

EP WELLS DAILY OPERATIONS REPORT

Report 14

12/11/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

Event Summary

Event Type	Drilling only	Event Start Date	10/08/2018	Days on Location	12.02
Objective	Drill - Alpha A2 Shale	Original Spud Date		Days Since Spud	2.75
Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	JC Palmer	Measured Depth(ft)	5,037.00
Engineer	Yermek Tynyshbayev	TVD(ft)	4,996.70
Other Supervisor	Justin Kibbey	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	9.625in@5,037.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.625in@
Actual cost to date/AFE	1,080,784/3,425,497.41	Current MW / BH EMW(ppg)	/
Actual divided by AFE	0.32	LOT/FIT EMW(ppg)	
Daily Cost	50,998	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	790	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	2

Safety Comments:

No HSE issues

UnCAAP- The crew held a seven step conversation before walking the rig. The crew discussed the plan and which roles each member would have. Communication was done through radio and lead by the rig manager. They talked about the hazards such as line of fire with walking feet and hydraulic lines. Also talked about pinch points and drops once rigging up lines and equipment. Checked all equipment and made sure area was cleared before starting.

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	12/11/2018	0	JSA's/Toolbox Talks Days Since Last Drill	13
Last BOP function test	11/27/2018	14		
Last BOP Test	12/18/2018			
Next BOP Test				

Operations Summary

24 Hour Summary
Walk rig over well center. Power up rig and nipple up BOP and test SRL seals, test good. Rig up and commission parts of NOVOS. Pick up BHA and trip in the hole.
Update Since Report Time
Drill out DV tool. Trip in hole to 4658'. Install rotating head.
24 Hour Forecast
Perform casing test and drill out shoe track. Drill ahead in 8.75" intermediate.

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Wellbore UNIVERSITY 20 TG UNIT 2702H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
10:30	1.50	INT1	WLK		5,037.00	0		Walk rig to 2702H well center.
12:00	0.50	INT1	RUP		5,037.00	0		Nipple up BOP and test SRL seals. Test both seals for 15 min, tests good.
12:30	0.50	INT1	RUP		5,037.00	0		Attach power lines, no suitcases on this well.
13:00	5.00	INT1	RUP		5,037.00	0		Rig up pvc lines, flare/panic lines, climb assist, geronimo, and transferlines. Attach accumulator lines and remove stack rabbit. Walk catwalk, raise v-door, install mousehole. Install wear bushing and assist Cameron with casing hanger. Program NOVOS with NOV techs. AAR- When walking rig to new well make sure rig is centered over wellhead prior to disconnecting stack rabbit.
18:00	3.50	INT1	RUP		5,037.00	0		Finish rigging up flare/panic line. Fill mud tanks, build kill mud, and sweeps.
21:30	0.50	INT1	SVC		5,037.00	0		Rig service top drive.
22:00	2.00	INT1	BHA		5,037.00	0		UnCAAP discussion with Phoenix, pick up BHA with NOV black box.
Total	13.50							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
4,441.00	1.34	77.82	4,400.85	502.20	-26.65	-489.51	0.81	PTW MWD+HDGM_2016
4,534.00	0.83	179.37	4,493.84	501.75	-25.58	-488.78	1.84	PTW MWD+HDGM_2016
4,722.00	1.01	127.86	4,681.82	499.37	-24.26	-486.13	0.43	PTW MWD+HDGM_2016
4,816.00	1.72	115.72	4,775.79	498.25	-22.33	-484.51	0.81	PTW MWD+HDGM_2016
4,967.00	1.63	108.83	4,926.73	496.58	-18.26	-481.76	0.15	PTW MWD+HDGM_2016

Fluid Details

Mud type MD (ft) Mud Density (ppg) Vis (s/qt) PV/YP (cp/lbf/100ft²) Gels 10 s/m (lbf/100ft²) API/HTHP WL (cc/30min) FC/HTHP FC (32nd") FL temp. (°F)	NaCl Brine	Oil/Water (%) TS/HGS/LGS (%) Sand (%) MBT (lbm/bbl) LCM (lbm/bbl) ECD (ppg) H2S (gas unit) KCl (%) Ditch Magnet in Last 24hrs/Cum. (gm)	pH/Pm (cc) Pf/Mf (cc) Ca+ (ppm) Cl- (ppm) R600/300 (°) R200/100 (°) R6/3 (°)
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Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)	Avg. trip gas (gas unit)	Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)	Max. trip gas (gas unit)	Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)	Avg H2S Gas (gas unit)	Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)	Max H2S Gas (gas unit)	Total Losses	0.00/0.00
		End vol. (bbl)	0.00

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	15,400.00	Gals	540.00
CNG	2,167.67	Gals	1,528.17

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Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H

Remarks

Trash Disposal: 0 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115

Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

From Pecos- From Major Intersection Hwy 302 at Hwy 285

Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

University 20 27 Pad Performance Project:

