

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

RECEIVED
Office of Oil and Gas
APR 5 2022
WV Department of
Environmental Protection

API 47 - 051 - 02159 County Marshall District Washington
Quad Moundsville Pad Name Hines Field/Pool Name _____
Farm name Donald Hines et UX Well Number Hines M14H
Operator (as registered with the OOG) EQT CHAP LLC
Address 400 Woodcliff Drive 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 4,417,409.65 Easting 525,708.46
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,417,715.52 Easting 526,139.26

Elevation (ft) 1125' 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)

Date permit issued 02/22/2019 Date drilling commenced 03/23/2019 Date drilling ceased 06/03/2019
Date completion activities began _____ Date completion activities ceased _____
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 365 Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1039,1595,1632 Void(s) encountered (Y/N) depths N
Coal depth(s) ft 365,655 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) Y

Reviewed

Reviewed by:
MJK 5/11/22
05/27/2022

API 47-051 - 02159 Farm name Donald Hines et UX Well number Hines M14H

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"	50'	NEW	J-55 94#	N/A	Y
Surface	17-1/2"	13-3/8"	437'	NEW	J-55 54.5#	N/A	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	2050'	NEW	L-80 40#	N/A	Y
Intermediate 2							
Intermediate 3							
Production						N/A	N
Tubing							
Packer type and depth set							

Comment Details
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	448	15.6	1.19	533	0	8
Coal							
Intermediate 1	CLASS A	687	15.6	1.19	817	0	8
Intermediate 2							
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) 5929' Loggers TD (ft) N/A
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure

Kick off depth (ft) 769'

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

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

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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations 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)

Please insert additional pages as applicable.

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PRODUCING FORMATION(S)	DEPTHS	
	TVD	MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump
 SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs
 OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd
 GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
	0		0		

Please insert additional pages as applicable.

Drilling Contractor Highlands Drilling LLC
 Address 900 Virginia Street East City Charleston State WV Zip 25301

Logging Company Baker Hughes
 Address 400 Technology Dr Suite 100 City Canonsburg State PA Zip 15317

Cementing Company BJ Services
 Address 1036 East Main Street City Bridgeport State WV Zip 26330
 Cementing Company _____
 Address _____ City + State _____ Zip _____

Please insert additional pages as applicable.

Completed by Derek Ridgway Telephone 412-395-3139
 Signature *[Signature]* 11/18/2021 Title Managing Director of Drilling Date 11/18/2021

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

05/27/2022

API 47- 051 - 02159 Farm name Donald Hines et UX Well number Hines M14H

Drilling Contractor _____
Address _____ City _____ State _____ Zip _____

Logging Company Scientific Drilling International
Address 124 Vista Drive City Charleroi State PA Zip 15022

Logging Company _____
Address _____ City _____ State _____ Zip _____

Drilling Contractor _____
Address _____ City _____ State _____ Zip _____

Well# Hines M14H Final Formations API# 47-051-02159

Formation Name	Drill Top MD (ftGRD)	Drill Top (TVD) (ftGRD)	Drill Btm MD (ftGRD)	Drill Btm (TVD) (ftGRD)
Sand/Shale	1	1	366	366
Waynesburg Coal	366	366	369	369
Sand/Shale	369	369	656	656
Pittsburgh Coal	656	656	662	662
Sand/Shale	662	662	1,596	1,593
Big Lime	1,596	1,593	1,658	1,655
Sand/Shale	1,658	1,655	1,832	1,826
Burgoon	1,832	1,826	1,985	1,978
Sand/Shale	1,985	1,978	2,199	2,189
Berea	2,199	2,189	2,220	2,210
Sand/Shale	2,220	2,210	2,456	2,438
Gordon	2,456	2,438	2,531	2,508
Sand/Shale	2,531	2,508	4,978	4,702
Elk	4,978	4,702	4,979	4,703
Sand/Shale	4,979	4,703	5,639	5,293
Rhinestreet	5,639	5,293	5,929	5,555

05/27/2022

BHL is located on topo map 2,774 feet south of Latitude: 39° 57' 30"
 SHL is located on topo map 3,773 feet south of Latitude: 39° 55' 00"

