Mud Logging Unit Report

Operator: ANTERO RESOURCES
Well: ALT 1-28-33-20
Field: WILDCAT
Rig Name: Ensign 724
Rig Type: Land
Elevation: KB: 5,280.00 ft
Spud Date: 11/13/2021
Completion Date: 11/20/2021
Total Depth: 20,400 ft
Surface Location: 1,000 FSL 1,000 FEL
Bottom Hole Location: 1,000 FSL 1,000 FEL
Section: 28
Township: 33 N
Range: 20 W
County: Cheyenne
State: Colorado
Operator Contact: Jim Hall, Jim.Hall@antero.com
Mud Logging Company: Mud Logging Inc.
Mud Logging Contact: Jim Hall, Jim.Hall@antero.com

Drilling Summary

Spudded on 11/13/2021 at 06:00 hrs. Drilled 12 1/4" surface hole to 1,500 ft. Ran 9 5/8" 36# J-55 casing and cemented with 1,000 sacks of cement. Drilled out shoe and continued drilling 8 3/4" vertical hole to 7,000 ft. Ran 7" 29# P-110 casing and cemented with 1,000 sacks of cement. Drilled out shoe and continued drilling 6 1/8" vertical hole to 9,000 ft. Ran 4 1/2" 13.5# P-110 casing and cemented with 1,000 sacks of cement. Drilled out shoe and continued drilling 6 1/8" lateral hole to 20,400 ft. Ran 4 1/2" 13.5# P-110 casing and cemented with 1,000 sacks of cement. Rig released on 11/20/2021 at 18:00 hrs.

Bit Record

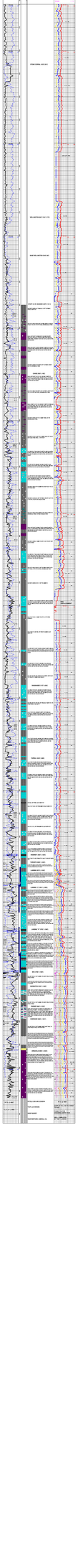
Bit #	Size	Type	Manufacturer	Serial #	Jets	Depth In	Depth Out	Footage	Hours	ROP
1	12 1/4"	PDC	Smith	ABC123	18/18/18/18/18	0	1,500	1,500	18.5	81.1
2	8 3/4"	PDC	Smith	DEF456	18/18/18/18/18	1,500	7,000	5,500	72.0	76.4
3	6 1/8"	PDC	Smith	GHI789	18/18/18/18/18	7,000	9,000	2,000	48.0	41.7
4	6 1/8"	PDC	Smith	JKL012	18/18/18/18/18	9,000	20,400	11,400	168.0	67.9

Casing Record

Type	Size	Weight	Grade	Depth
Surface	9 5/8"	36#	J-55	1,500
Intermediate	7"	29#	P-110	7,000
Production	4 1/2"	13.5#	P-110	20,400

Cement Record

Type	Sacks	Yield	Density	Top	Bottom
Surface	1,000	1.15	15.8	0	1,500
Intermediate	1,000	1.15	15.8	0	7,000
Production	1,000	1.15	15.8	7,000	20,400

Mud Record

Type	Weight	Viscosity	Depth
Water Gel	8.6	28	0
Water Gel	8.6	28	1,500
Water Gel	8.6	28	7,000
Water Gel	8.6	28	9,000
Water Gel	8.6	28	20,400