

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 334-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT AS-DRILLED PLAT

¹ API Number 30-015-45501	² Pool Code 96526	³ Pool Name FORTY NINER RIDGE; BONE SPRING
⁴ Property Code 303152	⁵ Property Name NASH UNIT	⁶ Well Number 302H
⁷ OGRID No. 005380	⁸ Operator Name XTO ENERGY, INC.	⁹ Elevation 3,074'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	19	23 S	30 E		660	NORTH	1,955	EAST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
2	6	23 S	30 E		50	NORTH	2,305	EAST	EDDY

¹² Dedicated Acres 480.25	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
---	-------------------------------	----------------------------------	-------------------------

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

NOTE: AS-DRILLED BOTTOM HOLE PLOTTED
FROM DATA FURNISHED BY XTO ENERGY

	GEODETIC COORDINATES NAD 83 NME SURFACE LOCATION Y= 471,633.1 X= 669,478.5 LAT.= 32.295912°N LONG.= 103.918623°W FIRST TAKE POINT NAD 83 NME Y= 472,437.2 X= 669,138.1 LAT.= 32.298126°N LONG.= 103.919715°W CORNER COORDINATES TABLE NAD 83 NME <table border="1"> <tr><td>A</td><td>- Y= 488,218.9 N, X= 670,042.8 E</td></tr> <tr><td>B</td><td>- Y= 488,216.7 N, X= 668,705.0 E</td></tr> <tr><td>C</td><td>- Y= 485,557.4 N, X= 670,041.6 E</td></tr> <tr><td>D</td><td>- Y= 485,558.1 N, X= 668,703.8 E</td></tr> <tr><td>E</td><td>- Y= 482,906.0 N, X= 670,040.5 E</td></tr> <tr><td>F</td><td>- Y= 482,906.3 N, X= 668,702.7 E</td></tr> <tr><td>G</td><td>- Y= 480,252.1 N, X= 670,051.7 E</td></tr> <tr><td>H</td><td>- Y= 480,252.3 N, X= 668,714.2 E</td></tr> <tr><td>I</td><td>- Y= 477,598.1 N, X= 670,062.9 E</td></tr> <tr><td>J</td><td>- Y= 477,596.9 N, X= 668,725.8 E</td></tr> <tr><td>K</td><td>- Y= 474,946.5 N, X= 670,077.4 E</td></tr> <tr><td>L</td><td>- Y= 474,944.1 N, X= 668,739.6 E</td></tr> <tr><td>M</td><td>- Y= 472,294.3 N, X= 670,091.2 E</td></tr> <tr><td>N</td><td>- Y= 472,291.5 N, X= 668,753.5 E</td></tr> </table> CORNER COORDINATES TABLE NAD 27 NME <table border="1"> <tr><td>A</td><td>- Y= 488,159.0 N, X= 628,860.6 E</td></tr> <tr><td>B</td><td>- Y= 488,156.7 N, X= 627,522.8 E</td></tr> <tr><td>C</td><td>- Y= 485,497.5 N, X= 628,859.3 E</td></tr> <tr><td>D</td><td>- Y= 485,498.2 N, X= 627,521.5 E</td></tr> <tr><td>E</td><td>- Y= 482,846.2 N, X= 628,858.1 E</td></tr> <tr><td>F</td><td>- Y= 482,846.5 N, X= 627,520.3 E</td></tr> <tr><td>G</td><td>- Y= 480,192.3 N, X= 628,869.2 E</td></tr> <tr><td>H</td><td>- Y= 480,192.5 N, X= 627,531.7 E</td></tr> <tr><td>I</td><td>- Y= 477,538.4 N, X= 628,880.3 E</td></tr> <tr><td>J</td><td>- Y= 477,537.2 N, X= 627,543.3 E</td></tr> <tr><td>K</td><td>- Y= 474,886.9 N, X= 628,894.8 E</td></tr> <tr><td>L</td><td>- Y= 474,884.5 N, X= 627,557.0 E</td></tr> <tr><td>M</td><td>- Y= 472,234.7 N, X= 628,908.5 E</td></tr> <tr><td>N</td><td>- Y= 472,231.9 N, X= 627,570.8 E</td></tr> </table> GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y= 471,573.5 X= 628,295.8 LAT.= 32.295789°N LONG.= 103.918132°W FIRST TAKE POINT NAD 27 NME Y= 472,377.6 X= 627,955.4 LAT.= 32.298003°N LONG.= 103.919224°W LAST TAKE POINT NAD 27 NME Y= 487,973.1 X= 627,892.2 LAT.= 32.340874°N LONG.= 103.919233°W BOTTOM HOLE LOCATION NAD 27 NME Y= 488,107.1 X= 627,893.2 LAT.= 32.341242°N LONG.= 103.919228°W	A	- Y= 488,218.9 N, X= 670,042.8 E	B	- Y= 488,216.7 N, X= 668,705.0 E	C	- Y= 485,557.4 N, X= 670,041.6 E	D	- Y= 485,558.1 N, X= 668,703.8 E	E	- Y= 482,906.0 N, X= 670,040.5 E	F	- Y= 482,906.3 N, X= 668,702.7 E	G	- Y= 480,252.1 N, X= 670,051.7 E	H	- Y= 480,252.3 N, X= 668,714.2 E	I	- Y= 477,598.1 N, X= 670,062.9 E	J	- Y= 477,596.9 N, X= 668,725.8 E	K	- Y= 474,946.5 N, X= 670,077.4 E	L	- Y= 474,944.1 N, X= 668,739.6 E	M	- Y= 472,294.3 N, X= 670,091.2 E	N	- Y= 472,291.5 N, X= 668,753.5 E	A	- Y= 488,159.0 N, X= 628,860.6 E	B	- Y= 488,156.7 N, X= 627,522.8 E	C	- Y= 485,497.5 N, X= 628,859.3 E	D	- Y= 485,498.2 N, X= 627,521.5 E	E	- Y= 482,846.2 N, X= 628,858.1 E	F	- Y= 482,846.5 N, X= 627,520.3 E	G	- Y= 480,192.3 N, X= 628,869.2 E	H	- Y= 480,192.5 N, X= 627,531.7 E	I	- Y= 477,538.4 N, X= 628,880.3 E	J	- Y= 477,537.2 N, X= 627,543.3 E	K	- Y= 474,886.9 N, X= 628,894.8 E	L	- Y= 474,884.5 N, X= 627,557.0 E	M	- Y= 472,234.7 N, X= 628,908.5 E	N	- Y= 472,231.9 N, X= 627,570.8 E	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Cheryl Rowell</i> 4/1/20 Signature Date Cheryl Rowell Printed Name cheryl_rowell@xtoenergy.com E-mail Address
	A	- Y= 488,218.9 N, X= 670,042.8 E																																																								
	B	- Y= 488,216.7 N, X= 668,705.0 E																																																								
	C	- Y= 485,557.4 N, X= 670,041.6 E																																																								
D	- Y= 485,558.1 N, X= 668,703.8 E																																																									
E	- Y= 482,906.0 N, X= 670,040.5 E																																																									
F	- Y= 482,906.3 N, X= 668,702.7 E																																																									
G	- Y= 480,252.1 N, X= 670,051.7 E																																																									
H	- Y= 480,252.3 N, X= 668,714.2 E																																																									
I	- Y= 477,598.1 N, X= 670,062.9 E																																																									
J	- Y= 477,596.9 N, X= 668,725.8 E																																																									
K	- Y= 474,946.5 N, X= 670,077.4 E																																																									
L	- Y= 474,944.1 N, X= 668,739.6 E																																																									
M	- Y= 472,294.3 N, X= 670,091.2 E																																																									
N	- Y= 472,291.5 N, X= 668,753.5 E																																																									
A	- Y= 488,159.0 N, X= 628,860.6 E																																																									
B	- Y= 488,156.7 N, X= 627,522.8 E																																																									
C	- Y= 485,497.5 N, X= 628,859.3 E																																																									
D	- Y= 485,498.2 N, X= 627,521.5 E																																																									
E	- Y= 482,846.2 N, X= 628,858.1 E																																																									
F	- Y= 482,846.5 N, X= 627,520.3 E																																																									
G	- Y= 480,192.3 N, X= 628,869.2 E																																																									
H	- Y= 480,192.5 N, X= 627,531.7 E																																																									
I	- Y= 477,538.4 N, X= 628,880.3 E																																																									
J	- Y= 477,537.2 N, X= 627,543.3 E																																																									
K	- Y= 474,886.9 N, X= 628,894.8 E																																																									
L	- Y= 474,884.5 N, X= 627,557.0 E																																																									
M	- Y= 472,234.7 N, X= 628,908.5 E																																																									
N	- Y= 472,231.9 N, X= 627,570.8 E																																																									
18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. 3-11-2020 Date of Survey Signature and Seal of Professional Surveyor: MARK DILLON HARP 23786 Certificate Number JC 2019083004																																																										

Intent ☐ As Drilled ☒

API # 30-015-45500			
Operator Name: XTO ENERGY, INC.		Property Name: NASH UNIT	Well Number 301H

Kick Off Point (KOP)

UL A	Section 19	Township 23S	Range 30E	Lot	Feet 90	From N/S NORTH	Feet 580	From E/W EAST	County EDDY
Latitude 32.296437					Longitude 103.913025				NAD 83

First Take Point (FTP)

UL P	Section 18	Township 23S	Range 30E	Lot	Feet 299	From N/S SOUTH	Feet 362	From E/W EAST	County EDDY
Latitude 32.298539					Longitude 103.913476				NAD 83

Last Take Point (LTP)

UL P	Section 6	Township 23S	Range 30E	Lot	Feet 1145	From N/S SOUTH	Feet 381	From E/W EAST	County EDDY
Latitude 32.330029					Longitude 103.913548				NAD 83

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☒

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API # 30-015-45494			
Operator Name: XTO Energy, Inc.		Property Name: NASH UNIT	Well Number 201H

KZ 06/29/2018



State of New Mexico
County of Eddy

I, Jeremy Esqueda, certify that: I am employed by WellBenders Directional Services LLC; that I did on the day(s) of April 14, 2019 through April 26, 2019 conduct or supervise the taking of MWD Directional Survey from a depth of 0 feet to a depth of 9,348 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by WellBenders Directional Services LLC; that I am authorized and qualified to make this report; that this survey was conducted at the request of XTO Energy Inc. for the State of New Mexico; Well: Nash Unit 302H in Eddy County; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by WellBenders Directional Services LLC.

