

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.5. Lease Serial No.
NMNM136870

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.
CORRAL CANYON FEDERAL 212H9. API Well No.
30-015-45427-00-X110. Field and Pool or Exploratory Area
PURPLE SAGE-WOLFCAMP (GAS)**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

XTO ENERGY INCORPORATED

Contact: KELLY KARDOS

E-Mail: kelly_kardos@xtoenergy.com

3a. Address

6401 HOLIDAY HILL ROAD BLDG 5
MIDLAND, TX 79707

3b. Phone No. (include area code)

Ph: 432-620-4374

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 16 T25S R29E NWNE 555FNL 2480FEL
32.135803 N Lat, 103.988914 W LonCarlsbad Field Office
Carlsbad Field Office
OCD Artesia

County or Parish, State

SANDY COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Drilling Operations
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

XTO Energy, Inc. received verbal approval from BLM on call engineer, Z. Stevens on 01/08/19 to plug back and deviate the wellbore per the below procedure:

1. PU 800' of 2-7/8" tbg, XO and 5" DP. RIH open ended to 6,300'.

2. Circulate a minimum of 1 bottoms up. Spot 40 bbls of a high visc pill (as high as you can get it).

3. POH to 5,800'. Spot a balanced plug from 5,800' to 5,300' with 15 bbls of gel spacer ahead of ~385 sx (~66 bbls) of 17.5 ppg cement (75% OH excess). Follow the cement with 15 bbls of a gel spacer followed by 9.3 ppg mud. Under displace by a couple barrels.

RECEIVED

JAN 17 2019

DISTRICT II-ARTESIA O.C.D.

All previous COAs is apply. 25

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #450200 verified by the BLM Well Information System
For XTO ENERGY INCORPORATED, sent to the Carlsbad
Committed to AFMSS for processing by ZOTA STEVENS on 01/15/2019 (19ZS0007SE)

Name (Printed/Typed) KELLY KARDOS

Title REGULATORY COORDINATOR

Signature (Electronic Submission)

Date 01/11/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By ZOTA STEVENS

Title PETROLEUM ENGINEER

Date 01/15/2018

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office Carlsbad

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

RVP 2-21-19

Additional data for EC transaction #450200 that would not fit on the form

32. Additional remarks, continued

4. POH to 4,000'. Circulate at least 1-1/2 bottoms up to clear any cement. Shut in well and wait 12 hrs.

5. POH and LD 2-7/8" tbg.

6. PU (8-3/4" Hughes roller cone)-(12 x 6-1/2" DC?s)-(XO)-(5" DP). Tag and dress off top of cement. POH to pick up kick off assembly.

7. PU (8-3/4" Hughes roller cone)-(6-3/4" 7/8 5.0 - .28 rpg 2.38* fixed/slick motor)-(UBHO/MWD & 6-1/2" NMDC)-(XO)-(5" DP).

8. TIH and kick off of cement plug at 163 TF at the below time drill schedule:

- a) 5 min/in for 10?
- b) 4 min/in for 8?
- c) 3 min/in for 6?
- d) 2 min/in for 5?
- e) Turn to 260 azm

9. Once kicked off, POH and PU vertical directional assembly: (8-3/4" Reed TK76 7 x 12's) - (6-3/4" 7/8 5.7 - .23 rpg 1.5* bend motor)-(RR)-(UBHO/MWD & 6-1/2" NMDC)-(18 x 6-1/2" DC?s)-(XO)-(5" DP).

10. Drill to TD and continue with original plan with revised directional plan (attached)

XTO Energy Inc.

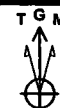
GL:2988'+27ft @ 3015.00usft (Felderhoff 26 (+27ft))

2988.00

Project: Eddy County, NM (NAD27)
Site: Corral Canyon Federal
Well: Corral Canyon Federal 212H
Wellbore: ST01
Design: Plan 2
Rig: Felderhoff 26 (+27ft)



Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone Name: New Mexico East 3001



Azimuths to Grid North
True North: -0.18°
Magnetic North: 8.67°
Magnetic Field
Strength: 47725.8nT
Dip Angle: 59.83°
Date: 1/8/2019
Model: BGGM2018

WELL DETAILS

			2988.00			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	413252.40	606760.40	32.13567758	-103.98843111	

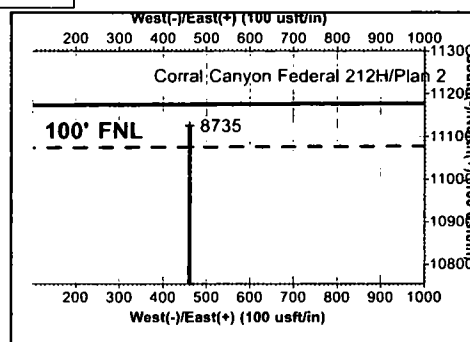
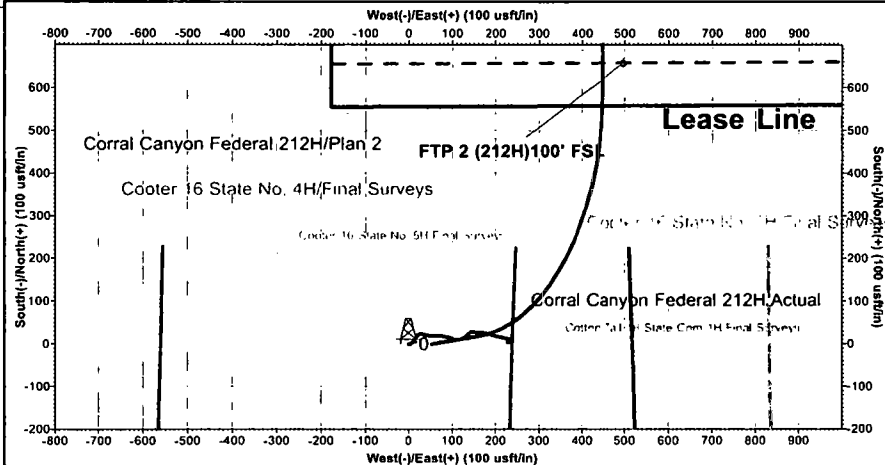
SECTION DETAILS

