



# Daily Drilling Report

Well ID: Forge 56-32

Field: UTAHFORGE

Geothermal Resource Group, Inc.

Well Name: 56-32

Sect: 32 Town: 26S Rng: 9W County: Beaver State: UT

Report No: 12

Report For 15-Feb-21

Operator:	University of Utah	Rig:	Frontier	Spud Date:		Daily Cost / Mud (\$):	---
Measured Depth (ft):	5143	Last Casing:	9.625 at 3,494	Wellbore:	Original Wellbore	AFE No.	AFE (\$) Actual (\$)
Vertical Depth (ft):	5141	Next Casing:	5.500 at 9,000	RKB Elevation (ft):	30.40	---	---
Proposed TD (ft):	9000	Last BOP Test:	12-Feb-21	Job Reference RKB (ft):	28.50	---	---
Hole Made (ft) / Hrs:	441 / 22.75	Next BOP Test:		Working Interest:		Totals:	---
Average ROP (ft/hr):	19.38			LOT (lbs/gal):	16.00	Well Cost (\$):	---
Drilling Days (act./plan):	8/30	Flat Days (act./plan):	0/8	Total Days (act./plan):	8/38	Days On Location:	12
Pers/Hrs: Operator:	2 / 24	Contractor:	14 / 168	Service:	8 / 96	Other:	0 / 0 Total: 24 / 288

**Safety Summary:** No incidents or events reported. Conducted Safety Meeting.

**Current Operations:** Making up new 8-3/4" PDC bit and mud motor.

**Planned Operations:** Drill 8-3/4" hole with PDC bit.

**Toolpusher:** Justin Bristol, Steve Caldwell

**Wellsite Supervisors:** Virgil Welch, Paul Stroud

Tel No.: 7132807438

## Operations Summary

From	To	Elapsed	End MD(ft)	Code	Operations Description	Non-Prod
0:00	1:00	1.00	4,715	3-2-3	Slide drilled 8.-3/4" hole from 4,702' to 4,715'.	
1:00	11:30	10.50	4,932	3-2-2	Rotary drilled 8.-3/4" hole from 4,715' to 4,932'.	
11:30	12:00	0.50	4,932	SERV	Serviced Rig.	
12:00	23:15	11.25	5,143	3-2-2	Rotary drilled 8-3/4" hole from 4,932' to 5,143'.	
23:15	0:00	0.75	5,143	3-5-1	Circulated bottoms up in preparation for trip out of hole.	

## Management Summary

Drilled 8-3/4" hole from 4,702' to 5,143' and circulated bottoms up for trip out of hole due to pressure spike. NOTE: Bit was locked up and ground flat on two cones. Motor also failed.

## Comments

Drilling in Granodiorte.

## Casing/Tubular Information

Type	Size (ins)	Top MD (ft)	Top TVD (ft)	Bottom MD (ft)	Bottom TVD (ft)	Hole Section	OH Diam. (ins)	Nom. Wgt. (lbs)	Nominal Grade	LOT (lbs/gal)
FULL	20.000	30	30	129	129	COND				
FULL	13.375	0	0	382	382	SURF	17.500	55	J-55	16.30
FULL	9.625	0	0	3,494	3,488	INT1	12.250	36	J-55	16.00

## Mud Information

%														Gels			Temp		Mud	
Dens.	Vis	PV	YP	Filt.	Cake	pH/ES	Solids	Oil	Water	Sand	LGS	Cl	Ca	CaCl	10s	10m	30m	In	Out	Loss
15-Feb-21 22:00 at Depth 5,113 ft Mud Pits																				
8.60	44	11	21	8.8	1	10.5	5	0	95	1		1200	960		4	8	15	124	130	

## Mud Consumables

Item Description			Qty.	Cost	Item Description			Qty.	Cost
Barite - OTHER			10	---	caustic - OTHER			1	---
Defoamer - OTHER			2	---	DMA/SPA - 100#SK			2	---
Drispac - OTHER			1	---	Gel - OTHER			10	---
micro c - OTHER			10	---	SAwdust - OTHER			2	---
walnut Pine - OTHER			10	---	xanthan gum - OTHER			1	---

