



APACHE PARTNER REPORT
HELLFIRE EAST F 11HU

Page 1 of 1
Current Depth: 0

Report Date: 5/31/2024

Apache Drilling Report

Job Category LDR	Primary Job Type Land-Orig Drlg	Secondary Job Type Devel	Start Date 5/30/2024
AFE Number 31-24-0060-DH	Total Depth (ftKB) 18,559.0	Target Depth (ftKB) 18,567	Target Formation WOLFCAMP B1

Report #: 1 DFS: -24.93 DDFS: <Cum Time Log Days From Spud?> Rig: Transcend Drilling 04

Day Total (Cost) \$386,753	Cum To Date (Cost) \$386,753	Start Depth (ftKB) 0	Start Depth (TVD) (ft... 0	End Depth (ftKB) 0	End Depth (TVD) (ft... 0	Depth Progress (ft) 0	Drilling Hours (hr) 0	Avg ROP (ft/hr) 0
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5/31/2024

Current Status

Skidding to 10HA well

24 Hour Summary

Skid over well, spud, drill, case, cement, release rig, skid to 10HSA well

Time Log

Start Time	Dur (hr)	Cum Dur (hr)	Time Code	Operation Details
00:00	8.00	8.00		Skid from 12HM well All depths in spudder reports refer to ground level RRC Job #399042 from Abraham Lincon
08:00	1.00	9.00	Rig Skid/Walk	Skid and spot rig and equipment, rig up, hook up hoses
09:00	0.50	9.50	PU/LD BHA	P/U BHA
09:30	6.50	16.00	Drilling	Spud, drill T/ 534' GRD TD
16:00	0.50	16.50	Circulating	Circulate, pump TD sweep
16:30	1.00	17.50	TOOH	TOOH, L/D BHA
17:30	1.50	19.00	Casing	R/U casing tools and run 13-3/8" casing, set at 534' GRD
19:00	1.00	20.00	Circulating	Circulate, hold safety meeting, R/U cementers
20:00	1.50	21.50	Cmt-Primary	Pumped 30 bbls FW spacer, mixed and pumped 630 sx 14.8 ppg Class C tail slurry, displaced w/ FW. Bumped plug at 2057 hrs to 927 psi at calc displacement, FCP 345 psi @ 3 bpm. Good returns throughout with 68 bbls (287 sx) cement to surface. Initiated 30 minute casing test at 2057 hrs with 927 psi. Pressure fell to 914 psi (1.4% drop) during test (good test). Bled back 1/2 bbl, floats holding
21:30	1.00	22.50	RU/RD	R/D cementers, cut casing, release rig at 2230 hrs
22:30	1.50	24.00	RU/RD	Skid to 10HA well Wellhead installed on 6/10/2024 Cellar grouted by 6/12/2024

Casing

Csg Des	Run Date	Set Depth (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)
Surface	5/30/2024	560.00	13 3/8	J-55	54.50

Cement

Des	End Date	Top (ftKB)	Btm (ftKB)	Full Return?	Obj
Primary Cement	5/30/2024	29.50	560.00	Yes	
Primary Cement	6/28/2024	126.00	3,918.00	Yes	
Primary Cement	6/28/2024	4,019.00	7,765.00	Yes	

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Depart (ft)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)



APACHE PARTNER REPORT
HELLFIRE EAST F 11HU

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Current Depth: 828
Report Date: 6/25/2024

Apache Drilling Report

Job Category LDR	Primary Job Type Land-Orig Drlg	Secondary Job Type Devel	Start Date 5/30/2024
AFE Number 31-24-0060-DH	Total Depth (ftKB) 18,559.0	Target Depth (ftKB) 18,567	Target Formation WOLFCAMP B1

Report #: 2 DFS: 0.07 DDFS: 0.07 Rig: H&P 268

Day Total (Cost) \$91,414	Cum To Date (Cost) \$478,167	Start Depth (ftKB) 560	Start Depth (TVD) (ft...) 560	End Depth (ftKB) 828	End Depth (TVD) (ft...) 828	Depth Progress (ft) 266	Drilling Hours (hr) 1.16	Avg ROP (ft/hr) 229.0
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6/25/2024

Current Status
Drill 12 1/4" Intermediate hole section @ 2,066'.

24 Hour Summary
See Hellfire East D 12HM report,
Walk rig center over Hellfire East F 11HU, NU BOP and test Cameron quick connect, Rig up, Pick up BHA, Drill out Shoe track, Drill new formation

Time Log

Start Time	Dur (hr)	Cum Dur (hr)	Time Code	Operation Details
00:00	18.00	18.00		See Hellfire East D 12HM report.
18:00	0.50	18.50	Rig Skid/Walk	Walk rig from Hellfire East D 12HM to Hellfire East F 11HU and center rig over well.
18:30	0.50	19.00	NU/ND BOP	Nipple up BOP on well head with Cameron quick connect and test same to 250 psi low/ 1500 psi high, 5 min low and 5 min high on chart good test
19:00	0.25	19.25	NU/ND WH/XT	Install wear bushing
19:15	0.25	19.50	Rig Serv	Perform rig service while changing grabber dies on top drive.
19:30	1.00	20.50	PU/LD BHA	PJSM, P/U Intermediate BHA #1, 8 1/2" ERT NOV (Fixed 1.5°, NBS 11.75", Mpac 8/9, 6.7, .017 rev), 11.5" NM Stab w/Float, MWD Collar, 11.5" NM Stab W/float #2, 8" NMDC, Filter Sub, X-O Bit #1 (Ulterra SPL616, SN 70398 w/6 x12, 0.9940 tfa), Scribe directional tools & measure MWD offset (7.80/8.23 x 360 = 341.19° offset) Filter Sub, X-O
20:30	0.75	21.25	PU/LD BHA	TIH with 8" & 6 1/2" H&P rig DC's & TIH with same F/109' T/500'. Tagged cement at 500'.
21:15	0.25	21.50	Circulating	Test MWD tools, good test
21:30	0.75	22.25	Drill-out Shoe Track	Drill cement and shoe track F/500' T/560' @ 500 GPM, 833 SPP, 10-20 WOB, 30 RPM, 6-8K TQ Note: FC @ 515' FS @ 560'
22:15	1.50	23.75	Drilling	Drill 12 1/4" Intermediate F/560' T/827' (267' @ 178 fph) @ 800 GPM, 2,150 SPP, 500-650 DIFF, 25-40K WOB, 70 RPM, 10-15K TQ - Brine 10.0 ppg, Circ Open System - Last Survey 673' MD, 672.98' TVD, -3.33 VS, 0.10° DLS, 0.09' B, 0.66' L No Accidents, Incidents or spills
23:45	0.25	24.00	Rig Repair	TOOH to 545' due to grabber die blocks rubbing tool joint.

Casing

Csg Des	Run Date	Set Depth (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)
Surface	5/30/2024	560.00	13 3/8	J-55	54.50

Cement

Des	End Date	Top (ftKB)	Btm (ftKB)	Full Return?	Obj
Primary Cement	5/30/2024	29.50	560.00	Yes	
Primary Cement	6/28/2024	126.00	3,918.00	Yes	
Primary Cement	6/28/2024	4,019.00	7,765.00	Yes	

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Depart (ft)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
577.00	0.36	67.89	576.98	3.86	-3.04	3.00	2.42	0.71
673.00	0.34	55.40	672.98	4.40	-3.33	3.28	2.94	0.08
769.00	0.19	63.30	768.98	4.83	-3.56	3.51	3.31	0.16



APACHE PARTNER REPORT
HELLFIRE EAST F 11HU

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Current Depth: 5,283
Report Date: 6/26/2024

Apache Drilling Report

Job Category LDR	Primary Job Type Land-Orig Drlg	Secondary Job Type Devel	Start Date 5/30/2024
A/E Number 31-24-0060-DH	Total Depth (ftKB) 18,559.0	Target Depth (ftKB) 18,567	Target Formation WOLFCAMP B1

Report #: 3 DFS: 1.07 DDFS: 1.07 Rig: H&P 268

Day Total (Cost) \$75,048	Cum To Date (Cost) \$553,215	Start Depth (ftKB) 829	Start Depth (TVD) (ft... 829	End Depth (ftKB) 5,283	End Depth (TVD) (ft... 5,270	Depth Progress (ft) 4,444	Drilling Hours (hr) 15.60	Avg ROP (ft/hr) 284.9
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6/26/2024

Current Status
Drill 12 1/4" Intermediate hole section @ 6,440'.

