UTAH FORGE U.S. Department of Energy

DAILY DRILLING REPORT

RPT DATE: 12/05/2020
RPT NUM.: 47
RIG: Frontier Rig 16

WELL/JOB INFORMATION

WELL NAME:	FORGE 16A [78]-32	JOB:	Drilling 65° Tangent	RIG SUPERV:	Paul S, Bob F, Duane W, Leroy S
FIELD:		LEASE:		RIG PHONE:	281-854-6858
AFE #:		API #:		EMAIL:	
CONTRACTOR:	Frontier Drilling	ELEVATION:	5415.1	RKB:	
SPUD DATE:	10/30/2020	DFS:	36	DOL:	46
MD/TVD:	7990	24 HR FTG:	600	HRS DRLG:	21

PRESENT OPERATIONS: DRILLING TANGENT AT 7,990'
ACTIVITY PLANNED: DRILL AHEAD

BOP

LAST BOP TEST:	11/14/20	LAST BOP DRILL:	11/29/20	NEXT BOP TEST:	12/14/20

CASING

CASING TYPE	OD	WEIGHT	GRADE	MD	TVD
Conductor	20.00	54	A53B	130	130
Surface	13.38	68	L-80	1,629	1,629
Intermediate	9.63	40	HCL-80	5,110	5,109

MUD

TIME	MW	FV	WL	PH	CAKE	GELS (10s/10m/30m)			PV	YP	CL	K	Pf	Mf	Ca	OIL	LGS	HTHP
19:00	9.0	40.0	8.0	11.0	1	7	21	35	17	18	1,500		1.00	2.30	40		3.70	

DRILL BITS

NO.	SIZE	MANUFACTURER	TYPE	SER NO.	JETS	TFA	RE-RUN	IN	OUT	FEET	HRS	WOB	RPM	ROP
29	8.75	REED	TKC63	A255857	3x14, 3x13	0.840	N	7,390	8,004	614	21.0	5,000	142	29.2
28	8.75	REED	PDC	A276121	3x14, 3x13	0.840	Y	7,390	7,390					

BIT NO. 23 INNER: 0 OUTER: 1 DULL: WC LOC: S SEAL: GAUGE: Y OTHER: DULL CUT RP: TD

PUMPS

PUMP	MAKE	MODEL	LINER	STK	SPM	PSI	GPM	GPS	EFF %	ECD	AV DP	AV DC	BIT HHP	PUMP HHP
2	BOMCO	1600	6.000	12.000	70	3415	275		95	9.71	308	475	130.1	
3	BOMCO	1600	6.000	12.000	70	3415	275		95	9.71	308	475	130.1	

BHA

#	COMPONENT	OD	ID	LENGTH	#	COMPONENT	OD	ID	LENGTH
1	Drill Bit-Reed Hycalog TKC63 PDC 3x13-3	8.75		0.85	7	Monel Collar-6 3/4" NMDC with MWD	6.75	3.25	30.35
2	Motor-6 1/2" Motor 7/8 5.7, Fixed 1.25,	6.5	1.25	34.24	8	Monel Collar-6 3/4" NMDC (2 joints)	6.75	3.25	60.66
3	Sub-6 1/2 Scout String Sub with PUK sens	6.5	3.25	2.34	9	Drill Pipe-5" HWDP (15 stands)	5	3	1384.33
4	Reamer-6 5/8 x 8 1/2" Roller Reame	8.5	2.25	6.63					
5	Monel Collar-6 3/4 NM Pony Collar	6.75	3.25	9.22					
6	Monel Collar-6 1/2" NM UBHO	6.5	2.75	3.08					

DESCRIPTION: BHA 30 Tangent

LENGTH:	1,531.70	BHA WT. AIR:	79,300	BHA WT. MUD:	67,300	HRS. ON JARS:	
ROT. WT.:	210,000	P.U. WT.:	300,000	S.O. WT.:	160,000	TORQUE:	8,000

SURVEY DATA

MD	INCLINATION	AZIMUTH	TVD	N/S (COORDINATES)	E/W (COORDINATES)	V. SECTION	DLS
7,360	67.06	101.35	7,039	-193.7	766.2	790.2	1.8
7,366	67.12	101.22	7,042	-194.8	771.5	795.7	2.3
7,421	65.38	101.35	7,064	-204.6	821.0	846.0	3.2
7,516	65.49	104.37	7,103	-223.8	905.2	932.3	2.9

CONSUMABLES

CONSUMABLE	DAILY RECEIVED (gal)	DAILY USED (gal)	DAILY ON HAND (gal)
Fuel	7,575	3,162	15,469
Potable Water			900

TIME BREAKDOWN

FROM	TO	HRS	PHASE	CODE	NPT	OPERATIONS
06:00	08:30	2.5	Production Drilling	Trips		PJSM, pre job safety meeting with Frontier and DSM Trip in hole with Directional Tangent Assembly BHA # 30 to 7,390'
08:30	15:00	6.5	Production Drilling	Drilling		Drill rotate and slide from 7,390' to 7,602', (212') 32.6 fph WOB 35 - 50, 50 - 70 RPM, 590 GPM Rotate: 142' (3.75 hrs). AVG ROP 37.8.' fph. Slide: 70', (2.33 hrs.) AVG ROP 30.0 fph.
15:00	15:30	0.5	Production Drilling	Rig Service		Rig Service
15:30	06:00	14.5	Production Drilling	Drilling		Drill rotate and slide from 7,602' to 7,990', (388') 26.75 fph WOB 35 - 50, 50 - 70 RPM, 590 GPM Rotate: 261' (8.3 hrs). AVG ROP 31.44.' fph. Slide: 127', (6.2 hrs). AVG ROP 20.8 fph. Last Survey: MD: 7896' INC: 56.83° AZM: 108.77° TVD: 7288.99' VS: 1262.52' DLS: 0.79

TOTAL HRS 24.0