6905.00  | -77.90       | -7405.03     | 3172544.35        | 1439974.10         | 40°32'22.096"N | 104°52'45.091"W |
| LAUNER 11 LANDING REV-2 (521'FSL & 590'FEL, SEC.26)     |         | 6905.00  | -131.84      | -147.00      | 3179802.34        | 1439973.15         | 40°32'21.574"N | 104°51'11.084"W |
| LAUNER 11 BHL ON PLAT REV-1(584'FSL & 2560'FEL,SEC.27)  |         | 7034.00  | -77.95       | -7405.05     | 3172544.33        | 1439974.06         | 40°32'22.096"N | 104°52'45.091"W |
| LAUNER 11 LANDING                                       |         | 7034.00  | -131.88      | -16.68       | 3179932.66        | 1439974.06         | 40°32'21.574"N | 104°51'09.396"W |
| LAUNER 11 LANDING REV-1                                 |         | 7034.00  | -131.84      | -147.16      | 3179802.19        | 1439973.15         | 40°32'21.574"N | 104°51'11.086"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       |
|----------|---------|---------|----------|--------------|--------------|-------------------|--------------------|----------------|-----------------|
| 14514.24 | 90.000  | 270.426 | 6905.00  | -77.95       | -7405.05     | 3172544.33        | 1439974.06         | 40°32'22.096"N | 104°52'45.091"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

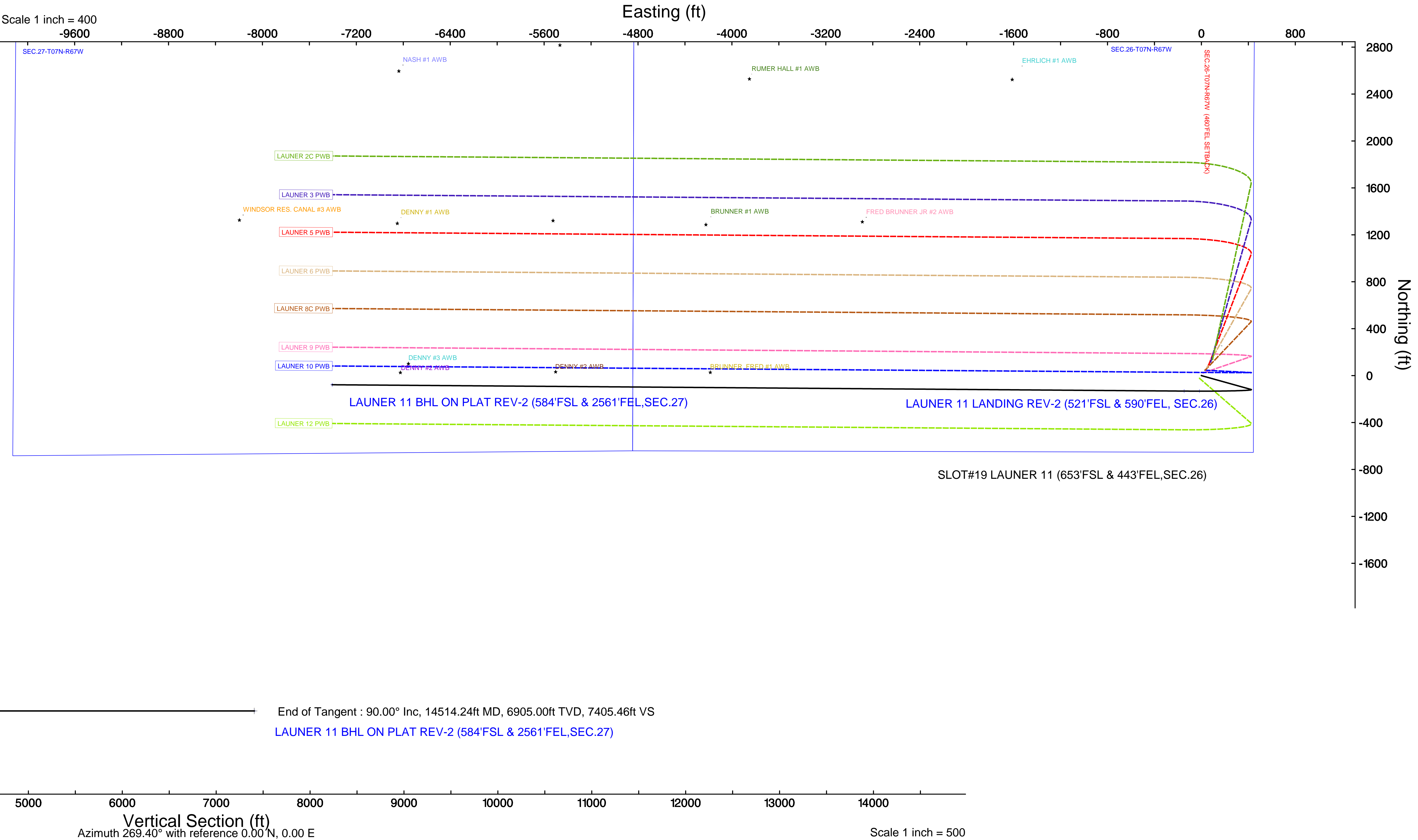
Scale 1 inch = 500

True Vertical Depth (ft)

End of Tangent : 0.00° Inc, 2100.00ft MD, 2100.00ft TVD, 0.00ft VS  
2.00°/100ft  
End of Build : 6.24° Inc, 2411.94ft MD, 2411.33ft TVD, -16.29ft VS