AFE: \$1.9m under

Days: 0 days over

University 20 PW 2702H Well Specific:

AFE: \$200k over

Days: .5 days under

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Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

Event Summary

Event Type	Drilling only	Event Start Date	10/08/2018	Days on Location	13.02
Objective	Drill - Alpha A2 Shale	Original Spud Date	10/18/2018	Days Since Spud	3.75
Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Bubba Palmer	Measured Depth(ft)	6,815.00
Engineer	Yermek Tynyshbayev	TVD(ft)	6,774.31
Other Supervisor	Justin Kibbey	24 Hr Progress(ft)	1,778.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	0.50/2.08	Last Casing MD	9.625in@5,037.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.625in@
Actual cost to date/AFE	1,134,113/3,425,497.41	Current MW / BH EMW(ppg)	9.50/
Actual divided by AFE	0.33	LOT/FIT EMW(ppg)	
Daily Cost	52,276	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	791	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	2

Safety Comments:

No HSE issues

UnCAAP- Held a seven step conversation with truck driver delivering OBM. Had the driver lead the conversation by explaining his plan and the hazards with unloading. Communication was a barrier due to language, brought in translator to make sure everything was understood. Checked hoses, attachments, and cleared area before starting job.

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	14
Last Derrick Inspection Last BOP function test Last BOP Test Next BOP Test	12/11/2018 11/27/2018 12/18/2018	1 15		

Operations Summary

24 Hour Summary
Drill out DV tool at 390'. Trip in hole and test casing at 1500psi for 30 min, good. Drill out float (4937') and shoe (5021'). Drill 8.75" intermediate from 5037' to 6815'.
Update Since Report Time
Drill ahead 8.75" intermediate to 7407'.
24 Hour Forecast
Continue to drill 8.75" intermediate.

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Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.50	INT1	BHA		5,037.00	0		Finish picking up 8 3/4" intermediate directional tools and trip in hole to 390'
0:30	1.00	INT1	DCM		5,037.00	0		Drill out DV tool
1:30	2.00	INT1	TIH		5,037.00	0		Trip in hole from 390' to 4880'
3:30	0.50	INT1	TIH		5,037.00	0		Install rotating head
4:00	1.00	INT1	TIH		5,037.00	0		Fill pipe and circulate bottoms up
5:00	1.00	INT1	FST		5,037.00	0		Test 9 5/8" casing to 1500 psi for 30 minutes (good test)
6:00	2.00	INT1	DCM		5,037.00	0		Drill out shoe track at 450 gpm and 20 rpms. Float collar at 4937' and shoe at 5039'.
8:00	4.50	INT1	DRL		5,540.00	0		Drill 8.75" intermediate from 5037' to 5540'
12:30	0.50	INT1	DRL		5,540.00	1		NPT-Identified a damaged/washed connection after connection. Laid down both singles.
13:00	2.00	INT1	DRL		5,822.00	0		Drill 8.75" intermediate from 5540' to 5822'
15:00	0.50	INT1	DRL		5,822.00	0		NOVOS commissioning
15:30	1.50	INT1	DRL		6,067.00	0		Drill 8.75" intermediate from 5822' to 6067'
17:00	1.00	INT1	DRL		6,114.00	0		Drill 8.75" intermediate from 6067' to 6114'. Test drill with NOVOS system.
18:00	6.00	INT1	DRL		6,815.00	0		Drill 8.75" intermediate from 6114' to 6815'.
Total	24.00							

NPT Summary

Start Date/Time	Responsible Company	NPT Code	Failure MD (ft)	Ops Code	Type*	Equipment Type	Net time (hr)	Gross time (hr)	Severity	Status
12/12/2018 12:30	WORKSTRINGS INTERNATIONAL LLC	Drillstring/B HA Bottom Hole Assembly	5,540.00	DRL	EN	Drill Pipe	0.50	0.50		OPEN
Description: Identified a damaged/washed connection after connection. Laid down both singles.						Title: Lay down damaged drill pipe				
Total							0.50	0.50		

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
6,025.00	1.26	100.28	5,984.51	494.99	3.02	-474.27	0.12	PTW MWD+HDGM_2016
6,212.00	1.35	93.45	6,171.46	494.49	7.24	-472.60	0.10	PTW MWD+HDGM_2016
6,399.00	1.31	105.39	6,358.41	493.79	11.50	-470.74	0.15	PTW MWD+HDGM_2016
6,587.00	1.10	103.12	6,546.37	492.81	15.33	-468.72	0.11	PTW MWD+HDGM_2016
6,773.00	1.37	108.47	6,732.33	491.70	19.18	-466.58	0.16	PTW MWD+HDGM_2016

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Wellbore UNIVERSITY 20 TG UNIT 2702H