Jeremy Esqueda
(Sign Name)

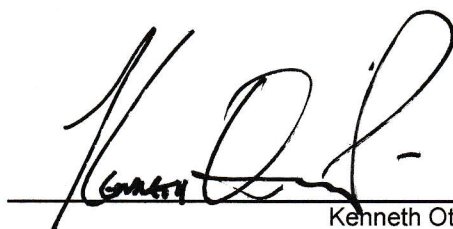
Jeremy Esqueda
MWD Manager
Digitally Signed by Jeremy Esqueda

HALLIBURTON

3950 Interwood S. Pkwy • Houston, TX 77032
PHONE 281.986.4400 • FAX 281.986.4499

State of Texas, Eddy County

I, Kenneth Otolara certify that I am employed by Halliburton Energy Services, Inc. (aka Sperry Drilling) and that on the dates of May 02, 2019 through May 26, 2019, I did conduct or supervise the taking of MWD directional surveys for the Nash Unit 302H well from a depth of 9445' MD to a depth of 26756' MD. This data is true, correct, complete and within the limitations of the tools as set forth by Halliburton Energy Services, Inc. (aka Sperry Drilling). I am authorized and qualified to make this report and these surveys were conducted at the request of XTO Energy Inc., for the Nash Unit 302H well in Eddy County. I have reviewed this report and find that it confirms to the principles and procedures as set forth by Halliburton Energy Services, Inc. (aka Sperry Drilling.)

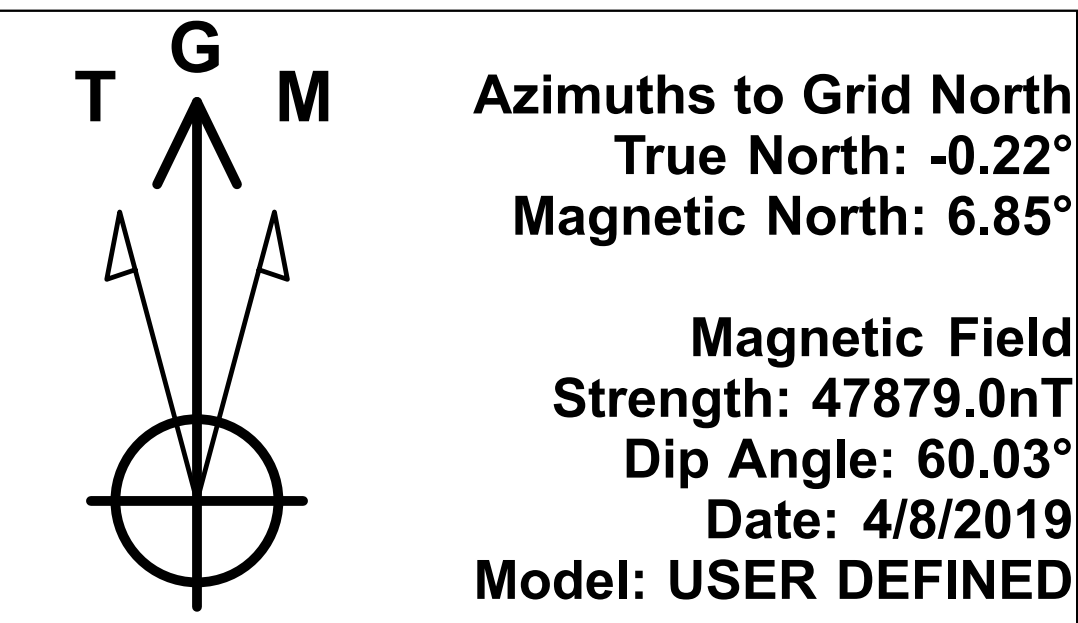


Kenneth Otolara
Field Engineer



Project: Eddy County, NM (NAD27)
Site: Nash Unit
Well: 302H
Wellbore: Wellbore #1
Design: Final Surveys
Rig: Akita 90