End of Tangent : 6.24° Inc, 6295.82ft MD, 6272.20ft TVD, -421.62ft VS  
10.00°/100ft  
End of 3D Arc : 90.00° Inc, 7256.03ft MD, 6905.00ft TVD, 148.41ft VS

LAUNER 11 LANDING REV-2 (521'FSL & 590'FEL, SEC.26)





# Planned Wellpath Report

LAUNER 11 (REV-C.0) PWP

Page 1 of 8



## REFERENCE WELLPATH IDENTIFICATION

|          |                                |          |   |
|----------|--------------------------------|----------|---|
| Operator | EXTRACTION OIL & GAS           | Slot     | SLOT#19 LAUNER 11 (653'FSL & 443'FEL, SEC.26) |
| Area     | COLORADO                       | Well     | LAUNER 11                                     |
| Field    | WELD COUNTY (NAD83/TRUE NORTH) | Wellbore | LAUNER 11 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 10:29:06 AM                       |
| Convergence at slot | 0.42° East  | Database/Source file | WA_DEN_Denver_Defn/LAUNER_11__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         | -4139.82          | 58.06    | 3179948.37       | 1440106.06      | 40°32'22.877"N         | 104°51'09.180"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  | 4954.00ft         |
| Horizontal Reference Pt  | Slot                     | CYCLONE 37 (28'KB) (RKB) to Mean Sea Level   | 4954.00ft         |
| Vertical Reference Pt    | CYCLONE 37 (28'KB) (RKB) | CYCLONE 37 (28'KB) (RKB) to Mud Line at Slot (SLOT#19 LAUNER 11 (653'FSL & 443'FEL, SEC.26)) | 4954.00ft         |
| 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  | 269.40°           |





# Planned Wellpath Report

LAUNER 11 (REV-C.0) PWP

Page 2 of 8



## REFERENCE WELLPATH IDENTIFICATION

|          |                                |          |   |
|----------|--------------------------------|----------|---|
| Operator | EXTRACTION OIL & GAS           | Slot     | SLOT#19 LAUNER 11 (653'FSL & 443'FEL, SEC.26) |
| Area     | COLORADO                       | Well     | LAUNER 11                                     |
| Field    | WELD COUNTY (NAD83/TRUE NORTH) | Wellbore | LAUNER 11 PWB                                 |
| Facility | SEC.26-T07N-R67W               |          |   |

## WELLPATH DATA (151 stations) † = interpolated/extrapolated station

| MD<br>[ft] | Inclination<br>[°] | Azimuth<br>[°] | TVD<br>[ft] | Vert Sect<br>[ft] | North<br>[ft] | East<br>[ft] | Latitude       | Longitude       | DLS<br>[°/100ft] | Comments       |
|------------|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------|-----------------|------------------|----------------|
| 0.00†      | 0.000              | 105.593        | 0.00        | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             |                |
| 28.00      | 0.000              | 105.593        | 28.00       | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             | Tie On         |
| 128.00†    | 0.000              | 105.593        | 128.00      | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             |                |
| 228.00†    | 0.000              | 105.593        | 228.00      | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             |                |
| 328.00†    | 0.000              | 105.593        | 328.00      | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             |                |
| 428.00†    | 0.000              | 105.593        | 428.00      | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             |                |
| 528.00†    | 0.000              | 105.593        | 528.00      | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             |                |
| 628.00†    | 0.000              | 105.593        | 628.00      | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             |                |
| 728.00†    | 0.000              | 105.593        | 728.00      | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             |                |
| 828.00†    | 0.000              | 105.593        | 828.00      | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             |                |
| 928.00†    | 0.000              | 105.593        | 928.00      | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             |                |
| 1028.00†   | 0.000              | 105.593        | 1028.00     | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             |                |
| 1128.00†   | 0.000              | 105.593        | 1128.00     | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             |                |
| 1228.00†   | 0.000              | 105.593        | 1228.00     | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             |                |
| 1328.00†   | 0.000              | 105.593        | 1328.00     | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             |                |
| 1428.00†   | 0.000              | 105.593        | 1428.00     | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             |                |
| 1528.00†   | 0.000              | 105.593        | 1528.00     | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             |                |
| 1628.00†   | 0.000              | 105.593        | 1628.00     | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             |                |
| 1728.00†   | 0.000              | 105.593        | 1728.00     | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             |                |
| 1828.00†   | 0.000              | 105.593        | 1828.00     | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             |                |
| 1928.00†   | 0.000              | 105.593        | 1928.00     | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             |                |
| 2028.00†   | 0.000              | 105.593        | 2028.00     | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             |                |
| 2100.00    | 0.000              | 105.593        | 2100.00     | 0.00              | 0.00          | 0.00         | 40°32'22.877"N | 104°51'09.180"W | 0.00             | End of Tangent |
| 2128.00†   | 0.560              | 105.593        | 2128.00     | -0.13             | -0.04         | 0.13         | 40°32'22.876"N | 104°51'09.178"W | 2.00             |                |
| 2228.00†   | 2.560              | 105.593        | 2227.96     | -2.75             | -0.77         | 2.75         | 40°32'22.869"N | 104°51'09.144"W | 2.00             |                |
| 2328.00†   | 4.560              | 105.593        | 2327.76     | -8.71             | -2.44         | 8.73         | 40°32'22.853"N | 104°51'09.067"W | 2.00             |                |
| 2411.94    | 6.239              | 105.593        | 2411.33     | -16.29            | -4.56         | 16.34        | 40°32'22.832"N | 104°51'08.968"W | 2.00             | End of Build   |
| 2428.00†   | 6.239              | 105.593        | 2427.29     | -17.97            | -5.03         | 18.02        | 40°32'22.827"N | 104°51'08.947"W | 0.00             |                |
| 2528.00†   | 6.239              | 105.593        | 2526.70     | -28.41            | -7.95         | 28.49        | 40°32'22.798"N | 104°51'08.811"W | 0.00             |                |
| 2628.00†   | 6.239              | 105.593        | 2626.10     | -38.84            | -10.87        | 38.96        | 40°32'22.769"N | 104°51'08.675"W | 0.00             |                |