Plan 2

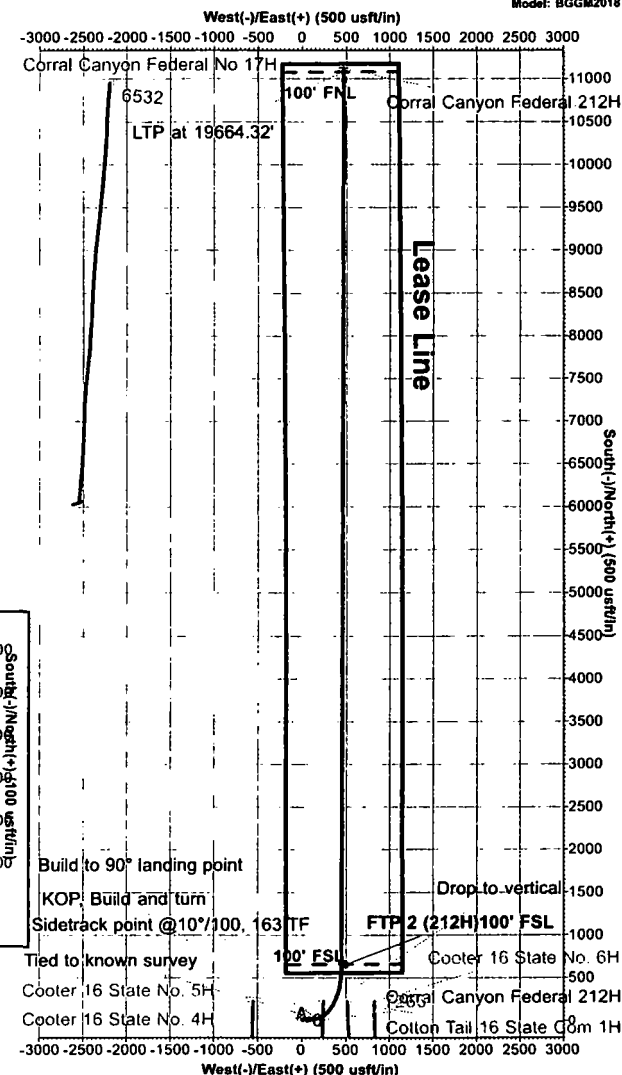
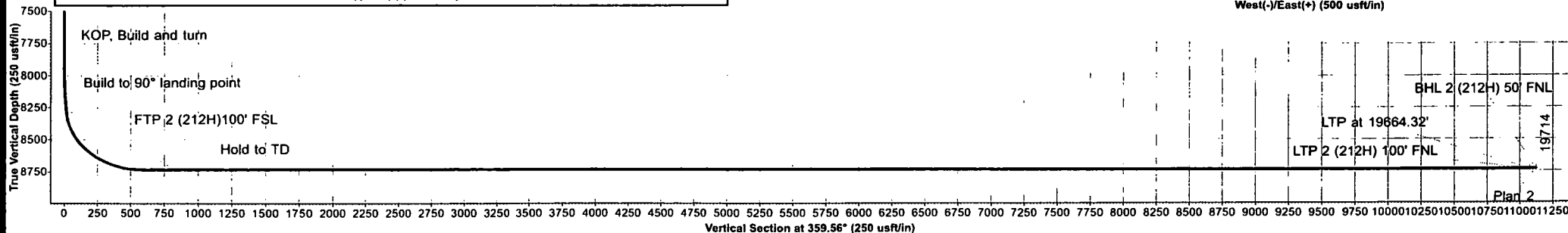
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
5473.00	3.30	106.63	5468.89	23.95	180.41	0.00	0.00	22.57	Tied to known survey
5500.00	3.21	106.44	5495.84	23.52	181.88	0.34	-173.26	22.12	Sidetrack point @10°/100, 163 TF
5550.00	2.15	243.55	5545.82	22.70	182.38	10.00	163.00	21.30	Turn to 260 Azimuth
5700.00	5.00	260.00	5695.52	20.32	173.43	2.00	28.09	18.99	Hold 5° Inclination
7000.00	5.00	260.00	6990.57	0.64	61.85	0.00	0.00	0.17	Drop to vertical
7200.00	0.00	0.00	7190.31	-0.87	53.26	2.50	180.00	-1.28	Hold vertical
7942.19	0.00	0.00	7932.50	-0.87	53.26	0.00	0.00	-1.28	KOP, Build and turn
8332.93	33.50	80.00	8301.36	18.41	162.59	8.57	80.00	17.16	Build to 90° landing point
9177.47	90.00	0.08	8735.00	588.26	446.01	10.00	-81.56	584.82	Hold to TD
19664.32	90.00	0.08	8735.00	11075.10	461.50	0.00	0.00	11071.23	LTP at 19664.32'
19714.32	90.00	0.08	8735.00	11125.10	461.57	0.00	0.00	11121.23	TD at 19714.32'

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
BHL 2 (212H) 50' FNL	8735.00	11125.10	461.20	424377.50	607221.60	32.16625616	-103.98682551
FTP 2 (212H)100' FSL	8735.00	657.10	496.40	413909.50	607256.80	32.13747956	-103.98682063
LTP 2 (212H) 100' FNL	8735.00	11075.10	461.50	424327.50	607221.90	32.16611871	-103.98682506



HALLIBURTON Specialty Drilling



Felderhoff 26 (+27ft)

XTO Energy Inc.

Eddy County, NM (NAD27) Corral Canyon Federal

API#

Corral Canyon Federal 212H

555' FNL, 2480' FEL, Sec. 16

ST01

Plan: Plan 2

Please view the full Magnetic Declination

for the full Magnetic Declination

Sperry Drilling Services

Combo Report

08 January, 2019

Well Coordinates: 32.13567758
-103.98843111

NAD 1927 (NADCON CONUS)
New Mexico East 3001
413,252.40 N
606,760.40 E

Ground Level: 2,988.00 usft

Local Coordinate Origin:

Viewing Datum:

TVDs to System:

North Reference:

Unit System:

Centered on Well Corral Canyon Federal 212H
GL:2988'+27ft @ 3015.00usft (Felderhoff 26 (+27ft))

N

Grid

Midcon (2 decimal)