Fluid Details

Mud type	NaCl Brine	Oil/Water (%)	0.00/92.50	pH/Pm (cc)	10.30/0.40
MD (ft)	6,007.00	TS/HGS/LGS (%)	0.20//	Pf/Mf (cc)	0.30/0.50
Mud Density (ppg)	9.50	Sand (%)		Ca+ (ppm)	
Vis (s/qt)	28.00			Cl- (ppm)	125,000
PV/YP (cp/lbf/100ft²)	1.00/3.000	MBT (lbm/bbl)			
Gels 10 s/m (lbf/100ft²)	1.000/1.000	LCM (lbm/bbl)			
API/HTHP WL (cc/30min)	100.0/	ECD (ppg)	9.810	R600/300 (°)	
FC/HTHP FC (32nd")	1.0/	H2S (gas unit)		R200/100 (°)	
		KCl (%)		R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)		Avg. trip gas (gas unit)		Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)		Max. trip gas (gas unit)		Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)		Avg H2S Gas (gas unit)		Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)		Max H2S Gas (gas unit)		Total Losses	0.00/0.00
				End vol. (bbl)	0.00

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	15,514.00	Gals	186.00
CNG	3,512.86	Gals	1,184.81

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
2	8.750	SMITH INTERNA	XS716			JN9756	7x10	5,037.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
5.5" DP	189	5,946.19	5.500			GPDS55			RIG
HWDP	12	366.65	7.250		4.000	GPDS55			RIG
GPDS55 Box x 4 1/2 IF Pin Crossover	1	1.04	7.000		3.000	4 1/2 IF			SXO1153
DC's	12	366.16	7.250		3.000	4 1/2 IF			RIG
Rental Crossover 650	1	2.95	6.690		2.810	4-1/2 XH			DR9030
Rental Screen Sub	1	3.25	6.380		3.250	4-1/2 XH			DR30029
Non Mag IBS w/ 8.5" Blades	1	6.81	8.500		281.000	4-1/2 XH			SD603754
Slick Collar	1	28.43	6.310		2.810	4-1/2 XH			DR9123
Non Mag IBS w/ 8.5" Blades	1	6.89	8.500		2.810	4-1/2 XH			SD26769
650 Gap Sub Assembly	1	3.60	6.500		3.940	4-1/2 XH			VG650220P TS
650 Centralizer Collar Assembly Velocity	1	8.52	6.560		4.490	4 1/2 IF			VC650294
650 Grounding Sub Assembly PHX (VL650216)	1	3.52	6.630		3.780	4 1/2 IF			VL650201
650 Crossover Sub PHX Velocity Crossover Sub	1	1.25	6.250		2.750	4-1/2 XH			VX650019

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Wellbore UNIVERSITY 20 TG UNIT 2702H

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
Pony Slick Collar Non-Mag - 6 1/2in 4 1/2 XH Pin x Box	1	13.47	6.380		2.880	4-1/2 XH			DR38328
Non Mag IBS w/ 8.5" blades	1	6.67	8.500		2.810	4-1/2 XH			SD603196
CROSSOVER	1	2.12	6.250			4-1/2 XH			NEXSEX007
EMS BLACKBOX TOOL	1	10.26	7.200		3.130	4 1/2 IF			EMS
CROSSOVER	1	3.49	6.380		2.940	4 1/2 IF			RIG
PHX FBH MUD MOTOR 7/8 LOBE. STAGE 5.7. SET @ 1.50°	1	32.56	8.500			4-1/2 XH			PHX-725025-PTS
RUN #1 BIT #2 8.75" SMITH XS716 (7X10's) SN: JN9756	1	1.17	8.750	8.750		4 1/2 IF			JN9756

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/12/2018 00:00		2	868.81		DRILL 8.75" INTERMEDIATE SECTION

Remarks

Trash Disposal: 0 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115

Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

From Pecos- From Major Intersection Hwy 302 at Hwy 285

Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

University 20 27 Pad Performance Project:

AFE: \$1.7m under

Days: 1 days under

University 20 PW 2702H Well Specific:

AFE: \$200k over

Days: 1 days under

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Report 16

12/13/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

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Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Bubba Palmer	Measured Depth(ft)	9,000.00
Engineer	Yermek Tynyshbayev	TVD(ft)	8,959.00
Other Supervisor	Justin Kibbey	24 Hr Progress(ft)	2,185.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	1.00/4.17	Last Casing MD	9.625in@5,037.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.625in@
Actual cost to date/AFE	1,193,180/3,425,497.41	Current MW / BH EMW(ppg)	9.45/
Actual divided by AFE	0.35	LOT/FIT EMW(ppg)	
Daily Cost	58,949	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	792	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	2

Safety Comments:

No HSE issues

UnCAAP- Precision safety made visit to discuss taking short cuts and consequences of performing work out of scope. The had a derrick man who discribed an incident in which he was cutting a bucket with box knife and stuck his leg. He had complications from it and share the rehab it has taken. The crew discussed taking pauses before starting any job and thinking about if there is a safer way to perform the job.