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



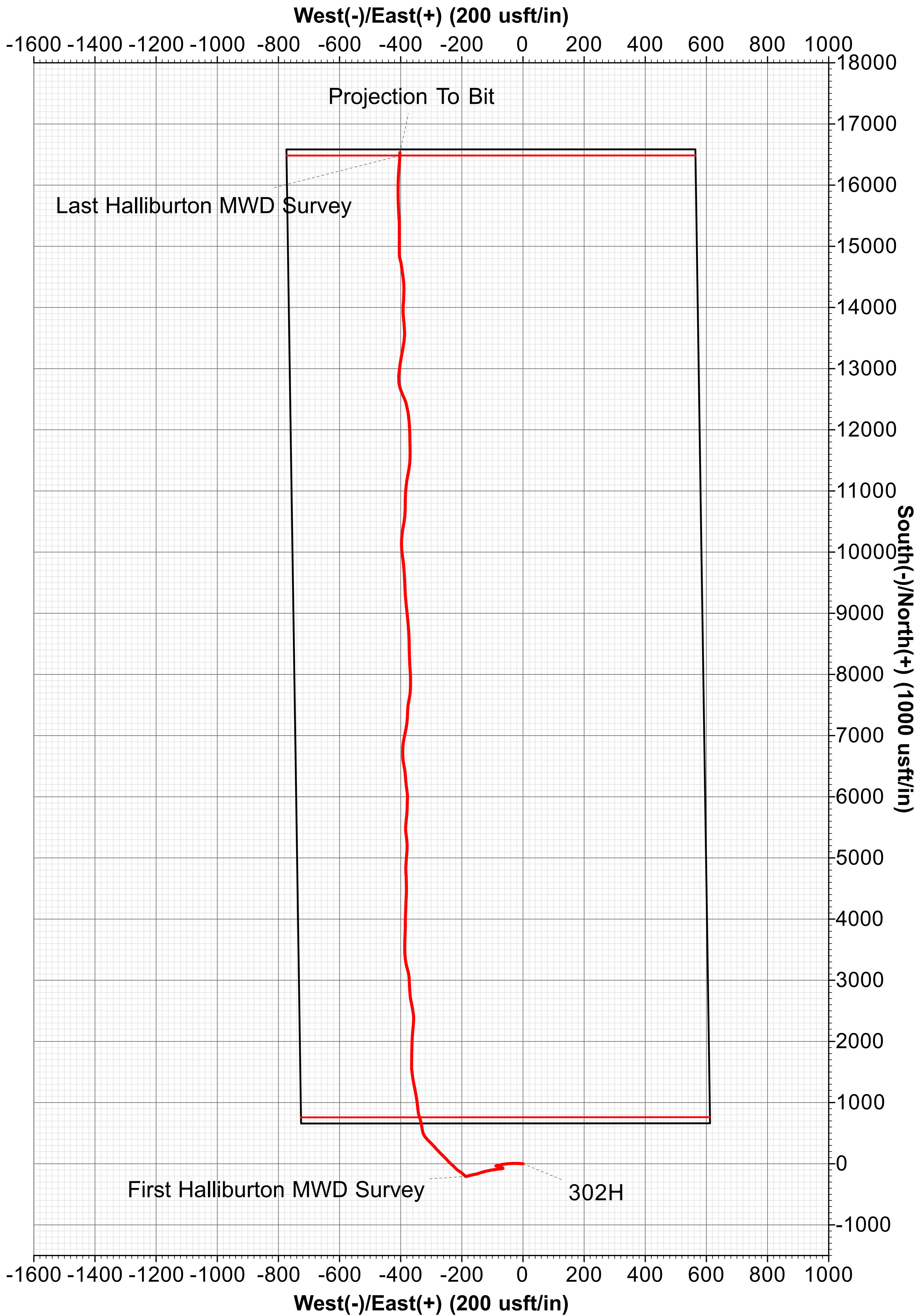
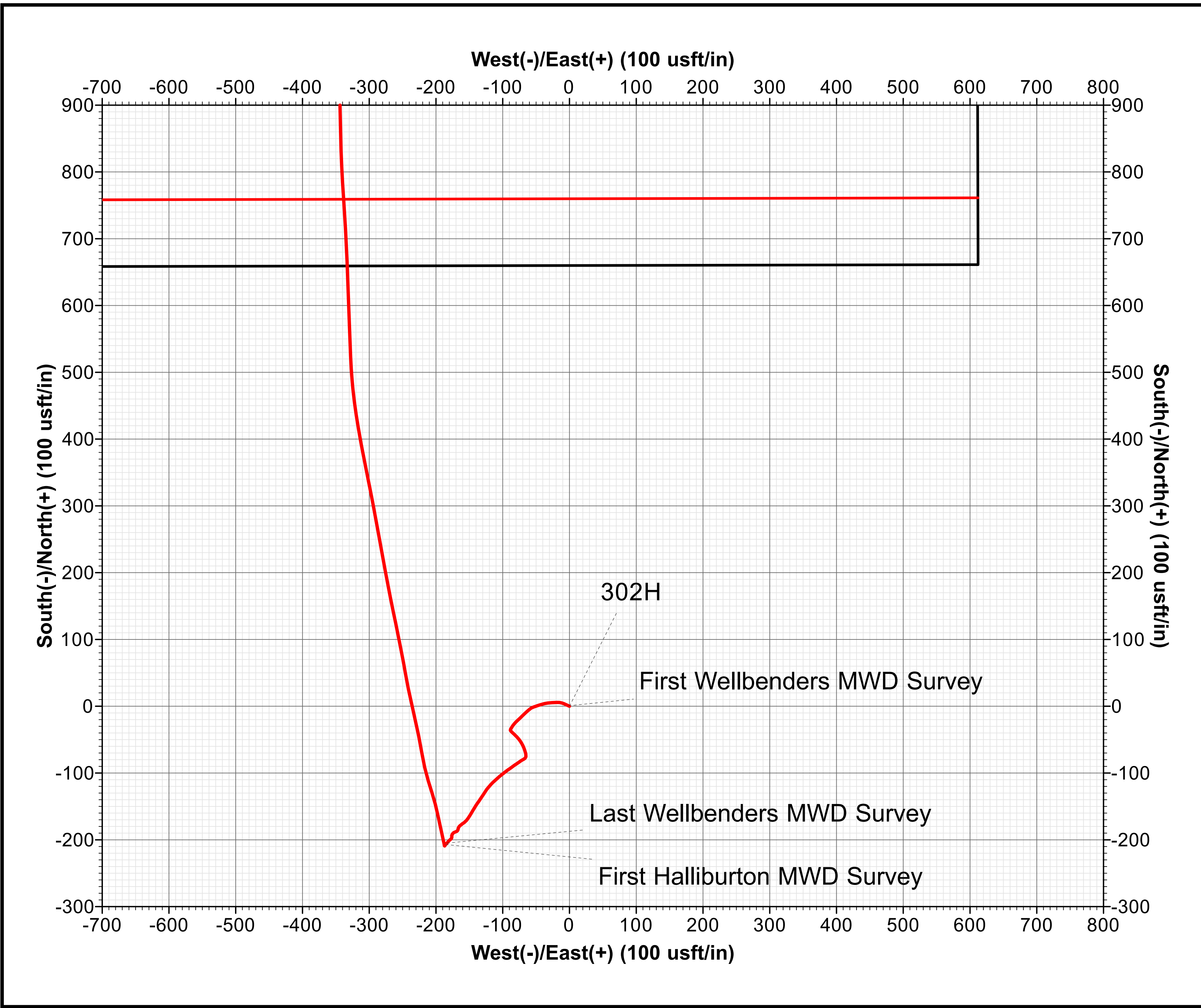
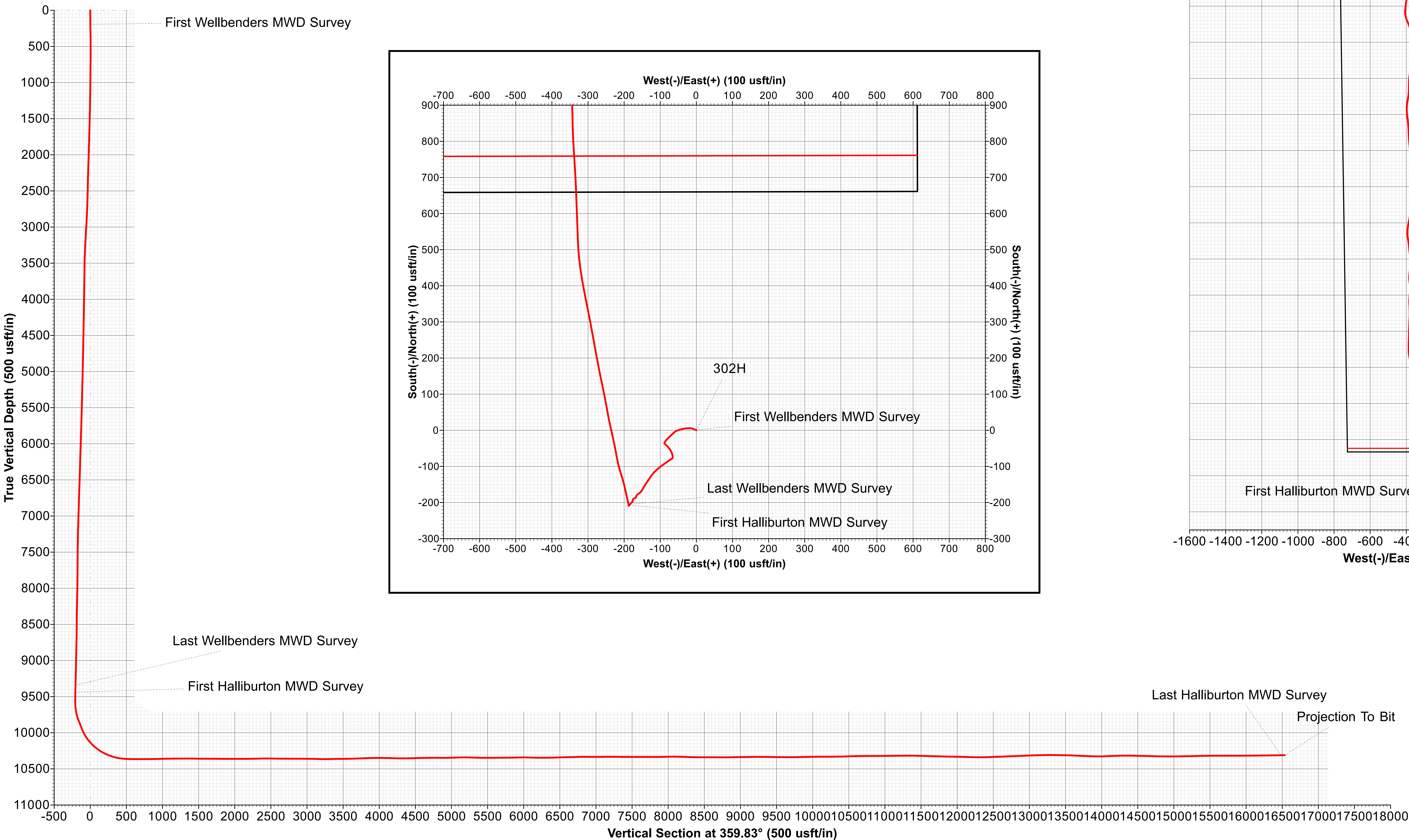
XTO Energy Inc.

GL+KB 30' @ 3104.00usft (Akita 90)

GL=3074.00

WELL DETAILS

			3074.00		
+N/-S	+E/-W	Northing	Easting	Latittude	Longitude
0.00	0.00	471573.50	628295.80	32.29578934	-103.91813198



Akita 90

XTO Energy Inc.

Eddy County, NM (NAD27) Nash Unit

API#

302H

Wellbore #1

Design: Final Surveys

Sperry Drilling Services

Combo Report

03 June, 2019

Well Coordinates: 32.29578933
-103.91813199

NAD 1927 (NADCON CONUS)
New Mexico East 3001
471,573.50 N
628,295.80 E

Ground Level: 3,074.00 usft

Local Coordinate Origin:

Viewing Datum:

TVDs to System:

North Reference:

Unit System:

Centered on Well 302H
GL+KB 30' @ 3104.00usft (Akita 90)
N
Grid
Midcon (2 decimal)