Version: 5000.15 Build: 91

Report Version: Midcon Combo v1.13

HALLIBURTON

HALLIBURTON**Plan Report for Corral Canyon Federal 212H - Plan 2**

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100usft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
0.00	0.00	0.00	0.00	0.00 N	0.00 E	413,252.40	606,760.40	0.00	0.00	0.00	
100.00	0.55	177.12	100.00	0.48 S	0.02 E	413,251.92	606,760.42	0.55	-0.48	177.12	20"
143.00	0.79	177.12	143.00	0.98 S	0.05 E	413,251.42	606,760.45	0.55	-0.98	0.00	
206.00	1.10	122.52	205.99	1.74 S	0.58 E	413,250.66	606,760.98	1.44	-1.75	-99.67	
265.00	2.51	67.06	264.96	1.54 S	2.25 E	413,250.86	606,762.65	3.55	-1.56	-81.10	
298.00	2.99	60.56	297.92	0.84 S	3.66 E	413,251.56	606,764.06	1.73	-0.87	-36.29	
383.41	3.12	49.13	383.21	1.78 N	7.36 E	413,254.18	606,767.76	0.73	1.72	-83.70	
475.78	2.51	40.43	475.47	4.96 N	10.57 E	413,257.36	606,770.97	0.80	4.88	-149.28	
557.17	2.51	36.21	556.78	7.76 N	12.78 E	413,260.16	606,773.18	0.23	7.66	-92.11	
624.00	2.99	31.11	623.54	10.43 N	14.55 E	413,262.83	606,774.95	0.81	10.32	-29.57	
750.00	3.21	35.51	749.35	16.11 N	18.29 E	413,268.51	606,778.69	0.26	15.97	49.46	
841.13	2.29	43.68	840.38	19.51 N	21.03 E	413,271.91	606,781.43	1.09	19.35	160.97	
934.74	2.51	61.52	933.90	21.84 N	24.13 E	413,274.24	606,784.53	0.83	21.65	82.63	
1,030.70	1.58	91.49	1,029.81	22.80 N	27.30 E	413,275.20	606,787.70	1.45	22.59	145.33	
1,124.00	1.58	97.47	1,123.07	22.60 N	29.86 E	413,275.00	606,790.26	0.18	22.37	92.99	
1,220.00	1.80	106.44	1,219.03	22.01 N	32.62 E	413,274.41	606,793.02	0.36	21.75	54.79	
1,314.71	1.89	100.72	1,313.69	21.29 N	35.58 E	413,273.69	606,795.98	0.22	21.02	-66.83	
1,409.01	2.02	102.83	1,407.93	20.64 N	38.73 E	413,273.04	606,799.13	0.16	20.34	30.03	
1,503.07	1.89	97.91	1,501.94	20.05 N	41.88 E	413,272.45	606,802.28	0.23	19.73	-130.20	
1,598.05	2.02	95.27	1,596.86	19.68 N	45.10 E	413,272.08	606,805.50	0.17	19.34	-36.04	
1,690.26	2.11	92.99	1,689.01	19.45 N	48.41 E	413,271.85	606,808.81	0.13	19.07	-43.53	
1,784.81	2.29	91.32	1,783.49	19.31 N	52.04 E	413,271.71	606,812.44	0.20	18.91	-20.44	
1,878.64	2.51	95.71	1,877.24	19.07 N	55.96 E	413,271.47	606,816.36	0.31	18.63	42.09	
1,973.17	2.51	90.70	1,971.68	18.83 N	60.09 E	413,271.23	606,820.49	0.23	18.37	-92.50	
2,068.09	2.59	90.53	2,066.51	18.79 N	64.31 E	413,271.19	606,824.71	0.08	18.29	-5.49	
2,162.35	2.68	89.74	2,160.67	18.78 N	68.64 E	413,271.18	606,829.04	0.10	18.25	-22.37	
2,257.50	2.99	94.83	2,255.70	18.58 N	73.34 E	413,270.98	606,833.74	0.42	18.02	41.64	
2,351.40	2.51	98.17	2,349.49	18.08 N	77.81 E	413,270.48	606,838.21	0.54	17.48	163.20	
2,446.66	2.59	103.97	2,444.66	17.27 N	81.97 E	413,269.67	606,842.37	0.28	16.64	75.69	
2,541.24	2.42	99.23	2,539.15	16.43 N	86.01 E	413,268.83	606,846.41	0.28	15.77	-131.72	
2,636.56	3.21	103.89	2,634.35	15.47 N	90.59 E	413,267.87	606,850.99	0.86	14.77	18.49	
2,731.63	2.68	109.07	2,729.30	14.10 N	95.27 E	413,266.50	606,855.67	0.62	13.37	155.91	
2,814.00	3.12	109.51	2,811.56	12.72 N	99.21 E	413,265.12	606,859.61	0.53	11.96	3.12	
2,924.00	2.68	117.53	2,921.42	10.53 N	104.31 E	413,262.93	606,864.71	0.54	9.73	141.28	
3,019.00	2.59	94.86	3,016.32	9.33 N	108.42 E	413,261.73	606,868.82	1.09	8.49	-106.19	
3,113.00	2.42	89.58	3,110.23	9.16 N	112.52 E	413,261.56	606,872.92	0.30	8.30	-129.00	

