

Well Operator's Report of Well Work



Where energy meets innovation.

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JUL 16 2025

WV Department of
Environmental Protection

Well Number: Longworth M02H

API: 47 - 051 - 02079

Submission: ☐ Initial ☒ Amended

Notes: Updated with Stimulation Info

09/26/2025

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

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WV Department of
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API 47 - 051 - 02079 County Marshall District Clay
Quad Glen Easton Pad Name Longworth Field/Pool Name N/A
Farm name Graham H. Longworth Jr. Well Number Longworth M02H
Operator (as registered with the OOG) EQT CHAP LLC
Address 2400 Ansys Drive, Suite 200 City Canonsburg State PA Zip 15317

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,410,842.96 Easting 523,378.15
Landing Point of Curve Northing 4,410,609.19 Easting 522,648.85
Bottom Hole Northing 4,413,034.46 Easting 520,672.12

Elevation (ft) 1270' GL Type of Well ☒ New ☐ Existing Type of Report ☐ Interim ☒ Final
Permit Type ☐ Deviated ☐ Horizontal ☒ Horizontal 6A ☐ Vertical Depth Type ☐ Deep ☒ Shallow
Type of Operation ☐ Convert ☐ Deepen ☒ Drill ☐ Plug Back ☐ Redrilling ☐ Rework ☒ Stimulate
Well Type ☐ Brine Disposal ☐ CBM ☒ Gas ☐ Oil ☐ Secondary Recovery ☐ Solution Mining ☐ Storage ☐ Other _____
Type of Completion ☒ Single ☐ Multiple Fluids Produced ☐ Brine ☒ Gas ☒ NGL ☐ Oil ☐ Other _____
Drilled with ☐ Cable ☒ Rotary

Drilling Media Surface hole ☒ Air ☐ Mud ☐ Fresh Water Intermediate hole ☒ Air ☐ Mud ☐ Fresh Water ☐ Brine
Production hole ☒ Air ☒ Mud ☐ Fresh Water ☐ Brine

Mud Type(s) and Additive(s)

Synthetic Oil Based Mud 13.5 ppg barium sulfate, sodium chloride, xanthan gum, polyanionic cellulose, modified starch, sodium hydroxide, phosphonates and alkyl phosphates, glutaraldehyde solution, calcium hydroxide, partially hydrolyzed polyacrylamide/polyacrylate, potassium chloride, sodium carbonate, ground walnut shells, alcohol and modified fatty acid, ferrochrome lignosulfonate, calcium carbonate, fibrous cellulose

Date permit issued 09/17/2018 Date drilling commenced 12/21/2018 Date drilling ceased 12/07/2019
Date completion activities began 03/02/2025 Date completion activities ceased 04/21/2025
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 99,605 Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1576,1998,2102,2139 Void(s) encountered (Y/N) depths N
Coal depth(s) ft 583,853 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

09/26/2025

API 47-051 - 02079

Farm name Graham H. Longworth Jr.

Well number Longworth M02H

CASING STRINGS	Hole Size	Casing Size	Depth (GL)	New or Used	Grade wt/ft	Basket Depth(s) (GL)	Did cement circulate (Y/ N) * Provide details below*
Conductor	30"	20"	40'	NEW	X-52 78.67#	N/A	Y
Surface	17-1/2"	13-3/8"	630'	NEW	J-55 54.5#	857'	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	2224'	NEW	L-80 40#	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-1/2"	5-1/2"	18,010'	NEW	P-110 20#	N/A	N
Tubing							
Packer type and depth set							

Comment Details Production Cement job has a calculated TOC of 1880' GL, which is greater than 500' TVD above the producing formation. No issues during cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (GL)	WOC (hrs)
Conductor	CLASS A	N/A	N/A	N/A	N/A	0	8+
Surface	CLASS A	520	15.6	1.20	624	0	8
Coal							
Intermediate 1	CLASS A	741	15.6	1.19	882	0	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	2873	15.0	1.23	3533	1880	8+
Tubing							

Drillers TD (ft) 18,021'

Loggers TD (ft) N/A

Deepest formation penetrated MARCELLUS

Plug back to (ft) N/A

Plug back procedure Cement plug 4/23/2019 1073' (.623 sks @ 15.6ppg and 1.19yld)

Kick off Plug 11/23/2019 TOC @ 594' (449 sks @ 17ppg and .99yld)

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Kick off depth (ft) 3078'

Check all wireline logs run

☐ caliper ☐ density ☒ deviated/directional ☐ induction
☐ neutron ☐ resistivity ☒ gamma ray ☐ temperature ☐ sonic

Well cored ☐ Yes ☒ No ☐ Conventional ☐ Sidewall

Were cuttings collected ☐ Yes ☒ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

CONDUCTOR- NONE

SURFACE- ON SHOE TRACK AND EVERY 500' TO SURFACE

INTERMEDIATE: ON SHOE TRACK AND EVERY 500' FEET TO SURFACE

PRODUCTION: ON SHOE TRACK AND EVERY JOINT TO TOC

WAS WELL COMPLETED AS SHOT HOLE ☐ Yes ☒ No DETAILS

WAS WELL COMPLETED OPEN HOLE? ☐ Yes ☒ No DETAILS

WERE TRACERS USED ☐ Yes ☒ No TYPE OF TRACER(S) USED

09/26/2025

API 47- 051 - 02079 Farm name Graham H. Longworth Jr. Well number Longworth M02H

[illegible]

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STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

[illegible]

Please insert additional pages as applicable.

09/26/2025

Farm name Graham H. Longworth Jr.

Well number Longworth M02H

DEPTHS

Marcellus

6,498-6,520

TVD

7,494-18,021

MD

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Please insert additional pages as applicable.

GAS TEST ☐ Build up ☒ Drawdown ☐ Open Flow

OIL TEST ☐ Flow ☐ Pump

SHUT-IN PRESSURE Surface 2512 psi Bottom Hole _____ psi DURATION OF TEST 24 _____ hrs

OPEN FLOW	Gas	Oil	NGL	Water	GAS MEASURED BY
	3459	0	515	449	☐ Estimated ☒ Orifice ☐ Pilot
	mcfpd	bpd	bpd	bpd	

LITHOLOGY/
FORMATION

TOP	DEPTH IN FT	NAME TVD
-----	-------------	----------

BOTTOM
DEPTH IN FT
TVD

TOP
DEPTH IN FT
MD

BOTTOM
DEPTH IN FT
MD

DESCRIBE ROCK TYPE AND RECORD QUANTITY AND
TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H₂S, ETC)

[illegible]

Please insert additional pages as applicable.

Drilling Contractor **Patterson UTI (Rig 292)**

Address 207 Carlton Dr City Eighty Four State PA Zip 15330

Logging Company Scientific Drilling International

Address 124 Vista Drive City Charleroi State PA Zip 15022

Cementing Company BJ Services

Address 1036 East Main Street City Bridgeport State WV Zip 26330

Cementing Company Evolution Well Services

Address 1780 Hughes Landing Blvd Suite 125 City The Woodlands State TX Zip 77380

Please insert additional pages as applicable.

Completed by Jacob Caplan

Telephone 412-215-2723

Signature  Title Mgr Completions Engr Date 07/15/2025

Submittal of Hydraulic Fracturing Chemical Disclosure Information

Attach copy of FRACFOCUS Registry

09/26/2025

API 47- 051 - 02079 Farm name Graham H. Longworth Jr. Well number Longworth M02H

Drilling Contractor Precision Drilling
Address 10350 Richmond Ave. Suite 700 City Houston State TX Zip 77042

Logging Company _____
Address _____ City _____ State _____ Zip _____

Logging Company _____
Address _____ City _____ State _____ Zip _____

Drilling Contractor _____
Address _____ City _____ State _____ Zip _____

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Well # Longworth M02H Final Formations API# 47-051-02079				
Formation Name	Drill Top MD (ftGRD)	Drill Top (TVD) (ftGRD)	Drill Btm MD (ftGRD)	Drill Btm (TVD) (ftGRD)
Sand/Shale	1	1	583	583
Waynesburg Coal	583	583	583	583
Sand/Shale	583	583	853	853
Pittsburgh Coal	853	853	858	858
Sand/Shale	858	858	1,872	1,872
Big Lime	1,872	1,872	2,100	2,100
Big Injun	2,100	2,100	2,182	2,182
Sand/Shale	2,182	2,182	2,819	2,819
Gantz	2,819	2,819	2,880	2,880
Gordon	2,880	2,880	2,960	2,960
50F	2,960	2,960	3,009	3,009
Sand/Shale	3,009	3,009	3,088	3,088
Bayard	3,088	3,088	3,453	3,453
Sand/Shale	3,453	3,453	5,255	4,945
Alexander	5,255	4,945	5,692	5,273
Elks	5,692	5,273	6,892	6,216
Sonyea	6,892	6,216	7,017	6,297
Middlesex	7,017	6,297	7,059	6,322
Genesee	7,059	6,322	7,150	6,372
Geneseo	7,150	6,372	7,194	6,394
Tully	7,194	6,394	7,293	6,438
Hamilton	7,293	6,438	7,494	6,498
Marcellus	7,494	6,498	18,021	6,520

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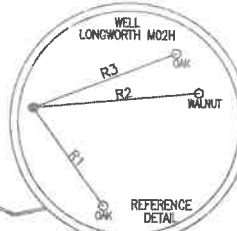
LINE	BEARING	DISTANCE
R1	S 36°19'52" E	213.09
R2	N 84°27'05" E	297.35
R3	N 68°53'13" E	274.01
R4	S 73°-09'36" W	2269.36
R5	N 86°31'43" W	1562.93
R6	N 50°31'39" W	2213.27

AS-DRILLED PLAT

BHL is located on topo map 2,906 feet south of Latitude: 39° 52' 30"
SHL is located on topo map 10,097 feet south of Latitude: 39° 52' 30"

NOTES:

- There are no water wells or developed springs within 250' of proposed well.
- Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
- There are no native trout streams within 300' of proposed well.
- Proposed well is greater than 1000' from surface groundwater intake or public water supply.
- It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted hereon. The location of the boundary lines, as shown, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.
- There are no existing buildings within 625' of proposed well.