Version: 5000.15 Build: 91

Report Version: Midcon Combo v1.13

HALLIBURTON

Design Report for 302H - Final Surveys

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 (°)
0.00	0.00	0.00	0.00	0.00 N	0.00 E	471,573.50	628,295.80	0.00	0.00	0.00	First Wellbenders MWD Survey
192.00	1.00	295.00	191.99	0.71 N	1.52 W	471,574.21	628,294.28	0.52	0.71	295.00	
324.00	5.20	295.00	323.77	3.72 N	7.99 W	471,577.22	628,287.81	3.18	3.75	0.00	
446.00	5.32	267.01	445.27	5.77 N	18.65 W	471,579.27	628,277.15	2.08	5.82	-101.31	
534.00	4.70	268.24	532.94	5.44 N	26.32 W	471,578.94	628,269.48	0.72	5.52	170.78	
624.00	3.38	260.33	622.71	4.88 N	32.63 W	471,578.38	628,263.17	1.59	4.98	-161.02	
716.00	2.11	256.82	714.60	4.04 N	36.95 W	471,577.54	628,258.85	1.39	4.15	-174.21	
811.00	2.02	255.50	809.54	3.22 N	40.27 W	471,576.72	628,255.53	0.11	3.34	-152.80	
906.00	1.89	253.92	904.49	2.37 N	43.40 W	471,575.87	628,252.40	0.15	2.50	-158.27	
1,001.00	2.20	251.28	999.43	1.35 N	46.63 W	471,574.85	628,249.17	0.34	1.49	-18.23	
1,095.00	2.42	249.96	1,093.35	0.09 N	50.20 W	471,573.59	628,245.60	0.24	0.24	-14.26	
1,190.00	2.51	252.42	1,188.26	1.22 S	54.07 W	471,572.28	628,241.73	0.15	-1.06	50.85	
1,285.00	2.20	236.00	1,283.18	2.87 S	57.57 W	471,570.63	628,238.23	0.78	-2.70	-122.73	
1,380.00	2.02	226.93	1,378.12	5.03 S	60.30 W	471,568.47	628,235.50	0.40	-4.86	-122.81	
1,475.00	2.11	232.28	1,473.06	7.25 S	62.91 W	471,566.25	628,232.89	0.22	-7.06	67.66	
1,570.00	2.11	227.29	1,567.99	9.50 S	65.58 W	471,564.00	628,230.22	0.19	-9.31	-92.49	
1,665.00	2.20	224.56	1,662.93	11.99 S	68.14 W	471,561.51	628,227.66	0.14	-11.79	-50.13	
1,760.00	2.51	225.97	1,757.85	14.73 S	70.92 W	471,558.77	628,224.88	0.33	-14.52	11.29	
1,855.00	2.68	225.44	1,852.75	17.74 S	73.99 W	471,555.76	628,221.81	0.18	-17.52	-8.30	
1,949.00	2.59	228.76	1,946.65	20.68 S	77.16 W	471,552.82	628,218.64	0.19	-20.45	122.18	
2,044.00	2.29	225.09	2,041.56	23.44 S	80.11 W	471,550.06	628,215.69	0.36	-23.20	-154.31	
2,139.00	2.51	219.73	2,136.48	26.38 S	82.79 W	471,547.12	628,213.01	0.33	-26.13	-48.27	
2,234.00	1.71	215.42	2,231.41	29.13 S	84.94 W	471,544.37	628,210.86	0.86	-28.88	-170.93	
2,329.00	2.02	208.30	2,326.36	31.76 S	86.55 W	471,541.74	628,209.25	0.41	-31.50	-40.37	
2,424.00	1.49	222.10	2,421.32	34.15 S	88.18 W	471,539.35	628,207.62	0.71	-33.89	148.19	
2,520.00	1.32	153.90	2,517.30	36.07 S	88.53 W	471,537.43	628,207.27	1.65	-35.81	-129.20	
2,615.00	2.51	133.24	2,612.24	38.48 S	86.53 W	471,535.02	628,209.27	1.43	-38.22	-40.72	
2,710.00	3.69	133.07	2,707.10	41.99 S	82.78 W	471,531.51	628,213.02	1.24	-41.74	-0.53	
2,805.00	3.12	136.49	2,801.93	45.95 S	78.77 W	471,527.55	628,217.03	0.64	-45.72	162.09	
2,900.00	3.69	142.82	2,896.77	50.26 S	75.14 W	471,523.24	628,220.66	0.72	-50.04	36.59	
2,995.00	3.73	147.92	2,991.57	55.32 S	71.65 W	471,518.18	628,224.15	0.35	-55.10	85.64	
3,090.00	4.00	158.91	3,086.35	61.03 S	68.82 W	471,512.47	628,226.98	0.83	-60.82	75.51	
3,164.00	2.99	161.37	3,160.21	65.26 S	67.27 W	471,508.24	628,228.53	1.38	-65.06	172.78	
3,278.00	3.12	163.83	3,274.05	71.06 S	65.46 W	471,502.44	628,230.34	0.16	-70.87	46.48	
3,372.00	2.42	196.00	3,367.95	75.43 S	65.29 W	471,498.07	628,230.51	1.78	-75.23	129.74	
3,461.00	1.58	229.83	3,456.90	78.02 S	66.75 W	471,495.48	628,229.05	1.59	-77.83	141.54	

Design Report for 302H - Final Surveys

Measured		Grid	Vertical	Local Coordinates		Map Coordinates		Dogleg	Vertical	Toolface	Comments
Depth	Inclination	Azimuth	Depth	Northing	Easting	Northing	Easting	Rate	Section	Angle	
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(usft)	(°)	
3,562.00	1.41	242.23	3,557.86	79.50 S	68.91 W	471,494.00	628,226.89	0.36	-79.30	123.83	
3,657.00	1.49	240.82	3,652.83	80.65 S	71.03 W	471,492.85	628,224.77	0.09	-80.44	-24.74	
3,752.00	1.49	235.81	3,747.80	81.94 S	73.13 W	471,491.56	628,222.67	0.14	-81.73	-92.50	
3,847.00	1.71	234.32	3,842.76	83.46 S	75.30 W	471,490.04	628,220.50	0.24	-83.24	-11.45	
3,942.00	1.58	235.99	3,937.72	85.02 S	77.54 W	471,488.48	628,218.26	0.15	-84.79	160.59	
4,037.00	1.71	235.46	4,032.68	86.56 S	79.79 W	471,486.94	628,216.01	0.14	-86.32	-6.94	
4,132.00	1.71	235.06	4,127.64	88.18 S	82.12 W	471,485.32	628,213.68	0.01	-87.93	-90.20	
4,227.00	1.71	235.63	4,222.60	89.79 S	84.45 W	471,483.71	628,211.35	0.02	-89.54	90.28	
4,321.00	1.80	231.94	4,316.55	91.49 S	86.77 W	471,482.01	628,209.03	0.15	-91.23	-53.32	
4,416.00	1.89	236.87	4,411.51	93.27 S	89.26 W	471,480.23	628,206.54	0.19	-93.00	62.92	
4,511.00	1.80	234.32	4,506.46	94.99 S	91.78 W	471,478.51	628,204.02	0.13	-94.72	-138.90	
4,606.00	2.02	233.26	4,601.40	96.86 S	94.33 W	471,476.64	628,201.47	0.23	-96.58	-9.65	
4,701.00	1.89	231.33	4,696.35	98.84 S	96.90 W	471,474.66	628,198.90	0.15	-98.56	-154.10	
4,796.00	1.89	231.77	4,791.30	100.79 S	99.35 W	471,472.71	628,196.45	0.02	-100.50	90.22	
4,891.00	2.02	231.68	4,886.24	102.80 S	101.90 W	471,470.70	628,193.90	0.14	-102.50	-1.40	
4,986.00	2.02	230.80	4,981.18	104.90 S	104.51 W	471,468.60	628,191.29	0.03	-104.59	-90.44	
5,081.00	2.11	226.32	5,076.12	107.16 S	107.07 W	471,466.34	628,188.73	0.19	-106.84	-63.11	
5,176.00	2.11	229.48	5,171.06	109.51 S	109.67 W	471,463.99	628,186.13	0.12	-109.18	91.58	
5,271.00	2.11	228.52	5,265.99	111.80 S	112.31 W	471,461.70	628,183.49	0.04	-111.47	-90.48	
5,366.00	2.02	225.18	5,360.93	114.14 S	114.80 W	471,459.36	628,181.00	0.16	-113.80	-128.45	
5,461.00	2.11	221.31	5,455.87	116.63 S	117.14 W	471,456.87	628,178.66	0.17	-116.29	-59.11	
5,555.00	2.02	223.68	5,549.81	119.13 S	119.43 W	471,454.37	628,176.37	0.13	-118.78	137.68	
5,650.00	2.02	221.22	5,644.75	121.60 S	121.69 W	471,451.90	628,174.11	0.09	-121.24	-91.23	
5,745.00	2.20	213.66	5,739.68	124.38 S	123.80 W	471,449.12	628,172.00	0.35	-124.01	-60.93	
5,840.00	2.02	215.16	5,834.62	127.27 S	125.78 W	471,446.23	628,170.02	0.20	-126.89	163.69	
5,934.00	2.11	212.08	5,928.56	130.09 S	127.65 W	471,443.41	628,168.15	0.15	-129.71	-52.51	
6,029.00	2.13	213.56	6,023.49	133.04 S	129.56 W	471,440.46	628,166.24	0.06	-132.65	70.67	
6,124.00	2.20	215.60	6,118.43	135.99 S	131.60 W	471,437.51	628,164.20	0.11	-135.60	48.77	
6,219.00	2.11	212.43	6,213.36	138.95 S	133.59 W	471,434.55	628,162.21	0.16	-138.55	-128.63	
6,314.00	2.11	213.40	6,308.29	141.89 S	135.49 W	471,431.61	628,160.31	0.04	-141.48	90.48	
6,409.00	2.20	217.27	6,403.23	144.80 S	137.56 W	471,428.70	628,158.24	0.18	-144.39	60.21	
6,504.00	2.20	212.61	6,498.16	147.79 S	139.65 W	471,425.71	628,156.15	0.19	-147.37	-92.33	
6,599.00	2.29	209.09	6,593.08	150.98 S	141.55 W	471,422.52	628,154.25	0.17	-150.56	-58.63	
6,694.00	2.20	215.07	6,688.01	154.13 S	143.52 W	471,419.37	628,152.28	0.26	-153.70	113.99	
6,789.00	2.11	207.69	6,782.94	157.17 S	145.39 W	471,416.33	628,150.41	0.31	-156.74	-111.63	
6,884.00	2.20	213.22	6,877.88	160.25 S	147.20 W	471,413.25	628,148.60	0.24	-159.81	69.38	
6,979.00	2.20	209.62	6,972.81	163.36 S	149.10 W	471,410.14	628,146.70	0.15	-162.91	-91.80	