HALLIBURTON**Plan Report for Corral Canyon Federal 212H - Plan 2**

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100usft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
3,208.00	2.51	72.09	3,205.15	9.82 N	116.50 E	413,262.22	606,876.90	0.79	8.92	-91.97	
3,302.00	2.20	69.02	3,299.07	11.09 N	120.15 E	413,263.49	606,880.55	0.36	10.17	-159.39	
3,397.00	2.11	62.78	3,394.00	12.55 N	123.40 E	413,264.95	606,883.80	0.26	11.60	-114.08	
3,491.00	2.02	64.09	3,487.94	14.06 N	126.43 E	413,266.46	606,886.83	0.11	13.09	152.98	
3,586.00	1.80	61.02	3,582.89	15.52 N	129.24 E	413,267.92	606,889.64	0.26	14.52	-156.59	
3,681.00	1.58	55.92	3,677.85	16.97 N	131.63 E	413,269.37	606,892.03	0.28	15.96	-148.17	
3,775.00	1.41	52.76	3,771.81	18.40 N	133.63 E	413,270.80	606,894.03	0.20	17.37	-155.70	
3,869.00	1.19	52.76	3,865.79	19.69 N	135.33 E	413,272.09	606,895.73	0.23	18.65	180.00	
3,964.00	1.10	38.25	3,960.77	21.00 N	136.68 E	413,273.40	606,897.08	0.32	19.95	-114.41	
4,058.00	1.01	40.72	4,054.75	22.34 N	137.78 E	413,274.74	606,898.18	0.11	21.28	154.42	
4,153.00	0.31	307.99	4,149.75	23.13 N	138.12 E	413,275.53	606,898.52	1.13	22.07	-163.19	
4,248.00	0.48	9.78	4,244.75	23.68 N	137.98 E	413,276.08	606,898.38	0.45	22.62	101.11	
4,342.00	1.32	61.28	4,338.74	24.59 N	139.00 E	413,276.99	606,899.40	1.16	23.52	71.69	
4,437.00	1.49	48.19	4,433.71	25.94 N	140.88 E	413,278.34	606,901.28	0.38	24.86	-68.74	
4,532.00	1.49	68.67	4,528.68	27.21 N	142.95 E	413,279.61	606,903.35	0.56	26.11	100.24	
4,626.00	1.49	97.23	4,622.65	27.50 N	145.30 E	413,279.90	606,905.70	0.78	26.39	104.28	
4,720.00	2.20	98.28	4,716.60	27.09 N	148.30 E	413,279.49	606,908.70	0.76	25.95	3.25	
4,814.00	2.02	96.97	4,810.53	26.63 N	151.73 E	413,279.03	606,912.13	0.20	25.46	-165.65	
4,908.00	2.68	99.08	4,904.45	26.08 N	155.54 E	413,278.48	606,915.94	0.71	24.89	8.52	
5,002.00	2.99	91.43	4,998.34	25.67 N	160.17 E	413,278.07	606,920.57	0.52	24.44	-54.53	
5,097.00	2.68	90.29	5,093.22	25.60 N	164.86 E	413,278.00	606,925.26	0.33	24.33	-170.26	
5,191.00	2.02	88.97	5,187.14	25.62 N	168.72 E	413,278.02	606,929.12	0.70	24.32	-175.97	
5,285.00	2.29	93.71	5,281.08	25.53 N	172.25 E	413,277.93	606,932.65	0.34	24.20	35.81	
5,379.00	2.29	100.39	5,375.00	25.07 N	175.97 E	413,277.47	606,936.37	0.28	23.71	93.34	
5,473.00	3.30	106.63	5,468.89	23.95 N	180.41 E	413,276.35	606,940.81	1.12	22.57	19.90	Tied to known survey
5,500.00	3.21	106.44	5,495.84	23.52 N	181.88 E	413,275.92	606,942.28	0.34	22.12	-173.26	Sidetrack point @10°/100, 163 TF
5,550.00	2.15	243.55	5,545.82	22.70 N	182.38 E	413,275.10	606,942.78	10.00	21.30	163.00	Turn to 260 Azimuth
5,600.00	3.07	252.40	5,595.77	21.88 N	180.27 E	413,274.28	606,940.67	2.00	20.50	28.09	
5,700.00	5.00	260.00	5,695.52	20.32 N	173.43 E	413,272.72	606,933.83	2.00	18.99	19.25	Hold 5° Inclination
5,800.00	5.00	260.00	5,795.14	18.80 N	164.85 E	413,271.20	606,925.25	0.00	17.54	0.00	
5,900.00	5.00	260.00	5,894.75	17.29 N	156.26 E	413,269.69	606,916.66	0.00	16.09	0.00	
6,000.00	5.00	260.00	5,994.37	15.78 N	147.68 E	413,268.18	606,908.08	0.00	14.64	0.00	
6,100.00	5.00	260.00	6,093.99	14.26 N	139.10 E	413,266.66	606,899.50	0.00	13.20	0.00	
6,200.00	5.00	260.00	6,193.61	12.75 N	130.51 E	413,265.15	606,890.91	0.00	11.75	0.00	
6,300.00	5.00	260.00	6,293.23	11.24 N	121.93 E	413,263.64	606,882.33	0.00	10.30	0.00	
6,400.00	5.00	260.00	6,392.85	9.72 N	113.35 E	413,262.12	606,873.75	0.00	8.85	0.00	
6,500.00	5.00	260.00	6,492.47	8.21 N	104.76 E	413,260.61	606,865.16	0.00	7.41	0.00	