AS-DRILLED LOCATIONS
UTM 17-NQ03(N)
SURFACE HOLE LOCATION (SHL)
N:4410842.96
E:523378.15
APPROX LANDING POINT (LP)
N:4410609.19
E:522648.85
BOTTOM HOLE LOCATION (BHL)
N:4413034.46
E:520672.12

LEGEND	
	- TOPO MAP POINT
	- WELL
	- ALL ARE POINTS UNLESS OTHERWISE NOTED.
	- MINERAL TRACT BOUNDARY
	- PARCEL LINES
	- WELL REFERENCE
	- ROAD
	- STREAM CENTER LINE
	- LESSORS
	- SURFACE OWNERS
	- AS-DRILLED
GAS WELLS	
	- EXISTING WELLS
	- PLUGGED WELLS

THRASHER

THE THRASHER GROUP, INC.
800 WHITE OAKS BLVD.
BRIDGEPORT, WV 26330
PHONE 304-624-4108

SEE PAGE 2 FOR SURFACE OWNERS AND LESSORS

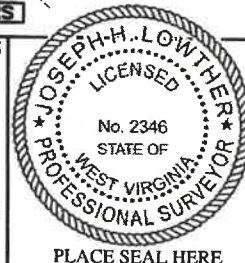
FILE #: LONGWORTH M02H - AS-DRILLED
DRAWING #: LONGWORTH M02H - AS-DRILLED
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1/2500
PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: Joseph H. Lowther

R.P.E.:

L.L.S.: P.S. No. 2346



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304



DATE: FEBRUARY 23, 2021

OPERATOR'S WELL #: LONGWORTH M02H - AS-DRILLED

API WELL #: 47 51 02079
STATE COUNTY PERMIT

Well Type: ☐ Oil ☐ Waste Disposal ☒ Production ☐ Deep ☒ Gas ☐ Liquid Injection ☐ Storage ☒ Shallow

WATERSHED: MIDDLE GRAVE CREEK-GRAVE CREEK

ELEVATION: 1295'

COUNTY/DISTRICT: MARSHALL / CLAY

QUADRANGLE: GLEN EASTON, WV 7.5'

SURFACE OWNER: GRAHAM H. LONGWORTH JR.

ACREAGE: 123.589±

OIL & GAS ROYALTY OWNER: GRAHAM H. LONGWORTH JR.

ACREAGE: 709.816±

DRILL ☒ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR STIMULATE ☒ PLUG OFF OLD FORMATION ☐

PERFORATE NEW FORMATION ☐ PLUG & ABANDON ☐ CLEAN OUT & REPLUG ☐ OTHER CHANGE ☒

(SPECIFY): AS-DRILLED PLAT

TARGET FORMATION: MARCELLUS

ESTIMATED DEPTH: TVD: 6,423'± TMD: 18,045'±

WELL OPERATOR: EQT CHAP LLC

DESIGNATED AGENT: JOSEPH C. MALLOW

Address: 400 WOODCLIFF DRIVE

Address: 115 PROFESSIONAL PLACE, PO BOX 280

City: CANONSBURG State: PA Zip Code: 15317

City: BRIDGEPORT State: WV Zip Code: 26330

09/26/2025

LONGWORTH

M02H

PAGE 2 OF 2

AS-DRILLED

	LESSOR	DIST-TM/PAR
A	GRAHAM H. LONGWORTH JR. ET AL	4-11/1
B	HOLMES CWC LEGACY LLC	4-11/55
C	JEFFREY S. HOLMES ET UX	4-13/39.1
D	DALE CUNNINGHAM ET UX	4-13/34
E	DALE CUNNINGHAM ET UX	4-13/33
F	BRETT A. ANDREWS ET UX	4-12/19
G	RALPH E. WOOD	4-12/21
H	RALPH E. WOOD	4-12/22
J	KENNETH D. TUCKER ET UX	4-12/1
K	GARY L. ECKHARDT	4-13/14.1
L	RICHARD D. ARRUDA ET UX	4-12/1.1
M	*LIONEL SCHWING ET UX	4-13/13
N	BYRON C. FREELAND ET UX	4-7/28
P	JOSEPH L. FREELAND ET UX	4-7/21

	SURFACE OWNER	DIST-TM/PAR
1	GRAHAM H. LONGWORTH JR.	4-11/1
2	HOLMES-CWC-LEGACY LLC	4-11/55
3	JEFFREY SCOTT HOLMES ET AL	4-13/39.1
4	DALE & MARY CUNNINGHAM	4-13/34
5	DALE & MARY CUNNINGHAM	4-13/33
6	CODY M. JARRETT	4-12/19
7	RALPH E. WOOD	4-12/21
8	RALPH E. WOOD	4-12/22
9	KEITH J. GUZEK	4-12/1
10	GARY L. ECKHARDT	4-13/14.1
11	RICHARD DAVID & TAMMY D. ARRUDA	4-12/1.1
12	*LIONEL SCHWING ET UX	4-13/13
13	BYRON FREELAND	4-7/28
14	JOSEPH L. FREELAND ET UX	4-7/21

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BOTTOM HOLE LOCATION (BHL)
N:4413034.46 E:520672.12

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* - DENOTES PARCEL WITHIN 30 FEET OF PLANNED WELL BORE

FEBRUARY 23, 2021

THRASHER

THE THRASHER GROUP, INC.
600 WHITE OAKS BLVD.
BRIDGEPORT, WV 26330
PHONE 304-624-4108

09/26/2025



EQT (Chevron Data) 02-13-21

Marshall County, WV Chevron

Longworth

M02H

OH-ST01

Design: Longworth 2H ST01 As Drilled

Standard Survey Report

20 July, 2021

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EQT Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well M02H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	Air RKB @ 1294.000usft (Highlands 9)
Project:	Marshall County, WV Chevron	MD Reference:	Air RKB @ 1294.000usft (Highlands 9)
Site:	Longworth	North Reference:	True
Well:	M02H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH-ST01		
Design:	Longworth 2H ST01 As Drilled		

Project	Marshall County, WV Chevron		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	West Virginia Northern Zone		

Site	Longworth		
Site Position:		Northing:	493,086.404 usft
From:	Map	Easting:	1,624,022.636 usft
Position Uncertainty:	0.000 usft	Slot Radius:	13-3/16 "
		Latitude:	39.85
		Longitude:	-80.73
		Grid Convergence:	-0.7825 °

Well	M02H		
Well Position	+N/-S	0.000 usft	Northing:
	+E/-W	0.000 usft	Easting:
Position Uncertainty	0.000 usft	Wellhead Elevation:	0.000 usft
		Latitude:	39.8472820
		Longitude:	80.7267298°W
		Ground Level:	1,270.000 usft

Wellbore	OH-ST01		
Magnetics	Model Name	Sample Date	Declination
	User Defined	12/10/2019	-8.0500
			Dip Angle
			66.7833
			Field Strength
			52,254.90000000

Design	Longworth 2H ST01 As Drilled		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
Tie On Depth:	0.000		
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.000	0.000	0.000
			Direction
			309.177

Survey Program	Date	7/20/2021	
From	To	Survey (Wellbore)	Tool Name
()	(usft)		Description
0.00	585.000	Survey #1 (OH-ST01)	53_SDI_Keeper_WL_NS+C1 SDI_101Ga - SDI Keep static gyrocompass with con c
0.00	912.000	Survey #2 (OH-ST01)	MWD c MWD - Standard c
0.00	1,005.000	Survey #3 (OH-ST01)	53_SDI_Keeper_WL_NS+C1 SDI_101Ga - SDI Keep static gyrocompass with con c
0.00	18,045.000	Survey #4 (OH-ST01)	11_MWD+IFR1+AX+Sag c A007Mb: IFR dec & axial + sag corrections c

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.000	0.000	0.000	0.000	-1,294.000	0.000	0.000	0.000	0.00000	0.00000	0.00000
101.000	0.120	114.990	101.000	-1,193.000	-0.045	0.096	-0.103	0.11881	0.11881	0.00000
126.000	0.330	113.230	126.000	-1,168.000	-0.084	0.186	-0.197	0.84036	0.84000	-7.04000
151.000	0.170	93.150	150.999	-1,143.000	-0.115	0.289	-0.296	0.72022	-0.64000	-80.32000
176.000	0.090	43.650	175.999	-1,118.001	-0.102	0.340	-0.328	0.52348	-0.32000	-197.9999
9										



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EQT Survey Report

Database: EDM Definitive
Company: EQT (Chevron Data) 02-13-21
Project: Marshall County, WV Chevron
Site: Longworth
Well: M02H
Wellbore: OH-ST01
Design: Longworth 2H ST01 As Drilled

WV Department of
Environmental Protection

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well M02H
Air RKB @ 1294.000usft (Highlands 9)
Air RKB @ 1294.000usft (Highlands 9)
True
Minimum Curvature