Design Report for 302H - Final Surveys

Measured		Grid	Vertical	Local Coordinates		Map Coordinates		Dogleg	Vertical	Toolface	Comments
Depth	Inclination	Azimuth	Depth	Northing	Easting	Northing	Easting	Rate	Section	Angle	
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(usft)	(°)	
7,073.00	1.71	213.13	7,066.75	166.10 S	150.76 W	471,407.40	628,145.04	0.54	-165.65	168.02	
7,167.00	2.02	216.30	7,160.70	168.61 S	152.50 W	471,404.89	628,143.30	0.35	-168.16	20.00	
7,261.00	1.80	222.63	7,254.65	171.03 S	154.48 W	471,402.47	628,141.32	0.32	-170.57	139.33	
7,356.00	1.58	229.04	7,349.61	172.99 S	156.48 W	471,400.51	628,139.32	0.30	-172.52	142.50	
7,451.00	1.10	231.94	7,444.58	174.41 S	158.19 W	471,399.09	628,137.61	0.51	-173.94	173.41	
7,546.00	1.10	239.77	7,539.57	175.43 S	159.70 W	471,398.07	628,136.10	0.16	-174.95	93.91	
7,640.00	0.62	232.73	7,633.55	176.19 S	160.88 W	471,397.31	628,134.92	0.52	-175.71	-171.09	
7,735.00	0.22	167.17	7,728.55	176.68 S	161.25 W	471,396.82	628,134.55	0.60	-176.20	-159.26	
7,830.00	0.70	243.19	7,823.55	177.12 S	161.73 W	471,396.38	628,134.07	0.72	-176.64	94.28	
7,925.00	1.32	232.03	7,918.53	178.05 S	163.11 W	471,395.45	628,132.69	0.68	-177.57	-23.24	
8,020.00	1.58	223.86	8,013.50	179.67 S	164.88 W	471,393.83	628,130.92	0.35	-179.18	-42.62	
8,115.00	1.32	204.61	8,108.47	181.61 S	166.24 W	471,391.89	628,129.56	0.58	-181.12	-127.49	
8,210.00	1.30	184.39	8,203.45	183.68 S	166.78 W	471,389.82	628,129.02	0.48	-183.19	-102.56	
8,305.00	1.10	204.43	8,298.43	185.59 S	167.24 W	471,387.91	628,128.56	0.49	-185.09	125.27	
8,399.00	1.19	233.79	8,392.41	186.98 S	168.40 W	471,386.52	628,127.40	0.62	-186.48	96.14	
8,494.00	1.19	250.31	8,487.39	187.90 S	170.12 W	471,385.60	628,125.68	0.36	-187.39	98.26	
8,589.00	1.32	251.02	8,582.37	188.59 S	172.09 W	471,384.91	628,123.71	0.14	-188.08	7.18	
8,684.00	1.49	228.34	8,677.34	189.76 S	174.04 W	471,383.74	628,121.76	0.61	-189.25	-84.55	
8,779.00	1.58	213.22	8,772.31	191.68 S	175.68 W	471,381.82	628,120.12	0.44	-191.16	-85.10	
8,874.00	1.41	181.79	8,867.28	193.94 S	176.44 W	471,379.56	628,119.36	0.87	-193.42	-117.14	
8,968.00	1.19	167.61	8,961.25	196.05 S	176.26 W	471,377.45	628,119.54	0.41	-195.53	-131.32	
9,063.00	1.71	223.59	9,056.23	198.04 S	177.03 W	471,375.46	628,118.77	1.51	-197.52	99.34	
9,158.00	2.11	227.29	9,151.17	200.26 S	179.29 W	471,373.24	628,116.51	0.44	-199.72	18.99	
9,253.00	1.89	221.13	9,246.11	202.62 S	181.61 W	471,370.88	628,114.19	0.32	-202.08	-138.71	
9,348.00	1.71	220.34	9,341.07	204.88 S	183.56 W	471,368.62	628,112.24	0.19	-204.34	-172.55	Last Wellbenders MWD Survey
9,445.00	1.55	220.31	9,438.03	206.99 S	185.34 W	471,366.51	628,110.46	0.16	-206.44	-179.71	First Halliburton MWD Survey
9,509.00	1.48	224.40	9,502.01	208.24 S	186.48 W	471,365.26	628,109.32	0.20	-207.68	124.95	
9,556.00	1.14	191.15	9,548.99	209.13 S	187.00 W	471,364.37	628,108.80	1.74	-208.57	-130.11	
9,603.00	1.53	347.51	9,595.99	208.98 S	187.22 W	471,364.52	628,108.58	5.56	-208.42	166.43	
9,650.00	5.82	349.98	9,642.88	206.02 S	187.77 W	471,367.48	628,108.03	9.13	-205.46	3.35	
9,698.00	9.16	346.19	9,690.47	199.91 S	189.11 W	471,373.59	628,106.69	7.03	-199.35	-10.30	
9,745.00	12.94	348.12	9,736.59	191.12 S	191.08 W	471,382.38	628,104.72	8.08	-190.55	6.54	
9,793.00	17.95	347.58	9,782.84	178.63 S	193.78 W	471,394.87	628,102.02	10.44	-178.06	-1.91	
9,840.00	21.14	347.84	9,827.12	163.27 S	197.13 W	471,410.23	628,098.67	6.79	-162.68	1.68	
9,887.00	22.04	345.88	9,870.83	146.43 S	201.06 W	471,427.07	628,094.74	2.45	-145.83	-39.62	
9,934.00	21.92	341.74	9,914.41	129.55 S	205.96 W	471,443.95	628,089.84	3.31	-128.94	-96.35	
9,983.00	23.96	343.44	9,959.54	111.32 S	211.67 W	471,462.18	628,084.13	4.38	-110.69	18.78	

Design Report for 302H - Final Surveys

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)				
10,030.00	27.42	346.93	10,001.89	91.63 S	216.84 W	471,481.87	628,078.96	8.03	-90.98	25.20	
10,077.00	30.60	350.64	10,042.99	69.27 S	221.23 W	471,504.23	628,074.57	7.77	-68.62	31.14	
10,124.00	36.66	348.04	10,082.11	43.72 S	226.09 W	471,529.78	628,069.71	13.25	-43.05	-14.46	
10,173.00	41.22	347.42	10,120.21	13.64 S	232.64 W	471,559.86	628,063.16	9.34	-12.95	-5.13	
10,220.00	45.05	347.73	10,154.50	17.74 N	239.55 W	471,591.24	628,056.25	8.16	18.45	3.28	
10,268.00	48.51	350.13	10,187.37	52.06 N	246.24 W	471,625.56	628,049.56	8.08	52.79	27.64	
10,315.00	52.06	348.65	10,217.40	87.59 N	252.91 W	471,661.09	628,042.89	7.93	88.34	-18.26	
10,362.00	56.67	348.54	10,244.77	125.02 N	260.46 W	471,698.52	628,035.34	9.81	125.80	-1.14	
10,409.00	61.29	348.45	10,268.99	164.48 N	268.50 W	471,737.98	628,027.30	9.83	165.28	-0.98	
10,457.00	65.41	349.43	10,290.51	206.58 N	276.72 W	471,780.08	628,019.08	8.78	207.40	12.22	
10,504.00	68.09	349.80	10,309.06	249.05 N	284.50 W	471,822.55	628,011.30	5.75	249.89	7.30	
10,552.00	70.97	349.57	10,325.85	293.29 N	292.55 W	471,866.79	628,003.25	6.02	294.15	-4.32	
10,599.00	75.71	348.46	10,339.32	337.47 N	301.13 W	471,910.97	627,994.67	10.34	338.37	-12.81	
10,647.00	80.00	349.10	10,349.41	383.49 N	310.26 W	471,956.99	627,985.54	9.03	384.41	8.37	
10,694.00	82.77	350.82	10,356.45	429.24 N	318.36 W	472,002.74	627,977.44	6.92	430.19	31.68	
10,742.00	85.59	354.32	10,361.32	476.58 N	324.53 W	472,050.08	627,971.27	9.33	477.55	51.19	
10,789.00	88.49	357.57	10,363.75	523.39 N	327.84 W	472,096.89	627,967.96	9.26	524.36	48.31	
10,837.00	89.38	358.14	10,364.64	571.35 N	329.64 W	472,144.85	627,966.16	2.20	572.33	32.64	
10,932.00	90.22	357.64	10,364.97	666.28 N	333.14 W	472,239.78	627,962.66	1.03	667.27	-30.76	
11,026.00	89.41	355.98	10,365.28	760.13 N	338.37 W	472,333.63	627,957.43	1.96	761.13	-116.01	
11,122.00	91.42	358.77	10,364.58	856.02 N	342.76 W	472,429.52	627,953.04	3.58	857.03	54.23	
11,216.00	92.00	358.74	10,361.78	949.95 N	344.81 W	472,523.45	627,950.99	0.62	950.97	-2.96	
11,311.00	90.49	358.15	10,359.71	1,044.89 N	347.38 W	472,618.39	627,948.42	1.71	1,045.92	-158.66	
11,406.00	91.11	358.01	10,358.39	1,139.83 N	350.57 W	472,713.33	627,945.23	0.67	1,140.86	-12.72	
11,501.00	89.57	357.80	10,357.82	1,234.76 N	354.04 W	472,808.26	627,941.76	1.64	1,235.81	-172.23	
11,596.00	90.80	357.62	10,357.52	1,329.68 N	357.83 W	472,903.18	627,937.97	1.31	1,330.74	-8.33	
11,691.00	88.64	358.63	10,357.98	1,424.62 N	360.94 W	472,998.12	627,934.86	2.51	1,425.69	154.94	
11,785.00	88.92	358.41	10,359.98	1,518.57 N	363.37 W	473,092.07	627,932.43	0.38	1,519.64	-38.15	
11,880.00	90.62	0.36	10,360.36	1,613.56 N	364.39 W	473,187.06	627,931.41	2.72	1,614.63	48.93	
11,975.00	89.57	0.32	10,360.21	1,708.55 N	363.83 W	473,282.05	627,931.97	1.11	1,709.63	-177.82	
12,070.00	89.38	359.91	10,361.08	1,803.55 N	363.64 W	473,377.05	627,932.16	0.48	1,804.62	-114.87	
12,165.00	90.49	0.47	10,361.18	1,898.55 N	363.32 W	473,472.05	627,932.48	1.31	1,899.62	26.77	
12,260.00	89.08	0.38	10,361.54	1,993.54 N	362.62 W	473,567.04	627,933.18	1.49	1,994.61	-176.35	
12,355.00	90.03	0.79	10,362.28	2,088.53 N	361.65 W	473,662.03	627,934.15	1.09	2,089.60	23.35	
12,450.00	91.48	0.93	10,361.03	2,183.51 N	360.22 W	473,757.01	627,935.58	1.53	2,184.57	5.51	
12,545.00	91.42	1.26	10,358.62	2,278.46 N	358.41 W	473,851.96	627,937.39	0.35	2,279.52	100.30	