# Planned Wellpath Report

LAUNER 11 (REV-C.0) PWP

Page 3 of 8



## REFERENCE WELLPATH IDENTIFICATION

|          |                                |          |   |
|----------|--------------------------------|----------|---|
| Operator | EXTRACTION OIL & GAS           | Slot     | SLOT#19 LAUNER 11 (653'FSL & 443'FEL, SEC.26) |
| Area     | COLORADO                       | Well     | LAUNER 11                                     |
| Field    | WELD COUNTY (NAD83/TRUE NORTH) | Wellbore | LAUNER 11 PWB                                 |
| Facility | SEC.26-T07N-R67W               |          |   |

## WELLPATH DATA (151 stations) † = interpolated/extrapolated station

| MD<br>[ft] | Inclination<br>[°] | Azimuth<br>[°] | TVD<br>[ft] | Vert Sect<br>[ft] | North<br>[ft] | East<br>[ft] | Latitude       | Longitude       | DLS<br>[°/100ft] | Comments |
|------------|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------|-----------------|------------------|----------|
| 2728.00†   | 6.239              | 105.593        | 2725.51     | -49.28            | -13.79        | 49.43        | 40°32'22.740"N | 104°51'08.540"W | 0.00             |          |
| 2828.00†   | 6.239              | 105.593        | 2824.92     | -59.71            | -16.71        | 59.89        | 40°32'22.712"N | 104°51'08.404"W | 0.00             |          |
| 2928.00†   | 6.239              | 105.593        | 2924.33     | -70.15            | -19.64        | 70.36        | 40°32'22.683"N | 104°51'08.269"W | 0.00             |          |
| 3028.00†   | 6.239              | 105.593        | 3023.74     | -80.59            | -22.56        | 80.83        | 40°32'22.654"N | 104°51'08.133"W | 0.00             |          |
| 3128.00†   | 6.239              | 105.593        | 3123.14     | -91.02            | -25.48        | 91.29        | 40°32'22.625"N | 104°51'07.998"W | 0.00             |          |
| 3228.00†   | 6.239              | 105.593        | 3222.55     | -101.46           | -28.40        | 101.76       | 40°32'22.596"N | 104°51'07.862"W | 0.00             |          |
| 3328.00†   | 6.239              | 105.593        | 3321.96     | -111.89           | -31.32        | 112.23       | 40°32'22.567"N | 104°51'07.726"W | 0.00             |          |
| 3428.00†   | 6.239              | 105.593        | 3421.37     | -122.33           | -34.24        | 122.70       | 40°32'22.538"N | 104°51'07.591"W | 0.00             |          |
| 3528.00†   | 6.239              | 105.593        | 3520.77     | -132.77           | -37.16        | 133.16       | 40°32'22.510"N | 104°51'07.455"W | 0.00             |          |
| 3628.00†   | 6.239              | 105.593        | 3620.18     | -143.20           | -40.08        | 143.63       | 40°32'22.481"N | 104°51'07.320"W | 0.00             |          |
| 3728.00†   | 6.239              | 105.593        | 3719.59     | -153.64           | -43.01        | 154.10       | 40°32'22.452"N | 104°51'07.184"W | 0.00             |          |
| 3828.00†   | 6.239              | 105.593        | 3819.00     | -164.07           | -45.93        | 164.57       | 40°32'22.423"N | 104°51'07.049"W | 0.00             |          |
| 3928.00†   | 6.239              | 105.593        | 3918.41     | -174.51           | -48.85        | 175.03       | 40°32'22.394"N | 104°51'06.913"W | 0.00             |          |
| 4028.00†   | 6.239              | 105.593        | 4017.81     | -184.95           | -51.77        | 185.50       | 40°32'22.365"N | 104°51'06.777"W | 0.00             |          |
| 4128.00†   | 6.239              | 105.593        | 4117.22     | -195.38           | -54.69        | 195.97       | 40°32'22.336"N | 104°51'06.642"W | 0.00             |          |
| 4228.00†   | 6.239              | 105.593        | 4216.63     | -205.82           | -57.61        | 206.44       | 40°32'22.308"N | 104°51'06.506"W | 0.00             |          |
| 4328.00†   | 6.239              | 105.593        | 4316.04     | -216.25           | -60.53        | 216.90       | 40°32'22.279"N | 104°51'06.371"W | 0.00             |          |
| 4428.00†   | 6.239              | 105.593        | 4415.44     | -226.69           | -63.45        | 227.37       | 40°32'22.250"N | 104°51'06.235"W | 0.00             |          |
| 4528.00†   | 6.239              | 105.593        | 4514.85     | -237.13           | -66.38        | 237.84       | 40°32'22.221"N | 104°51'06.099"W | 0.00             |          |
| 4628.00†   | 6.239              | 105.593        | 4614.26     | -247.56           | -69.30        | 248.31       | 40°32'22.192"N | 104°51'05.964"W | 0.00             |          |
| 4728.00†   | 6.239              | 105.593        | 4713.67     | -258.00           | -72.22        | 258.77       | 40°32'22.163"N | 104°51'05.828"W | 0.00             |          |
| 4828.00†   | 6.239              | 105.593        | 4813.07     | -268.43           | -75.14        | 269.24       | 40°32'22.134"N | 104°51'05.693"W | 0.00             |          |
| 4928.00†   | 6.239              | 105.593        | 4912.48     | -278.87           | -78.06        | 279.71       | 40°32'22.105"N | 104°51'05.557"W | 0.00             |          |
| 5028.00†   | 6.239              | 105.593        | 5011.89     | -289.31           | -80.98        | 290.17       | 40°32'22.077"N | 104°51'05.422"W | 0.00             |          |
| 5128.00†   | 6.239              | 105.593        | 5111.30     | -299.74           | -83.90        | 300.64       | 40°32'22.048"N | 104°51'05.286"W | 0.00             |          |
| 5228.00†   | 6.239              | 105.593        | 5210.71     | -310.18           | -86.82        | 311.11       | 40°32'22.019"N | 104°51'05.150"W | 0.00             |          |
| 5328.00†   | 6.239              | 105.593        | 5310.11     | -320.61           | -89.75        | 321.58       | 40°32'21.990"N | 104°51'05.015"W | 0.00             |          |
| 5428.00†   | 6.239              | 105.593        | 5409.52     | -331.05           | -92.67        | 332.04       | 40°32'21.961"N | 104°51'04.879"W | 0.00             |          |
| 5528.00†   | 6.239              | 105.593        | 5508.93     | -341.49           | -95.59        | 342.51       | 40°32'21.932"N | 104°51'04.744"W | 0.00             |          |
| 5628.00†   | 6.239              | 105.593        | 5608.34     | -351.92           | -98.51        | 352.98       | 40°32'21.903"N | 104°51'04.608"W | 0.00             |          |