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
201.000	0.140	38.970	200.999	-1,093.001	-0.064	0.372	-0.329	0.20333	0.20000	-18.72000
226.000	0.180	50.530	225.999	-1,068.001	-0.016	0.422	-0.337	0.20484	0.16000	46.24000
251.000	0.300	39.050	250.999	-1,043.001	0.060	0.493	-0.345	0.51475	0.48000	-45.92000
276.000	0.320	25.920	275.999	-1,018.001	0.174	0.565	-0.328	0.29447	0.08000	-52.52000
301.000	0.620	5.380	300.998	-993.002	0.371	0.608	-0.237	1.35779	1.20000	-82.16000
326.000	0.890	16.630	325.996	-968.004	0.692	0.677	-0.087	1.22706	1.08000	45.00000
351.000	0.770	17.520	350.993	-943.007	1.038	0.783	0.049	0.48275	-0.48000	3.56000
376.000	0.670	11.680	375.991	-918.009	1.341	0.863	0.179	0.49566	-0.40000	-23.36000
401.000	0.560	7.580	400.990	-893.010	1.606	0.909	0.310	0.47363	-0.44000	-16.40000
426.000	0.590	0.630	425.988	-868.012	1.855	0.926	0.454	0.30346	0.12000	-27.80000
451.000	0.590	0.360	450.987	-843.013	2.113	0.928	0.615	0.01112	0.00000	-1.08000
476.000	0.560	1.920	475.986	-818.014	2.364	0.933	0.770	0.13535	-0.12000	6.24000
501.000	0.610	16.810	500.984	-793.015	2.613	0.976	0.894	0.63800	0.20000	59.56000
526.000	0.760	19.510	525.983	-768.017	2.897	1.070	1.001	0.61357	0.60000	10.80000
551.000	0.770	25.480	550.980	-743.020	3.205	1.197	1.096	0.32118	0.04000	23.88000
576.000	0.610	38.360	575.979	-718.021	3.461	1.352	1.138	0.88756	-0.64000	51.52000
585.000	0.570	44.630	584.978	-709.022	3.530	1.413	1.135	0.84324	-0.44444	69.66667
631.000	0.920	24.840	630.974	-663.026	4.028	1.729	1.204	0.93362	0.76087	-43.02174
725.000	1.150	58.790	724.960	-569.040	5.202	2.853	1.074	0.68416	0.24468	36.11702
818.000	1.740	129.950	817.936	-476.064	4.779	4.734	-0.651	1.88015	0.63441	76.51613
912.000	2.150	147.270	911.883	-382.117	2.379	6.781	-3.754	0.75766	0.43617	18.42553
1,005.000	1.300	84.500	1,004.847	-289.153	1.013	8.775	-6.162	2.08339	-0.91398	-67.49463
1,061.000	2.980	52.160	1,060.807	-233.193	1.966	10.557	-6.941	3.58202	3.00000	-57.75000
1,154.000	2.480	38.360	1,153.703	-140.297	5.027	13.715	-7.456	0.88430	-0.53763	-14.83871
1,246.000	1.760	7.940	1,245.642	-48.358	7.987	15.145	-6.695	1.42538	-0.78261	-33.06522
1,338.000	2.220	294.900	1,337.599	43.599	10.137	13.724	-4.235	2.60532	0.50000	-79.39131
1,430.000	4.260	271.330	1,429.451	135.451	10.967	8.691	0.191	2.60374	2.21739	-25.61957
1,522.000	5.250	269.650	1,521.133	227.133	11.020	1.065	6.136	1.08657	1.07609	-1.82609
1,615.000	6.710	257.760	1,613.628	319.628	9.842	-8.500	12.807	2.05088	1.56989	-12.78495
1,707.000	7.550	255.200	1,704.916	410.916	7.159	-19.596	19.713	0.97596	0.91304	-2.78261
1,799.000	7.200	255.620	1,796.155	502.155	4.183	-31.025	26.893	0.38492	-0.38043	0.45652
1,892.000	5.660	251.790	1,888.567	594.567	1.303	-41.027	32.627	1.71804	-1.65591	-4.11828
1,984.000	3.090	236.800	1,980.294	686.294	-1.474	-47.413	35.823	3.03436	-2.79348	-16.29348
2,076.000	2.150	223.250	2,072.198	778.198	-4.088	-50.670	36.696	1.21680	-1.02174	-14.72826
2,168.000	1.800	213.440	2,164.143	870.143	-6.551	-52.649	36.674	0.52763	-0.38043	-10.66304
2,199.000	1.830	208.190	2,195.128	901.128	-7.394	-53.151	36.531	0.54485	0.09677	-16.93548
2,271.000	1.920	213.400	2,267.089	973.089	-9.414	-54.358	36.191	0.26760	0.12500	7.23611
2,364.000	1.170	212.630	2,360.055	1,066.055	-11.514	-55.727	35.926	0.80674	-0.80645	-0.82796
2,456.000	1.090	226.790	2,452.037	1,158.037	-12.904	-56.872	35.935	0.31482	-0.08696	15.39130
2,548.000	0.780	218.960	2,544.025	1,250.025	-13.990	-57.903	36.048	0.36369	-0.33696	-8.51087
2,640.000	0.690	193.840	2,636.017	1,342.018	-15.015	-58.429	35.809	0.36034	-0.09783	-27.30435
2,732.000	0.950	200.460	2,728.008	1,434.008	-16.268	-58.829	35.327	0.30032	0.28261	7.19565
2,824.000	1.040	230.300	2,819.995	1,525.995	-17.515	-59.738	35.243	0.56486	0.09783	32.43478



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EQT Survey Report

Database:	EDM Definitive	Local Co-ordinate Reference:	Well M02H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	Air RKB @ 1294.000usft (Highlands 9)
Project:	Marshall County, WV Chevron	MD Reference:	Air RKB @ 1294.000usft (Highlands 9)
Site:	Longworth	North Reference:	True
Well:	M02H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH-ST01		
Design:	Longworth 2H ST01 As Drilled		

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,917.000	0.900	226.360	2,912.981	1,618.981	-18.559	-60.916	35.497	0.16666	-0.15054	-4.23656
3,010.000	0.760	222.510	3,005.972	1,711.972	-19.517	-61.861	35.625	0.16196	-0.15054	-4.13979
KOP=3102' MD/ 3098' TVD										
3,102.000	0.200	215.020	3,097.968	1,803.968	-20.099	-62.365	35.648	0.61121	-0.60870	-8.14130
3,195.000	3.670	248.840	3,190.901	1,896.901	-21.306	-65.235	37.110	3.76947	3.73118	36.36559
3,287.000	9.280	248.600	3,282.278	1,988.278	-25.079	-74.895	42.215	6.09788	6.09783	-0.26087
3,380.000	10.230	236.840	3,373.941	2,079.942	-32.333	-88.792	48.405	2.36803	1.02151	-12.64516
3,472.000	11.780	224.520	3,464.259	2,170.259	-43.500	-102.219	51.759	3.05241	1.68478	-13.39130
3,564.000	16.500	226.310	3,553.447	2,259.447	-59.229	-118.259	54.257	5.15180	5.13043	1.94565
3,656.000	19.930	227.670	3,640.824	2,346.824	-78.819	-139.305	58.196	3.75654	3.72826	1.47826
3,749.000	22.190	228.360	3,727.607	2,433.607	-101.164	-164.150	63.340	2.44465	2.43011	0.74194
3,841.000	26.520	228.280	3,811.400	2,517.400	-126.389	-192.478	69.365	4.70666	4.70652	-0.08696
3,933.000	30.510	228.730	3,892.223	2,598.223	-155.474	-225.375	76.493	4.34321	4.33696	0.48913
4,026.000	34.910	230.750	3,970.458	2,676.458	-187.899	-263.747	85.754	4.87402	4.73118	2.17204
4,118.000	39.300	232.630	4,043.815	2,749.815	-222.258	-307.310	97.819	4.92793	4.77174	2.04348
4,210.000	40.140	236.440	4,114.590	2,820.590	-256.341	-355.185	113.400	2.79913	0.91304	4.14130
4,303.000	35.400	234.920	4,188.085	2,894.085	-288.412	-402.236	129.613	5.19382	-5.09677	-1.63441
4,396.000	29.640	234.280	4,266.470	2,972.470	-317.343	-442.984	142.924	6.20451	-6.19355	-0.68817
4,488.000	33.010	238.340	4,345.057	3,051.057	-343.789	-482.800	157.083	4.32045	3.66304	4.41304
4,581.000	38.400	235.620	4,420.553	3,126.553	-373.419	-528.237	173.587	6.04058	5.79570	-2.92473
4,673.000	39.930	234.800	4,491.881	3,197.881	-406.575	-575.948	189.627	1.75570	1.66304	-0.89130
4,766.000	40.310	236.450	4,563.000	3,269.000	-440.405	-625.408	206.597	1.21406	0.40860	1.77419
4,858.000	42.470	236.970	4,632.017	3,338.017	-473.786	-676.255	224.926	2.37737	2.34783	0.56522
4,951.000	40.640	235.390	4,701.610	3,407.610	-508.105	-727.510	242.978	2.26748	-1.96774	-1.69892
5,043.000	38.650	232.620	4,772.453	3,478.453	-542.570	-775.006	258.024	2.89252	-2.16304	-3.01087
5,136.000	36.450	234.830	4,846.184	3,552.184	-576.120	-820.675	272.231	2.77341	-2.36559	2.37634
5,229.000	36.570	237.370	4,920.937	3,626.938	-606.974	-866.593	288.336	1.62998	0.12903	2.73118
5,321.000	38.300	236.440	4,993.987	3,699.987	-637.515	-913.436	305.354	1.97824	1.88043	-1.01087
5,414.000	42.400	234.260	5,064.851	3,770.851	-671.778	-962.925	322.073	4.66197	4.40860	-2.34409
5,507.000	44.430	236.750	5,132.408	3,838.408	-707.947	-1,015.607	340.063	2.85462	2.18280	2.67742
5,599.000	42.910	237.130	5,198.952	3,904.952	-742.603	-1,068.845	359.440	1.67660	-1.65217	0.41304
5,691.000	37.000	233.130	5,269.455	3,975.455	-776.247	-1,117.348	375.786	7.00173	-6.42391	-4.34783
5,783.000	36.580	231.700	5,343.133	4,049.133	-809.848	-1,161.009	388.405	1.03677	-0.45652	-1.55435
5,876.000	39.270	235.100	5,416.494	4,122.494	-843.873	-1,206.910	402.492	3.66185	2.89247	3.65591
5,968.000	34.220	234.190	5,490.191	4,196.191	-875.689	-1,251.799	417.190	5.52080	-5.48913	-0.98913
6,062.000	31.620	233.260	5,569.091	4,275.091	-905.900	-1,292.987	430.035	2.81766	-2.76596	-0.98936
6,154.000	33.890	233.340	5,646.458	4,352.458	-935.644	-1,332.895	442.180	2.46784	2.46739	0.08696
6,246.000	32.940	228.670	5,723.262	4,429.262	-967.483	-1,372.261	452.583	2.97928	-1.03261	-5.07609
6,339.000	37.070	231.660	5,799.428	4,505.428	-1,001.586	-1,413.254	462.817	4.80746	4.44086	3.21505
6,431.000	41.260	236.220	5,870.757	4,576.758	-1,035.676	-1,460.248	477.711	5.52393	4.55435	4.95652
6,523.000	40.190	237.930	5,940.481	4,646.481	-1,068.307	-1,510.620	496.146	1.68016	-1.16304	1.85870
6,567.000	36.730	237.080	5,974.930	4,680.930	-1,083.000	-1,533.702	504.757	7.95474	-7.86364	-1.93182
6,661.000	41.580	242.850	6,047.824	4,753.824	-1,112.537	-1,585.101	525.941	6.44874	5.15957	6.13830



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EQT
Survey Report

WV Department of
Environmental Protection

Database: EDM Definitive
Company: EQT (Chevron Data) 02-13-21
Project: Marshall County, WV Chevron
Site: Longworth
Well: M02H
Wellbore: OH-ST01
Design: Longworth 2H ST01 As Drilled

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well M02H:
Air RKB @ 1294.000usft (Highlands 9)
Air RKB @ 1294.000usft (Highlands 9)
True
Minimum Curvature