HALLIBURTON**Plan Report for Corral Canyon Federal 212H - Plan 2**

Measured	Grid	Vertical	Local Coordinates		Map Coordinates		Dogleg	Vertical	Toolface	Comments	
Depth (usft)	Inclination (°)	Azimuth (°)	Depth (usft)	Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)	Rate (°/100usft)	Section (usft)		Angle (°)
6,600.00	5.00	260.00	6,592.09	6.70 N	96.18 E	413,259.10	606,856.58	0.00	5.96	0.00	
6,700.00	5.00	260.00	6,691.71	5.18 N	87.60 E	413,257.58	606,848.00	0.00	4.51	0.00	
6,800.00	5.00	260.00	6,791.33	3.67 N	79.01 E	413,256.07	606,839.41	0.00	3.06	0.00	
6,900.00	5.00	260.00	6,890.95	2.16 N	70.43 E	413,254.56	606,830.83	0.00	1.62	0.00	
7,000.00	5.00	260.00	6,990.57	0.64 N	61.85 E	413,253.04	606,822.25	0.00	0.17	0.00	Drop to vertical
7,100.00	2.50	260.00	7,090.35	0.49 S	55.41 E	413,251.91	606,815.81	2.50	-0.92	180.00	
7,200.00	0.00	0.00	7,190.31	0.87 S	53.26 E	413,251.53	606,813.66	2.50	-1.28	180.00	Hold vertical
7,300.00	0.00	0.00	7,290.31	0.87 S	53.26 E	413,251.53	606,813.66	0.00	-1.28	0.00	
7,400.00	0.00	0.00	7,390.31	0.87 S	53.26 E	413,251.53	606,813.66	0.00	-1.28	0.00	
7,500.00	0.00	0.00	7,490.31	0.87 S	53.26 E	413,251.53	606,813.66	0.00	-1.28	0.00	
7,600.00	0.00	0.00	7,590.31	0.87 S	53.26 E	413,251.53	606,813.66	0.00	-1.28	0.00	
7,700.00	0.00	0.00	7,690.31	0.87 S	53.26 E	413,251.53	606,813.66	0.00	-1.28	0.00	
7,800.00	0.00	0.00	7,790.31	0.87 S	53.26 E	413,251.53	606,813.66	0.00	-1.28	0.00	
7,900.00	0.00	0.00	7,890.31	0.87 S	53.26 E	413,251.53	606,813.66	0.00	-1.28	0.00	
7,942.19	0.00	0.00	7,932.50	0.87 S	53.26 E	413,251.53	606,813.66	0.00	-1.28	0.00	KOP, Build and turn
7,950.00	0.67	80.00	7,940.31	0.86 S	53.30 E	413,251.54	606,813.70	8.58	-1.27	80.00	
8,000.00	4.96	80.00	7,990.24	0.44 S	55.72 E	413,251.96	606,816.12	8.57	-0.87	0.00	
8,050.00	9.24	80.00	8,039.85	0.64 N	61.81 E	413,253.04	606,822.21	8.57	0.16	0.00	
8,100.00	13.53	80.00	8,088.85	2.35 N	71.53 E	413,254.75	606,831.93	8.57	1.80	0.00	
8,150.00	17.82	80.00	8,136.98	4.69 N	84.82 E	413,257.09	606,845.22	8.57	4.04	0.00	
8,200.00	22.10	80.00	8,183.97	7.66 N	101.63 E	413,260.06	606,862.03	8.57	6.88	0.00	
8,250.00	26.39	80.00	8,229.55	11.22 N	121.85 E	413,263.62	606,882.25	8.57	10.29	0.00	
8,300.00	30.68	80.00	8,273.46	15.37 N	145.36 E	413,267.77	606,905.76	8.57	14.25	0.00	
8,332.93	33.50	80.00	8,301.36	18.41 N	162.59 E	413,270.81	606,922.99	8.57	17.16	0.00	Build to 90° landing point
8,350.00	33.79	76.96	8,315.57	20.29 N	171.85 E	413,272.69	606,932.25	10.00	18.97	-81.56	
8,400.00	35.04	68.39	8,356.84	28.72 N	198.76 E	413,281.12	606,959.16	10.00	27.20	-79.04	
8,450.00	36.86	60.45	8,397.34	41.41 N	225.17 E	413,293.81	606,985.57	10.00	39.68	-71.96	
8,500.00	39.16	53.24	8,436.75	58.27 N	250.88 E	413,310.67	607,011.28	10.00	56.34	-65.53	
8,550.00	41.86	46.75	8,474.78	79.16 N	275.69 E	413,331.56	607,036.09	10.00	77.04	-59.84	
8,600.00	44.88	40.95	8,511.14	103.93 N	299.42 E	413,356.33	607,059.82	10.00	101.63	-54.90	
8,650.00	48.17	35.76	8,545.55	132.39 N	321.88 E	413,384.79	607,082.28	10.00	129.91	-50.69	
8,700.00	51.67	31.09	8,577.74	164.32 N	342.91 E	413,416.72	607,103.31	10.00	161.68	-47.11	
8,750.00	55.34	26.86	8,607.48	199.48 N	362.34 E	413,451.88	607,122.74	10.00	196.70	-44.10	
8,800.00	59.14	23.00	8,634.54	237.61 N	380.03 E	413,490.01	607,140.43	10.00	234.68	-41.59	
8,850.00	63.05	19.43	8,658.70	278.41 N	395.84 E	413,530.81	607,156.24	10.00	275.36	-39.49	
8,900.00	67.04	16.11	8,679.80	321.57 N	409.65 E	413,573.97	607,170.05	10.00	318.41	-37.77	
8,950.00	71.10	12.98	8,697.66	366.76 N	421.35 E	413,619.16	607,181.75	10.00	363.51	-36.37	