# Planned Wellpath Report

LAUNER 11 (REV-C.0) PWP

Page 4 of 8



## REFERENCE WELLPATH IDENTIFICATION

|          |                                |          |   |
|----------|--------------------------------|----------|---|
| Operator | EXTRACTION OIL & GAS           | Slot     | SLOT#19 LAUNER 11 (653'FSL & 443'FEL, SEC.26) |
| Area     | COLORADO                       | Well     | LAUNER 11                                     |
| Field    | WELD COUNTY (NAD83/TRUE NORTH) | Wellbore | LAUNER 11 PWB                                 |
| Facility | SEC.26-T07N-R67W               |          |   |

## WELLPATH DATA (151 stations) † = interpolated/extrapolated station

| MD<br>[ft] | Inclination<br>[°] | Azimuth<br>[°] | TVD<br>[ft] | Vert Sect<br>[ft] | North<br>[ft] | East<br>[ft] | Latitude       | Longitude       | DLS<br>[°/100ft] | Comments       |
|------------|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------|-----------------|------------------|----------------|
| 5728.00†   | 6.239              | 105.593        | 5707.74     | -362.36           | -101.43       | 363.45       | 40°32'21.874"N | 104°51'04.473"W | 0.00             |                |
| 5828.00†   | 6.239              | 105.593        | 5807.15     | -372.79           | -104.35       | 373.91       | 40°32'21.846"N | 104°51'04.337"W | 0.00             |                |
| 5928.00†   | 6.239              | 105.593        | 5906.56     | -383.23           | -107.27       | 384.38       | 40°32'21.817"N | 104°51'04.201"W | 0.00             |                |
| 6028.00†   | 6.239              | 105.593        | 6005.97     | -393.67           | -110.19       | 394.85       | 40°32'21.788"N | 104°51'04.066"W | 0.00             |                |
| 6128.00†   | 6.239              | 105.593        | 6105.38     | -404.10           | -113.12       | 405.32       | 40°32'21.759"N | 104°51'03.930"W | 0.00             |                |
| 6228.00†   | 6.239              | 105.593        | 6204.78     | -414.54           | -116.04       | 415.78       | 40°32'21.730"N | 104°51'03.795"W | 0.00             |                |
| 6295.82    | 6.239              | 105.593        | 6272.20     | -421.62           | -118.02       | 422.88       | 40°32'21.711"N | 104°51'03.703"W | 0.00             | End of Tangent |
| 6328.00†   | 3.246              | 120.709        | 6304.27     | -424.07           | -118.95       | 425.35       | 40°32'21.701"N | 104°51'03.671"W | 10.00            |                |
| 6428.00†   | 7.380              | 257.668        | 6404.03     | -420.20           | -121.78       | 421.50       | 40°32'21.673"N | 104°51'03.721"W | 10.00            |                |
| 6528.00†   | 17.273             | 265.148        | 6501.61     | -399.05           | -124.41       | 400.38       | 40°32'21.647"N | 104°51'03.994"W | 10.00            |                |
| 6628.00†   | 27.243             | 267.241        | 6594.04     | -361.28           | -126.78       | 362.63       | 40°32'21.624"N | 104°51'04.483"W | 10.00            |                |
| 6728.00†   | 37.228             | 268.268        | 6678.52     | -308.03           | -128.80       | 309.40       | 40°32'21.604"N | 104°51'05.173"W | 10.00            |                |
| 6828.00†   | 47.219             | 268.909        | 6752.48     | -240.91           | -130.41       | 242.30       | 40°32'21.588"N | 104°51'06.042"W | 10.00            |                |
| 6928.00†   | 57.212             | 269.370        | 6813.67     | -161.98           | -131.58       | 163.38       | 40°32'21.577"N | 104°51'07.064"W | 10.00            |                |