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,753.000	42.290	250.510	6,116.308	4,822.308	-1,136.811	-1,641.483	554.313	5.61504	0.77174	8.32609
6,846.000	44.610	265.970	6,184.013	4,890.013	-1,149.584	-1,703.741	594.506	11.68022	2.49462	16.62366
6,939.000	47.950	275.460	6,248.356	4,954.356	-1,148.592	-1,770.787	647.107	8.19575	3.59140	10.20430
7,031.000	52.060	280.820	6,307.499	5,013.499	-1,138.523	-1,840.483	707.495	6.31242	4.46739	5.82609
7,124.000	57.060	283.830	6,361.416	5,067.416	-1,122.297	-1,914.455	775.088	5.98721	5.37634	3.23656
7,217.000	60.380	294.950	6,409.808	5,115.808	-1,095.849	-1,989.191	849.731	10.81759	3.56989	11.95699
7,309.000	65.880	296.720	6,451.375	5,157.375	-1,060.074	-2,063.010	929.555	6.21940	5.97826	1.92391
7,402.000	71.510	304.620	6,485.198	5,191.198	-1,015.840	-2,137.371	1,015.143	9.95964	6.05376	8.49462
7,494.000	77.090	311.990	6,510.115	5,216.115	-960.946	-2,206.742	1,103.596	9.80804	6.06522	8.01087
7,587.000	80.990	314.720	6,527.797	5,233.797	-898.272	-2,273.100	1,194.630	5.08801	4.19355	2.93548
Top of Marcellus @ 6518' TVD										
7,660.410	83.449	318.506	6,537.738	5,243.738	-845.423	-2,323.045	1,266.732	6.10983	3.34925	5.15796
7,680.000	84.110	319.510	6,539.861	5,245.861	-830.724	-2,335.819	1,285.920	6.10983	3.37578	5.12274
LP/Deepest Point of Well=7783' MD/ 6544' TVD										
7,763.000	89.483	319.840	6,544.497	5,250.498	-767.567	-2,389.426	1,367.373	6.48529	6.47311	0.39801
7,773.000	90.130	319.880	6,544.531	5,250.531	-759.923	-2,395.872	1,377.200	6.48529	6.47316	0.39649
7,865.000	90.030	322.250	6,544.403	5,250.403	-688.365	-2,453.684	1,467.221	2.57838	-0.10870	2.57609
7,958.000	89.930	321.980	6,544.435	5,250.435	-614.965	-2,510.793	1,557.860	0.30960	-0.10753	-0.29032
8,051.000	90.400	322.600	6,544.167	5,250.167	-541.392	-2,567.678	1,648.434	0.83657	0.50538	0.66667
8,143.000	90.670	322.300	6,543.308	5,249.308	-468.456	-2,623.745	1,737.972	0.43869	0.29348	-0.32609
8,236.000	90.470	322.370	6,542.383	5,248.383	-394.841	-2,680.569	1,828.526	0.22784	-0.21505	0.07527
8,328.000	90.470	320.820	6,541.628	5,247.629	-322.751	-2,737.717	1,918.368	1.68473	0.00000	-1.68478
8,421.000	90.500	321.440	6,540.841	5,246.841	-250.347	-2,796.077	2,009.348	0.66742	0.03226	0.66667
8,514.000	90.640	321.120	6,539.916	5,245.916	-177.791	-2,854.247	2,100.277	0.37556	0.15054	-0.34409
8,607.000	90.670	321.150	6,538.853	5,244.853	-105.383	-2,912.600	2,191.253	0.04562	0.03226	0.03226
8,699.000	90.700	321.490	6,537.753	5,243.753	-33.569	-2,970.093	2,281.188	0.37097	0.03261	0.36957
8,792.000	90.440	321.150	6,536.828	5,242.828	39.028	-3,028.212	2,372.103	0.46022	-0.27957	-0.36559
8,884.000	90.470	320.960	6,536.097	5,242.097	110.579	-3,086.039	2,462.130	0.20907	0.03261	-0.20652
8,977.000	90.500	320.980	6,535.310	5,241.310	182.820	-3,144.602	2,553.164	0.03877	0.03226	0.02151
9,069.000	90.540	321.070	6,534.475	5,240.475	254.340	-3,202.466	2,643.200	0.10705	0.04348	0.09783
9,162.000	90.500	321.130	6,533.631	5,239.631	326.713	-3,260.864	2,734.190	0.07754	-0.04301	0.06452
9,255.000	90.340	321.610	6,532.949	5,238.949	399.362	-3,318.921	2,825.090	0.54403	-0.17204	0.51613
9,347.000	90.470	321.380	6,532.299	5,238.299	471.355	-3,376.197	2,914.970	0.28717	0.14130	-0.25000
9,440.000	90.870	321.460	6,531.212	5,237.212	544.052	-3,434.188	3,005.848	0.43862	0.43011	0.08602
9,533.000	90.440	321.770	6,530.148	5,236.148	616.945	-3,491.932	3,096.660	0.56998	-0.46237	0.33333
9,625.000	90.470	321.300	6,529.418	5,235.418	688.978	-3,549.157	3,186.525	0.51189	0.03261	-0.51087
9,718.000	93.160	323.920	6,526.472	5,232.472	762.817	-3,605.593	3,276.920	4.03654	2.89247	2.81720
9,794.000	94.870	325.810	6,521.150	5,227.150	824.811	-3,649.222	3,349.903	3.34904	2.25000	2.48684
9,887.000	92.950	321.640	6,514.806	5,220.806	899.589	-3,704.106	3,439.689	4.92665	-2.06452	-4.48387
9,979.000	94.770	321.750	6,508.613	5,214.613	971.617	-3,761.001	3,529.295	1.98185	1.97826	0.11957
10,072.000	92.920	320.270	6,502.377	5,208.377	1,043.733	-3,819.380	3,620.107	2.54520	-1.98925	-1.59140
10,165.000	90.840	320.600	6,499.326	5,205.326	1,115.385	-3,878.581	3,711.264	2.26450	-2.23656	0.35484



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Database:	EDM Deliniva	Local Co-ordinate Reference:	Well M02H
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Project:	Marshall County, WV Chevron	MD Reference:	Air RKB @ 1294.000usft (Highlands 9)
Site:	Longworth	North Reference:	True
Well:	M02H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH-ST01		
Design:	Longworth 2H ST01 As Drilled		

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,257.00	90.740	321.310	6,498.057	5,204.058	1,186.829	-3,936.529	3,801.318	0.77928	-0.10870	0.77174
0										
10,350.00	89.400	318.670	6,497.944	5,203.944	1,258.053	-3,996.314	3,892.657	3.18339	-1.44086	-2.83871
0										
10,442.00	89.930	320.680	6,498.482	5,204.482	1,328.187	-4,055.845	3,983.110	2.25941	0.57609	2.18478
0										
10,535.00	87.650	320.710	6,500.446	5,206.446	1,400.129	-4,114.739	4,074.211	2.45183	-2.45161	0.03226
0										
10,627.00	88.160	321.100	6,503.809	5,209.809	1,471.482	-4,172.716	4,164.230	0.69768	0.55435	0.42391
0										
10,720.00	88.730	321.050	6,506.332	5,212.333	1,543.806	-4,231.126	4,255.198	0.61526	0.61290	-0.05376
0										
10,812.00	89.360	321.240	6,507.866	5,213.866	1,615.439	-4,288.834	4,345.186	0.71524	0.68478	0.20652
0										
10,905.00	89.060	320.100	6,509.148	5,215.148	1,687.368	-4,347.769	4,436.311	1.26743	-0.32258	-1.22581
0										
10,997.00	89.460	319.350	6,510.336	5,216.336	1,757.553	-4,407.238	4,526.748	0.92385	0.43478	-0.81522
0										
11,090.000	89.630	319.200	6,511.075	5,217.075	1,828.030	-4,467.912	4,618.305	0.24378	0.18280	-0.16129
11,182.000	90.570	319.460	6,510.914	5,216.914	1,897.809	-4,527.868	4,708.863	1.06010	1.02174	0.28261
11,274.000	90.370	319.910	6,510.160	5,216.160	1,967.956	-4,587.388	4,799.317	0.53525	-0.21739	0.48913
11,366.000	90.740	319.520	6,509.268	5,215.269	2,038.134	-4,646.872	4,889.761	0.58432	0.40217	-0.42391
11,459.000	90.330	320.770	6,508.400	5,214.400	2,109.522	-4,706.466	4,981.056	1.41448	-0.44086	1.34409
11,551.000	90.770	320.890	6,507.517	5,213.517	2,180.844	-4,764.573	5,071.156	0.49573	0.47826	0.13043
11,643.000	90.870	321.120	6,506.200	5,212.200	2,252.339	-4,822.458	5,161.193	0.27258	0.10870	0.25000
11,736.000	90.300	321.820	6,505.251	5,211.251	2,325.087	-4,880.387	5,252.055	0.97063	-0.61290	0.75269
11,828.000	90.910	320.820	6,504.279	5,210.279	2,396.902	-4,937.880	5,341.990	1.27317	0.66304	-1.08696
11,921.000	90.640	321.460	6,503.021	5,209.021	2,469.312	-4,996.224	5,432.962	0.74685	-0.29032	0.68817
12,014.00	90.340	320.670	6,502.226	5,208.226	2,541.649	-5,054.666	5,523.963	0.90862	-0.32258	-0.84946
0										
12,106.00	90.640	321.040	6,501.439	5,207.439	2,612.997	-5,112.742	5,614.055	0.51775	0.32609	0.40217
0										
12,198.00	91.140	320.910	6,500.010	5,206.010	2,684.461	-5,170.663	5,704.101	0.56154	0.54348	-0.14130
0										
12,290.00	90.870	321.230	6,498.397	5,204.397	2,756.018	-5,228.464	5,794.112	0.45505	-0.29348	0.34783
0										
12,383.00	90.970	320.680	6,496.903	5,202.903	2,828.237	-5,287.040	5,885.142	0.60102	0.10753	-0.59140
0										
12,475.00	90.910	319.970	6,495.394	5,201.394	2,899.037	-5,345.768	5,975.394	0.77439	-0.06522	-0.77174
0										
12,568.00	91.210	320.320	6,493.674	5,199.674	2,970.418	-5,405.356	6,066.679	0.49563	0.32258	0.37634
0										
12,660.00	91.010	320.190	6,491.891	5,197.891	3,041.143	-5,464.167	6,156.948	0.25927	-0.21739	-0.14130
0										
12,752.00	90.940	320.910	6,490.326	5,196.326	3,112.173	-5,522.616	6,247.128	0.78619	-0.07609	0.78261
0										
12,845.00	91.240	321.600	6,488.557	5,194.557	3,184.693	-5,580.809	6,338.052	0.80890	0.32258	0.74194
0										



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EQT

Survey Report

Database: EDM Definitive
Company: EQT (Chevron Data) 02-13-21
Project: Marshall County, WV Chevron
Site: Longworth
Well: M02H
Wellbore: OH-ST01
Design: Longworth 2H ST01 As Drilled

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well M02H
Air RKB @ 1294.000usft (Highlands 9)
Air RKB @ 1294.000usft (Highlands 9)
True
Minimum Curvature