## Bit/BHA/Workstring Information

				Depth	This Run		R.O.P.				Mud				Pump						
No	Run	Make	Model	Diam	In	Dist	Hrs	Avg	Max	WOB	RPM	Torque	Wt	Flow	Press	J. Vel	P. Drp	HHP	JIF		
7	1	HTC	EP5475	8.750	4596	535	27.25	19.6	118.9	40	50	7	9	670	2700	234	425	166	705		
Jets: 20 20 20					Out: 5143		Grade: Cutter:			8 / 8		Dull: FC / BT		Wear: A		Brgs: 8		Gge: 0.25		Pull: PP	
BHA - No. 7 - BIT, MMTR, XO, STAB, MONEL, SH/SUB, 12 DC, 24 HWDP = 1178.54																					

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**Drilling Parameters**

Depth (ft)		ROP (ft/hr)		WOB (lbs)		RPM		Torque (ft lbs)		Flow (gals/min)		Pressure (psi)
From	To	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	
4,702	4,832	18.0	22.0	35	45	50	55	7	8	740	768	2,700
Annular Velocity:		Drill Collars:		538.0		Drill Pipe:		340.0				
Comments:		Rotating										
4,832	4,932	20.0	23.0	43	45	40	50	7	8	740	768	27,500
Annular Velocity:		Drill Collars:		538.0		Drill Pipe:		340.0				
Comments:		Rotating										

**Miscellaneous Drilling Parameters**

Hook Loads (lbs):		Off Bottom Rotate:		160	Pick Up:		170	Slack Off:		150	Drag Avg/Max:		10 / 15
Slow Circulation Data:													
Pump 1:		20 spm	170 psi		40 spm		290 psi		60 spm		490 psi		
Pump 2:		20 spm	160 psi		40 spm		300 psi		60 spm		520 psi		

**Survey Information**

Survey Type	Meas. Depth		Inc.	Azimuth	TVD	Closure	Vertical Section	Coordinates		
								N-S	E-W	D.L.S.
MWD	4,734.0		1.27	30.9	4,732.6	52.7	43.8	N 43.8	E 29.4	3.344
MWD	4,829.0		0.70	7.3	4,827.5	54.3	45.3	N 45.3	E 30.0	0.724
MWD	4,924.0		0.84	3.6	4,922.5	55.4	46.6	N 46.6	E 30.1	0.156
MWD	5,018.0		0.75	295.9	5,016.5	56.0	47.5	N 47.5	E 29.6	0.945

**Mud Log Information**

Depth (ft)		TVD (ft)		Gas (Units)		Gas Connect.	Trip	Drilling Exp.	Pore Press	Mud Dens.	Shale Dens.	ROP	
From	To	From	To	Avg	Max							Shale	Sand
4,760	4,870	4,758	4,868										
Formation Name:													
Lithology: 80% Granodiorite, 20% altered zone (increase in Hematite * chlorite wash, infreq epidote)													
4,870	5,140	4,868	5,138										
Formation Name:													
Lithology: 100% Granodiorite													

**Rig Information**

Equipment Problems:													
Location Condition:													
Transport:													

**Solids Control Information**

Screen Sizes:		Top	Bottom										
Shaker No 1:		170											
Shaker No 2:		170											
Shaker No 3:		140											

**Drill Pipe Inventory**

DP Size	Joints	Weight	Grade	Thread	DP Size	Joints	Weight	Grade	Thread
5	277	19.5	S-135	4.5IF					

**Safety Information**

Meetings/Drills	Time	Description
Safety	60	Connections and pinch points
First Aid Treatments:		Medical Treatments:
Lost Time Incidents:		Days Since LTI:
<input type="checkbox"/> BOP Test		<input type="checkbox"/> Crownamatic Check

**Weather Information**

Sky Condition: Cloudy		Visibility: 8
Air Temperature: 27 degF		Bar. Pressure: 29.82
Wind Speed/Dir: 9 / SSW		Wind Gusts: 12