24 Hour Summary
Drill 12 1/4" Intermediate hole section, Rig Service

Time Log

Start Time	Dur (hr)	Cum Dur (hr)	Time Code	Operation Details
00:00	0.25	0.25	Rig Repair	Change out die block on top drive.
00:15	0.25	0.50	TIH	TIH from 545' to 827'
00:30	5.50	6.00	Drilling	Drill 12 1/4" Intermediate F/827 T/2,066' (1,239 @ 225 fph) @ 850 GPM, 2,200 SPP, 350-600 DIFF, 35K WOB, 70 RPM, 10-15K TQ P/U 155K, S/O 142K, ROT 148K - Brine 10.0 ppg, Circ Open System -Last Survey 1,913' MD, 1,910.25' TVD, -75.20 VS, 0.13° DLS, 12.77' A, 3.07 R
06:00	10.75	16.75	Drilling	Drill 12 1/4" Intermediate F/2,066' T/4,391' (2,325 @ 216 fph) @ 900 GPM, 2,600 SPP, 700-900 DIFF, 40K WOB, 70 RPM, 10-15K TQ P/U 205K, S/O 180K, ROT 194K. Driller noticed a 6 bbl gain over period of 10 minutes F/4,360' T/4,391' P/U for a flow check. Note: C/O hole from 10 ppg brine to 9.3 ppg slop mud on the fly @ 3,512' C/O done @ 3,569', Flow checked @ 3,588' well static no flow.
16:45	0.25	17.00	Monitor Well	Flow check, well flowing at 12 BPH, shut in & A/P stabalized, SICP = 38 psi (EMW of 9.5 ppg) with a current MW of 9.3 ppg. Team decision was made to increase flow rate from 900 gpm to 950 gpm and use ECD's to control gains & close the orbit valve on connections.
17:00	0.25	17.25	Drilling	Drill 12 1/4" Intermediate F/4,391' T/4,444' (53 @ 220 fph) @ 950 GPM, 2,900 SPP, 700-900 DIFF, 40K WOB, 70 RPM, 10-15K TQ P/U 218K, S/O 185K, ROT 196K.
17:15	0.50	17.75	Rig Serv	Rig service
17:45	4.50	22.25	Drilling	Drill 12 1/4" Intermediate F/4,444' T/5,283' (839 @ 186 fph) @ 950 GPM, 2,900 SPP, 700-900 DIFF, 40K WOB, 70 RPM, 10-15K TQ P/U 227K, S/O 200K, ROT 214K.
22:15	1.75	24.00	Circulating	Electrical issues with Apache house power, found melted wire in transformer. Repair same.

Mud Checks

Date 6/25/2024	Type Water	Depth (ftKB) 1,275	Density (lb/gal) 10.00	P Visc (psi)	ECD - Manual Entry (lb/... 1	Vis 100rpm 1	Vis 3rpm 1
Percent Water (%) 100.0	Percent Oil (%) 0.0	PV Override (cP) 1.0	YP Override (lb/100ft²) 1.0	Gel 10 min (lb/100ft²) 1	Gel 10 sec (lb/100ft²) 1	Gel 30 min (lb/100ft²) 1	Solids (%) 11.5
Oil Water Ratio 0/100	Electric Stab (V) 0.0	Chlorides (mg/L) 175,000	CaCl (ppm)	HTHP Filter Cake (1/32") 0	HTHP Filtrate (mL/30min) 0.0	High Gravity Solids (%) 0.0	Low Gravity Solids (%) 1.0
Date 6/25/2024	Type Water	Depth (ftKB) 4,295	Density (lb/gal) 9.30	P Visc (psi)	ECD - Manual Entry (lb/... 9.60	Vis 100rpm 26	Vis 3rpm 20
Percent Water (%) 100.0	Percent Oil (%) 0.0	PV Override (cP) 6.0	YP Override (lb/100ft²) 23.0	Gel 10 min (lb/100ft²) 20	Gel 10 sec (lb/100ft²) 19	Gel 30 min (lb/100ft²) 21	Solids (%) 7.5
Oil Water Ratio 0/100	Electric Stab (V) 0.0	Chlorides (mg/L) 54,000	CaCl (ppm)	HTHP Filter Cake (1/32") 0	HTHP Filtrate (mL/30min) 0.0	High Gravity Solids (%) 0.0	Low Gravity Solids (%) 3.6

Casing

Csg Des	Run Date	Set Depth (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)
Surface	5/30/2024	560.00	13 3/8	J-55	54.50

Cement

Des	End Date	Top (ftKB)	Btm (ftKB)	Full Return?	Obj
Primary Cement	5/30/2024	29.50	560.00	Yes	
Primary Cement	6/28/2024	126.00	3,918.00	Yes	
Primary Cement	6/28/2024	4,019.00	7,765.00	Yes	

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Depart (ft)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
4,860.00	3.34	4.42	4,847.98	308.40	-304.93	304.15	51.01	0.26
4,956.00	4.15	6.17	4,943.78	314.66	-311.18	310.40	51.60	0.85
5,051.00	4.28	7.37	5,038.52	321.63	-318.13	317.33	52.42	0.17
5,146.00	3.97	6.84	5,133.27	328.46	-324.92	324.11	53.27	0.33
5,241.00	3.61	6.69	5,228.07	334.73	-331.17	330.35	54.01	0.38



APACHE PARTNER REPORT
HELLFIRE EAST F 11HU

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Current Depth: 7,782
Report Date: 6/27/2024

Apache Drilling Report

Job Category LDR	Primary Job Type Land-Orig Drlg	Secondary Job Type Devel	Start Date 5/30/2024
A/E Number 31-24-0060-DH	Total Depth (ftKB) 18,559.0	Target Depth (ftKB) 18,567	Target Formation WOLFCAMP B1

Report #: 4 DFS: 2.07 DDFS: 2.07 Rig: H&P 268

Day Total (Cost) \$112,601	Cum To Date (Cost) \$665,816	Start Depth (ftKB) 5,299	Start Depth (TVD) (ft...) 5,286	End Depth (ftKB) 7,782	End Depth (TVD) (ft...) 7,768	Depth Progress (ft) 2,483	Drilling Hours (hr) 19.99	Avg ROP (ft/hr) 124.2
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6/27/2024

Current Status
TOOH at 2,600'

24 Hour Summary
Drill 12 1/4" Intermediate hole section to 7,780' TD, Rig Service
Circulate hole clean, TOOH to run casing

Time Log

Start Time	Dur (hr)	Cum Dur (hr)	Time Code	Operation Details
00:00	6.00	6.00	Drilling	Drill 12 1/4" Intermediate F/5,283' T/6,440' (1157 @ 193 fph) @ 950 GPM, 2,900 SPP, 700-900 DIFF, 40K WOB, 70 RPM, 10-15K TQ P/U 227K, S/O 200K, ROT 214K.
06:00	12.00	18.00	Drilling	Drill 12 1/4" Intermediate F/6,440' T/7,500' (1060' @ 88.33 fph) @ 700-950 GPM, 3200 SPP, 300-600 DIFF, 40-47K WOB, 70-80 RPM, 10-18K TQ P/U 246K, S/O 220K, ROT 238K.
18:00	4.50	22.50	Drilling	Drill 12 1/4" Intermediate F/7,500' T/7,780' (280' @ 62 fph) @ 700 GPM, 2200 SPP, 300-600 DIFF, 40-47K WOB, 70-80 RPM, 9-13K TQ P/U 284K, S/O 260K, ROT 268K. Final survey @ 7,709' /INC 0.43° /AZI 355.95° / TVD 7,695.51' / VS -366.45' / 6.44' Above / 0.44' Right Notified TRRC of intent to set & cement 9 5/8" intermediate casing @ 22:45 hrs 6/26/24. Spoke with Kara Operator 0120, Permit # 897941, TRRC Job # 399042
22:30	1.50	24.00	Circulating	Circulate hole clean @ 7,780', 800 GPM, 70 RPM, 2250 psi, 4/6K TQ No Accidents, incidents or spills