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,937.00 0	90.840	321.230	6,486.887	5,192.887	3,256.596	-5,638.178	6,427.947	0.59222	-0.43478	-0.40217
13,029.00 0	90.740	321.820	6,485.618	5,191.618	3,328.614	-5,695.412	6,517.810	0.65039	-0.10870	0.64130
13,122.00 0	90.870	321.580	6,484.312	5,190.312	3,401.591	-5,753.046	6,608.588	0.29347	0.13978	-0.25806
13,214.00 0	90.470	321.550	6,483.236	5,189.236	3,473.651	-5,810.231	6,698.440	0.43600	-0.43478	-0.03261
13,306.00 0	90.800	321.810	6,482.216	5,188.216	3,545.826	-5,867.272	6,788.253	0.45664	0.35870	0.28261
13,399.00 0	90.370	322.210	6,481.267	5,187.267	3,619.116	-5,924.513	6,878.925	0.63147	-0.46237	0.43011
13,491.00 0	90.600	322.030	6,480.488	5,186.488	3,691.729	-5,981.000	6,968.584	0.31745	0.25000	-0.19565
13,583.00 0	90.570	321.590	6,479.549	5,185.549	3,764.034	-6,037.878	7,058.352	0.47935	-0.03261	-0.47826
13,676.00 0	90.800	321.990	6,478.437	5,184.437	3,837.103	-6,095.398	7,149.101	0.49611	0.24731	0.43011
13,768.00 0	90.230	321.530	6,477.610	5,183.610	3,909.359	-6,152.339	7,238.888	0.79614	-0.61957	-0.50000
13,860.00 0	90.600	321.690	6,476.944	5,182.944	3,981.467	-6,209.471	7,328.728	0.43816	0.40217	0.17391
13,952.00 0	90.540	320.690	6,476.028	5,182.028	4,053.151	-6,267.127	7,418.707	1.08886	-0.06522	-1.08696
14,044.00 0	90.100	319.880	6,475.515	5,181.515	4,123.919	-6,325.911	7,508.982	1.00193	-0.47826	-0.88043
14,137.00 0	90.030	319.740	6,475.409	5,181.409	4,194.962	-6,385.926	7,600.385	0.16831	-0.07527	-0.15054
14,229.00 0	90.100	319.650	6,475.305	5,181.305	4,265.122	-6,445.437	7,690.839	0.12393	0.07609	-0.09783
14,321.00 0	90.030	320.030	6,475.200	5,181.200	4,335.433	-6,504.770	7,781.250	0.41999	-0.07609	0.41304
14,413.00 0	90.300	319.510	6,474.935	5,180.935	4,405.670	-6,564.188	7,871.682	0.63686	0.29348	-0.56522
14,506.00 0	90.910	319.680	6,473.953	5,179.953	4,476.484	-6,624.466	7,963.143	0.68091	0.65591	0.18280
14,598.00 0	90.440	319.840	6,472.870	5,178.870	4,546.707	-6,683.892	8,053.572	0.53966	-0.51087	0.17391
14,691.00 0	90.610	321.220	6,472.017	5,178.017	4,618.494	-6,743.006	8,144.746	1.49503	0.18280	1.48387
14,783.00 0	90.870	320.830	6,470.829	5,176.829	4,690.010	-6,800.868	8,234.779	0.50945	0.28261	-0.42391
14,875.00 0	91.740	322.450	6,468.734	5,174.734	4,762.128	-6,857.946	8,324.584	1.99831	0.94565	1.76087
14,967.00 0	92.120	321.680	6,465.635	5,171.635	4,834.647	-6,914.472	8,414.215	0.93290	0.41304	-0.83696
15,060.00 0	92.310	321.340	6,462.041	5,168.041	4,907.386	-6,972.309	8,505.001	0.41856	0.20430	-0.36559
15,152.00 0	92.050	320.470	6,458.541	5,164.541	4,978.734	-7,030.283	8,595.014	0.98632	-0.28261	-0.94565



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EQT Survey Report

Database:	EDM Delinave	Local Co-ordinate Reference:	Well M02H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	Air RKB @ 1294.000usft (Highlands B)
Project:	Marshall County, WV Chevron	MD Reference:	Air RKB @ 1294.000usft (Highlands B)
Site:	Longworth	North Reference:	True
Well:	M02H	Survey Calculation Method:	Minimum Curvature
Wellbore:	CH-ST01		
Design:	Longworth 2H ST01 Air Drilled		

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,244.00 0	91.980	320.560	6,455.306	5,161.307	5,049.695	-7,088.747	8,685.163	0.12388	-0.07609	0.09783
15,337.00 0	91.140	320.120	6,452.775	5,158.775	5,121.264	-7,148.080	8,776.369	1.01955	-0.90323	-0.47312
15,429.00 0	90.770	321.040	6,451.241	5,157.241	5,192.324	-7,206.491	8,866.539	1.07771	-0.40217	1.00000
15,521.00 0	91.010	320.230	6,449.812	5,155.812	5,263.442	-7,264.835	8,956.694	0.91817	0.26087	-0.88043
15,614.00 0	91.280	320.770	6,447.954	5,153.954	5,335.188	-7,323.979	9,047.866	0.64908	0.29032	0.58065
15,706.00 0	91.440	320.540	6,445.770	5,151.770	5,406.316	-7,382.289	9,138.000	0.30448	0.17391	-0.25000
15,799.00 0	90.700	320.400	6,444.034	5,150.034	5,478.033	-7,441.471	9,229.183	0.80981	-0.79570	-0.15054
15,891.00 0	89.930	320.360	6,443.528	5,149.528	5,548.898	-7,500.137	9,319.428	0.83809	-0.83696	-0.04348
15,983.00 0	89.560	321.780	6,443.937	5,149.937	5,620.463	-7,557.945	9,409.450	1.59500	-0.40217	1.54348
16,076.00 0	89.190	321.800	6,444.952	5,150.952	5,693.533	-7,615.467	9,500.201	0.39843	-0.39785	0.02151
16,170.00 0	89.830	321.750	6,445.756	5,151.756	5,767.376	-7,673.627	9,591.934	0.68293	0.68085	-0.05319
16,262.00 0	90.130	321.430	6,445.788	5,151.788	5,839.465	-7,730.785	9,681.783	0.47678	0.32609	-0.34783
16,354.00 0	90.030	321.520	6,445.659	5,151.659	5,911.440	-7,788.088	9,771.672	0.14623	-0.10870	0.09783
16,447.00 0	90.030	321.160	6,445.611	5,151.611	5,984.060	-7,846.184	9,862.584	0.38710	0.00000	-0.38710
16,539.00 0	91.170	321.470	6,444.647	5,150.647	6,055.870	-7,903.684	9,952.521	1.28412	1.23913	0.33696
16,632.00 0	91.240	320.890	6,442.691	5,148.691	6,128.312	-7,961.970	10,043.46 8	0.62804	0.07527	-0.62366
16,724.00 0	91.010	320.360	6,440.885	5,146.885	6,199.415	-8,020.323	10,133.62 0	0.62789	-0.25000	-0.57609
16,816.00 0	91.240	320.080	6,439.079	5,145.079	6,270.103	-8,079.177	10,223.89 9	0.39382	0.25000	-0.30435
16,908.00 0	90.970	319.370	6,437.305	5,143.305	6,340.281	-8,138.639	10,314.32 7	0.82552	-0.29348	-0.77174
17,001.00 0	90.640	317.840	6,435.998	5,141.998	6,410.038	-8,200.127	10,406.05 9	1.68283	-0.35484	-1.64516
17,093.00 0	90.770	319.330	6,434.866	5,140.866	6,479.025	-8,260.980	10,496.81 2	1.62560	0.14130	1.61957
17,185.00 0	91.010	320.670	6,433.437	5,139.437	6,549.491	-8,320.108	10,587.16 4	1.47952	0.26087	1.45652
17,278.00 0	91.280	321.420	6,431.578	5,137.578	6,621.796	-8,378.565	10,678.15 7	0.85697	0.29032	0.80645
17,370.00 0	90.600	320.920	6,430.069	5,136.069	6,693.455	-8,436.242	10,768.13 6	0.91739	-0.73913	-0.54348
17,463.00 0	90.700	321.730	6,429.014	5,135.014	6,766.055	-8,494.354	10,859.04 7	0.87752	0.10753	0.87097



EQT Survey Report

Database:	EDM, Delmarva	Local Co-ordinate Reference:	Well M02H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	Air RKB @ 1294' 000usft (Highlands B)
Project:	Marshall County, WV Chevron	MD Reference:	Air RKB @ 1294' 000usft (Highlands B)
Site:	Longworth	North Reference:	True
Well:	M02H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH-ST01		
Design:	Longworth 2H ST01 As Drilled		

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,555.00 0	90.230	321.610	6,428.267	5,134.267	6,838.222	-8,551.409	10,948.86 6	0.52726	-0.51087	-0.13043
17,647.00 0	90.500	320.990	6,427.681	5,133.681	6,910.020	-8,608.930	11,038.812	0.73503	0.29348	-0.67391
17,740.00 0	90.540	320.890	6,426.837	5,132.837	6,982.230	-8,667.530	11,129.855	0.11581	0.04301	-0.10753
17,832.00 0	90.610	319.530	6,425.914	5,131.914	7,052.917	-8,726.404	11,220.148	1.48014	0.07609	-1.47826
17,924.00 0	90.870	321.680	6,424.726	5,130.726	7,124.004	-8,784.784	11,310.312	2.35379	0.28261	2.33696
Final Survey=18023' MD/ 6423' TVD										
18,023.00 0	90.570	322.420	6,423.482	5,129.482	7,202.063	-8,845.661	11,406.815	0.80651	-0.30303	0.74747
Projection to TD=18045' MD/ 6423' TVD										
18,045.00 0	90.570	322.420	6,423.263	5,129.263	7,219.497	-8,859.078	11,428.229	0.00000	0.00000	0.00000

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (-20.099)	+E/-W (-62.365)	Northing (usft)	Easting (usft)	Latitude	Longitude
Longworth 2H KOP - actual wellpath hits target center - Point	0.000	0.000	3,097.96 8	-20.099	-62.365	493,055.823	1,624,017.162	39.8472269	80.7269520°W
Longworth 2H BHL - actual wellpath hits target center - Point	0.000	0.000	6,423.26 3	7,219.497	-8,859.078	500,414.861	1,615,320.124	39.8670975	80.7582915°W
Longworth 2H LP - actual wellpath hits target center - Point	0.000	0.000	6,544.49 7	-767.567	-2,389.426	492,340.199	1,621,680.113	39.8451745	80.7352398°W

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,660.410	6,515.600	Top of Marcellus@6516' TVD		-1.5000	

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EQT
Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well M02H
Company:	EQT (Chevron Data) 02.13-21	TVD Reference:	Air RKB @ 1294.000usft (Highlands 9)
Project:	Marshall County, WV Chevron	MD Reference:	Air RKB @ 1294.000usft (Highlands 9)
Site:	Longworth	North Reference:	True
Well:	M02H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH-ST01		
Design:	Longworth 2H ST01 As Drilled		