| 7028.00†   | 67.207             | 269.737        | 6860.24     | -73.63            | -132.25       | 75.03        | 40°32'21.570"N | 104°51'08.208"W | 10.00            |                |
| 7128.00†   | 77.202             | 270.054        | 6890.76     | 21.46             | -132.42       | -20.07       | 40°32'21.568"N | 104°51'09.440"W | 10.00            |                |
| 7228.00†   | 87.198             | 270.346        | 6904.31     | 120.40            | -132.07       | -119.02      | 40°32'21.572"N | 104°51'10.722"W | 10.00            |                |
| 7256.03    | 90.000             | 270.426        | 6905.00†    | 148.41            | -131.88       | -147.03      | 40°32'21.574"N | 104°51'11.084"W | 10.00            | End of 3D Arc  |
| 7328.00†   | 90.000             | 270.426        | 6905.00     | 220.37            | -131.35       | -219.00      | 40°32'21.579"N | 104°51'12.017"W | 0.00             |                |
| 7428.00†   | 90.000             | 270.426        | 6905.00     | 320.36            | -130.61       | -319.00      | 40°32'21.586"N | 104°51'13.312"W | 0.00             |                |
| 7528.00†   | 90.000             | 270.426        | 6905.00     | 420.34            | -129.86       | -419.00      | 40°32'21.594"N | 104°51'14.607"W | 0.00             |                |
| 7628.00†   | 90.000             | 270.426        | 6905.00     | 520.32            | -129.12       | -518.99      | 40°32'21.601"N | 104°51'15.902"W | 0.00             |                |
| 7728.00†   | 90.000             | 270.426        | 6905.00     | 620.31            | -128.38       | -618.99      | 40°32'21.608"N | 104°51'17.197"W | 0.00             |                |
| 7828.00†   | 90.000             | 270.426        | 6905.00     | 720.29            | -127.63       | -718.99      | 40°32'21.616"N | 104°51'18.492"W | 0.00             |                |
| 7928.00†   | 90.000             | 270.426        | 6905.00     | 820.28            | -126.89       | -818.99      | 40°32'21.623"N | 104°51'19.788"W | 0.00             |                |
| 8028.00†   | 90.000             | 270.426        | 6905.00     | 920.26            | -126.15       | -918.98      | 40°32'21.630"N | 104°51'21.083"W | 0.00             |                |
| 8128.00†   | 90.000             | 270.426        | 6905.00     | 1020.24           | -125.40       | -1018.98     | 40°32'21.637"N | 104°51'22.378"W | 0.00             |                |
| 8228.00†   | 90.000             | 270.426        | 6905.00     | 1120.23           | -124.66       | -1118.98     | 40°32'21.645"N | 104°51'23.673"W | 0.00             |                |
| 8328.00†   | 90.000             | 270.426        | 6905.00     | 1220.21           | -123.92       | -1218.97     | 40°32'21.652"N | 104°51'24.968"W | 0.00             |                |
| 8428.00†   | 90.000             | 270.426        | 6905.00     | 1320.19           | -123.17       | -1318.97     | 40°32'21.659"N | 104°51'26.263"W | 0.00             |                |



# Planned Wellpath Report

LAUNER 11 (REV-C.0) PWP

Page 5 of 8



## REFERENCE WELLPATH IDENTIFICATION

|          |                                |          |   |
|----------|--------------------------------|----------|---|
| Operator | EXTRACTION OIL & GAS           | Slot     | SLOT#19 LAUNER 11 (653'FSL & 443'FEL, SEC.26) |
| Area     | COLORADO                       | Well     | LAUNER 11                                     |
| Field    | WELD COUNTY (NAD83/TRUE NORTH) | Wellbore | LAUNER 11 PWB                                 |
| Facility | SEC.26-T07N-R67W               |          |   |