Mud Checks

Date 6/26/2024	Type Water	Depth (ftKB) 5,962	Density (lb/gal) 9.40	P Visc (psi) 21	ECD - Manual Entry (lb/...) 9.70	Vis 100rpm 44	Vis 3rpm 21
Percent Water (%) 100.0	Percent Oil (%) 0.0	PV Override (cP) 5.0	YP Override (lb/100ft²) 44.0	Gel 10 min (lb/100ft²) 21	Gel 10 sec (lb/100ft²) 20	Gel 30 min (lb/100ft²) 22	Solids (%) 8.5
Oil Water Ratio 0/100	Electric Stab (V) 0.0	Chlorides (mg/L) 41,000	CaCl (ppm) 0	HTHP Filter Cake (1/32") 0	HTHP Filtrate (mL/30min) 0.0	High Gravity Solids (%) 0.0	Low Gravity Solids (%) 5.2
Date 6/26/2024	Type Water	Depth (ftKB) 7,364	Density (lb/gal) 9.30	P Visc (psi) 12	ECD - Manual Entry (lb/...) 9.70	Vis 100rpm 36	Vis 3rpm 12
Percent Water (%) 100.0	Percent Oil (%) 0.0	PV Override (cP) 5.0	YP Override (lb/100ft²) 38.0	Gel 10 min (lb/100ft²) 12	Gel 10 sec (lb/100ft²) 11	Gel 30 min (lb/100ft²) 13	Solids (%) 8.0
Oil Water Ratio 0/100	Electric Stab (V) 0.0	Chlorides (mg/L) 33,000	CaCl (ppm) 0	HTHP Filter Cake (1/32") 0	HTHP Filtrate (mL/30min) 0.0	High Gravity Solids (%) 0.0	Low Gravity Solids (%) 5.0

Casing

Csg Des	Run Date	Set Depth (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)
Surface	5/30/2024	560.00	13 3/8	J-55	54.50

Cement

Des	End Date	Top (ftKB)	Btm (ftKB)	Full Return?	Obj
Primary Cement	5/30/2024	29.50	560.00	Yes	
Primary Cement	6/28/2024	126.00	3,918.00	Yes	
Primary Cement	6/28/2024	4,019.00	7,765.00	Yes	

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Depart (ft)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
7,238.00	0.47	351.82	7,224.51	365.71	-363.04	362.28	49.96	0.03
7,333.00	0.48	357.21	7,319.51	366.47	-363.82	363.06	49.88	0.05
7,428.00	0.42	0.22	7,414.50	367.21	-364.56	363.81	49.87	0.07
7,523.00	0.41	357.94	7,509.50	367.89	-365.25	364.50	49.86	0.02
7,709.00	0.43	355.95	7,695.50	369.23	-366.61	365.86	49.78	0.01



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Current Depth: 7,782
Report Date: 6/28/2024

Apache Drilling Report

Job Category LDR	Primary Job Type Land-Orig Drlg	Secondary Job Type Devel	Start Date 5/30/2024
A/E Number 31-24-0060-DH	Total Depth (ftKB) 18,559.0	Target Depth (ftKB) 18,567	Target Formation WOLFCAMP B1

Report #: 5 DFS: 3.07 DDFS: 3.07 Rig: H&P 268

Day Total (Cost) \$89,617	Cum To Date (Cost) \$755,433	Start Depth (ftKB) 7,782	Start Depth (TVD) (ft... 7,768	End Depth (ftKB) 7,782	End Depth (TVD) (ft... 7,768	Depth Progress (ft) 0	Drilling Hours (hr)	Avg ROP (ft/hr)
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6/28/2024

Current Status

See Hellfire East F 10HA report

24 Hour Summary

TOOH, Lay down BHA, Rig up Franks casing. Run 9 5/8" 40# L-80 GBCD casing and land, Circulate 1.1 casing capacities,

Time Log

Start Time	Dur (hr)	Cum Dur (hr)	Time Code	Operation Details
00:00	1.50	1.50	Circulating	Circulate CUC with full returns @ 800 GPM at 3 B/U shakers were clean. Pump & spot 300 bbls of starch pill.
01:30	0.50	2.00	Monitor Well	Flow check, well flowing @ 14 BPH, shut in annular pressure stabilized at 65 psi (EMW 9.6 ppg)
02:00	0.25	2.25	Monitor Well	Change out rotating head rubber.
02:15	2.75	5.00	TOOH	SOOH wet w/SLM F/7,780' T/3,764', pumping calculated strokes of 13.5 ppg mud on backside, no issues. Max drag 15-20k,
05:00	0.25	5.25	Monitor Well	Flow check, no flow
05:15	0.75	6.00	TOOH	TOOH F/ 3,764' T/ 2,600', filling backside with 9.4 ppg system mud. No Issues
06:00	1.00	7.00	TOOH	PJSM with day crew, Continue TOOH F/ 2,600' T/ 1,194' , Filling backside with calculated displacment with 9.4 ppg system mud. No issues.
07:00	0.25	7.25	Monitor Well	Flow check, no flow
07:15	0.25	7.50	NU/ND WH/XT	Pull rotating head and Install trip nipple.
07:30	1.50	9.00	TOOH	PJSM, TOOH F/ 1,194' T/ BHA, Racking back 5.5" HWDP and Drill collars. Filling backside with calculated displacment with 9.4 ppg system mud. No issues.
09:00	1.25	10.25	PU/LD BHA	PJSM, Lay down Stabelizers, Tool carrier, Drain mud motor, Motor drained good, No slack, Break bit, Lay down mud motor.
10:15	0.25	10.50	NU/ND WH/XT	Pull wear busing
10:30	0.25	10.75	Safety Mtg	Clean and clear rig floor after trip.
10:45	1.50	12.25	RU/RD	PJSM with casing crew and rig crew, Rig up Franks casing equipment, Rig up CRT tool.
12:15	8.50	20.75	Casing	PJSM on running casing, PU & MU 9-5/8" Pre bucked shoe track: Reaper Reamer shoe, 2 joints casing, float collar. and 3rd joint, Thread locking all. Fill shoe track & test float - good. Run 9-5/8" casing F/ surface T/ 7,420'. Casing taking weight. Filling on the fly and topping off every 20 joints. Note @ 5,000' torque reading was 4,000 ft/lbs, 3 BPM 115 psi, 10 RPM
20:45	1.50	22.25	Wash-Ream	Wash casing down from 7,420' to 7,780', casing hanger landed with 232K tension, verified by Cameron, out joints verified.
22:15	0.50	22.75	Casing	Hold PJSM, Rig down Franks CRT and rig up casing swage and lines to casing.
22:45	1.25	24.00	Circulating	Circulate 1.1 casing capacities at 7 bpm with weill shut in.

Mud Checks

Date 6/27/2024	Type Water	Depth (ftKB) 7,780	Density (lb/gal) 9.40	P Visc (psi)	ECD - Manual Entry (lb/... 10.00	Vis 100rpm 22	Vis 3rpm 18
Percent Water (%) 100.0	Percent Oil (%) 0.0	PV Override (cP) 4.0	YP Override (lb/100ft²) 23.0	Gel 10 min (lb/100ft²) 18	Gel 10 sec (lb/100ft²) 17	Gel 30 min (lb/100ft²) 19	Solids (%) 8.5
Oil Water Ratio 0/100	Electric Stab (V) 0.0	Chlorides (mg/L) 37,000	CaCl (ppm)	HTHP Filter Cake (1/32") 0	HTHP Filtrate (mL/30min) 0.0	High Gravity Solids (%) 0.0	Low Gravity Solids (%) 5.5
Date 6/27/2024	Type Water	Depth (ftKB) 7,780	Density (lb/gal) 9.40	P Visc (psi)	ECD - Manual Entry (lb/... 10.00	Vis 100rpm 17	Vis 3rpm 15
Percent Water (%) 100.0	Percent Oil (%) 0.0	PV Override (cP) 4.0	YP Override (lb/100ft²) 17.0	Gel 10 min (lb/100ft²) 15	Gel 10 sec (lb/100ft²) 14	Gel 30 min (lb/100ft²) 16	Solids (%) 8.5
Oil Water Ratio 0/100	Electric Stab (V) 0.0	Chlorides (mg/L) 36,000	CaCl (ppm)	HTHP Filter Cake (1/32") 0	HTHP Filtrate (mL/30min) 0.0	High Gravity Solids (%) 0.0	Low Gravity Solids (%) 5.6

Casing

Csg Des	Run Date	Set Depth (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)
Surface	5/30/2024	560.00	13 3/8	J-55	54.50
Inter 1	6/27/2024	7,765.00	9 5/8	L-80	40.00

Cement

Des	End Date	Top (ftKB)	Btm (ftKB)	Full Return?	Obj
Primary Cement	5/30/2024	29.50	560.00	Yes	
Primary Cement	6/28/2024	126.00	3,918.00	Yes	
Primary Cement	6/28/2024	4,019.00	7,765.00	Yes	



APACHE PARTNER REPORT
HELLFIRE EAST F 11HU

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Current Depth: 7,782
Report Date: 6/28/2024

Survey Data								
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Depart (ft)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)



APACHE PARTNER REPORT
HELLFIRE EAST F 11HU

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Current Depth: 7,782
Report Date: 6/29/2024