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	12/11/2018	2	JSA's/Toolbox Talks	15
Last BOP function test	11/27/2018	16	Days Since Last Drill	
Last BOP Test	12/18/2018			
Next BOP Test				

Operations Summary

24 Hour Summary
Drill 8.75" intermediate hole section from 6815' to 9000'.
Update Since Report Time
Drill ahead in 8.75" intermediate to 9250'
24 Hour Forecast
Continue drilling 8.75" intermediate hole section to casing point

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Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	6.00	INT1	DRL		7,660.00	0		Drill 8.75" intermediate from 6815' to 7660'
6:00	3.00	INT1	DRL		7,971.00	0		Drill 8.75" intermediate from 7660' to 7971'
9:00	0.50	INT1	SVC		7,971.00	0		Rig service
9:30	8.50	INT1	DRL		8,645.00	0		Drill 8.75" intermediate from 7971' to 8645'
18:00	5.00	INT1	DRL		9,000.00	0		Drill 8.75" intermediate from 8645' to 9000'
23:00	1.00	INT1	DRL		9,000.00	1		NPT Centarus- Lost CNG to generators causing shutdown. AAR- Make sure PRS is fully running before switching trailers. Also the plug on the trailers is power for the ESD and should avoid any bumping or touching, don't let driver hang hose from it.
Total	24.00							

NPT Summary

Start Date/Time	Responsible Company	NPT Code	Failure MD (ft)	Ops Code	Type*	Equipment Type	Net time (hr)	Gross time (hr)	Severity	Status
12/13/2018 23:00	CERTARUS USA LTD	Rig/Work Unit Misc	9,000.00	DRL	EN	Rig Generator		1.00		OPEN
Description: Driver did not let PRS that was shutdown to full get up and running before switching trailers. Also the plug by the EDS was bumped or touched causing the other PRS to shutdown.						Title: NPT Certarus- Fuel loss to generator.				
Total								1.00		

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
8,079.00	0.33	324.16	8,038.10	489.94	37.03	-459.88	0.21	PTW MWD+HDGM_2016
8,266.00	0.54	346.63	8,225.09	491.23	36.51	-461.27	0.14	PTW MWD+HDGM_2016
8,454.00	0.25	26.33	8,413.09	492.46	36.49	-462.46	0.20	PTW MWD+HDGM_2016
8,641.00	0.51	137.37	8,600.09	492.22	37.23	-462.01	0.34	PTW MWD+HDGM_2016
8,828.00	1.41	158.77	8,787.06	489.46	38.63	-458.97	0.51	PTW MWD+HDGM_2016

Fluid Details

Mud type	NaCl Brine	Oil/Water (%)	0.00/92.80	pH/Pm (cc)	10.50/0.40
MD (ft)	8,435.00	TS/HGS/LGS (%)	0.20//	Pf/Mf (cc)	0.30/0.60
Mud Density (ppg)	9.45	Sand (%)		Ca+ (ppm)	
Vis (s/qt)	28.00			Cl- (ppm)	120,000
PV/YP (cp/lbf/100ft²)	1.00/3.000	MBT (lbm/bbl)			
Gels 10 s/m (lb/100ft²)	1.000/1.000	LCM (lbm/bbl)			
API/HTHP WL (cc/30min)	100.0/	ECD (ppg)	9.680	R600/300 (°)	
FC/HTHP FC (32nd")	1.0/	H2S (gas unit)		R200/100 (°)	
		KCl (%)		R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)	Avg. trip gas (gas unit)	Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)	Max. trip gas (gas unit)	Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)	Avg H2S Gas (gas unit)	Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)	Max H2S Gas (gas unit)	Total Losses	0.00/0.00
		End vol. (bbl)	0.00

EP WELLS DAILY OPERATIONS REPORT

Report 16

12/13/2018

Well
WellboreUNIVERSITY 20 TG UNIT 2702H
UNIVERSITY 20 TG UNIT 2702H

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	15,426.00	Gals	88.00
CNG	3,486.20	Gals	2,556.66