SEE PAGE 2 FOR SURFACE OWNERS AND LESSORS

WELL PAD ORIENTATION DETAIL				
M11HO	M14HB	U15HO	U28HO	
M22HO	M13HO	U18HO	U27HO	U28HO
M53HO	M12HO	U17HO	U26HO	U30HO
M04HO	M11HO	M18HO	U25HO	U31HO
M05HO	M10HO	M19HO	U24HO	U32HO
M06HO	M09HO	M20HO	U23HO	U33HO
M07HO	M08HO	M21HO	U22HO	U34HO

LINE	BEARING	DISTANCE
R1	S 06°44'38" W	227.60'
R2	S 26°55'48" W	234.72'
R3	S 67°42'13" W	201.70'
R4	N 77°08'39" E	2049.25'
R5	S 89°58'55" E	2307.20'
R6	S 65°04'29" E	1395.26'

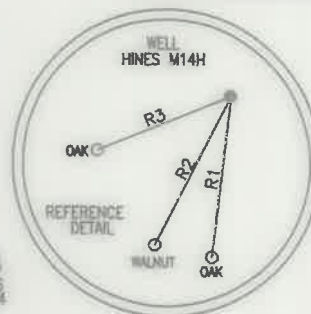
AS-DRILLED LOCATIONS UTM 17-NA083(A)	
SURFACE HOLE LOCATION (SHL)	
N:4417409.65	E:525708.46
APPROX LANDING POINT (LP)	
N:N/A	E:N/A
BOTTOM HOLE LOCATION (BHL)	
N:4417715.52	E:526139.26