## WELLPATH DATA (151 stations) † = interpolated/extrapolated station

| MD<br>[ft] | Inclination<br>[°] | Azimuth<br>[°] | TVD<br>[ft] | Vert Sect<br>[ft] | North<br>[ft] | East<br>[ft] | Latitude       | Longitude       | DLS<br>[°/100ft] | Comments |
|------------|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------|-----------------|------------------|----------|
| 8528.00†   | 90.000             | 270.426        | 6905.00     | 1420.18           | -122.43       | -1418.97     | 40°32'21.667"N | 104°51'27.559"W | 0.00             |          |
| 8628.00†   | 90.000             | 270.426        | 6905.00     | 1520.16           | -121.69       | -1518.97     | 40°32'21.674"N | 104°51'28.854"W | 0.00             |          |
| 8728.00†   | 90.000             | 270.426        | 6905.00     | 1620.15           | -120.94       | -1618.96     | 40°32'21.681"N | 104°51'30.149"W | 0.00             |          |
| 8828.00†   | 90.000             | 270.426        | 6905.00     | 1720.13           | -120.20       | -1718.96     | 40°32'21.688"N | 104°51'31.444"W | 0.00             |          |
| 8928.00†   | 90.000             | 270.426        | 6905.00     | 1820.11           | -119.46       | -1818.96     | 40°32'21.696"N | 104°51'32.739"W | 0.00             |          |
| 9028.00†   | 90.000             | 270.426        | 6905.00     | 1920.10           | -118.72       | -1918.95     | 40°32'21.703"N | 104°51'34.035"W | 0.00             |          |
| 9128.00†   | 90.000             | 270.426        | 6905.00     | 2020.08           | -117.97       | -2018.95     | 40°32'21.710"N | 104°51'35.330"W | 0.00             |          |
| 9228.00†   | 90.000             | 270.426        | 6905.00     | 2120.07           | -117.23       | -2118.95     | 40°32'21.718"N | 104°51'36.625"W | 0.00             |          |
| 9328.00†   | 90.000             | 270.426        | 6905.00     | 2220.05           | -116.49       | -2218.95     | 40°32'21.725"N | 104°51'37.920"W | 0.00             |          |
| 9428.00†   | 90.000             | 270.426        | 6905.00     | 2320.03           | -115.74       | -2318.94     | 40°32'21.732"N | 104°51'39.215"W | 0.00             |          |
| 9528.00†   | 90.000             | 270.426        | 6905.00     | 2420.02           | -115.00       | -2418.94     | 40°32'21.739"N | 104°51'40.510"W | 0.00             |          |
| 9628.00†   | 90.000             | 270.426        | 6905.00     | 2520.00           | -114.26       | -2518.94     | 40°32'21.747"N | 104°51'41.806"W | 0.00             |          |
| 9728.00†   | 90.000             | 270.426        | 6905.00     | 2619.99           | -113.51       | -2618.94     | 40°32'21.754"N | 104°51'43.101"W | 0.00             |          |
| 9828.00†   | 90.000             | 270.426        | 6905.00     | 2719.97           | -112.77       | -2718.93     | 40°32'21.761"N | 104°51'44.396"W | 0.00             |          |
| 9928.00†   | 90.000             | 270.426        | 6905.00     | 2819.95           | -112.03       | -2818.93     | 40°32'21.768"N | 104°51'45.691"W | 0.00             |          |
| 10028.00†  | 90.000             | 270.426        | 6905.00     | 2919.94           | -111.28       | -2918.93     | 40°32'21.775"N | 104°51'46.986"W | 0.00             |          |
| 10128.00†  | 90.000             | 270.426        | 6905.00     | 3019.92           | -110.54       | -3018.92     | 40°32'21.783"N | 104°51'48.281"W | 0.00             |          |
| 10228.00†  | 90.000             | 270.426        | 6905.00     | 3119.90           | -109.80       | -3118.92     | 40°32'21.790"N | 104°51'49.577"W | 0.00             |          |
| 10328.00†  | 90.000             | 270.426        | 6905.00     | 3219.89           | -109.05       | -3218.92     | 40°32'21.797"N | 104°51'50.872"W | 0.00             |          |
| 10428.00†  | 90.000             | 270.426        | 6905.00     | 3319.87           | -108.31       | -3318.92     | 40°32'21.804"N | 104°51'52.167"W | 0.00             |          |
| 10528.00†  | 90.000             | 270.426        | 6905.00     | 3419.86           | -107.57       | -3418.91     | 40°32'21.812"N | 104°51'53.462"W | 0.00             |          |
| 10628.00†  | 90.000             | 270.426        | 6905.00     | 3519.84           | -106.83       | -3518.91     | 40°32'21.819"N | 104°51'54.757"W | 0.00             |          |
| 10728.00†  | 90.000             | 270.426        | 6905.00     | 3619.82           | -106.08       | -3618.91     | 40°32'21.826"N | 104°51'56.053"W | 0.00             |          |
| 10828.00†  | 90.000             | 270.426        | 6905.00     | 3719.81           | -105.34       | -3718.91     | 40°32'21.833"N | 104°51'57.348"W | 0.00             |          |
| 10928.00†  | 90.000             | 270.426        | 6905.00     | 3819.79           | -104.60       | -3818.90     | 40°32'21.840"N | 104°51'58.643"W | 0.00             |          |
| 11028.00†  | 90.000             | 270.426        | 6905.00     | 3919.78           | -103.85       | -3918.90     | 40°32'21.848"N | 104°51'59.938"W | 0.00             |          |
| 11128.00†  | 90.000             | 270.426        | 6905.00     | 4019.76           | -103.11       | -4018.90     | 40°32'21.855"N | 104°52'01.233"W | 0.00             |          |
| 11228.00†  | 90.000             | 270.426        | 6905.00     | 4119.74           | -102.37       | -4118.89     | 40°32'21.862"N | 104°52'02.528"W | 0.00             |          |
| 11328.00†  | 90.000             | 270.426        | 6905.00     | 4219.73           | -101.62       | -4218.89     | 40°32'21.869"N | 104°52'03.824"W | 0.00             |          |
| 11428.00†  | 90.000             | 270.426        | 6905.00     | 4319.71           | -100.88       | -4318.89     | 40°32'21.876"N | 104°52'05.119"W | 0.00             |          |



# Planned Wellpath Report

LAUNER 11 (REV-C.0) PWP

Page 6 of 8



## REFERENCE WELLPATH IDENTIFICATION

|          |                                |          |   |
|----------|--------------------------------|----------|---|
| Operator | EXTRACTION OIL & GAS           | Slot     | SLOT#19 LAUNER 11 (653'FSL & 443'FEL, SEC.26) |
| Area     | COLORADO                       | Well     | LAUNER 11                                     |
| Field    | WELD COUNTY (NAD83/TRUE NORTH) | Wellbore | LAUNER 11 PWB                                 |
| Facility | SEC.26-T07N-R67W               |          |   |