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
2	8.750	SMITH INTERNA	XS716			JN9756	7x10	5,037.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
5.5" DP	189	8,131.19	5.500			GPDS55			RIG
HWDP	12	366.65	7.250		4.000	GPDS55			RIG
GPDS55 Box x 4 1/2IF Pin Crossover	1	1.04	7.000		3.000	4 1/2 IF			SXO1153
DC's	12	366.16	7.250		3.000	4 1/2 IF			RIG
Rental Crossover 650	1	2.95	6.690		2.810	4-1/2 XH			DR9030
Rental Screen Sub	1	3.25	6.380		3.250	4-1/2 XH			DR30029
Non Mag IBS w/ 8.5" Blades	1	6.81	8.500		281.000	4-1/2 XH			SD603754
Slick Collar	1	28.43	6.310		2.810	4-1/2 XH			DR9123
Non Mag IBS w/ 8.5" Blades	1	6.89	8.500		2.810	4-1/2 XH			SD26769
650 Gap Sub Assembly	1	3.60	6.500		3.940	4-1/2 XH			VG650220P TS
650 Centralizer Collar Assembly Velocity	1	8.52	6.560		4.490	4 1/2 IF			VC650294
650 Grounding Sub Assembly PHX (VL 650216)	1	3.52	6.630		3.780	4 1/2 IF			VL650201
650 Crossover Sub PHX Velocity Crossover Sub	1	1.25	6.250		2.750	4-1/2 XH			VX650019
Pony Slick Collar Non-Mag - 6 1/2in 4 1/2 XH Pin x Box	1	13.47	6.380		2.880	4-1/2 XH			DR38328
Non Mag IBS w/ 8.5" blades	1	6.67	8.500		2.810	4-1/2 XH			SD603196
CROSSOVER	1	2.12	6.250			4-1/2 XH			NEXSEX007
EMS BLACKBOX TOOL	1	10.26	7.200		3.130	4 1/2 IF			EMS
CROSSOVER	1	3.49	6.380		2.940	4 1/2 IF			RIG
PHX FBH MUD MOTOR 7/8 LOBE. STAGE 5.7. SET @ 1.50°	1	32.56	8.500			4-1/2 XH			PHX-725025 -PTS
RUN #1 BIT #2 8.75" SMITH XS716 (7X10's) SN: JN9756	1	1.17	8.750	8.750		4 1/2 IF			JN9756

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/12/2018 00:00		2	868.81		DRILL 8.75" INTERMEDIATE SECTION

Remarks

Trash Disposal: 0 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115

Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile

EP WELLS DAILY OPERATIONS REPORT

Report 16

12/13/2018

Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H

and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

From Pecos- From Major Intersection Hwy 302 at Hwy 285

Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

University 20 27 Pad Performance Project:

AFE: \$1.65m under

Days: 1.4 days under

University 20 PW 2702H Well Specific:

AFE: \$150k over

Days: 1.4 days under

EP WELLS DAILY OPERATIONS REPORT

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12/14/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

Event Summary

Event Type	Drilling only	Event Start Date	10/08/2018	Days on Location	15.02
Objective	Drill - Alpha A2 Shale	Original Spud Date	10/18/2018	Days Since Spud	5.75
Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Bubba Palmer	Measured Depth(ft)	9,292.00
Engineer	Yermek Tynyshbayev	TVD(ft)	9,250.89
Other Supervisor	Justin Kibbey	24 Hr Progress(ft)	292.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	1.50/6.25	Last Casing MD	9.625in@5,037.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.625in@
Actual cost to date/AFE	1,272,969/3,425,497.41	Current MW / BH EMW(ppg)	9.55/
Actual divided by AFE	0.37	LOT/FIT EMW(ppg)	
Daily Cost	79,789	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	793	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	

Safety Comments:

No HSE issues

UnCAAP-The SSE lead a seven step conversation for changing out BHA. He asked open ended question about the plan and how communication would be performed between the DD and floorhands. The hazards such as pinch points with the collar clamp and tongs were discussed. The crew made sure the floor was cleared of unnecessary tools and items before starting the job.

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	16
Last Derrick Inspection Last BOP function test Last BOP Test Next BOP Test	12/11/2018 11/27/2018 12/18/2018	3 17		

Operations Summary

24 Hour Summary
Drill 8.75" intermediate from 9000' to 9292'. Trip out of hole for bit change. Trip in hole to 4323'.
Update Since Report Time
Trip in hole to 4900'. Slip and cut 90'. Continue to trip in hole.
24 Hour Forecast
Trip to bottom and drill 8.75" intermediate to casing point.

EP WELLS DAILY OPERATIONS REPORT

Report 17

12/14/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	6.00	INT1	DRL		9,292.00	0		Drill 8.75" intermediate from 9000' to 9292'
								AAR- To remove the bolts on ST-80, cut the bottom of the brass bolt off, drill a hole through the middle. Use a 12 sided socket inserted in the hole. After that use a ratchet to take the brass bolt out. Don't use easy out as brass is too soft.
6:00	1.00	INT1	CDM		9,292.00	0		Circulate out sweep and flow check.
7:00	0.50	INT1	SVC		9,292.00	0		Rlg service HPU.
7:30	0.50	INT1	SVC		9,292.00	0		Troubleshoot rig floor HPU, route lines to operate with diesel HPU.
8:00	3.50	INT1	TOH		9,292.00	0		Trip out of hole from 9292' to 5352'
11:30	1.50	INT1	TOH		9,292.00	1		NPT-Repair rig floor HPU.
13:00	4.00	INT1	TOH		9,292.00	0		Trip out of hole with drill pipe from 5352' to 868'
17:00	1.00	INT1	TOH		9,292.00	0		Trip out of hole with drill collars from 868' to 500'
18:00	1.00	INT1	TOH		9,292.00	0		Trip out of hole with drill collars from 500' to BHA
19:00	2.00	INT1	BHA		9,292.00	0		UnCAAP with Phoenix and NOV. Change out bit and motor. Bit Grade: Smith XS716 S/N:JN9756 (8-8-LT-S-X-0-LM-PR)
21:00	3.00	INT1	TIH		9,292.00	0		Trip in hole to 4323'
Total	24.00							