Design Report for 302H - Final Surveys

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100usft)	Vertical Section (usft)	Toolface Angle (°)	Comments
12,639.00	91.11	359.91	10,356.55	2,372.43 N	357.45 W	473,945.93	627,938.35	1.47	2,373.48	-102.92	
12,734.00	89.29	358.15	10,356.22	2,467.41 N	359.05 W	474,040.91	627,936.75	2.66	2,468.46	-135.95	
12,829.00	88.95	357.89	10,357.67	2,562.34 N	362.34 W	474,135.84	627,933.46	0.45	2,563.41	-142.60	
12,924.00	89.60	357.54	10,358.88	2,657.26 N	366.12 W	474,230.76	627,929.68	0.78	2,658.33	-28.30	
13,019.00	89.08	359.03	10,359.97	2,752.21 N	368.97 W	474,325.71	627,926.83	1.66	2,753.29	109.25	
13,114.00	90.49	359.02	10,360.33	2,847.19 N	370.58 W	474,420.69	627,925.22	1.48	2,848.28	-0.41	
13,209.00	89.82	359.89	10,360.07	2,942.18 N	371.49 W	474,515.68	627,924.31	1.16	2,943.27	127.60	
13,304.00	89.32	359.23	10,360.78	3,037.18 N	372.22 W	474,610.68	627,923.58	0.87	3,038.27	-127.15	
13,398.00	87.81	357.03	10,363.14	3,131.09 N	375.28 W	474,704.59	627,920.52	2.84	3,132.19	-124.50	
13,494.00	89.54	356.97	10,365.36	3,226.93 N	380.30 W	474,800.43	627,915.50	1.80	3,228.04	-1.99	
13,589.00	92.06	358.45	10,364.03	3,321.83 N	384.10 W	474,895.33	627,911.70	3.08	3,322.96	30.42	
13,684.00	91.02	359.26	10,361.48	3,416.78 N	386.00 W	474,990.28	627,909.80	1.39	3,417.91	142.09	
13,779.00	89.54	0.01	10,361.01	3,511.77 N	386.60 W	475,085.27	627,909.20	1.75	3,512.90	153.12	
13,874.00	91.23	0.22	10,360.38	3,606.77 N	386.41 W	475,180.27	627,909.39	1.79	3,607.90	7.08	
13,968.00	92.84	0.05	10,357.04	3,700.70 N	386.19 W	475,274.20	627,909.61	1.72	3,701.83	-6.02	
14,063.00	92.19	0.88	10,352.87	3,795.61 N	385.42 W	475,369.11	627,910.38	1.11	3,796.73	128.07	
14,158.00	91.61	359.92	10,349.72	3,890.55 N	384.76 W	475,464.05	627,911.04	1.18	3,891.67	-121.14	
14,253.00	88.77	0.08	10,349.40	3,985.54 N	384.76 W	475,559.04	627,911.04	2.99	3,986.66	176.77	
14,348.00	90.68	0.71	10,349.86	4,080.53 N	384.10 W	475,654.03	627,911.70	2.12	4,081.65	18.26	
14,442.00	87.75	0.32	10,351.15	4,174.51 N	383.26 W	475,748.01	627,912.54	3.14	4,175.63	-172.42	
14,537.00	88.74	0.44	10,354.06	4,269.46 N	382.63 W	475,842.96	627,913.17	1.05	4,270.58	6.91	
14,632.00	90.52	0.71	10,354.67	4,364.45 N	381.67 W	475,937.95	627,914.13	1.90	4,365.56	8.63	
14,727.00	91.20	0.05	10,353.24	4,459.44 N	381.04 W	476,032.94	627,914.76	1.00	4,460.55	-44.14	
14,822.00	92.28	359.61	10,350.36	4,554.39 N	381.33 W	476,127.89	627,914.47	1.23	4,555.50	-22.15	
14,917.00	91.42	359.99	10,347.29	4,649.34 N	381.66 W	476,222.84	627,914.14	0.99	4,650.45	156.17	
15,011.00	89.13	358.73	10,346.84	4,743.32 N	382.71 W	476,316.82	627,913.09	2.78	4,744.44	-151.17	
15,107.00	89.54	0.61	10,347.96	4,839.31 N	383.26 W	476,412.81	627,912.54	2.00	4,840.43	77.71	
15,202.00	91.26	0.84	10,347.29	4,934.30 N	382.06 W	476,507.80	627,913.74	1.83	4,935.41	7.62	
15,297.00	91.54	0.87	10,344.97	5,029.26 N	380.64 W	476,602.76	627,915.16	0.30	5,030.37	6.11	
15,392.00	92.35	0.97	10,341.75	5,124.19 N	379.12 W	476,697.69	627,916.68	0.86	5,125.29	7.03	
15,486.00	88.39	359.20	10,341.14	5,218.17 N	378.98 W	476,791.67	627,916.82	4.61	5,219.27	-155.91	
15,582.00	88.03	358.90	10,344.14	5,314.11 N	380.57 W	476,887.61	627,915.23	0.49	5,315.21	-140.21	
15,677.00	88.68	358.29	10,346.87	5,409.04 N	382.90 W	476,982.54	627,912.90	0.94	5,410.15	-43.18	
15,770.00	91.32	0.82	10,346.87	5,502.02 N	383.62 W	477,075.52	627,912.18	3.93	5,503.13	43.79	
15,865.00	89.08	0.87	10,346.53	5,597.00 N	382.22 W	477,170.50	627,913.58	2.36	5,598.11	178.72	
15,959.00	91.36	1.49	10,346.17	5,690.98 N	380.28 W	477,264.48	627,915.52	2.51	5,692.08	15.21	
16,054.00	90.40	0.14	10,344.71	5,785.95 N	378.93 W	477,359.45	627,916.87	1.74	5,787.05	-125.41	

