

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

API 47-061-01922 County Monongalia District Grant
Quad Morgantown South Pad Name MIP Field/Pool Name _____
Farm name Enroute Properties, LLC Well Number 1S (Geothermal Science Well)
Operator (as registered with the OOG) Northeast Natural Energy LLC
Address 707 Virginia St. E., Suite 1200 City Charleston State WV Zip 25301

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4384076.5 Easting 587894.0
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing _____ Easting _____

Elevation (ft) 1,058' 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 Geothermal Science
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 Based Mud - Horizontal Section: BIO-BASE 365, CALCIUM CHLORIDE POWDER, G-SEAL PLUS, HRP, LIME, M-I WATE (BARITE),
M-I-X II MEDIUM, MEGADRIL P SYSTEM, MEGADRIL P SYSTEM RENTAL, MEGAMUL, SAFE-CARB 250, VERSATHIN HF, VERSAWET, VG-PLUS, VINSEAL MEDIUM, WALNUT NUT PLUG MEDIUM

Date permit issued 2/10/2023 Date drilling commenced 5/25/2023 Date drilling ceased 6/27/2023
Date completion activities began NA Date completion activities ceased NA
Verbal plugging (Y/N) NA Date permission granted NA Granted by _____

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

Freshwater depth(s) ft 350' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 700', 1,440', 2,120' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 295' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

02/23/2024

API 47-061 - 01922 Farm name Enroute Properties, LLC Well number 1S (Geothermal Science Well)

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	30"	24"	78'	N		NA	
Surface	24"	18-5/8"	491'	N	87.5	NA	Y, 22 bbl
Coal							
Intermediate 1	17-1/2"	13-3/8"	1,910'	N	54.5	NA	Y, 24 bbl
Intermediate 2	12-1/4"	9-5/8"	10,497'	N	40	NA	Y, 140 bbl
Intermediate 3							
Production							
Tubing							
Packer type and depth set							

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	4,500 PSI Grout						48
Surface	Class A	742	15.6	1.18	875	CTS	8
Coal							
Intermediate 1	Class A	1,340	15.6	1.18	1,616	CTS	8
Intermediate 2	Class L/Class H	3,335	14	1.22	4,083	CTS	48
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) 10,535' Loggers TD (ft) 10,505'
 Deepest formation penetrated Rose Hill Plug back to (ft) NA
 Plug back procedure NA

Kick off depth (ft) NA

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 _____

Surface: Bow spring centralizers every 3rd joint or approximately 120'

Intermediate: Bow spring centralizers every 3rd joint or approximately 120'

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 _____



104 Heliport Loop Rd
 Bridgeport Wv 26330
 Office 304-933-3544

DETAILED TREATMENT LOG

COMPANY NAME: **NORTHEAST**

FIELD: **0**

WELL #:

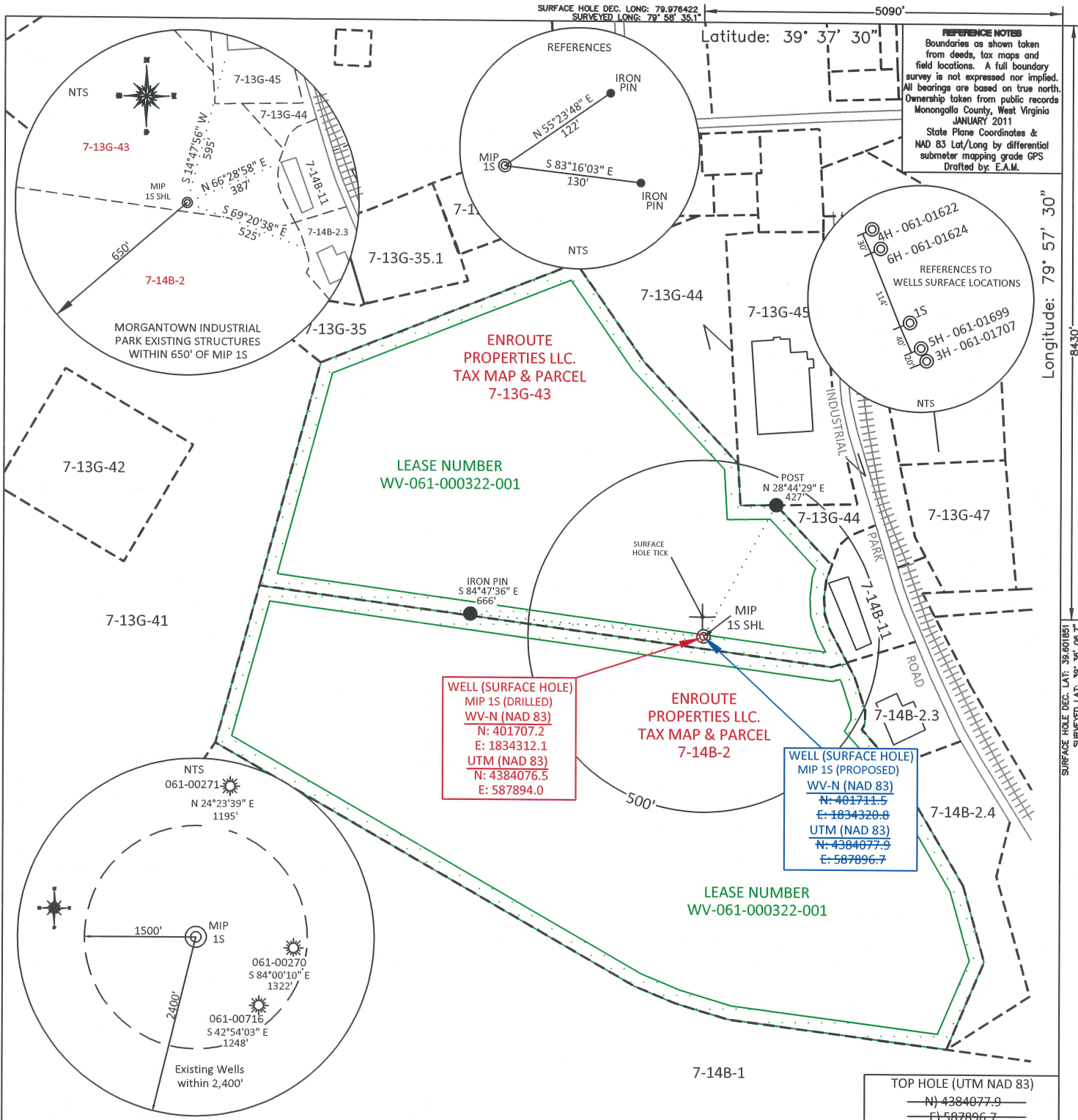
SUPERVISOR: **Danny Gumm**

PUMP NUMBER: **CBTK05**

COMPANY REP:

DATE: _____ TYPE OF JOB: _____

TIME (Hr:Min)	PRESSURE (PSI)	Wellhead Pressure	RATE (BPM)	FLUID TYPE	STAGE BLS	COMMENTS:
6:00 PM						Arrived on site
						Rig Status (PULL DRILL PIPE)
6:10 PM						Hazard Hunt
7:00 PM						Spotting trucks
7:30 PM						Pre Rig Up Meeting
9:00 PM						Rigging Up
12:30 AM						Pre Job Safety Meeting
1:45 AM						Pressure Test
1:50 AM	115		5	H2O	160	WATER SPACER
2:30 AM	120		4	GEL	25	GEL SPACER
2:40 AM	190		5	CEMENT	156	Cement Blend, Sks, Yield, and MH2O Cement Density 15.6 1.18 5.4 (742 SKS)
3:19 AM	100		5	H2O	137	Start Displacement
3:45 AM	680		2		5 MIN	Plug landed Held Pressure for How Long?
4:05 AM						Starting Rig Down
5:30 AM						Left Location.



REFERENCE NOTES
 Boundaries as shown taken from deeds, tax maps and field locations. A full boundary survey is not expressed nor implied. All bearings are based on true north. Ownership taken from public records Monongalia County, West Virginia JANUARY 2011
 State Plane Coordinates & NAD 83 Lat/Long by differential submeter mapping grade GPS
 Drafted by: E.A.M.

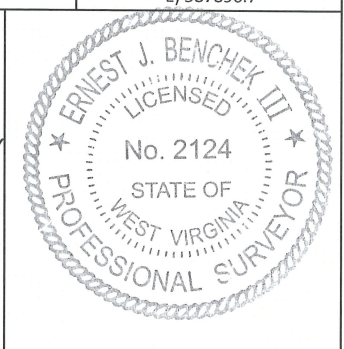
WELL (SURFACE HOLE) MIP 1S (DRILLED) WV-N (NAD 83)
 N: 401707.2
 E: 1834312.1
 UTM (NAD 83)
 N: 4384076.5
 E: 587894.0

WELL (SURFACE HOLE) MIP 1S (PROPOSED) WV-N (NAD 83)
 N: 401711.5
 E: 1834320.8
 UTM (NAD 83)
 N: 4384077.9
 E: 587896.7

TOP HOLE (UTM NAD 83)
 N: 4384077.9
 E: 587896.7

FILE #: NNE004
 DRAWING #: 1419
 SCALE: PLAT: 1"=400' TICK: 1"=2000'
 MINIMUM DEGREE OF ACCURACY: 1/200
 PROVEN SOURCE SUBMETER MAPPING OF ELEVATION: GRADE GPS

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:
 L.L.S. #2124 : Ernest J. Benchek III



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

DATE: MARCH 1, 2024
 OPERATOR'S WELL #: MIP 1S
 API WELL #: 47 61
 STATE COUNTY PERMIT

Well Type: Oil Waste Diposal Production Deep Geothermal
 Gas Liquid Injection Storage Shallow Test

WATERSHED: DUNKARD AS-BUILT ELEVATION : 1,057.55'

COUNTY/DISTRICT: MONONGALIA/GRANT QUADRANGLE: MORGANTOWN SOUTH
 SURFACE OWNER: ENROUTE PROPERTIES LLC. ACREAGE: 25.998 +/-
 OIL & GAS ROYALTY OWNER: ENROUTE PROPERTIES LLC. ACREAGE: 65.796 +/- **02/23/2024**

LEASE NUMBERS: _____

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): CORING FOR SCIENCE

TARGET FORMATION: POINT PLEASANT
 WELL OPERATOR : NORTHEAST NATURAL ENERGY DRILLED DEPTH: TVD: 10,535'
 ADDRESS: 707 VIRGINIA STREET - SUITE 1200 DESIGNATED AGENT : JOHN ADAMS
 CITY: CHARLESTON STATE: WV ZIP CODE: 25301 CITY: CHARLESTON STATE: WV ZIP CODE: 25301