HALLIBURTON**Plan Report for Corral Canyon Federal 212H - Plan 2**

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100usft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
9,000.00	75.20	10.00	8,712.15	413.64 N	430.87 E	413,666.04	607,191.27	10.00	410.32	-35.25	
9,050.00	79.35	7.13	8,723.17	461.85 N	438.12 E	413,714.25	607,198.52	10.00	458.48	-34.38	
9,100.00	83.52	4.33	8,730.61	511.03 N	443.04 E	413,763.43	607,203.44	10.00	507.62	-33.75	
9,150.00	87.70	1.59	8,734.44	560.80 N	445.61 E	413,813.20	607,206.01	10.00	557.37	-33.33	
9,177.47	90.00	0.08	8,735.00	588.26 N	446.01 E	413,840.66	607,206.41	10.00	584.82	-33.12	Hold to TD
9,200.00	90.00	0.08	8,735.00	610.79 N	446.05 E	413,863.19	607,206.45	0.00	607.35	-33.09	
9,300.00	90.00	0.08	8,735.00	710.79 N	446.19 E	413,963.19	607,206.59	0.00	707.35	0.00	
9,400.00	90.00	0.08	8,735.00	810.79 N	446.34 E	414,063.19	607,206.74	0.00	807.34	0.00	
9,500.00	90.00	0.08	8,735.00	910.79 N	446.49 E	414,163.19	607,206.89	0.00	907.34	0.00	
9,600.00	90.00	0.08	8,735.00	1,010.79 N	446.64 E	414,263.19	607,207.04	0.00	1,007.33	0.00	
9,700.00	90.00	0.08	8,735.00	1,110.79 N	446.78 E	414,363.19	607,207.18	0.00	1,107.33	0.00	
9,800.00	90.00	0.08	8,735.00	1,210.79 N	446.93 E	414,463.19	607,207.33	0.00	1,207.32	0.00	
9,900.00	90.00	0.08	8,735.00	1,310.79 N	447.08 E	414,563.19	607,207.48	0.00	1,307.32	0.00	
10,000.00	90.00	0.08	8,735.00	1,410.79 N	447.23 E	414,663.19	607,207.63	0.00	1,407.32	0.00	
10,100.00	90.00	0.08	8,735.00	1,510.79 N	447.37 E	414,763.19	607,207.77	0.00	1,507.31	0.00	
10,200.00	90.00	0.08	8,735.00	1,610.79 N	447.52 E	414,863.19	607,207.92	0.00	1,607.31	0.00	
10,300.00	90.00	0.08	8,735.00	1,710.79 N	447.67 E	414,963.19	607,208.07	0.00	1,707.30	0.00	
10,400.00	90.00	0.08	8,735.00	1,810.79 N	447.82 E	415,063.19	607,208.22	0.00	1,807.30	0.00	
10,500.00	90.00	0.08	8,735.00	1,910.79 N	447.97 E	415,163.19	607,208.37	0.00	1,907.30	0.00	
10,600.00	90.00	0.08	8,735.00	2,010.79 N	448.11 E	415,263.19	607,208.51	0.00	2,007.29	0.00	
10,700.00	90.00	0.08	8,735.00	2,110.79 N	448.26 E	415,363.19	607,208.66	0.00	2,107.29	0.00	
10,800.00	90.00	0.08	8,735.00	2,210.79 N	448.41 E	415,463.19	607,208.81	0.00	2,207.28	0.00	
10,900.00	90.00	0.08	8,735.00	2,310.79 N	448.56 E	415,563.19	607,208.96	0.00	2,307.28	0.00	
11,000.00	90.00	0.08	8,735.00	2,410.79 N	448.70 E	415,663.19	607,209.10	0.00	2,407.27	0.00	
11,100.00	90.00	0.08	8,735.00	2,510.79 N	448.85 E	415,763.19	607,209.25	0.00	2,507.27	0.00	
11,200.00	90.00	0.08	8,735.00	2,610.79 N	449.00 E	415,863.19	607,209.40	0.00	2,607.27	0.00	
11,300.00	90.00	0.08	8,735.00	2,710.79 N	449.15 E	415,963.19	607,209.55	0.00	2,707.26	0.00	
11,400.00	90.00	0.08	8,735.00	2,810.79 N	449.29 E	416,063.19	607,209.69	0.00	2,807.26	0.00	
11,500.00	90.00	0.08	8,735.00	2,910.79 N	449.44 E	416,163.19	607,209.84	0.00	2,907.25	0.00	
11,600.00	90.00	0.08	8,735.00	3,010.79 N	449.59 E	416,263.19	607,209.99	0.00	3,007.25	0.00	
11,700.00	90.00	0.08	8,735.00	3,110.79 N	449.74 E	416,363.19	607,210.14	0.00	3,107.25	0.00	
11,800.00	90.00	0.08	8,735.00	3,210.79 N	449.89 E	416,463.19	607,210.29	0.00	3,207.24	0.00	
11,900.00	90.00	0.08	8,735.00	3,310.79 N	450.03 E	416,563.19	607,210.43	0.00	3,307.24	0.00	
12,000.00	90.00	0.08	8,735.00	3,410.79 N	450.18 E	416,663.19	607,210.58	0.00	3,407.23	0.00	
12,100.00	90.00	0.08	8,735.00	3,510.79 N	450.33 E	416,763.19	607,210.73	0.00	3,507.23	0.00	
12,200.00	90.00	0.08	8,735.00	3,610.79 N	450.48 E	416,863.19	607,210.88	0.00	3,607.22	0.00	

HALLIBURTON**Plan Report for Corral Canyon Federal 212H - Plan 2**

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100usft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing	Easting	Northing	Easting				
12,300.00	90.00	0.08	8,735.00	3,710.79 N	450.62 E	416,963.19	607,211.02	0.00	3,707.22	0.00	
12,400.00	90.00	0.08	8,735.00	3,810.79 N	450.77 E	417,063.19	607,211.17	0.00	3,807.22	0.00	
12,500.00	90.00	0.08	8,735.00	3,910.79 N	450.92 E	417,163.19	607,211.32	0.00	3,907.21	0.00	
12,600.00	90.00	0.08	8,735.00	4,010.79 N	451.07 E	417,263.19	607,211.47	0.00	4,007.21	0.00	
12,700.00	90.00	0.08	8,735.00	4,110.79 N	451.21 E	417,363.19	607,211.61	0.00	4,107.20	0.00	
12,800.00	90.00	0.08	8,735.00	4,210.79 N	451.36 E	417,463.19	607,211.76	0.00	4,207.20	0.00	
12,900.00	90.00	0.08	8,735.00	4,310.79 N	451.51 E	417,563.19	607,211.91	0.00	4,307.19	0.00	
13,000.00	90.00	0.08	8,735.00	4,410.79 N	451.66 E	417,663.19	607,212.06	0.00	4,407.19	0.00	
13,100.00	90.00	0.08	8,735.00	4,510.79 N	451.81 E	417,763.19	607,212.21	0.00	4,507.19	0.00	
13,200.00	90.00	0.08	8,735.00	4,610.79 N	451.95 E	417,863.19	607,212.35	0.00	4,607.18	0.00	
13,300.00	90.00	0.08	8,735.00	4,710.79 N	452.10 E	417,963.19	607,212.50	0.00	4,707.18	0.00	
13,400.00	90.00	0.08	8,735.00	4,810.79 N	452.25 E	418,063.19	607,212.65	0.00	4,807.17	0.00	
13,500.00	90.00	0.08	8,735.00	4,910.79 N	452.40 E	418,163.19	607,212.80	0.00	4,907.17	0.00	
13,600.00	90.00	0.08	8,735.00	5,010.79 N	452.54 E	418,263.19	607,212.94	0.00	5,007.17	0.00	
13,700.00	90.00	0.08	8,735.00	5,110.79 N	452.69 E	418,363.19	607,213.09	0.00	5,107.16	0.00	
13,800.00	90.00	0.08	8,735.00	5,210.79 N	452.84 E	418,463.19	607,213.24	0.00	5,207.16	0.00	
13,900.00	90.00	0.08	8,735.00	5,310.79 N	452.99 E	418,563.19	607,213.39	0.00	5,307.15	0.00	
14,000.00	90.00	0.08	8,735.00	5,410.79 N	453.13 E	418,663.19	607,213.53	0.00	5,407.15	0.00	
14,100.00	90.00	0.08	8,735.00	5,510.79 N	453.28 E	418,763.19	607,213.68	0.00	5,507.14	0.00	
14,200.00	90.00	0.08	8,735.00	5,610.79 N	453.43 E	418,863.19	607,213.83	0.00	5,607.14	0.00	
14,300.00	90.00	0.08	8,735.00	5,710.79 N	453.58 E	418,963.19	607,213.98	0.00	5,707.14	0.00	
14,400.00	90.00	0.08	8,735.00	5,810.79 N	453.73 E	419,063.19	607,214.13	0.00	5,807.13	0.00	
14,500.00	90.00	0.08	8,735.00	5,910.79 N	453.87 E	419,163.19	607,214.27	0.00	5,907.13	0.00	
14,600.00	90.00	0.08	8,735.00	6,010.79 N	454.02 E	419,263.19	607,214.42	0.00	6,007.12	0.00	
14,700.00	90.00	0.08	8,735.00	6,110.79 N	454.17 E	419,363.19	607,214.57	0.00	6,107.12	0.00	
14,800.00	90.00	0.08	8,735.00	6,210.79 N	454.32 E	419,463.19	607,214.72	0.00	6,207.12	0.00	
14,900.00	90.00	0.08	8,735.00	6,310.79 N	454.46 E	419,563.19	607,214.86	0.00	6,307.11	0.00	
15,000.00	90.00	0.08	8,735.00	6,410.79 N	454.61 E	419,663.19	607,215.01	0.00	6,407.11	0.00	
15,100.00	90.00	0.08	8,735.00	6,510.79 N	454.76 E	419,763.19	607,215.16	0.00	6,507.10	0.00	
15,200.00	90.00	0.08	8,735.00	6,610.79 N	454.91 E	419,863.19	607,215.31	0.00	6,607.10	0.00	
15,300.00	90.00	0.08	8,735.00	6,710.79 N	455.05 E	419,963.19	607,215.45	0.00	6,707.09	0.00	
15,400.00	90.00	0.08	8,735.00	6,810.79 N	455.20 E	420,063.19	607,215.60	0.00	6,807.09	0.00	
15,500.00	90.00	0.08	8,735.00	6,910.79 N	455.35 E	420,163.19	607,215.75	0.00	6,907.09	0.00	
15,600.00	90.00	0.08	8,735.00	7,010.79 N	455.50 E	420,263.19	607,215.90	0.00	7,007.08	0.00	
15,700.00	90.00	0.08	8,735.00	7,110.79 N	455.65 E	420,363.19	607,216.05	0.00	7,107.08	0.00	
15,800.00	90.00	0.08	8,735.00	7,210.79 N	455.79 E	420,463.19	607,216.19	0.00	7,207.07	0.00	
15,900.00	90.00	0.08	8,735.00	7,310.79 N	455.94 E	420,563.19	607,216.34	0.00	7,307.07	0.00	