Design Report for 302H - Final Surveys

Measured		Grid	Vertical	Local Coordinates		Map Coordinates		Dogleg	Vertical	Toolface	
Depth	Inclination	Azimuth	Depth	Northing	Easting	Northing	Easting	Rate	Section	Angle	Comments
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(usft)	(°)	
16,149.00	90.96	0.29	10,343.59	5,880.94 N	378.57 W	477,454.44	627,917.23	0.61	5,882.04	14.99	
16,244.00	91.63	0.53	10,341.44	5,975.92 N	377.90 W	477,549.42	627,917.90	0.75	5,977.01	19.70	
16,339.00	87.47	358.55	10,342.19	6,070.88 N	378.66 W	477,644.38	627,917.14	4.85	6,071.98	-154.55	
16,434.00	88.49	358.36	10,345.54	6,165.79 N	381.22 W	477,739.29	627,914.58	1.09	6,166.89	-10.55	
16,528.00	90.56	359.20	10,346.31	6,259.76 N	383.22 W	477,833.26	627,912.58	2.38	6,260.87	22.09	
16,623.00	90.68	359.05	10,345.29	6,354.74 N	384.67 W	477,928.24	627,911.13	0.20	6,355.86	-51.34	
16,719.00	91.97	357.97	10,343.07	6,450.68 N	387.16 W	478,024.18	627,908.64	1.75	6,451.80	-39.92	
16,813.00	91.36	357.90	10,340.34	6,544.58 N	390.55 W	478,118.08	627,905.25	0.65	6,545.71	-173.46	
16,908.00	91.54	359.31	10,337.93	6,639.52 N	392.86 W	478,213.02	627,902.94	1.50	6,640.66	82.71	
17,003.00	91.63	0.07	10,335.30	6,734.48 N	393.38 W	478,307.98	627,902.42	0.81	6,735.62	83.23	
17,098.00	90.25	0.80	10,333.74	6,829.46 N	392.65 W	478,402.96	627,903.15	1.64	6,830.60	152.12	
17,192.00	89.26	2.04	10,334.15	6,923.43 N	390.33 W	478,496.93	627,905.47	1.69	6,924.56	128.60	
17,287.00	90.22	2.58	10,334.58	7,018.35 N	386.50 W	478,591.85	627,909.30	1.16	7,019.47	29.36	
17,382.00	91.20	2.18	10,333.40	7,113.26 N	382.55 W	478,686.76	627,913.25	1.11	7,114.36	-22.20	
17,477.00	89.75	1.51	10,332.61	7,208.20 N	379.49 W	478,781.70	627,916.31	1.68	7,209.30	-155.20	
17,572.00	88.98	0.46	10,333.67	7,303.18 N	377.86 W	478,876.68	627,917.94	1.37	7,304.27	-126.26	
17,667.00	90.09	0.17	10,334.44	7,398.18 N	377.34 W	478,971.68	627,918.46	1.21	7,399.26	-14.64	
17,762.00	89.20	1.65	10,335.03	7,493.16 N	375.83 W	479,066.66	627,919.97	1.82	7,494.24	121.02	
17,857.00	90.25	2.33	10,335.48	7,588.10 N	372.53 W	479,161.60	627,923.27	1.32	7,589.17	32.93	
17,951.00	89.87	1.55	10,335.38	7,682.04 N	369.35 W	479,255.54	627,926.45	0.92	7,683.10	-115.97	
18,048.00	89.75	0.23	10,335.70	7,779.03 N	367.84 W	479,352.53	627,927.96	1.37	7,780.09	-95.20	
18,143.00	90.68	0.04	10,335.35	7,874.03 N	367.62 W	479,447.53	627,928.18	1.00	7,875.08	-11.55	
18,239.00	92.10	359.71	10,333.02	7,970.00 N	367.83 W	479,543.50	627,927.97	1.52	7,971.05	-13.08	
18,327.00	90.89	359.04	10,330.72	8,057.96 N	368.79 W	479,631.46	627,927.01	1.57	8,059.02	-151.02	
18,422.00	87.50	359.31	10,332.06	8,152.92 N	370.15 W	479,726.42	627,925.65	3.58	8,153.99	175.45	
18,517.00	87.96	359.81	10,335.82	8,247.85 N	370.88 W	479,821.35	627,924.92	0.71	8,248.91	47.37	
18,612.00	88.86	359.53	10,338.46	8,342.81 N	371.43 W	479,916.31	627,924.37	0.99	8,343.87	-17.28	
18,707.00	89.82	359.74	10,339.55	8,437.80 N	372.04 W	480,011.30	627,923.76	1.03	8,438.86	12.34	
18,802.00	90.71	359.85	10,339.11	8,532.80 N	372.38 W	480,106.30	627,923.42	0.94	8,533.86	7.05	
18,896.00	89.11	359.52	10,339.26	8,626.79 N	372.89 W	480,200.29	627,922.91	1.74	8,627.86	-168.35	
18,991.00	89.78	359.17	10,340.18	8,721.78 N	373.98 W	480,295.28	627,921.82	0.80	8,722.85	-27.58	
19,086.00	90.43	358.98	10,340.01	8,816.77 N	375.51 W	480,390.27	627,920.29	0.71	8,817.84	-16.29	
19,181.00	91.02	359.09	10,338.80	8,911.74 N	377.11 W	480,485.24	627,918.69	0.63	8,912.82	10.56	
19,259.00	91.54	358.65	10,337.06	8,989.71 N	378.65 W	480,563.21	627,917.15	0.87	8,990.79	-40.22	
19,354.00	90.49	358.69	10,335.38	9,084.67 N	380.85 W	480,658.17	627,914.95	1.11	9,085.76	177.82	
19,449.00	90.56	358.84	10,334.51	9,179.64 N	382.90 W	480,753.14	627,912.90	0.17	9,180.74	64.98	
19,544.00	89.75	359.38	10,334.25	9,274.63 N	384.38 W	480,848.13	627,911.42	1.02	9,275.73	146.31	

Design Report for 302H - Final Surveys

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100usft)	Vertical Section (usft)	Toolface Angle (°)	Comments
19,638.00	88.95	359.44	10,335.32	9,368.62 N	385.34 W	480,942.12	627,910.46	0.85	9,369.72	175.71	
19,733.00	89.13	359.41	10,336.91	9,463.60 N	386.30 W	481,037.10	627,909.50	0.19	9,464.70	-9.46	
19,828.00	89.57	359.37	10,337.99	9,558.59 N	387.31 W	481,132.09	627,908.49	0.47	9,559.69	-5.19	
19,923.00	89.87	359.41	10,338.45	9,653.58 N	388.32 W	481,227.08	627,907.48	0.32	9,654.69	7.59	
20,018.00	90.87	359.04	10,337.84	9,748.57 N	389.61 W	481,322.07	627,906.19	1.12	9,749.68	-20.30	
20,113.00	91.23	358.77	10,336.10	9,843.54 N	391.42 W	481,417.04	627,904.38	0.47	9,844.65	-36.86	
20,208.00	91.05	357.97	10,334.21	9,938.48 N	394.12 W	481,511.98	627,901.68	0.86	9,939.60	-102.67	
20,302.00	90.74	359.09	10,332.74	10,032.43 N	396.53 W	481,605.93	627,899.27	1.24	10,033.57	105.46	
20,397.00	90.43	0.01	10,331.77	10,127.42 N	397.28 W	481,700.92	627,898.52	1.02	10,128.56	108.62	
20,492.00	89.75	0.74	10,331.62	10,222.42 N	396.66 W	481,795.92	627,899.14	1.05	10,223.55	132.97	
20,587.00	90.74	1.59	10,331.21	10,317.40 N	394.73 W	481,890.90	627,901.07	1.37	10,318.52	40.65	
20,682.00	91.79	2.01	10,329.12	10,412.33 N	391.74 W	481,985.83	627,904.06	1.19	10,413.44	21.79	
20,777.00	91.92	1.80	10,326.04	10,507.22 N	388.59 W	482,080.72	627,907.21	0.26	10,508.33	-58.22	
20,872.00	90.93	1.02	10,323.68	10,602.16 N	386.25 W	482,175.66	627,909.55	1.33	10,603.26	-141.76	
20,967.00	90.93	0.20	10,322.14	10,697.15 N	385.24 W	482,270.65	627,910.56	0.86	10,698.24	-89.99	
21,061.00	89.75	0.00	10,321.58	10,791.14 N	385.07 W	482,364.64	627,910.73	1.27	10,792.24	-170.38	
21,156.00	90.43	0.43	10,321.43	10,886.14 N	384.72 W	482,459.64	627,911.08	0.85	10,887.23	32.31	
21,251.00	90.06	0.62	10,321.02	10,981.14 N	383.85 W	482,554.64	627,911.95	0.44	10,982.23	152.82	
21,346.00	90.74	1.38	10,320.36	11,076.12 N	382.19 W	482,649.62	627,913.61	1.07	11,077.20	48.18	
21,441.00	90.62	1.68	10,319.23	11,171.08 N	379.65 W	482,744.58	627,916.15	0.34	11,172.15	111.80	
21,536.00	91.18	2.30	10,317.74	11,266.01 N	376.36 W	482,839.51	627,919.44	0.88	11,267.07	47.90	
21,631.00	89.51	2.10	10,317.17	11,360.93 N	372.71 W	482,934.43	627,923.09	1.77	11,361.99	-173.17	
21,726.00	88.27	0.90	10,319.01	11,455.88 N	370.22 W	483,029.38	627,925.58	1.82	11,456.93	-135.95	
21,821.00	88.58	0.19	10,321.62	11,550.84 N	369.32 W	483,124.34	627,926.48	0.82	11,551.88	-66.42	
21,916.00	88.58	359.97	10,323.97	11,645.81 N	369.19 W	483,219.31	627,926.61	0.23	11,646.85	-90.00	
22,011.00	88.15	359.71	10,326.68	11,740.77 N	369.45 W	483,314.27	627,926.35	0.53	11,741.81	-148.85	
22,106.00	88.51	359.72	10,329.45	11,835.73 N	369.92 W	483,409.23	627,925.88	0.38	11,836.77	1.59	
22,201.00	89.13	359.96	10,331.41	11,930.71 N	370.19 W	483,504.21	627,925.61	0.70	11,931.75	21.16	
22,296.00	89.13	359.25	10,332.85	12,025.69 N	370.84 W	483,599.19	627,924.96	0.75	12,026.74	-90.01	
22,390.00	87.96	359.15	10,335.24	12,119.65 N	372.16 W	483,693.15	627,923.64	1.25	12,120.70	-175.12	
22,485.00	88.39	358.75	10,338.26	12,214.59 N	373.90 W	483,788.09	627,921.90	0.62	12,215.64	-42.92	
22,580.00	89.63	357.52	10,339.91	12,309.52 N	376.99 W	483,883.02	627,918.81	1.84	12,310.58	-44.78	
22,675.00	92.47	357.59	10,338.16	12,404.41 N	381.04 W	483,977.91	627,914.76	2.99	12,405.48	1.41	
22,769.00	91.42	355.14	10,334.97	12,498.15 N	387.00 W	484,071.65	627,908.80	2.83	12,499.25	-113.17	
22,864.00	92.72	355.11	10,331.54	12,592.75 N	395.06 W	484,166.25	627,900.74	1.37	12,593.86	-1.32	
22,959.00	91.61	356.53	10,327.95	12,687.42 N	401.98 W	484,260.92	627,893.82	1.90	12,688.56	128.01	