NPT Summary

Start Date/Time	Responsible Company	NPT Code	Failure MD (ft)	Ops Code	Type*	Equipment Type	Net time (hr)	Gross time (hr)	Severity	Status
12/14/2018 11:30	PRECISION DRILLING COMPANY LP	Rig/Work Unit Misc	9,292.00	TOH	EN	Rig Engine	1.50	1.50	1	OPEN
Description: Coupling broke on unit, remove motor and replace.						Title: NPT Precision- Repair rig floor HPU				
Total							1.50	1.50		

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
8,454.00	0.25	26.33	8,413.09	492.46	36.49	-462.46	0.20	PTW MWD+HDGM_2016
8,641.00	0.51	137.37	8,600.09	492.22	37.23	-462.01	0.34	PTW MWD+HDGM_2016
8,828.00	1.41	158.77	8,787.06	489.46	38.63	-458.97	0.51	PTW MWD+HDGM_2016
9,015.00	1.57	129.65	8,974.00	485.68	41.43	-454.56	0.41	PTW MWD+HDGM_2016
9,201.00	1.66	112.96	9,159.92	483.00	45.88	-450.74	0.26	PTW MWD+HDGM_2016

Fluid Details

Mud type	NaCl Brine	Oil/Water (%)	0.00/93.20	pH/Pm (cc)	10.00/0.30
MD (ft)	9,292.00	TS/HGS/LGS (%)	1.90//	Pf/Mf (cc)	0.30/0.50
Mud Density (ppg)	9.55	Sand (%)		Ca+ (ppm)	
Vis (s/qt)	28.00			Cl- (ppm)	87,000
PV/YP (cp/lbf/100ft²)	1.00/3.000	MBT (lbm/bbl)			
Gels 10 s/m (lbf/100ft²)	1.000/1.000	LCM (lbm/bbl)			
API/HTHP WL (cc/30min)	100.0/	ECD (ppg)	9.550	R600/300 (°)	
FC/HTHP FC (32nd")	1.0/	H2S (gas unit)		R200/100 (°)	
		KCl (%)		R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

EP WELLS DAILY OPERATIONS REPORT

Report 17

12/14/2018

Well
WellboreUNIVERSITY 20 TG UNIT 2702H
UNIVERSITY 20 TG UNIT 2702H

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)	Avg. trip gas (gas unit)	Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)	Max. trip gas (gas unit)	Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)	Avg H2S Gas (gas unit)	Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)	Max H2S Gas (gas unit)	Total Losses	0.00/0.00
		End vol. (bbl)	0.00

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	15,071.00	Gals	355.00
CNG	3,180.73	Gals	2,835.47

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
2	8.750	SMITH INTERNA	XS716			JN9756	7x10	5,037.00	9,292.00	8-8-LT-S-X-I-LN-PR

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
5.5" DP	268	8,423.19	5.500			GPDS55			RIG
HWDP	12	366.65	7.250		4.000	GPDS55			RIG
GPDS55 Box x 4 1/2IF Pin Crossover	1	1.04	7.000		3.000	4 1/2 IF			SXO1153
DC's	12	366.16	7.250		3.000	4 1/2 IF			RIG
Rental Crossover 650	1	2.95	6.690		2.810	4-1/2 XH			DR9030
Rental Screen Sub	1	3.25	6.380		3.250	4-1/2 XH			DR30029
Non Mag IBS w/ 8.5" Blades	1	6.81	8.500		281.000	4-1/2 XH			SD603754
Slick Collar	1	28.43	6.310		2.810	4-1/2 XH			DR9123
Non Mag IBS w/ 8.5" Blades	1	6.89	8.500		2.810	4-1/2 XH			SD26769
650 Gap Sub Assembly	1	3.60	6.500		3.940	4-1/2 XH			VG650220P TS
650 Centralizer Collar Assembly Velocity	1	8.52	6.560		4.490	4 1/2 IF			VC650294
650 Grounding Sub Assembly PHX (VL650216)	1	3.52	6.630		3.780	4 1/2 IF			VL650201
650 Crossover Sub PHX Velocity Crossover Sub	1	1.25	6.250		2.750	4-1/2 XH			VX650019
Pony Slick Collar Non-Mag - 6 1/2in 4 1/2 XH Pin x Box	1	13.47	6.380		2.880	4-1/2 XH			DR38328
Non Mag IBS w/ 8.5" blades	1	6.67	8.500		2.810	4-1/2 XH			SD603196
CROSSOVER	1	2.12	6.250			4-1/2 XH			NEXSEX007
EMS BLACKBOX TOOL	1	10.26	7.200		3.130	4 1/2 IF			EMS
CROSSOVER	1	3.49	6.380		2.940	4 1/2 IF			RIG
PHX FBH MUD MOTOR 7/8 LOBE. STAGE 5.7. SET @ 1.50°	1	32.56	8.500			4-1/2 XH			PHX-725025 -PTS
RUN #1 BIT #2 8.75" SMITH XS716 (7X10's) SN: JN9756	1	1.17	8.750	8.750		4 1/2 IF			JN9756