Apache Drilling Report								
Job Category LDR		Primary Job Type Land-Orig Drlg		Secondary Job Type Devel		Start Date 5/30/2024		
AFE Number 31-24-0060-DH		Total Depth (ftKB) 18,559.0		Target Depth (ftKB) 18,567		Target Formation WOLFCAMP B1		
Report #: 6 DFS: 4.07 DDFS: 3.16 Rig: H&P 268								
Day Total (Cost) \$458,708	Cum To Date (Cost) \$1,214,141	Start Depth (ftKB) 7,782	Start Depth (TVD) (ft...) 7,768	End Depth (ftKB) 7,782	End Depth (TVD) (ft...) 7,768	Depth Progress (ft) 0	Drilling Hours (hr)	Avg ROP (ft/hr)
6/29/2024								
Current Status See Hellfire East F 10HA report								
24 Hour Summary Laydown landing joing,set pack off and test seals, ND BOP, See Hellfire East F 10HA report								
Time Log								
Start Time	Dur (hr)	Cum Dur (hr)	Time Code	Operation Details				
00:00	0.50	0.50	Casing	PJSM, R/D circulating swage & 2" line, Lay Out L/J, C/O casing elevators to DP elevators				
00:30	1.00	1.50	NU/ND WH/XT	PJSM with Rig crew and Cameron, Set 13" pack-off & TA Plug. Test lower and upper seals and TA plug to 5000 psi for 5 min, Test good, Lay down tools, All casing valves closed and verified.				
01:30	0.50	2.00	NU/ND BOP	Nipple down quick connection on BOP, PJSM on walking rig, Rig release @ 02:00 hrs. from the Hellfire East F 11HU				
02:00	22.00	24.00		See Hellfire East F 10HA 1st Stage: Pumped spacer, lead, and tail with backside closed in. Displaced with FW, bumped plug at 19:38 hrs to 1430 psi from FCP of 850 psi at 4 bpm. Packer opened at 2400 psi, pressure fell to 2260 psi. Pressured up to 2530 psi for integrity test, good test. Bled back to bump pressure, packer took 1/4 bbl to inflate. Bled 4 bbls to zero, floats holding. Dropped opening cone, opened backside, proceeding to 2nd stage. 2nd Stage: Sleeve opened at 490 psi, pumped spacer, lead, and tail, got returns immediately after starting spacer. Displaced with FW, bumped 2nd stage at 2202 hrs to 2130 psi from 900 psi FCP @ 4 bpm. Good returns throughout, no spacer or cement to surface. Held pressure for 3 min, bled back, sleeve confirmed closed. RDMO cementers and offline tool, N/U plug and TA cap.				
Casing								
Csg Des		Run Date		Set Depth (ftKB)		OD (in)		Grade
Surface		5/30/2024		560.00		13 3/8		J-55
Inter 1		6/27/2024		7,765.00		9 5/8		L-80
Cement								
Des		End Date		Top (ftKB)		Btm (ftKB)		Full Return?
Primary Cement		5/30/2024		29.50		560.00		Yes
Primary Cement		6/28/2024		126.00		3,918.00		Yes
Primary Cement		6/28/2024		4,019.00		7,765.00		Yes
Survey Data								
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Depart (ft)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)



APACHE PARTNER REPORT
HELLFIRE EAST F 11HU

Page 1 of 2
Current Depth: 7,782
Report Date: 7/13/2024

Apache Drilling Report																	
Job Category LDR		Primary Job Type Land-Orig Drlg		Secondary Job Type Devel		Start Date 5/30/2024											
AFE Number 31-24-0060-DH		Total Depth (ftKB) 18,559.0		Target Depth (ftKB) 18,567		Target Formation WOLFCAMP B1											
Report #: 7 DFS: 18.07 DDFS: 4.16 Rig: H&P 268																	
Day Total (Cost) \$149,961		Cum To Date (Cost) \$1,364,102		Start Depth (ftKB) 7,782		Start Depth (TVD) (ft...) 7,768		End Depth (ftKB) 7,782		End Depth (TVD) (ft...) 7,768		Depth Progress (ft) 0		Drilling Hours (hr)		Avg ROP (ft/hr)	
7/13/2024																	
Current Status Drilling Rathole @ 7,769'																	
24 Hour Summary Walk Rig F/F 10HA T/F 11HU N/U BOP & Shell Test, P/U C&L BHA, TIH T/3,830' SIMOPS meeting, Troubleshoot Totco, Wash down T/DVT and Drill out, TIH T/4,210', Perform Csg Test T/1,500 psi (Washed power chokes), Swapped Totco Server,TIh T/7,662' (Top of float), Repairing Power Choke #2 (Washed downstream sleeve)																	
Time Log																	
Start Time		Dur (hr)		Cum Dur (hr)		Time Code		Operation Details									
00:00		0.50		0.50		Rig Skid/Walk		PJSM wth crew, Walk Rig 30' F/F 10HA T/F 11HU									
00:30		0.50		1.00		NU/ND BOP		N/U BOP with Cameron speed head, Hook up Turn buckles. Center BOP, Install buffer zones on PDS,									
01:00		0.25		1.25		BOP Test		Rig up test pump, Cameron tested break 250 psi low & 1500 psi high 5 minutes each - Good tests.									
01:15		0.25		1.50		NU/ND WH/XT		R/U TA pulling tools, Pull TA Plug and L/D, L/D 13" wear bushing pulling tool,									
01:30		0.25		1.75		NU/ND WH/XT		Pick up and Set 11" wear bushing, Lay down running tool.									
01:45		0.25		2.00		Safety Mtg		PJSM with Rig crew, Night WSL and Directional on Picking up BHA Hazards.									
02:00		1.75		3.75		PU/LD BHA		P/U C&L BHA, P/U Mud Motor (NOV 7/8, 5.7, 0.23 rev/gal with Float) and Test (Good), P/U NeoTork (locked), NM Stab, Flex PC, P/U RSS and M/U Bit (Varel EVOS613, SN - 4016369 w/6x14 jets, 0.902 tfa), Test RSS (Good), P/U Filter Sub and X-O									
03:45		1.50		5.25		TIH		TIH F/BHA T/3,266' (Strapping in the hole, Filling pipe every 30 stds, Hole giving good displacement)									
05:15		0.50		5.75		NU/ND WH/XT		Pull trip nipple and install rotating head.									
05:45		0.25		6.00		TIH		TIH T/3,830' (Strapping in the hole, Filling pipe every 30 stds, Hole giving good displacement)									
06:00		0.50		6.50		Safety Mtg		SIMOPS on offline cement operations with American Cement, Tank Solutions Roustabouts, H&P rig crew, NewPark Mud & Apache personnel.									
06:30		2.75		9.25		Rig Repair		TOTCO down trouble shoot same with TOTCO support, Support tech rebooted system and reloaded software, TOTCO system would not wits over to H&P OMRON system. Field tech in route. Team decision was made to TIH & D/O DV & test casing while waiting on TOTCO field tech to C/O TOTCO server box.									
09:15		0.25		9.50		TIH		TIH @ 30 FPM F/3,830' T/3,908', tagged cement @ 3,908'									
09:30		2.00		11.50		Drill-out Shoe Track		D/O cement @ 300 GPM, 5 RPM, 30 ROP 5K WOB F/3,908' T/3,917' (Top of DV) D/O DV @ 300 GPM, 5 RPM, 30 ROP 5K WOB F/3,917' T/3,920', Wash & Ream @ 300 GPM, 5 RPM, 30 ROP 5K WOB F/3,920' T/3,947' (10' below ECP) with no issues. Note; TOTCO tech on location @ 11:30 hrs.									
11:30		0.50		12.00		TIH		TIH @ 30 FPM F/3,947' T/ 4,210' with no issues.									
12:00		1.25		13.25		Test Csg		Fill DP,Flush through 2" kill line & chokes with F/W with upper pipe rams closed. Attempt to test casing & noticed pressure bleeding off when staging up to 1500 psi. Bled off pressure and checked all surface equipment, Found that both remote chokes were allowing pressure to leak past. Closed both manual valves upstream of both remote choke 1 & 2. Retest 9 5/8" 40# casing to 1500 psi for 30 minutes with a good test with a 20 psi (1.35%) pressure loss from 1500 psi to 1480 psi. Note; Called Iron Horse to repair chokes.									
13:15		1.00		14.25		Rig Repair		C/O TOTCO server box & reboot to connect with the H&P OMRON system.									
14:15		1.75		16.00		TIH		TIH w/SLM F/4,210' T/7,538' with good displacement & no issues Note: Iron Horse remote choke tech on location @ 15:00 hrs.Hold PJSM prior to repairing one remote choke at a time while TIH. # 1 remote choke had bad seals, seat & gate were good. # 2 remote choke had a cracked seat & small wash on the gate.									
16:00		0.50		16.50		Wash-Ream		Wash & Ream @ 300 GPM, 5 RPM, 30 ROP 5K WOB F/7,538' T/ 7,660' with no issues. Note; Replace bad seat & gate & seals on remote choke # 2									