HALLIBURTON**Plan Report for Corral Canyon Federal 212H - Plan 2**

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100usft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
16,000.00	90.00	0.08	8,735.00	7,410.79 N	456.09 E	420,663.19	607,216.49	0.00	7,407.06	0.00	
16,100.00	90.00	0.08	8,735.00	7,510.79 N	456.24 E	420,763.19	607,216.64	0.00	7,507.06	0.00	
16,200.00	90.00	0.08	8,735.00	7,610.79 N	456.38 E	420,863.19	607,216.78	0.00	7,607.06	0.00	
16,300.00	90.00	0.08	8,735.00	7,710.79 N	456.53 E	420,963.19	607,216.93	0.00	7,707.05	0.00	
16,400.00	90.00	0.08	8,735.00	7,810.79 N	456.68 E	421,063.19	607,217.08	0.00	7,807.05	0.00	
16,500.00	90.00	0.08	8,735.00	7,910.79 N	456.83 E	421,163.19	607,217.23	0.00	7,907.04	0.00	
16,600.00	90.00	0.08	8,735.00	8,010.79 N	456.97 E	421,263.19	607,217.37	0.00	8,007.04	0.00	
16,700.00	90.00	0.08	8,735.00	8,110.79 N	457.12 E	421,363.19	607,217.52	0.00	8,107.04	0.00	
16,800.00	90.00	0.08	8,735.00	8,210.79 N	457.27 E	421,463.19	607,217.67	0.00	8,207.03	0.00	
16,900.00	90.00	0.08	8,735.00	8,310.78 N	457.42 E	421,563.18	607,217.82	0.00	8,307.03	0.00	
17,000.00	90.00	0.08	8,735.00	8,410.78 N	457.57 E	421,663.18	607,217.97	0.00	8,407.02	0.00	
17,100.00	90.00	0.08	8,735.00	8,510.78 N	457.71 E	421,763.18	607,218.11	0.00	8,507.02	0.00	
17,200.00	90.00	0.08	8,735.00	8,610.78 N	457.86 E	421,863.18	607,218.26	0.00	8,607.01	0.00	
17,300.00	90.00	0.08	8,735.00	8,710.78 N	458.01 E	421,963.18	607,218.41	0.00	8,707.01	0.00	
17,400.00	90.00	0.08	8,735.00	8,810.78 N	458.16 E	422,063.18	607,218.56	0.00	8,807.01	0.00	
17,500.00	90.00	0.08	8,735.00	8,910.78 N	458.30 E	422,163.18	607,218.70	0.00	8,907.00	0.00	
17,600.00	90.00	0.08	8,735.00	9,010.78 N	458.45 E	422,263.18	607,218.85	0.00	9,007.00	0.00	
17,700.00	90.00	0.08	8,735.00	9,110.78 N	458.60 E	422,363.18	607,219.00	0.00	9,106.99	0.00	
17,800.00	90.00	0.08	8,735.00	9,210.78 N	458.75 E	422,463.18	607,219.15	0.00	9,206.99	0.00	
17,900.00	90.00	0.08	8,735.00	9,310.78 N	458.89 E	422,563.18	607,219.29	0.00	9,306.99	0.00	
18,000.00	90.00	0.08	8,735.00	9,410.78 N	459.04 E	422,663.18	607,219.44	0.00	9,406.98	0.00	
18,100.00	90.00	0.08	8,735.00	9,510.78 N	459.19 E	422,763.18	607,219.59	0.00	9,506.98	0.00	
18,200.00	90.00	0.08	8,735.00	9,610.78 N	459.34 E	422,863.18	607,219.74	0.00	9,606.97	0.00	
18,300.00	90.00	0.08	8,735.00	9,710.78 N	459.49 E	422,963.18	607,219.89	0.00	9,706.97	0.00	
18,400.00	90.00	0.08	8,735.00	9,810.78 N	459.63 E	423,063.18	607,220.03	0.00	9,806.96	0.00	
18,500.00	90.00	0.08	8,735.00	9,910.78 N	459.78 E	423,163.18	607,220.18	0.00	9,906.96	0.00	
18,600.00	90.00	0.08	8,735.00	10,010.78 N	459.93 E	423,263.18	607,220.33	0.00	10,006.96	0.00	
18,700.00	90.00	0.08	8,735.00	10,110.78 N	460.08 E	423,363.18	607,220.48	0.00	10,106.95	0.00	
18,800.00	90.00	0.08	8,735.00	10,210.78 N	460.22 E	423,463.18	607,220.62	0.00	10,206.95	0.00	
18,900.00	90.00	0.08	8,735.00	10,310.78 N	460.37 E	423,563.18	607,220.77	0.00	10,306.94	0.00	
19,000.00	90.00	0.08	8,735.00	10,410.78 N	460.52 E	423,663.18	607,220.92	0.00	10,406.94	0.00	
19,100.00	90.00	0.08	8,735.00	10,510.78 N	460.67 E	423,763.18	607,221.07	0.00	10,506.93	0.00	
19,200.00	90.00	0.08	8,735.00	10,610.78 N	460.81 E	423,863.18	607,221.21	0.00	10,606.93	0.00	
19,300.00	90.00	0.08	8,735.00	10,710.78 N	460.96 E	423,963.18	607,221.36	0.00	10,706.93	0.00	
19,400.00	90.00	0.08	8,735.00	10,810.78 N	461.11 E	424,063.18	607,221.51	0.00	10,806.92	0.00	
19,500.00	90.00	0.08	8,735.00	10,910.78 N	461.26 E	424,163.18	607,221.66	0.00	10,906.92	0.00	
19,600.00	90.00	0.08	8,735.00	11,010.78 N	461.41 E	424,263.18	607,221.81	0.00	11,006.91	0.00	