BHL



SHL

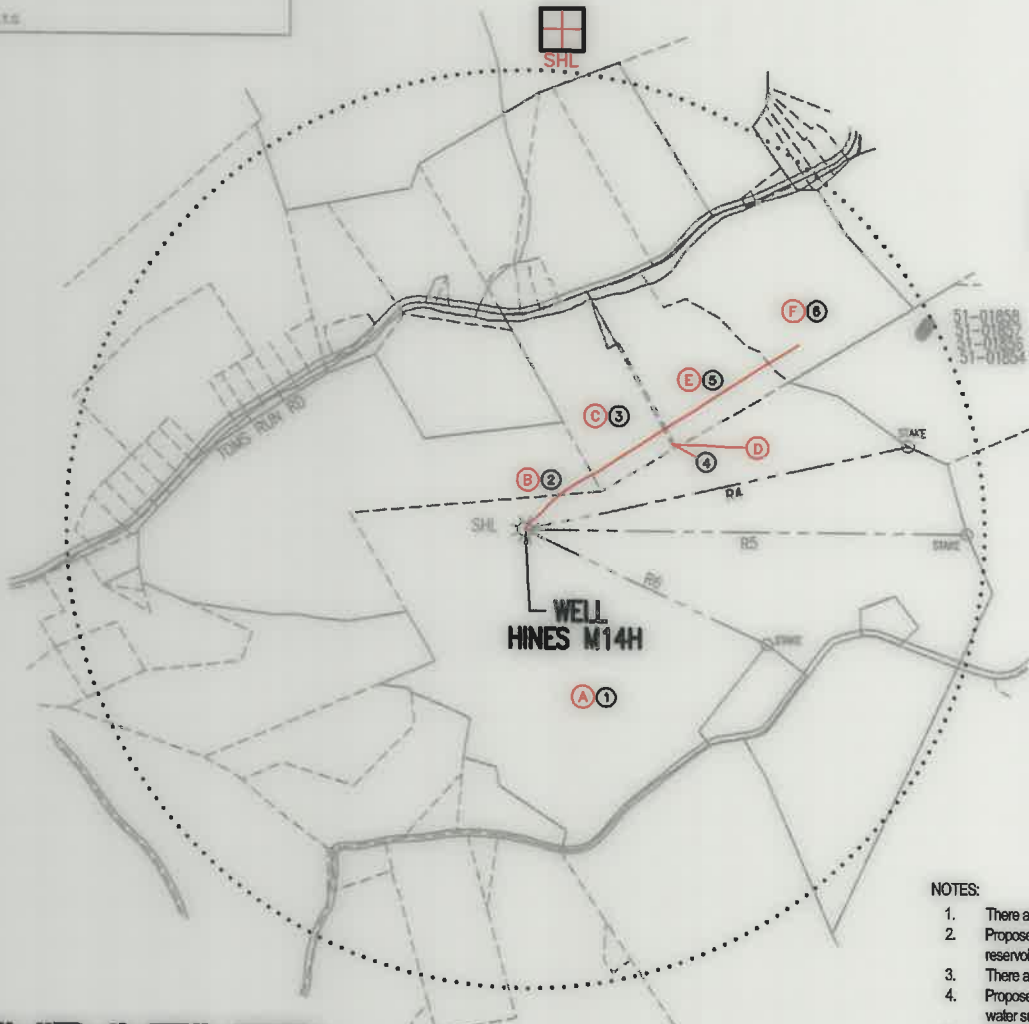


LEGEND

- 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



- 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 herein. 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.

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

AS DRILLED PLAT

FILE #: HINES M14H - AS DRILLED
 DRAWING #: HINES M14H - AS DRILLED
 SCALE: 1" = 1000'
 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: DECEMBER 13, 2021
 OPERATOR'S WELL #: HINES M14H - AS DRILLED
 API WELL #: 47 51 2159
 STATE COUNTY PERMIT

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

WATERSHED: MIDDLE GRAVE CREEK-GRAVE CREEK ELEVATION: 1125.45'
 COUNTY/DISTRICT: MARSHALL / WASHINGTON QUADRANGLE: MOUNDSVILLE, WV 7.5'
 SURFACE OWNER: DONALD HINES ET UX ACREAGE: 114.934±
 OIL & GAS ROYALTY OWNER: DONALD HINES ET UX ACREAGE: 198.26± 05/27/2022

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: 6,262'± TMD: 15,072.70'±
 WELL OPERATOR EQT CHAP, LLC DESIGNATED AGENT JOSEPH C. MALLOW
 Address 400 WOODCLIFF DRIVE Address 427 MIDSTATE DRIVE
 City CANONSBURG State PA Zip Code 15317 City CLARKSBURG State WV Zip Code 26301

BHL is located on topo map 2,774 feet west of Longitude: 80° 42' 30"
 SHL is located on topo map 3,773 feet west of Longitude: 80° 40' 00"

HINES M14H

PAGE 2 OF 2

AS DRILLED PLAT

	SURFACE OWNER	DIST-TM/PAR
1	DONALD HINES ET UX	14-12/30
2*	ARNIE N. GOODNIGHT ET UX	14-12/25
3*	EDWARD DAVID KNUTH ET UX	14-12/27
4*	EDWARD DAVID & KATHY JO KNUTH	14-12/28.1
5*	TOBIAS G. & JESSICA D. BROWN	14-12/28
6	JODI LYNN & TERRY A. HARDING	14-12/29

	LESSOR	DIST-TM/PAR
A	DONALD HINES ET UX	14-12/30
B	LYNN ELLEN COOK	14-12/25
	WILLIAM F. RULONG	
	CHARLES BURTON RULONG	
	GARY MORRISON	
	ELIZABETH Y. MORRISON	
	ROGER GLEN RULONG	
	TRUSTEES LIMESTONE PRESBYTERIAN CHURCH	
	CLYDE DOWLER ET UX	
	DRU ELLA FOX	
	LAURA J. REYES	
	DALE FRANCIS FURBEE	
	HAROLD DEAN FURBEE	
	JOHN T. MORRIS	
	ETHEL M. RULONG	
RICHARD J. RULONG		
ROBERT L. RULONG		
TERRY LEE RULONG		
TRACEY LYNN RULONG		
C	EULALIA MAE SIMMONS	14-12/27
D	EULALIA MAE SIMMONS	14-12/28.1
E	EULALIA MAE SIMMONS	14-12/28
F	JODI LYNN HARDING ET VIR	14-12/29

AS-DRILLED LOCATIONS UTM 17-WN83(W)
SURFACE HOLE LOCATION (SHL)
N:4417409.65 E:525708.46
APPROX LANDING POINT (LP)
N:N/A E:N/A
BOTTOM HOLE LOCATION (BHL)
N:4417715.52 E:526139.26

05/27/2022

* - DENOTES PARCEL WITHIN 30 FEET OF PLANNED WELL BORE

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DECEMBER 13, 2021