EP WELLS DAILY OPERATIONS REPORT

Report 17

12/14/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/12/2018 00:00	12/14/2018 21:00	2	868.81		DRILL 8.75" INTERMEDIATE SECTION

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
3	8.750	NATIONAL OILWE	SKC713M			A250608	7x10	9,292.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
5.5" DP	268	8,422.86	5.500			GPDS55			RIG
HWDP	12	366.65	7.250		4.000	GPDS55			RIG
GPDS55 Box x 4 1/2IF Pin Crossover	1	1.04	7.000		3.000	4 1/2 IF			SXO1153
DC's	12	366.16	7.250		3.000	4 1/2 IF			RIG
Rental Crossover 650	1	2.95	6.690		2.810	4-1/2 XH			DR9030
Rental Screen Sub	1	3.25	6.380		3.250	4-1/2 XH			DR30029
Non Mag IBS w/ 8.5" Blades	1	6.81	8.500		281.000	4-1/2 XH			SD603754
Slick Collar	1	28.43	6.310		2.810	4-1/2 XH			DR9123
Non Mag IBS w/ 8.5" Blades	1	6.89	8.500		2.810	4-1/2 XH			SD26769
650 Gap Sub Assembly	1	3.58	6.500		3.940	4-1/2 XH			VG650224P TS
650 Centralizer Collar Assembly Velocity	1	8.54	6.560		4.490	4 1/2 IF			VC650310
650 Grounding Sub Assembly PHX (VL650216)	1	3.52	6.630		3.780	4 1/2 IF			VL650216
650 Crossover Sub PHX Velocity Crossover Sub	1	1.56	6.250		2.750	4-1/2 XH			VX650063
Pony Slick Collar Non-Mag - 6 1/2in 4 1/2 XH Pin x Box	1	13.47	6.380		2.880	4-1/2 XH			DR38328
Non Mag IBS w/ 8.5" blades	1	6.67	8.500		2.810	4-1/2 XH			SD603196
CROSSOVER	1	2.12	6.250			4-1/2 XH			NEXSEX007
EMS BLACKBOX TOOL	1	10.26	7.200		3.130	4 1/2 IF			EMS
CROSSOVER	1	3.49	6.380		2.940	4 1/2 IF			RIG
PHX FBH MUD MOTOR 7/8 LOBE. STAGE 8.5. SET @ 1.50°	1	32.90	8.500			4-1/2 XH			PHX-725046 -PTS
RUN #1 BIT #3 8.75" NOV SKC713M (7X10's) SN: A250608	1	0.85	8.750	8.750		4 1/2 IF			A250608

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/14/2018 21:00		3	1,737.95		DRILL 8.75" INTERMEDIATE SECTION

Remarks

Trash Disposal: 1000 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115
Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

EP WELLS DAILY OPERATIONS REPORT

Report 17

12/14/2018

Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H

From Pecos- From Major Intersection Hwy 302 at Hwy 285

Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

University 20 27 Pad Performance Project:

AFE: \$1.4m under

Days: 1 days over

University 20 PW 2702H Well Specific:

AFE: \$200k over

Days: .5 days under

EP WELLS DAILY OPERATIONS REPORT

Report 18

12/15/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

Event Summary

Event Type	Drilling only	Event Start Date	10/08/2018	Days on Location	16.02
Objective	Drill - Alpha A2 Shale	Original Spud Date	10/18/2018	Days Since Spud	6.75
Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Bubba Palmer	Measured Depth(ft)	10,897.00
Engineer	Yermek Tynyshbayev	TVD(ft)	10,855.25
Other Supervisor	Justin Kibbey	24 Hr Progress(ft)	1,605.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	9.625in@5,037.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.625in@
Actual cost to date/AFE	1,326,201/3,425,497.41	Current MW / BH EMW(ppg)	9.50/
Actual divided by AFE	0.39	LOT/FIT EMW(ppg)	
Daily Cost	51,701	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	794	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	2

Safety Comments:

No HSE issues

UnCAAP- Crew had a good UnCAAP discussion before slip and cutting drill line. The crew went over the plan discussing what each team members role would be and how they would accomplish it. Hazards such as metal burrs, hand and feet placement, and rotary equipment were made aware of. They placed all the tools need on the floor out of the way. The driller made sure the settings were correct on the drawworks.