Design Report for 302H - Final Surveys

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)				
23,054.00	92.41	358.64	10,324.62	12,782.27 N	405.98 W	484,355.77	627,889.82	2.37	12,783.42	69.19	
23,149.00	92.72	0.75	10,320.37	12,877.17 N	406.49 W	484,450.67	627,889.31	2.24	12,878.32	81.59	
23,244.00	92.23	1.62	10,316.27	12,972.06 N	404.53 W	484,545.56	627,891.27	1.05	12,973.20	119.39	
23,339.00	91.67	1.64	10,313.03	13,066.97 N	401.82 W	484,640.47	627,893.98	0.59	13,068.10	177.96	
23,434.00	91.79	1.96	10,310.17	13,161.88 N	398.84 W	484,735.38	627,896.96	0.36	13,163.00	69.43	
23,529.00	90.25	2.03	10,308.47	13,256.80 N	395.54 W	484,830.30	627,900.26	1.62	13,257.92	177.40	
23,627.00	88.89	2.21	10,309.21	13,354.73 N	391.91 W	484,928.23	627,903.89	1.40	13,355.83	172.46	
23,721.00	88.89	1.46	10,311.03	13,448.66 N	388.90 W	485,022.16	627,906.90	0.80	13,449.76	-90.01	
23,817.00	88.58	0.37	10,313.15	13,544.63 N	387.37 W	485,118.13	627,908.43	1.18	13,545.72	-105.89	
23,912.00	87.28	359.29	10,316.58	13,639.56 N	387.65 W	485,213.06	627,908.15	1.78	13,640.65	-140.32	
24,006.00	87.84	359.11	10,320.58	13,733.46 N	388.96 W	485,306.96	627,906.84	0.63	13,734.56	-17.81	
24,100.00	87.53	358.79	10,324.38	13,827.37 N	390.68 W	485,400.87	627,905.12	0.47	13,828.47	-134.12	
24,195.00	88.95	359.41	10,327.30	13,922.31 N	392.17 W	485,495.81	627,903.63	1.63	13,923.42	23.59	
24,289.00	91.98	0.93	10,326.54	14,016.30 N	391.89 W	485,589.80	627,903.91	3.61	14,017.40	26.64	
24,385.00	92.54	0.74	10,322.75	14,112.21 N	390.50 W	485,685.71	627,905.30	0.62	14,113.31	-18.72	
24,479.00	91.73	0.35	10,319.25	14,206.14 N	389.60 W	485,779.64	627,906.20	0.96	14,207.23	-154.30	
24,574.00	90.56	359.95	10,317.35	14,301.12 N	389.35 W	485,874.62	627,906.45	1.30	14,302.21	-161.12	
24,669.00	89.69	359.40	10,317.14	14,396.12 N	389.89 W	485,969.62	627,905.91	1.08	14,397.21	-147.70	
24,764.00	88.21	358.42	10,318.88	14,491.08 N	391.70 W	486,064.58	627,904.10	1.87	14,492.18	-146.50	
24,858.00	88.21	357.88	10,321.82	14,584.98 N	394.73 W	486,158.48	627,901.07	0.57	14,586.09	-90.01	
24,954.00	88.77	358.87	10,324.35	14,680.91 N	397.45 W	486,254.41	627,898.35	1.18	14,682.02	60.51	
25,048.00	88.87	356.51	10,326.29	14,774.81 N	401.24 W	486,348.31	627,894.56	2.51	14,775.93	-87.60	
25,143.00	89.38	359.69	10,327.74	14,869.73 N	404.39 W	486,443.23	627,891.41	3.39	14,870.87	80.91	
25,238.00	90.49	0.08	10,327.84	14,964.73 N	404.58 W	486,538.23	627,891.22	1.24	14,965.86	19.36	
25,333.00	91.11	0.08	10,326.52	15,059.72 N	404.45 W	486,633.22	627,891.35	0.65	15,060.85	0.00	
25,428.00	90.37	359.84	10,325.29	15,154.71 N	404.52 W	486,728.21	627,891.28	0.82	15,155.84	-162.03	
25,522.00	91.18	0.10	10,324.02	15,248.70 N	404.56 W	486,822.20	627,891.24	0.90	15,249.83	17.79	
25,617.00	92.10	0.06	10,321.30	15,343.66 N	404.43 W	486,917.16	627,891.37	0.97	15,344.79	-2.49	
25,712.00	90.37	359.25	10,319.25	15,438.63 N	405.00 W	487,012.13	627,890.80	2.01	15,439.77	-154.91	
25,807.00	90.18	359.40	10,318.80	15,533.63 N	406.12 W	487,107.13	627,889.68	0.25	15,534.76	141.71	
25,902.00	90.13	359.42	10,318.54	15,628.62 N	407.10 W	487,202.12	627,888.70	0.06	15,629.76	158.20	
25,997.00	90.06	359.55	10,318.38	15,723.62 N	407.96 W	487,297.12	627,887.84	0.16	15,724.76	118.30	
26,092.00	90.25	359.90	10,318.13	15,818.61 N	408.41 W	487,392.11	627,887.39	0.42	15,819.76	61.50	
26,187.00	90.06	359.92	10,317.87	15,913.61 N	408.56 W	487,487.11	627,887.24	0.20	15,914.76	173.99	
26,281.00	90.37	0.30	10,317.52	16,007.61 N	408.38 W	487,581.11	627,887.42	0.52	16,008.75	50.79	
26,376.00	90.43	0.53	10,316.85	16,102.61 N	407.69 W	487,676.11	627,888.11	0.25	16,103.75	75.38	
26,471.00	90.68	0.79	10,315.93	16,197.60 N	406.60 W	487,771.10	627,889.20	0.38	16,198.73	46.12	

Design Report for 302H - Final Surveys

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)				
26,566.00	90.68	0.88	10,314.81	16,292.58 N	405.21 W	487,866.08	627,890.59	0.09	16,293.71	90.00	
26,661.00	90.93	0.90	10,313.47	16,387.56 N	403.74 W	487,961.06	627,892.06	0.26	16,388.68	4.57	
26,756.00	91.05	0.24	10,311.83	16,482.54 N	402.79 W	488,056.04	627,893.01	0.71	16,483.66	-79.69	Last Halliburton MWD Survey
26,807.00	91.05	0.24	10,310.89	16,533.53 N	402.58 W	488,107.03	627,893.22	0.00	16,534.65	0.00	Projection To Bit

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
192.00	191.99	0.71	-1.52	First Wellbenders MWD Survey
9,348.00	9,341.07	-204.88	-183.56	Last Wellbenders MWD Survey
9,445.00	9,438.03	-206.99	-185.34	First Halliburton MWD Survey
26,756.00	10,311.83	16,482.54	-402.79	Last Halliburton MWD Survey
26,807.00	10,310.89	16,533.53	-402.58	Projection To Bit

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (usft)
				+N/_S (usft)	+E/-W (usft)	
User	No Target (Freehand)	359.83	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
192.00	9,348.00	MWD (Surface & Intermediate)	2_MWD+IGRF
9,445.00	26,756.00	MWD (Curve & Lateral)	2_MWD+IFR1+MS
26,807.00	26,807.00	Projection To Bit	2_Blind

Design Report for 302H - Final Surveys

Design Targets

Target Name	Dip	Dip							
- hit/miss target	Angle	Dir.	TVD	+N/-S	+E/-W	Northing	Easting		
- Shape	()	()	()	()	()	()	()	Latitude	Longitude
()									

Directional Difficulty Index

Average Dogleg over Survey:	1.32 °/100usft	Maximum Dogleg over Survey:	13.25 °/100usft at 10,124.00 usft
Net Tortousity applicable to Plans:	0.79 °/100usft	Directional Difficulty Index:	7.193

Audit Info

North Reference Sheet for Nash Unit - 302H - Wellbore #1

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

Vertical Depths are relative to GL+KB 30' @ 3104.00usft (Akita 90). Northing and Easting are relative to 302H

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 -104.33333333°, Longitude Origin:0.00000000°, Latitude Origin:0.00000000°

False Easting: 500,000.00usft, False Northing: 0.00usft, Scale Reduction: 0.99992794

Grid Coordinates of Well: 471,573.50 usft N, 628,295.80 usft E

Geographical Coordinates of Well: 32° 17' 44.84" N, 103° 55' 05.28" W

Grid Convergence at Surface is: 0.22°

Based upon Minimum Curvature type calculations, at a Measured Depth of 26,807.00usft
the Bottom Hole Displacement is 16,538.43usft in the Direction of 358.61° (Grid).

Magnetic Convergence at surface is: -6.85° (8 April 2019, , User Defined)