APACHE PARTNER REPORT
HELLFIRE EAST F 11HU

Page 2 of 2
Current Depth: 7,782
Report Date: 7/13/2024

Time Log

Start Time	Dur (hr)	Cum Dur (hr)	Time Code	Operation Details
16:30	7.50	24.00	BOP Test	<p>Attempt to test Power choke # 2 with rig pump @ 250 psi low & 1500 psi high, test failed. Test Power choke # 1 with rig pump @ 250 psi low & 1500 psi high with a good test. Open up Power choke # 2 and inspect same & found the downstream sleeve had a small wash. Iron tech called for a sleeve, he did not have one with him. Apache drilling team was notified. Called out Battle tester to do a 3rd party test on repaired chokes. Wait on downstream Power choke sleeve from Iron Horse & Battle 3rd party tester. Iron horse on location @ 20:00 hrs, Removed Downstream Box and not able get sleeve out, talked to their shop and have whole new Downstream box sent out, Wait on part had to fabricate one to fit and send F/Monahans</p> <p>No Accidents, incidents or spills</p>

Mud Checks

Date 7/12/2024	Type Oil	Depth (ftKB) 7,780	Density (lb/gal) 10.20	P Visc (psi)	ECD - Manual Entry (lb/...	Vis 100rpm 16	Vis 3rpm 6
Percent Water (%) 25.1	Percent Oil (%) 74.9	PV Override (cP) 15.0	YP Override (lb/100ft²) 14.0	Gel 10 min (lb/100ft²) 14	Gel 10 sec (lb/100ft²) 9	Gel 30 min (lb/100ft²) 17	Solids (%) 14.5
Oil Water Ratio 74.9/25.1	Electric Stab (V) 367.0	Chlorides (mg/L) 0	CaCl (ppm)	HTHP Filter Cake (1/32") 2	HTHP Filtrate (mL/30min) 9.0	High Gravity Solids (%) 5.3	Low Gravity Solids (%) 7.2
Date 7/12/2024	Type Oil	Depth (ftKB) 7,780	Density (lb/gal) 10.80	P Visc (psi)	ECD - Manual Entry (lb/...	Vis 100rpm 20	Vis 3rpm 7
Percent Water (%) 25.3	Percent Oil (%) 74.7	PV Override (cP) 18.0	YP Override (lb/100ft²) 17.0	Gel 10 min (lb/100ft²) 16	Gel 10 sec (lb/100ft²) 11	Gel 30 min (lb/100ft²) 18	Solids (%) 17.0
Oil Water Ratio 74.7/25.3	Electric Stab (V) 322.0	Chlorides (mg/L) 0	CaCl (ppm)	HTHP Filter Cake (1/32") 2	HTHP Filtrate (mL/30min) 8.6	High Gravity Solids (%) 7.6	Low Gravity Solids (%) 7.5

Casing

Csg Des	Run Date	Set Depth (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)
Surface	5/30/2024	560.00	13 3/8	J-55	54.50
Inter 1	6/27/2024	7,765.00	9 5/8	L-80	40.00

Cement

Des	End Date	Top (ftKB)	Btm (ftKB)	Full Return?	Obj
Primary Cement	5/30/2024	29.50	560.00	Yes	
Primary Cement	6/28/2024	126.00	3,918.00	Yes	
Primary Cement	6/28/2024	4,019.00	7,765.00	Yes	

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Depart (ft)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)



APACHE PARTNER REPORT
HELLFIRE EAST F 11HU

Page 1 of 2
Current Depth: 8,897
Report Date: 7/14/2024

Apache Drilling Report

Job Category LDR	Primary Job Type Land-Orig Drlg	Secondary Job Type Devel	Start Date 5/30/2024
AFE Number 31-24-0060-DH	Total Depth (ftKB) 18,559.0	Target Depth (ftKB) 18,567	Target Formation WOLFCAMP B1

Report #: 8 DFS: 19.07 DDFS: 5.16 Rig: H&P 268

Day Total (Cost) \$115,799	Cum To Date (Cost) \$1,479,901	Start Depth (ftKB) 7,781	Start Depth (TVD) (ft...) 7,767	End Depth (ftKB) 8,897	End Depth (TVD) (ft...) 8,428	Depth Progress (ft) 1,133	Drilling Hours (hr) 13.93	Avg ROP (ft/hr) 81.4
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7/14/2024

Current Status

RSS Drilling 8 1/2" Lateral @ 10,175'

24 Hour Summary

Repairing Power Choke #2 (Washed downstream sleeve), Drilled Cement, Shoe Track and Rathole T/7,780', Drill New Formation T/7,790', Displace T/10.8 ppg OBM, Perfrom FIT T/12.4 ppg, Drill T/7,824' (KOP), Build Curve F/7,824' T/8,830', RSS Drill 8 1/2" Lateral F/8,830' T/8,903'

Time Log

Start Time	Dur (hr)	Cum Dur (hr)	Time Code	Operation Details
00:00	2.50	2.50	BOP Test	Downstream Box on location @ 00:09 hrs, install and Put everything back together on Choke Manifold, R/U Battle Tester and Test Power choke # 2 and all manifolds broken apart @ 250 psi low & 1500 psi high (Good)
02:30	3.75	6.25	Drill-out Shoe Track	Drill out cement, Shoe Track & start Rat Hole F/7,670' T/7,780' @ 390 GPM, 800 SPP, 10 RPM, 5-10K WOB, 4-8K TQ
06:15	0.25	6.50	Drilling	Drill 8.5" vertical hole F/7,780' T/7,790' @ 500 GPM, 1274 SPP, 10 RPM, 5-10K WOB, 4-8K TQ
06:30	1.00	7.50	Circulating	P/U & C/O hole to 10.8 ppg OBM @ 500 GPM (Calculate = 7,109 stks S/S, Actual = 7,338 stks S/S) Shut down & clean out pump back & gumbo box.
07:30	0.50	8.00	Circulating	Circulate 1 x B/U prior to performing planned LOT @ 500 GPM, 2011 SPP with no losses & no issues. Shut down & P/U 7,762' (3' inside of cased hole)
08:00	0.25	8.25	Monitor Well	Flow check (Static)
08:15	0.75	9.00	LOT/FIT	Pump through 2" kill line & choke with 10.8 ppg OBM. Close in well on upper pipe rams to perform planned LOT. Start pumping @ constant rate of .25 bpm. Caught pressure @ .75 bbls & started recording pressures every .25 bbls. Pressure broke over @ 730 psi SPP with 651 psi A/P (EMW of 12.4 ppg) Shut down and record pressure drops @ 1 minute increments for 10 minutes. Pressures stabilized @ 611 psi SPP with 518 psi A/P (EMW of 12.1 ppg) . Pumped a total of 3.25 bbls, bled off A/P & got back 2 bbls to the trip tank, lost 1.25 bbls to the hole
09:00	0.25	9.25	Monitor Well	Flow check (Static)
09:15	0.75	10.00	Drilling	Drill F/7,790' T/7,824' (Planned KOP) (34' @ 45.33 FPH), 500 GPM, 20k WOB, 30 RPM, 2,409 SPP, 4-6K TQ - MW 10.8 In/Out
10:00	13.50	23.50	Drilling	RSS Drill 8 1/2" Curve @ KOP F/7,824' T/8,830' (1,006' @ 76 fph) @ 550-600 GPM, 2,350-2,550 SPP, 200-700 DIFF, 10-38K WOB, 30-50 RPM, 6-12K TQ, P/U 235, S/O 195, ROT 215 - MW 10.8 ppg In/Out / 57 vis, No gains/ losses, Control drilling to assure BR's Landed curve @ 8,830' MD, 8,424' TVD, INC 87.8°, AZM 180.9°, 7' A, 6' L of DW #1
23:30	0.50	24.00	Drilling	RSS Drill 8 1/2" Lateral F/8,830' T/8,903' (73' @ 146 fph) @ 600-625 GPM, 2,650-2,850 SPP, 750 DIFF, 38-40K WOB, 50 RPM, 15-17K TQ, (currently on DW1) - MW 10.8 ppg/53 vis, No gains/ losses, - No accidents, incidents, no spills last 24 hrs