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,102.000	3,097.968	-20.099	-62.365	KOP=3102' MD/ 3098' TVD
7,763.000	6,544.497	-767.567	-2,389.426	LP/Deepest Point of Well=7763' MD/ 6544' TVD
18,023.000	6,423.482	7,202.063	-8,845.661	Final Survey=18023' MD/ 6423' TVD
18,045.000	6,423.263	7,219.497	-8,859.078	Projection to TD=18045' MD/ 6423' TVD

Checked By: _____ Approved By: _____ Date: _____

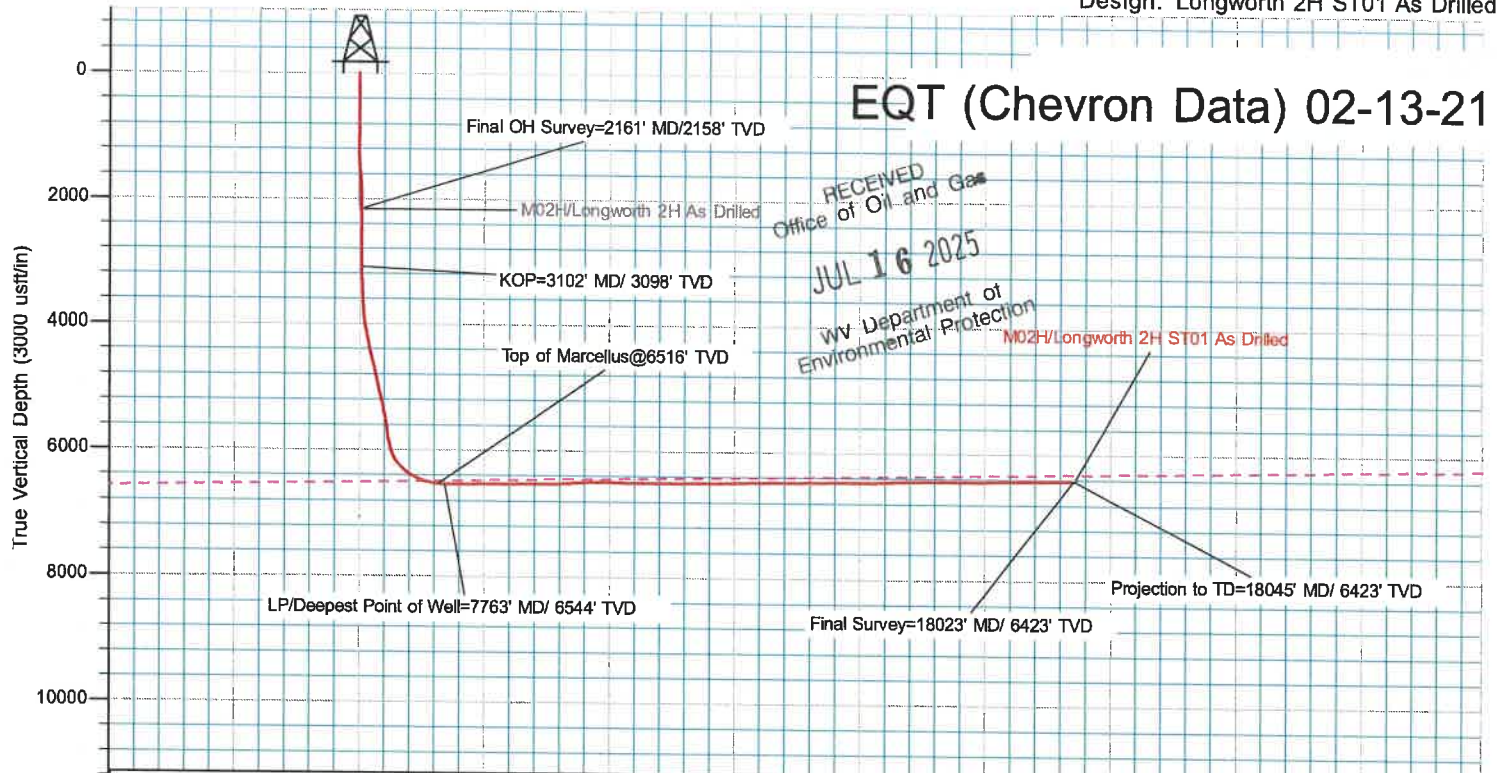
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KB Elevation= Air RKB @ 1294.000usft (Highlands 9)
Ground Elevation= 1270.000
All measurements were taken from KB Elevation

Project: Marshall County, WV Chevron
Site: Longworth
Well: M02H
Wellbore: OH-ST01
Design: Longworth 2H ST01 As Drilled

EQT (Chevron Data) 02-13-21

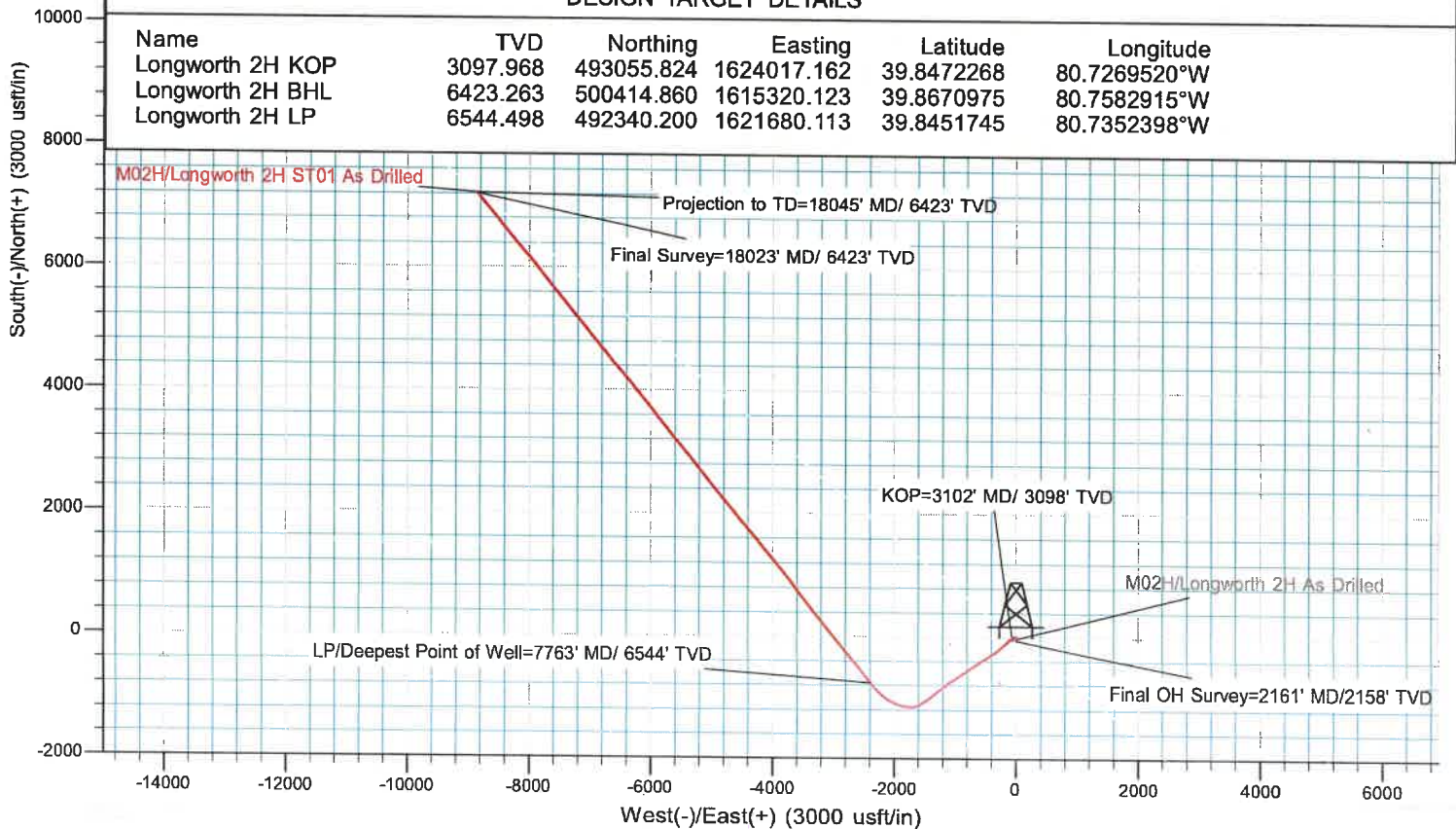


Surface Location: M02H

+N/-S	+E/-W	Northing	Easting	Ground Level: 1270.000	Latitude	Longitude	Slot
0.000	0.000	493075.069	1624079.796		39.8472820	80.7267299°W	

DESIGN TARGET DETAILS

Name	TVD	Northing	Easting	Latitude	Longitude
Longworth 2H KOP	3097.968	493055.824	1624017.162	39.8472268	80.7269520°W
Longworth 2H BHL	6423.263	500414.860	1615320.123	39.8670975	80.7582915°W
Longworth 2H LP	6544.498	492340.200	1621680.113	39.8451745	80.7352398°W



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Perforation Data

09/26/2025

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Stage No.	Perforation Date	Stage Perforated From TMD Ft.	Stage Perforated To TMD Ft.	# of Perforations/Stage	Formation(s)
6	03/02/2025	16948	16797	36	Marcellus
7	03/03/2025	16768	16617	36	Marcellus
8	03/03/2025	16588	16437	36	Marcellus
9	03/03/2025	16408	16257	36	Marcellus
10	03/03/2025	16228	16077	36	Marcellus
11	03/04/2025	16048	15897	36	Marcellus
12	03/05/2025	15868	15717	36	Marcellus
13	03/06/2025	15688	15537	36	Marcellus
14	03/06/2025	15508	15357	36	Marcellus
15	03/09/2025	15328	15177	36	Marcellus
16	03/09/2025	15148	14997	36	Marcellus
17	03/09/2025	14968	14817	36	Marcellus
18	03/10/2025	14788	14637	36	Marcellus
19	03/10/2025	14608	14457	36	Marcellus
20	03/10/2025	14428	14277	36	Marcellus
21	03/10/2025	14248	14097	36	Marcellus
22	03/10/2025	14068	13917	36	Marcellus
23	03/11/2025	13888	13737	36	Marcellus
24	03/11/2025	13708	13557	36	Marcellus
25	03/11/2025	13528	13377	36	Marcellus
26	03/11/2025	13348	13197	36	Marcellus
27	03/12/2025	13168	13017	36	Marcellus
28	03/12/2025	12988	12837	36	Marcellus
29	03/12/2025	12808	12657	36	Marcellus
30	03/12/2025	12628	12477	36	Marcellus
31	03/13/2025	12448	12297	36	Marcellus
32	03/15/2025	12268	12117	36	Marcellus
33	03/15/2025	12088	11937	36	Marcellus
34	03/15/2025	11908	11757	36	Marcellus
35	03/15/2025	11728	11577	36	Marcellus
36	03/15/2025	11548	11397	36	Marcellus
37	03/16/2025	11368	11217	36	Marcellus
38	03/16/2025	11188	11037	36	Marcellus
39	03/16/2025	11008	10857	36	Marcellus
40	03/16/2025	10828	10677	36	Marcellus
41	03/16/2025	10648	10497	36	Marcellus
42	03/17/2025	10468	10317	36	Marcellus
43	03/17/2025	10288	10137	36	Marcellus
44	03/17/2025	10108	9957	36	Marcellus
45	03/17/2025	9798	9647	36	Marcellus
46	03/17/2025	9618	9467	36	Marcellus