HALLIBURTON**Plan Report for Corral Canyon Federal 212H - Plan 2**

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100usft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
19,664.32	90.00	0.08	8,735.00	11,075.10 N	461.50 E	424,327.50	607,221.90	0.00	11,071.23	0.00	LTP at 19664.32'
19,700.00	90.00	0.08	8,735.00	11,110.78 N	461.55 E	424,363.18	607,221.95	0.00	11,106.91	0.00	
19,714.32	90.00	0.08	8,735.00	11,125.10 N	461.57 E	424,377.50	607,221.97	0.00	11,121.23	0.00	TD at 19714.32'

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,473.00	5,468.89	23.95	180.41	Tied to known survey
5,500.00	5,495.84	23.52	181.88	Sidetrack point @10°/100, 163 TF
5,550.00	5,545.82	22.70	182.38	Turn to 260 Azimuth
5,700.00	5,695.52	20.32	173.43	Hold 5° Inclination
7,000.00	6,990.57	0.64	61.85	Drop to vertical
7,200.00	7,190.31	-0.87	53.26	Hold vertical
7,942.19	7,932.50	-0.87	53.26	KOP, Build and turn
8,332.93	8,301.36	18.41	162.59	Build to 90° landing point
9,177.47	8,735.00	588.26	446.01	Hold to TD
19,664.32	8,735.00	11,075.10	461.50	LTP at 19664.32'
19,714.32	8,735.00	11,125.10	461.57	TD at 19714.32'

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/_S (usft)	Origin +E/-W (usft)	Start TVD (usft)
User	No Target (Freehand)	359.56	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
143.00	5,473.00	Surface Survey	2_MWD
5,473.00	19,713.93	Plan 2	2_MWD+AX

Plan Report for Corral Canyon Federal 212H - Plan 2

Casing Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
100.00	100.00	20"	20	26

Design Targets

Target Name - hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LTP 2 (212H) 100' FNL ()	0.00	0.00	8,735.00	11,075.10	461.50	424,327.50	607,221.90	32.16611871	-103.98682506
- plan hits target center									
- Point									
BHL 2 (212H) 50' FNL (50' FNL)	0.00	0.00	8,735.00	11,125.10	461.20	424,377.50	607,221.60	32.16625616	-103.98682551
- plan misses target center by 0.37usft at 19714.32usft MD (8735.00 TVD, 11125.10 N, 461.57 E)									
- Point									
FTP 2 (212H)100' FSL ()	0.00	0.00	8,735.00	657.10	496.40	413,909.50	607,256.80	32.13747956	-103.98682063
- plan misses target center by 50.29usft at 9246.38usft MD (8735.00 TVD, 657.17 N, 446.11 E)									
- Point									

Directional Difficulty Index

Average Dogleg over Survey:	0.92 °/100usft	Maximum Dogleg over Survey:	10.00 °/100usft at 9,177.47 usft
Net Tortousity applicable to Plans:	0.92 °/100usft	Directional Difficulty Index:	6.769

Audit Info

North Reference Sheet for Corral Canyon Federal - Corral Canyon Federal 212H - ST01

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.

Vertical Depths are relative to GL:2988'+27ft @ 3015.00usft (Felderhoff 26 (+27ft)). Northing and Easting are relative to Corral Canyon Federal 212H

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 3001 using datum NAD 1927 (NADCON CONUS), ellipsoid Clarke 1866

Projection method is Transverse Mercator (Gauss-Kruger)

Central Meridian is -104.3333333°, Longitude Origin:0.00000000°, Latitude Origin:0.00000000°

False Easting: 500,000.00usft, False Northing: 0.00usft, Scale Reduction: 0.99992215

Grid Coordinates of Well: 413,252.40 usft N, 606,760.40 usft E

Geographical Coordinates of Well: 32° 08' 08.44" N, 103° 59' 18.35" W

Grid Convergence at Surface is: 0.18°

Based upon Minimum Curvature type calculations, at a Measured Depth of 19,714.32usft

the Bottom Hole Displacement is 11,134.67usft in the Direction of 2.38° (Grid).

Magnetic Convergence at surface is: -6.87° (8 January 2019, , BGGM2018)