Mud Checks

Date 7/13/2024	Type Oil	Depth (ftKB) 7,780	Density (lb/gal) 10.80	P Visc (psi)	ECD - Manual Entry (lb/...	Vis 100rpm 20	Vis 3rpm 7
Percent Water (%) 25.3	Percent Oil (%) 74.7	PV Override (cP) 18.0	YP Override (lb/100ft²) 16.0	Gel 10 min (lb/100ft²) 16	Gel 10 sec (lb/100ft²) 11	Gel 30 min (lb/100ft²) 18	Solids (%) 17.0
Oil Water Ratio 74.7/25.3	Electric Stab (V) 322.0	Chlorides (mg/L) 0	CaCl (ppm)	HTHP Filter Cake (1/32") 2	HTHP Filtrate (mL/30min) 8.6	High Gravity Solids (%) 7.6	Low Gravity Solids (%) 7.5
Date 7/13/2024	Type Oil	Depth (ftKB) 8,204	Density (lb/gal) 10.80	P Visc (psi)	ECD - Manual Entry (lb/...	Vis 100rpm 17	Vis 3rpm 6
Percent Water (%) 27.1	Percent Oil (%) 72.9	PV Override (cP) 18.0	YP Override (lb/100ft²) 13.0	Gel 10 min (lb/100ft²) 12	Gel 10 sec (lb/100ft²) 9	Gel 30 min (lb/100ft²) 14	Solids (%) 16.9
Oil Water Ratio 72.9/27.1	Electric Stab (V) 374.0	Chlorides (mg/L) 0	CaCl (ppm)	HTHP Filter Cake (1/32") 2	HTHP Filtrate (mL/30min) 10.2	High Gravity Solids (%) 7.4	Low Gravity Solids (%) 7.4

Casing

Csg Des	Run Date	Set Depth (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)
Surface	5/30/2024	560.00	13 3/8	J-55	54.50
Inter 1	6/27/2024	7,765.00	9 5/8	L-80	40.00

Cement

Des	End Date	Top (ftKB)	Btm (ftKB)	Full Return?	Obj
Primary Cement	5/30/2024	29.50	560.00	Yes	
Primary Cement	6/28/2024	126.00	3,918.00	Yes	

Printed Date: 7/17/2024 Printed Time: 8:05 AM



APACHE PARTNER REPORT
HELLFIRE EAST F 11HU

Page 2 of 2
Current Depth: 8,897
Report Date: 7/14/2024

Cement

Des	End Date	Top (ftKB)	Btm (ftKB)	Full Return?	Obj
Primary Cement	6/28/2024	4,019.00	7,765.00	Yes	

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Depart (ft)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
8,465.00	60.10	181.21	8,331.10	63.41	-39.85	39.06	49.95	8.72
8,560.00	68.22	181.50	8,372.48	66.67	45.57	-46.35	47.93	8.55
8,655.00	76.75	181.35	8,401.04	144.26	136.08	-136.83	45.68	8.98
8,750.00	82.70	180.88	8,417.98	234.39	229.51	-230.25	43.86	6.28
8,845.00	87.84	180.90	8,425.81	327.64	324.16	-324.88	42.39	5.41



APACHE PARTNER REPORT
HELLFIRE EAST F 11HU

Page 1 of 1
Current Depth: 14,293
Report Date: 7/15/2024

Apache Drilling Report

Job Category LDR	Primary Job Type Land-Orig Drlg	Secondary Job Type Devel	Start Date 5/30/2024
AFE Number 31-24-0060-DH	Total Depth (ftKB) 18,559.0	Target Depth (ftKB) 18,567	Target Formation WOLFCAMP B1

Report #: 9 DFS: 20.07 DDFS: 6.16 Rig: H&P 268

Day Total (Cost) \$232,913	Cum To Date (Cost) \$1,712,814	Start Depth (ftKB) 8,967	Start Depth (TVD) (ft...) 8,430	End Depth (ftKB) 14,293	End Depth (TVD) (ft...) 8,468	Depth Progress (ft) 5,498	Drilling Hours (hr) 19.82	Avg ROP (ft/hr) 277.4
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7/15/2024

Current Status

RSS Drilling 8 1/2" Lateral @ 15,751'

24 Hour Summary

RSS Drill 8 1/2" Lateral F/8,903' T/12,008', Rig Service, RSS Drill 8 1/2" Lateral F/12,008' T/14,295'

Time Log

Start Time	Dur (hr)	Cum Dur (hr)	Time Code	Operation Details
00:00	6.00	6.00	Drilling	RSS Drill 8 1/2" Lateral F/8,903' T/10,175' (1,272' @ 212 fph) @ 625-650 GPM, 2,850-3,000 SPP, 750 DIFF, 38-43K WOB, 50-117 RPM, 12-14K TQ, P/U 238K, S/O 190K, Rot 212K (currently on DW1) - MW 10.8 ppg/53 vis, No gains/ losses,
06:00	7.50	13.50	Drilling	RSS Drill 8 1/2" Lateral F/10,175' T/12,008' (1,833' @ 244 fph) @ 650-675 GPM, 3,170-3,500 SPP OFF BTM, 600-800 DIFF, 43-45K WOB, 112-117 RPM, 12-16K TQ, P/U 255K, S/O 137K, Rot 197K (currently on DW2) - MW 10.8 ppg/53 vis, No gains/ losses,
13:30	0.50	14.00	Rig Serv	Rig service
14:00	10.00	24.00	Drilling	RSS Drill 8 1/2" Lateral F/12,008' T/14,295' (2,287' @ 228.7 fph) @ 650-675 GPM, 3,170-3,900 SPP, 600-800 DIFF, 43-45K WOB, 112-117 RPM, 12-18K TQ, P/U 265K, S/O 130K, Rot 203K (currently on DW2) - MW 10.8 ppg/53 vis, No gains/ losses, - No accidents, incidents, no spills last 24 hrs

Mud Checks

Date 7/14/2024	Type Oil	Depth (ftKB) 9,536	Density (lb/gal) 10.80	P Visc (psi)	ECD - Manual Entry (lb/...	Vis 100rpm 16	Vis 3rpm 5
Percent Water (%) 26.6	Percent Oil (%) 73.4	PV Override (cP) 16.0	YP Override (lb/100ft²) 12.0	Gel 10 min (lb/100ft²) 11	Gel 10 sec (lb/100ft²) 8	Gel 30 min (lb/100ft²) 13	Solids (%) 16.9
Oil Water Ratio 73.4/26.6	Electric Stab (V) 372.0	Chlorides (mg/L) 0	CaCl (ppm)	HTHP Filter Cake (1/32") 2	HTHP Filtrate (mL/30min) 10.2	High Gravity Solids (%) 7.4	Low Gravity Solids (%) 7.4
Date 7/14/2024	Type Oil	Depth (ftKB) 12,199	Density (lb/gal) 10.80	P Visc (psi)	ECD - Manual Entry (lb/...	Vis 100rpm 17	Vis 3rpm 6
Percent Water (%) 26.5	Percent Oil (%) 73.5	PV Override (cP) 16.0	YP Override (lb/100ft²) 14.0	Gel 10 min (lb/100ft²) 13	Gel 10 sec (lb/100ft²) 9	Gel 30 min (lb/100ft²) 15	Solids (%) 17.0
Oil Water Ratio 73.5/26.5	Electric Stab (V) 382.0	Chlorides (mg/L) 0	CaCl (ppm)	HTHP Filter Cake (1/32") 2	HTHP Filtrate (mL/30min) 10.2	High Gravity Solids (%) 7.3	Low Gravity Solids (%) 7.6

Casing

Csg Des	Run Date	Set Depth (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)
Surface	5/30/2024	560.00	13 3/8	J-55	54.50
Inter 1	6/27/2024	7,765.00	9 5/8	L-80	40.00

Cement

Des	End Date	Top (ftKB)	Btm (ftKB)	Full Return?	Obj
Primary Cement	5/30/2024	29.50	560.00	Yes	
Primary Cement	6/28/2024	126.00	3,918.00	Yes	
Primary Cement	6/28/2024	4,019.00	7,765.00	Yes	

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Depart (ft)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
13,887.00	90.20	181.12	8,466.18	5,365.13	5,365.13	-5,364.55	-78.78	0.95
13,982.00	89.49	180.74	8,466.44	5,460.13	5,460.12	-5,459.54	-80.32	0.85
14,077.00	89.34	180.78	8,467.41	5,555.12	5,555.12	-5,554.53	-81.58	0.16
14,172.00	90.20	181.27	8,467.79	5,650.12	5,650.12	-5,649.51	-83.28	1.04
14,267.00	90.01	181.18	8,467.61	5,745.12	5,745.12	-5,744.49	-85.31	0.22