## WELLPATH DATA (151 stations) † = interpolated/extrapolated station

| MD<br>[ft] | Inclination<br>[°] | Azimuth<br>[°] | TVD<br>[ft] | Vert Sect<br>[ft] | North<br>[ft] | East<br>[ft] | Latitude       | Longitude       | DLS<br>[°/100ft] | Comments |
|------------|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------|-----------------|------------------|----------|
| 11528.00†  | 90.000             | 270.426        | 6905.00     | 4419.70           | -100.14       | -4418.89     | 40°32'21.883"N | 104°52'06.414"W | 0.00             |          |
| 11628.00†  | 90.000             | 270.426        | 6905.00     | 4519.68           | -99.39        | -4518.88     | 40°32'21.891"N | 104°52'07.709"W | 0.00             |          |
| 11728.00†  | 90.000             | 270.426        | 6905.00     | 4619.66           | -98.65        | -4618.88     | 40°32'21.898"N | 104°52'09.004"W | 0.00             |          |
| 11828.00†  | 90.000             | 270.426        | 6905.00     | 4719.65           | -97.91        | -4718.88     | 40°32'21.905"N | 104°52'10.300"W | 0.00             |          |
| 11928.00†  | 90.000             | 270.426        | 6905.00     | 4819.63           | -97.16        | -4818.87     | 40°32'21.912"N | 104°52'11.595"W | 0.00             |          |
| 12028.00†  | 90.000             | 270.426        | 6905.00     | 4919.61           | -96.42        | -4918.87     | 40°32'21.919"N | 104°52'12.890"W | 0.00             |          |
| 12128.00†  | 90.000             | 270.426        | 6905.00     | 5019.60           | -95.68        | -5018.87     | 40°32'21.926"N | 104°52'14.185"W | 0.00             |          |
| 12228.00†  | 90.000             | 270.426        | 6905.00     | 5119.58           | -94.94        | -5118.87     | 40°32'21.933"N | 104°52'15.480"W | 0.00             |          |
| 12328.00†  | 90.000             | 270.426        | 6905.00     | 5219.57           | -94.19        | -5218.86     | 40°32'21.941"N | 104°52'16.775"W | 0.00             |          |
| 12428.00†  | 90.000             | 270.426        | 6905.00     | 5319.55           | -93.45        | -5318.86     | 40°32'21.948"N | 104°52'18.071"W | 0.00             |          |
| 12528.00†  | 90.000             | 270.426        | 6905.00     | 5419.53           | -92.71        | -5418.86     | 40°32'21.955"N | 104°52'19.366"W | 0.00             |          |
| 12628.00†  | 90.000             | 270.426        | 6905.00     | 5519.52           | -91.96        | -5518.86     | 40°32'21.962"N | 104°52'20.661"W | 0.00             |          |
| 12728.00†  | 90.000             | 270.426        | 6905.00     | 5619.50           | -91.22        | -5618.85     | 40°32'21.969"N | 104°52'21.956"W | 0.00             |          |
| 12828.00†  | 90.000             | 270.426        | 6905.00     | 5719.49           | -90.48        | -5718.85     | 40°32'21.976"N | 104°52'23.251"W | 0.00             |          |
| 12928.00†  | 90.000             | 270.426        | 6905.00     | 5819.47           | -89.73        | -5818.85     | 40°32'21.983"N | 104°52'24.546"W | 0.00             |          |
| 13028.00†  | 90.000             | 270.426        | 6905.00     | 5919.45           | -88.99        | -5918.84     | 40°32'21.990"N | 104°52'25.842"W | 0.00             |          |
| 13128.00†  | 90.000             | 270.426        | 6905.00     | 6019.44           | -88.25        | -6018.84     | 40°32'21.998"N | 104°52'27.137"W | 0.00             |          |
| 13228.00†  | 90.000             | 270.426        | 6905.00     | 6119.42           | -87.50        | -6118.84     | 40°32'22.005"N | 104°52'28.432"W | 0.00             |          |
| 13328.00†  | 90.000             | 270.426        | 6905.00     | 6219.40           | -86.76        | -6218.84     | 40°32'22.012"N | 104°52'29.727"W | 0.00             |          |
| 13428.00†  | 90.000             | 270.426        | 6905.00     | 6319.39           | -86.02        | -6318.83     | 40°32'22.019"N | 104°52'31.022"W | 0.00             |          |
| 13528.00†  | 90.000             | 270.426        | 6905.00     | 6419.37           | -85.27        | -6418.83     | 40°32'22.026"N | 104°52'32.318"W | 0.00             |          |
| 13628.00†  | 90.000             | 270.426        | 6905.00     | 6519.36           | -84.53        | -6518.83     | 40°32'22.033"N | 104°52'33.613"W | 0.00             |          |
| 13728.00†  | 90.000             | 270.426        | 6905.00     | 6619.34           | -83.79        | -6618.83     | 40°32'22.040"N | 104°52'34.908"W | 0.00             |          |
| 13828.00†  | 90.000             | 270.426        | 6905.00     | 6719.32           | -83.04        | -6718.82     | 40°32'22.047"N | 104°52'36.203"W | 0.00             |          |
| 13928.00†  | 90.000             | 270.426        | 6905.00     | 6819.31           | -82.30        | -6818.82     | 40°32'22.054"N | 104°52'37.498"W | 0.00             |          |
| 14028.00†  | 90.000             | 270.426        | 6905.00     | 6919.29           | -81.56        | -6918.82     | 40°32'22.061"N | 104°52'38.793"W | 0.00             |          |
| 14128.00†  | 90.000             | 270.426        | 6905.00     | 7019.28           | -80.82        | -7018.81     | 40°32'22.068"N | 104°52'40.089"W | 0.00             |          |
| 14228.00†  | 90.000             | 270.426        | 6905.00     | 7119.26           | -80.07        | -7118.81     | 40°32'22.075"N | 104°52'41.384"W | 0.00             |          |
| 14328.00†  | 90.000             | 270.426        | 6905.00     | 7219.24           | -79.33        | -7218.81     | 40°32'22.082"N | 104°52'42.679"W | 0.00             |          |
| 14428.00†  | 90.000             | 270.426        | 6905.00     | 7319.23           | -78.59        | -7318.81     | 40°32'22.090"N | 104°52'43.974"W | 0.00             |          |