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47	03/18/2025	9438	9287	36	Marcellus
48	03/18/2025	9258	9107	36	Marcellus
49	03/18/2025	9078	8927	36	Marcellus
50	03/18/2025	8898	8747	36	Marcellus
51	03/19/2025	8718	8567	36	Marcellus
52	03/19/2025	8538	8387	36	Marcellus
53	03/19/2025	8358	8207	36	Marcellus
54	03/19/2025	8178	8027	36	Marcellus
55	03/19/2025	7998	7847	36	Marcellus
56	03/20/2025	7818	7667	36	Marcellus
57	03/20/2025	7638	7517	30	Marcellus

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Stimulation Data

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Stage #	Stimulation Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	01/26/2020	92	7385	5426	3984	400419.0	9490.000	
2	01/26/2020	92	7831	4452	3338	400174.0	9448.000	
3	01/26/2020	95	8171	3600	4723	400042.0	9340.000	
4	01/26/2020	100	8567	3834	5014	400009.0	9391.000	
5	01/26/2020	100	8574	4360	3825	402736.0	9633.000	
6	03/03/2025	97	8132	3574	4071	449958.0	9007.000	
7	03/03/2025	94	8435	3946	4239	450087.0	8976.000	
8	03/03/2025	100	8550	5181	4572	450174.0	8970.000	
9	03/03/2025	100	8375	5161	4381	450185.0	9005.000	
10	03/04/2025	101	8455	3750	4455	450114.0	8960.000	
11	03/05/2025	100	8791	4874	4040	450320.0	8928.000	
12	03/06/2025	101	8794	3270	4595	450000.0	8883.000	
13	03/06/2025	100	8860	5015	4469	450192.5	8936.000	
14	03/09/2025	100	9114	5717	NA	450698.0	8890.000	
15	03/09/2025	99	9059	4321	4035	450138.0	8932.000	
16	03/09/2025	100	9037	6629	4486	450228.0	8868.000	
17	03/09/2025	100	8620	6410	4405	450410.0	8915.000	
18	03/10/2025	100	8852	2295	4434	450116.0	8883.000	
19	03/10/2025	100	8511	5556	4340	450189.0	8903.000	
20	03/10/2025	100	8554	5690	4157	450033.0	8908.000	
21	03/10/2025	100	8838	5150	4160	450652.0	8897.000	
22	03/11/2025	100	9013	4537	3886	451219.0	8897.000	
23	03/11/2025	99	8997	4798	6364	450465.0	8906.000	
24	03/11/2025	99	8276	4808	4333	446594.0	8931.000	
25	03/11/2025	98	8309	4760	5516	450165.0	8933.000	
26	03/12/2025	99	8291	3575	4548	451076.0	8877.000	
27	03/12/2025	100	8405	5288	6313	450609.0	8860.000	
28	03/12/2025	100	8506	5096	4425	450375.0	8760.000	
29	03/12/2025	96	7945	5948	5468	450184.0	8852.000	
30	03/13/2025	100	8144	4384	4354	450258.0	8837.000	
31	03/15/2025	99	7813	4662	3648	450176.0	8753.000	
32	03/15/2025	100	8536	5718	4829	451054.0	9325.000	
33	03/15/2025	100	8536	5104	4636	450963.0	8773.000	
34	03/15/2025	100	8444	6088	4314	450929.0	8817.000	
35	03/15/2025	100	8244	5260	4521	450089.0	8809.000	
36	03/16/2025	100	8096	5520	4671	449993.0	8787.000	
37	03/16/2025	100	8202	5650	4485	450077.0	8707.000	
38	03/16/2025	99	7998	6122	4531	447140.0	8782.000	
39	03/16/2025	100	7830	5993	4518	450122.0	8753.000	
40	03/16/2025	100	7947	6065	4802	450274.0	8855.000	
41	03/17/2025	100	8018	5437	4746	450144.0	8745.999	

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42	03/17/2025	100	8188	5465	4780	451051.0	8780.000
43	03/17/2025	100	8110	5824	5010	451017.0	8737.000
44	03/17/2025	100	8125	5189	4642	449929.0	8772.000
45	03/17/2025	101	8291	6057	4445	450071.0	8665.000
46	03/18/2025	100	8094	5488	4701	450034.0	8653.000
47	03/18/2025	100	8122	4905	4674	450583.0	8664.000
48	03/18/2025	100	8143	5213	4710	450036.0	8652.000
49	03/18/2025	100	8003	5099	4739	450174.0	8634.000
50	03/19/2025	100	7629	5443	4293	450059.0	8711.000
51	03/19/2025	100	7838	5938	4476	450180.0	8609.000
52	03/19/2025	100	8045	6112	4556	450716.0	8548.000
53	03/19/2025	100	7739	5208	4692	450266.0	8623.000
54	03/19/2025	100	7947	5499	4464	450255.0	8663.000
55	03/20/2025	100	7429	4059	4608	450174.0	8603.000
56	03/20/2025	100	7750	3703	4313	451087.0	8614.000
57	03/20/2025	100	7640	5600	4226	375993.0	7317.000

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	03/02/2025
Job End Date:	03/20/2025
State:	West Virginia
County:	Marshall
API Number:	47-051-02079-00-00
Operator Name:	EQT Production
Well Name and Number:	Longworth A 2H
Latitude:	39.84728
Longitude:	-80.726735
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6545
Total Base Water Volume (gal)*:	21183456.0149095
Total Base Non Water Volume:	0



Water Source	Percent
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Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	EQT	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	87.29102	None
Sand (Proppant)	EQT	Proppant					
			Silica Substrate	14808-60-7	100.00000	12.51296	None
StimSTREAM FR 9800	ChemStream	Friction Reducer					
			ACRYLAMIDE-CHLORIDE SALT OF TRIMETHYLAMMONIO-ETHYL ACRYLATE COPOLYMER	69418-26-4	40.00000	0.01516	None
StimSTREAM FR 9800	ChemStream	Friction Reducer					
			ALKANES, C12-26-BRANCHED AND LINEAR	90622-53-0	40.00000	0.01516	None
Clearal 268	ChemStream	Biocide					
			Water	7732-18-5	80.00000	0.01001	None

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7.5% HCl	Universal Well Services	Acid	WV Department of Environmental Protection				
			Hydrogen Chloride	7647-01-0	7.50000	0.00734	None
StimSTREAM FR 9800	ChemStream	Friction Reducer					
			Water	7732-18-5	15.00000	0.00569	None
Enviro-Syn HCR-7000-WL	Fluid USA, Inc.	Synthetic Acid					
			FLUID-Acid-00001	Proprietary	20.00000	0.00505	None
FR-11	Universal Well Services	Friction Reducer					
			Water	7732-18-5	50.00000	0.00407	None
Enviro-Syn HCR-7000-WL	Fluid USA, Inc.	Synthetic Acid					
			FLUID-Amine-00001	Proprietary	10.00000	0.00253	None
Clearal 268	ChemStream	Biocide					
			Glutaraldehyde	111-30-8	20.00000	0.00250	None
StimSTREAM FR 9800	ChemStream	Friction Reducer					
			ETHOXYLATED ALCOHOLS (C12-16)	68551-12-2	5.00000	0.00190	None
FR-11	Universal Well Services	Friction Reducer					
			Hydrotreated Distillate	64742-47-8	20.00000	0.00163	None
FR-11	Universal Well Services	Friction Reducer					
			copolymer of 2-propenamide	Proprietary	20.00000	0.00163	None
K-BAC 1020	Universal Well Services	Bactericide					
			Polyethylene glycol	25322-68-3	50.00000	0.00100	None
Scale Hib PE-18	Universal Well Services	Scale Inhibitor					
			Ethylene glycol	107-21-1	40.00000	0.00073	None
K-BAC 1020	Universal Well Services	Bactericide					
			Water	7732-18-5	30.00000	0.00060	None
Scale Hib PE-18	Universal Well	Scale Inhibitor					

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	Services						
			Proprietary Scale Inhibitor	Proprietary	30.00000	0.00055	None
K-BAC 1020	Universal Well Services	Bacteriacide					
			2,2-Dibromo-3-nitropropionamide	10222-01-2	21.00000	0.00042	None
StimSTREAM SC-398	ChemStream	Scale Inhibitor					
			AA/ATBS Co-polymer	9003-05-8	5.00000	0.00042	None
I-7L	Universal Well Services	Iron Control					
			Triethanolamine hydroxyacetate	68299-02-5	20.00000	0.00040	None
I-7L	Universal Well Services	Iron Control					
			Ethylene Glycol	107-21-1	20.00000	0.00040	None
Clearal 268	ChemStream	Biocide					
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00038	None
Clearal 268	ChemStream	Biocide					
			Quaternary Ammonium Compounds	68424-85-1	3.00000	0.00038	None
Clearal 268	ChemStream	Biocide					
			Ethanol	64-17-5	1.50000	0.00019	None
FR-11	Universal Well Services	Friction Reducer					
			Oleic Acid Diethanolamide	93-83-4	2.00000	0.00016	None
FR-11	Universal Well Services	Friction Reducer					
			Alcohols, C12-16, ethoxylated	68551-12-2	2.00000	0.00016	None
StimSTREAM SC-398	ChemStream	Scale Inhibitor					
			AA/Maleic Anhydride Co-polymer	9003-04-7	1.00000	0.00008	None
Unihib-G	Universal Well Services	Acid Corrosion Inhibitor					
			Butyl Diglycol	112-34-5	75.00000	0.00006	None
I-7L	Universal Well Services	Iron Control					

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			Glycolic acid	79-14-1	2.50000	0.00005	None
Unigel 5F	Universal Well Services	Polymer					
			Guar Gum	9000-30-0	100.00000	0.00002	None
AP Breaker	Universal Well Services	Gelling Agent					
			Ammonium Persulfate	7727-54-0	100.00000	0.00000	None
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS							

- * Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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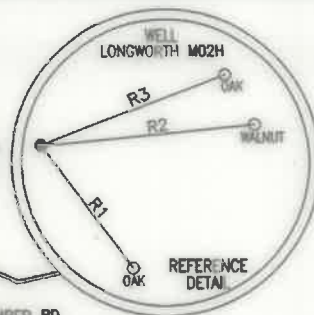
LINE	BEARING	DISTANCE
R1	S 36°19'52" E	213.09'
R2	N 84°27'05" E	297.35'
R3	N 88°53'13" E	274.01'
R4	S 73°49'36" W	2269.38'
R5	N 86°31'43" W	1562.93'
R6	N 50°31'39" W	2213.27'

AS-DRILLED PLAT

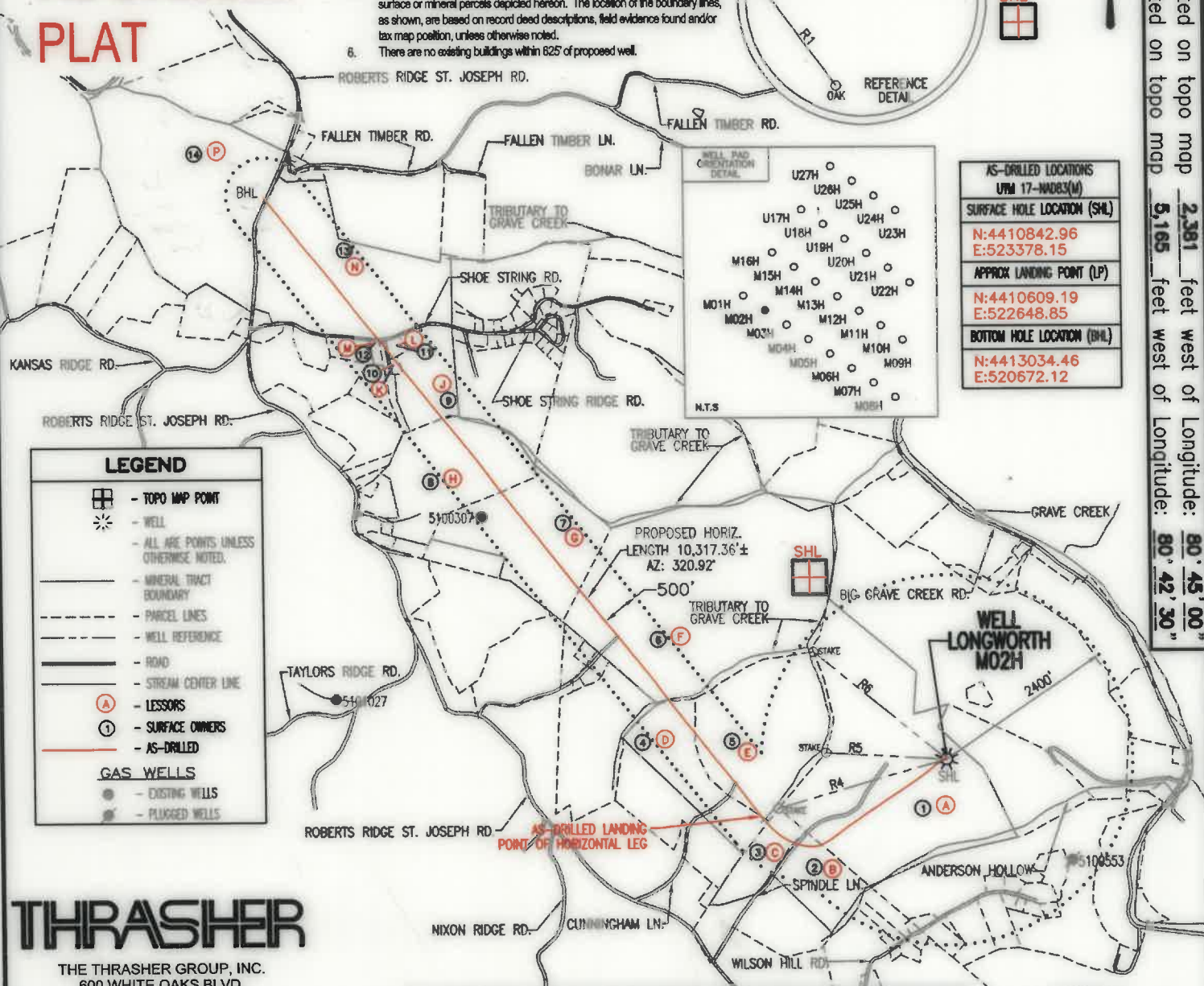
BHL is located on topo map 2,906 feet south of Latitude: 39° 52' 30"
 SHL is located on topo map 10,097 feet south of Latitude: 39° 52' 30"

NOTES:

- There are no water wells or developed springs within 250' of proposed well.
- Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
- There are no native trout streams within 300' of proposed well.
- Proposed well is greater than 1000' from surface groundwater intake or public water supply.
- It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted hereon. The location of the boundary lines, as shown, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.
- There are no existing buildings within 825' of proposed well.



BHL is located on topo map 2,361 feet west of Longitude: 80° 45' 00"
 SHL is located on topo map 5,165 feet west of Longitude: 80° 42' 30"



AS-DRILLED LOCATIONS
U17H U26H U25H U24H U23H U18H U19H U20H U21H U22H M16H M15H M14H M13H M12H M11H M10H M09H M01H M02H M03H M04H M05H M06H M07H M08H
U27H
U28H
U29H
U30H
U31H
U32H
U33H
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U100H

LEGEND

- TOPO MAP POINT
- WELL
- ALL ARE POINTS UNLESS OTHERWISE NOTED.
- MINERAL TRACT BOUNDARY
- PARCEL LINES
- WELL REFERENCE
- ROAD
- STREAM CENTER LINE
- LESSORS
- SURFACE OWNERS
- AS-DRILLED
- GAS WELLS
- EXISTING WELLS
- PLUGGED WELLS

THRASHER

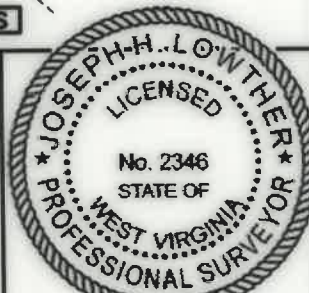
THE THRASHER GROUP, INC.
 600 WHITE OAKS BLVD.
 BRIDGEPORT, WV 26330
 PHONE 304-624-4108

SEE PAGE 2 FOR SURFACE OWNERS AND LESSORS

FILE #: LONGWORTH M02H - AS-DRILLED
 DRAWING #: LONGWORTH M02H - AS-DRILLED
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/2500
 PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: Joseph H. Lowther
 R.P.E.: _____ L.L.S.: P.S. No. 2346



PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304



DATE: FEBRUARY 23, 2021
 OPERATOR'S WELL #: LONGWORTH M02H - AS-DRILLED
 API WELL #: 47 51 02079
 STATE COUNTY PERMIT

Well Type: ☐ Oil ☐ Waste Disposal ☒ Production ☐ Deep ☒ Gas ☐ Liquid Injection ☐ Storage ☒ Shallow
 WATERSHED: MIDDLE GRAVE CREEK-GRAVE CREEK ELEVATION: 1295'
 COUNTY/DISTRICT: MARSHALL / CLAY QUADRANGLE: GLEN EASTON, WV 7.5'
 SURFACE OWNER: GRAHAM H. LONGWORTH JR. ACREAGE: 123.589±
 OIL & GAS ROYALTY OWNER: GRAHAM H. LONGWORTH JR. ACREAGE: 709.816±
 DRILL ☒ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR STIMULATE ☒ PLUG OFF OLD FORMATION ☐
 PERFORATE NEW FORMATION ☐ PLUG & ABANDON ☐ CLEAN OUT & REPLUG ☐ OTHER CHANGE ☒

(SPECIFY): AS-DRILLED PLAT
 TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,423'± TMD: 18,045'±
 WELL OPERATOR: EQT CHAP LLC DESIGNATED AGENT: JOSEPH C. MALLOW
 Address: 400 WOODCLIFF DRIVE Address: 115 PROFESSIONAL PLACE, PO BOX 280
 City: CANONSBURG State: PA Zip Code: 15317 City: BRIDGEPORT State: WV Zip Code: 26330

LONGWORTH

M02H

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AS-DRILLED

	LESSOR	DIST-TM/PAR
A	GRAHAM H. LONGWORTH JR. ET AL	4-11/1
B	HOLMES CWC LEGACY LLC	4-11/55
C	JEFFREY S. HOLMES ET UX	4-13/39.1
D	DALE CUNNINGHAM ET UX	4-13/34
E	DALE CUNNINGHAM ET UX	4-13/33
F	BRETT A. ANDREWS ET UX	4-12/19
G	RALPH E. WOOD	4-12/21
H	RALPH E. WOOD	4-12/22
J	KENNETH D. TUCKER ET UX	4-12/1
K	GARY L. ECKHARDT	4-13/14.1
L	RICHARD D. ARRUDA ET UX	4-12/1.1
M	*LIONEL SCHWING ET UX	4-13/13
N	BYRON C. FREELAND ET UX	4-7/28
P	JOSEPH L. FREELAND ET UX	4-7/21

	SURFACE OWNER	DIST-TM/PAR
1	GRAHAM H. LONGWORTH JR.	4-11/1
2	HOLMES-CWC-LEGACY LLC	4-11/55
3	JEFFREY SCOTT HOLMES ET AL	4-13/39.1
4	DALE & MARY CUNNINGHAM	4-13/34
5	DALE & MARY CUNNINGHAM	4-13/33
6	CODY M. JARRETT	4-12/19
7	RALPH E. WOOD	4-12/21
8	RALPH E. WOOD	4-12/22
9	KEITH J. GUZEK	4-12/1
10	GARY L. ECKHARDT	4-13/14.1
11	RICHARD DAVID & TAMMY D. ARRUDA	4-12/1.1
12	*LIONEL SCHWING ET UX	4-13/13
13	BYRON FREELAND	4-7/28
14	JOSEPH L. FREELAND ET UX	4-7/21

AS-DRILLED LOCATIONS UTM 17-NA083(M)
SURFACE HOLE LOCATION (SHL)
N:4410842.96 E:523378.15
APPROX LANDING POINT (LP)
N:4410609.19 E:522648.85
BOTTOM HOLE LOCATION (BHL)
N:4413034.46 E:520672.12

* - DENOTES PARCEL WITHIN 30 FEET OF PLANNED WELL BORE

09/26/2025

FEBRUARY 23, 2021