APACHE PARTNER REPORT
HELLFIRE EAST F 11HU

Page 1 of 1
Current Depth: 18,559
Report Date: 7/16/2024

Apache Drilling Report

Job Category LDR	Primary Job Type Land-Orig Drlg	Secondary Job Type Devel	Start Date 5/30/2024
AFE Number 31-24-0060-DH	Total Depth (ftKB) 18,559.0	Target Depth (ftKB) 18,567	Target Formation WOLFCAMP B1

Report #: 10 DFS: 21.07 DDFS: 7.16 Rig: H&P 268

Day Total (Cost) \$211,926	Cum To Date (Cost) \$1,924,740	Start Depth (ftKB) 14,389	Start Depth (TVD) (ft... 8,468	End Depth (ftKB) 18,559	End Depth (TVD) (ft... 8,509	Depth Progress (ft) 4,156	Drilling Hours (hr) 15.88	Avg ROP (ft/hr) 261.7
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7/16/2024

Current Status
Backreaming @ 16,567'

24 Hour Summary
RSS Drill 8 1/2" Lateral F/14,295' T/16,114', Replace Swivel Packing, RSS Drill 8 1/2" Lateral F/16,114' T/18,559', Start CUC

Time Log

Start Time	Dur (hr)	Cum Dur (hr)	Time Code	Operation Details
00:00	6.00	6.00	Drilling	RSS Drill 8 1/2" Lateral F/14,295' T/15,751' (1,456' @ 242.7 fph) @ 675 GPM, 3,900 SPP, 600-800 DIFF, 45K WOB, 112-117 RPM, 18-22K TQ, P/U 265K, S/O 115K, Rot 203K (currently on DW2) - MW 10.8 ppg/53 vis, No gains/ losses,
06:00	2.00	8.00	Drilling	RSS Drill 8 1/2" Lateral F/15,751' T/16,114' (363' @ 181.5 fph) @ 675 GPM, 4,100 SPP OFF BTM, 500-700 DIFF, 45K WOB, 117 RPM, 18-23K TQ, P/U 266K, S/O 100K, ROT 198K (currently on DW2) - MW 10.8+ ppg/53 vis, No gains/ losses,
08:00	1.00	9.00	Rig Repair	R/U circulating swage. C/O bad swivel packing.
09:00	12.50	21.50	Drilling	RSS Drill 8 1/2" Lateral F/16,114' T/18,559' (2,445' @ 199' fph) @ 675-650 GPM, 4,250-4125 SPP, 500-700 DIFF, 45K WOB, 117 RPM, 19-23K TQ, P/U 277K, S/O 100K, ROT 198K (currently on DW3) - MW 11.0 ppg/53 vis, No gains/ losses,
21:30	2.50	24.00	Circulating	Take Final survey, Downlink tool to Center mode. Begin Clean up cycle, First BU stationary, Rack back stand every BU after, Reciprocate pipe @ 18 min per stand, RPM 70 up/120 down, 650 GPM, Starting 4,180 SPP, 9-10K TQ, 2 Notified TRRC of intent to set & cement 5.5" production casing @ 21:30 hrs 07/15/24. Spoke with Audrey Oper #2, Permit # 897941, TRRC Job # 399042 - No accidents, incidents, or spills last 24 hrs

Mud Checks

Date 7/15/2024	Type Oil	Depth (ftKB) 15,148	Density (lb/gal) 10.80	P Visc (psi)	ECD - Manual Entry (lb/... 18	Vis 100rpm 18	Vis 3rpm 6
Percent Water (%) 25.9	Percent Oil (%) 74.1	PV Override (cP) 16.0	YP Override (lb/100ft²) 13.0	Gel 10 min (lb/100ft²) 12	Gel 10 sec (lb/100ft²) 8	Gel 30 min (lb/100ft²) 14	Solids (%) 17.0
Oil Water Ratio 74.1/25.9	Electric Stab (V) 387.0	Chlorides (mg/L) 0	CaCl (ppm)	HTHP Filter Cake (1/32") 2	HTHP Filtrate (mL/30min) 10.0	High Gravity Solids (%) 7.4	Low Gravity Solids (%) 7.5
Date 7/15/2024	Type Oil	Depth (ftKB) 17,241	Density (lb/gal) 10.90	P Visc (psi)	ECD - Manual Entry (lb/... 19	Vis 100rpm 19	Vis 3rpm 7
Percent Water (%) 24.8	Percent Oil (%) 75.2	PV Override (cP) 17.0	YP Override (lb/100ft²) 16.0	Gel 10 min (lb/100ft²) 15	Gel 10 sec (lb/100ft²) 10	Gel 30 min (lb/100ft²) 18	Solids (%) 17.5
Oil Water Ratio 75.2/24.8	Electric Stab (V) 395.0	Chlorides (mg/L) 0	CaCl (ppm)	HTHP Filter Cake (1/32") 2	HTHP Filtrate (mL/30min) 8.0	High Gravity Solids (%) 7.8	Low Gravity Solids (%) 7.6

Casing

Csg Des	Run Date	Set Depth (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)
Surface	5/30/2024	560.00	13 3/8	J-55	54.50
Inter 1	6/27/2024	7,765.00	9 5/8	L-80	40.00

Cement

Des	End Date	Top (ftKB)	Btm (ftKB)	Full Return?	Obj
Primary Cement	5/30/2024	29.50	560.00	Yes	
Primary Cement	6/28/2024	126.00	3,918.00	Yes	
Primary Cement	6/28/2024	4,019.00	7,765.00	Yes	

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Depart (ft)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
18,262.00	89.52	182.02	8,506.43	9,739.55	9,739.55	-9,738.24	-159.85	1.11
18,358.00	89.27	181.44	8,507.44	9,835.54	9,835.54	-9,834.19	-162.75	0.66
18,453.00	89.98	181.52	8,508.06	9,930.53	9,930.53	-9,929.16	-165.20	0.75
18,534.00	89.52	181.59	8,508.42	10,011.53	10,011.52	-10,010.13	-167.40	0.57
18,559.00	89.52	181.59	8,508.63	10,036.52	10,036.52	-10,035.12	-168.09	0.00



APACHE PARTNER REPORT
HELLFIRE EAST F 11HU

Page 1 of 2
Current Depth: 18,559
Report Date: 7/17/2024

Apache Drilling Report

Job Category LDR	Primary Job Type Land-Orig Drlg	Secondary Job Type Devel	Start Date 5/30/2024
AFE Number 31-24-0060-DH	Total Depth (ftKB) 18,559.0	Target Depth (ftKB) 18,567	Target Formation WOLFCAMP B1

Report #: 11 DFS: 22.07 DDFS: 8.16 Rig: H&P 268

Day Total (Cost) \$508,638	Cum To Date (Cost) \$2,433,379	Start Depth (ftKB) 18,559	Start Depth (TVD) (ft...) 8,509	End Depth (ftKB) 18,559	End Depth (TVD) (ft...) 8,509	Depth Progress (ft) 0	Drilling Hours (hr)	Avg ROP (ft/hr)
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7/17/2024

Current Status

Running 5.5" P110 20# Freedom Prod csg @ 12,793'

24 Hour Summary

Finish CUC, Check Flow (Static), TOO H wet T/14,278', Pump Slug, TOO H T/RSS BHA & L/D, R/U and run 5 1/2" P110 20# & Freedom Prod Csg T/5,152'