# Planned Wellpath Report

LAUNER 11 (REV-C.0) PWP

Page 7 of 8



## REFERENCE WELLPATH IDENTIFICATION

|          |                                |          |   |
|----------|--------------------------------|----------|---|
| Operator | EXTRACTION OIL & GAS           | Slot     | SLOT#19 LAUNER 11 (653'FSL & 443'FEL, SEC.26) |
| Area     | COLORADO                       | Well     | LAUNER 11                                     |
| Field    | WELD COUNTY (NAD83/TRUE NORTH) | Wellbore | LAUNER 11 PWB                                 |
| Facility | SEC.26-T07N-R67W               |          |   |

## WELLPATH DATA (151 stations)

| MD<br>[ft] | Inclination<br>[°] | Azimuth<br>[°] | TVD<br>[ft]          | Vert Sect<br>[ft] | North<br>[ft] | East<br>[ft] | Latitude       | Longitude       | DLS<br>[°/100ft] | Comments       |
|------------|--------------------|----------------|----------------------|-------------------|---------------|--------------|----------------|-----------------|------------------|----------------|
| 14514.24   | 90.000             | 270.426        | 6905.00 <sup>2</sup> | 7405.46           | -77.95        | -7405.05     | 40°32'22.096"N | 104°52'45.091"W | 0.00             | End of Tangent |

## TARGETS

| Name  | MD<br>[ft] | TVD<br>[ft] | North<br>[ft] | East<br>[ft] | Grid East<br>[US ft] | Grid North<br>[US ft] | Latitude       | Longitude       | Shape   |
|---|------------|-------------|---------------|--------------|----------------------|-----------------------|----------------|-----------------|---------|
| SEC.26-T07N-R67W  |            | -18.00      | 4139.79       | -58.08       | 3179860.07           | 1444245.18            | 40°33'03.784"N | 104°51'09.932"W | polygon |
| SEC.27-T07N-R67W  |            | -18.00      | 4139.79       | -58.08       | 3179860.07           | 1444245.18            | 40°33'03.784"N | 104°51'09.932"W | polygon |
| 2) LAUNER 11 BHL ON PLAT<br>REV-2 (584'FSL &<br>2561'FEL, SEC.27) |            | 6905.00     | -77.90        | -7405.03     | 3172544.35           | 1439974.10            | 40°32'22.096"N | 104°52'45.091"W | point   |
| 1) LAUNER 11 LANDING REV-2<br>(521'FSL & 590'FEL, SEC.26)         |            | 6905.00     | -131.84       | -147.00      | 3179802.34           | 1439973.15            | 40°32'21.574"N | 104°51'11.084"W | point   |
| LAUNER 11 BHL ON PLAT<br>REV-1(584'FSL &<br>2560'FEL, SEC.27)     |            | 7034.00     | -77.95        | -7405.05     | 3172544.33           | 1439974.06            | 40°32'22.096"N | 104°52'45.091"W | point   |
| LAUNER 11 LANDING   |            | 7034.00     | -131.88       | -16.68       | 3179932.66           | 1439974.06            | 40°32'21.574"N | 104°51'09.396"W | point   |
| LAUNER 11 LANDING REV-1   |            | 7034.00     | -131.84       | -147.16      | 3179802.19           | 1439973.15            | 40°32'21.574"N | 104°51'11.086"W | point   |

## SURVEY PROGRAM - Ref Wellbore: LAUNER 11 PWB Ref Wellpath: LAUNER 11 (REV-C.0) PWP

| Start MD<br>[ft] | End MD<br>[ft] | Positional Uncertainty Model  | Log Name/Comment | Wellbore      |
|------------------|----------------|-------------------------------|------------------|---------------|
| 28.00            | 14515.00       | ISCWSA MWD, Rev. 4 (Standard) |                  | LAUNER 11 PWB |





# Planned Wellpath Report

LAUNER 11 (REV-C.0) PWP

Page 8 of 8



## REFERENCE WELLPATH IDENTIFICATION

|          |                                |          |  |
|----------|--------------------------------|----------|--|
| Operator | EXTRACTION OIL & GAS           | Slot     | SLOT#19 LAUNER 11 (653'FSL & 443'FEL,SEC.26) |
| Area     | COLORADO                       | Well     | LAUNER 11                                    |
| Field    | WELD COUNTY (NAD83/TRUE NORTH) | Wellbore | LAUNER 11 PWB                                |
| Facility | SEC.26-T07N-R67W               |          |  |

## DESIGN COMMENTS

| MD<br>[ft] | Inclination<br>[°] | Azimuth<br>[°] | TVD<br>[ft] | Comment        |
|------------|--------------------|----------------|-------------|----------------|
| 28.00      | 0.000              | 105.593        | 28.00       | Tie On         |
| 2100.00    | 0.000              | 105.593        | 2100.00     | End of Tangent |
| 2411.94    | 6.239              | 105.593        | 2411.33     | End of Build   |
| 6295.82    | 6.239              | 105.593        | 6272.20     | End of Tangent |
| 7256.03    | 90.000             | 270.426        | 6905.00     | End of 3D Arc  |
| 14514.24   | 90.000             | 270.426        | 6905.00     | End of Tangent |