Time Log

Start Time	Dur (hr)	Cum Dur (hr)	Time Code	Operation Details
00:00	4.00	4.00	Circulating	Cont. CUC Racking back stand every B/U T/18,097', Reciprocate pipe @ 18 min per stand, RPM 70 up/120 down, 650 GPM, Ending 3,950 SPP, 8-9K TQ, Pump 6 BU total, Downlink into Rib off
04:00	0.50	4.50	Monitor Well	Flow Check (Static)
04:30	1.00	5.50	TOOH	TOOH Wet F/18,097' T/16,650' (Tight spot @ 17,814' right at slip area, Washed and Reamed T/17,805', taking proper fill) Note: Hit tight spot @ 16,650', pulled 50K over and wouldn't break over, worked a few times (No Good)
05:30	0.50	6.00	Wash-Ream	Washed and Reamed F/16,650' T/16,567' @ 650 GPM, 50 RPM, 3,950 SPP, 8-11K TQ (no issues when backreamed through) Note: Decision made to Ream Back down and backream a few more before trying on elevators
06:00	0.25	6.25	Wash-Ream	Washed and Reamed F/16,650' T/16,567' @ 650 GPM, 50 RPM, 3,950 SPP, 8-11K TQ (no issues when backreamed through) Note: Back ground gas spiked to 5400 units, decision was made to circulate & finish getting a full B/U before continuing to back ream out of the hole.
06:15	0.50	6.75	Circulating	Circulate out B/U gas with no issues. Gas fell off from 5400 unit to 280 units on B/U with 11.0 ppg MW in/out and no signs of gas cut mud and no gains.
06:45	0.75	7.50	Wash-Ream	Back Reamed F/16,567' T/16,280' @ 600 GPM, 50 RPM, 3,000 SPP, 8-11K TQ (Back ground gas remained at 230-250 units & MW remained 11.0 ppg in/out with no issues when backreaming)
07:30	2.25	9.75	TOOH	TOOH wet on elevators w/SLM F/16,280' T/15,335' with erratic over pull spikes as much as 40k. TOO H wet on elevators w/SLM F/15,335' T/14,278' with a max drag of 20k with proper fill and no issues.
09:45	0.25	10.00	Circulating	Break circulation, verify communication with RSS, pump weighted slug.
10:00	4.00	14.00	TOOH	TOOH dry on elevators w/SLM F/14,278' T/7,515' with proper fill and no issues. Max drag 15-20k and no issues pulling through the curve @ 50 fpm.
14:00	0.25	14.25	Monitor Well	Check Flow (Static)
14:15	2.25	16.50	TOOH	TOOH F/7,515' T/502' (No issues, taking proper fill, strapping pipe)
16:30	0.25	16.75	NU/ND WH/XT	Pull Rot Head and Install Trip nipple
16:45	0.25	17.00	TOOH	TOOH F/502' T/RSS BHA (No issues, taking proper fill, strapping pipe)
17:00	0.25	17.25	Safety Mtg	PJSM with Rig crew, Tool Pusher, Day WSL and Directional on L/D BHA Hazards.
17:15	0.75	18.00	PU/LD BHA	L/D RSS BHA, Drain Mud Motor (Drained well), L/D NeoTork, NM Stab, NM Stiff PC, Break off RSS & Install Lift Sub, Break off Bit (Varel EVOS613 SN - 54016369 graded 1-3-CT-S-X-IN-WT-TD), L/D RSS
18:00	0.50	18.50	NU/ND WH/XT	Pull 11" wear busing, Clean Floor for Csg Run
18:30	0.25	18.75	Safety Mtg	PJSM With Butch's Casing & TT Crew, Patriot thread Rep, Rig Crew and Night WSL on R/U csg equipment
18:45	1.25	20.00	Casing	R/U Butch's 5 1/2" casing tools, TRQ turn equipment. Function test tools with a good test
20:00	0.25	20.25	Safety Mtg	PJSM With Butch's Csg & TT Crew, Patriot, Rig Crew and Night WSL on running csg
20:15	0.50	20.75	Casing	P/U & M/U 5 1/2" 20# P-110 CDC-HTQ bucked up shoe track (Shoe 2.20', Pup Jnt 19.62', Float Collar 1.31', Pup Jnt 19.64' = 42.77') & toe sleeve track (Pup Jnt 19.40', Toe Sleeve 2.63', Pup Jnt 18.86' = 40.89') to 83.66', Test floats (Good)
20:45	3.25	24.00	Casing	Run 112 Jnts (5,068.73) of 5 1/2" 20# P-110 RY Freedom casing F/84' T/5,152' (Proper displacement, no issues) Note: Filling on the fly and topping off every 20 jnts. putting Cent's on every other Jnt - No accidents, incidents, or spills last 24 hrs



APACHE PARTNER REPORT
HELLFIRE EAST F 11HU

Page 2 of 2
Current Depth: 18,559
Report Date: 7/17/2024

Mud Checks

Date 7/16/2024	Type Oil	Depth (ftKB) 18,559	Density (lb/gal) 11.00	P Visc (psi)	ECD - Manual Entry (lb/...	Vis 100rpm 18	Vis 3rpm 6
Percent Water (%) 24.9	Percent Oil (%) 75.1	PV Override (cP) 17.0	YP Override (lb/100ft²) 16.0	Gel 10 min (lb/100ft²) 15	Gel 10 sec (lb/100ft²) 9	Gel 30 min (lb/100ft²) 18	Solids (%) 17.8
Oil Water Ratio 75.1/24.9	Electric Stab (V) 406.0	Chlorides (mg/L) 0	CaCl (ppm)	HTHP Filter Cake (1/32") 2	HTHP Filtrate (mL/30min) 8.0	High Gravity Solids (%) 8.3	Low Gravity Solids (%) 7.4
Date 7/16/2024	Type Oil	Depth (ftKB) 18,559	Density (lb/gal) 11.10	P Visc (psi)	ECD - Manual Entry (lb/...	Vis 100rpm 20	Vis 3rpm 6
Percent Water (%) 25.0	Percent Oil (%) 75.0	PV Override (cP) 21.0	YP Override (lb/100ft²) 16.0	Gel 10 min (lb/100ft²) 16	Gel 10 sec (lb/100ft²) 10	Gel 30 min (lb/100ft²) 19	Solids (%) 18.0
Oil Water Ratio 75/25	Electric Stab (V) 460.0	Chlorides (mg/L) 0	CaCl (ppm)	HTHP Filter Cake (1/32") 2	HTHP Filtrate (mL/30min) 8.0	High Gravity Solids (%) 9.0	Low Gravity Solids (%) 6.9

Casing

Csg Des	Run Date	Set Depth (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)
Surface	5/30/2024	560.00	13 3/8	J-55	54.50
Inter 1	6/27/2024	7,765.00	9 5/8	L-80	40.00
Prod 1	7/16/2024	18,539.00	5 1/2	P-110 RY	20.00

Cement

Des	End Date	Top (ftKB)	Btm (ftKB)	Full Return?	Obj
Primary Cement	5/30/2024	29.50	560.00	Yes	
Primary Cement	6/28/2024	126.00	3,918.00	Yes	
Primary Cement	6/28/2024	4,019.00	7,765.00	Yes	

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Depart (ft)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
18,559.00	89.52	181.59	8,508.63	10,036.52	10,036.52	-10,035.12	-168.09	0.00



APACHE PARTNER REPORT
HELLFIRE EAST F 11HU

Page 1 of 1
Current Depth: 18,559
Report Date: 7/18/2024

Apache Drilling Report

Job Category LDR	Primary Job Type Land-Orig Drlg	Secondary Job Type Devel	Start Date 5/30/2024
AFE Number 31-24-0060-DH	Total Depth (ftKB) 18,559.0	Target Depth (ftKB) 18,567	Target Formation WOLFCAMP B1

Report #: 12 DFS: 23.07 DDFS: 8.41 Rig: H&P 268

Day Total (Cost) \$52,918	Cum To Date (Cost) \$2,486,297	Start Depth (ftKB) 18,559	Start Depth (TVD) (ft... 8,509	End Depth (ftKB) 18,559	End Depth (TVD) (ft... 8,509	Depth Progress (ft) 0	Drilling Hours (hr)	Avg ROP (ft/hr)
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7/18/2024

Current Status

24 Hour Summary
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Time Log

Start Time	Dur (hr)	Cum Dur (hr)	Time Code	Operation Details
00:00	6.00	6.00	Casing	Run 124 Jnts (5,645.24') of 5 1/2" 20# P-110 RY Freedom casing, MJ #1 (15.09'), 44 Jnts (1,980.44') of 5 1/2" 20# P-110 RY Freedom casing T/12,793' (Proper displacement, no issues) Note: Putting Cent's on every other Jnt T/EOC, Every Jnt to 500' into Inter. Csg, Every 4th T/6,500' and every Jnt T/5,000'

Casing

Csg Des	Run Date	Set Depth (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)
Surface	5/30/2024	560.00	13 3/8	J-55	54.50
Inter 1	6/27/2024	7,765.00	9 5/8	L-80	40.00
Prod 1	7/16/2024	18,539.00	5 1/2	P-110 RY	20.00

Cement

Des	End Date	Top (ftKB)	Btm (ftKB)	Full Return?	Obj
Primary Cement	5/30/2024	29.50	560.00	Yes	
Primary Cement	6/28/2024	126.00	3,918.00	Yes	
Primary Cement	6/28/2024	4,019.00	7,765.00	Yes	

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Depart (ft)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
18,559.00	89.52	181.59	8,508.63	10,036.52	10,036.52	-10,035.12	-168.09	0.00