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	12/11/2018	4	JSA's/Toolbox Talks	17
Last BOP function test	11/27/2018	18	Days Since Last Drill	
Last BOP Test	12/18/2018			
Next BOP Test				

Operations Summary

24 Hour Summary
Trip in hole to 4980' . Slip and cut drill line. Trip in hole to 9292', Drill 8.75" intermediate hole section to 10897'
Update Since Report Time
Drill 8.75" intermediate to 11250'.
24 Hour Forecast
Drill 8.75" intermediate hole section to TD at 11360'. Perform clean up cycles and trip out of hole laying down drill pipe.

EP WELLS DAILY OPERATIONS REPORT

Report 18

12/15/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.50	INT1	DRL		9,292.00	0		Trip in hole from 4380' to 4980'
0:30	1.00	INT1	CUT		9,292.00	0		Slip and cut drill line
1:30	2.50	INT1	TIH		9,292.00	0		Trip in hole from 4980' to 9187'
4:00	1.00	INT1	TIH		9,292.00	0		Wash and ream from 9187' to 9292'
5:00	11.50	INT1	DRL		10,204.00	0		Drill 8.75" intermediate from 9292' to 10,204'
16:30	0.50	INT1	SVC		10,204.00	0		Rig service
17:00	7.00	INT1	DRL		10,897.00	0		Drill 8.75" intermediate from 10,204' to 10897'
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
10,134.00	0.97	16.22	10,092.42	486.10	72.75	-446.18	0.74	PTW MWD+HDGM_2016
10,320.00	0.58	271.25	10,278.41	487.63	72.25	-447.79	0.67	PTW MWD+HDGM_2016
10,507.00	1.22	215.99	10,465.39	486.04	70.13	-446.86	0.54	PTW MWD+HDGM_2016
10,693.00	1.33	194.03	10,651.34	482.35	68.45	-443.78	0.27	PTW MWD+HDGM_2016
10,879.00	2.12	222.91	10,837.26	477.73	65.58	-440.16	0.62	PTW MWD+HDGM_2016

Fluid Details

Mud type	NaCl Brine	Oil/Water (%)	1.00/91.50	pH/Pm (cc)	9.70/0.30
MD (ft)	10,206.00	TS/HGS/LGS (%)	0.60//	Pf/Mf (cc)	0.20/0.50
Mud Density (ppg)	9.50	Sand (%)		Ca+ (ppm)	
Vis (s/qt)	28.00			Cl- (ppm)	120,000
PV/YP (cp/lbf/100ft²)	1.00/3.000	MBT (lbm/bbl)			
Gels 10 s/m (lbf/100ft²)	1.000/1.000	LCM (lbm/bbl)			
API/HTHP WL (cc/30min)	100.0/	ECD (ppg)	9.780	R600/300 (°)	
FC/HTHP FC (32nd")	1.0/	H2S (gas unit)		R200/100 (°)	
		KCl (%)		R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)	Avg. trip gas (gas unit)	Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)	Max. trip gas (gas unit)	Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)	Avg H2S Gas (gas unit)	Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)	Max H2S Gas (gas unit)	Total Losses	0.00/0.00
		End vol. (bbl)	0.00

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	14,521.00	Gals	550.00
CNG	1,463.00	Gals	1,717.73

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
3	8.750	NATIONAL OILWE	SKC713M			A250608	7x10	9,292.00		-----

EP WELLS DAILY OPERATIONS REPORT

Report 18

12/15/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
5.5" DP	268	10,027.86	5.500			GPDS55			RIG
HWDP	12	366.65	7.250		4.000	GPDS55			RIG
GPDS55 Box x 4 1/2 IF Pin Crossover	1	1.04	7.000		3.000	4 1/2 IF			SXO1153
DC's	12	366.16	7.250		3.000	4 1/2 IF			RIG
Rental Crossover 650	1	2.95	6.690		2.810	4-1/2 XH			DR9030
Rental Screen Sub	1	3.25	6.380		3.250	4-1/2 XH			DR30029
Non Mag IBS w/ 8.5" Blades	1	6.81	8.500		281.000	4-1/2 XH			SD603754
Slick Collar	1	28.43	6.310		2.810	4-1/2 XH			DR9123
Non Mag IBS w/ 8.5" Blades	1	6.89	8.500		2.810	4-1/2 XH			SD26769
650 Gap Sub Assembly	1	3.58	6.500		3.940	4-1/2 XH			VG650224P TS
650 Centralizer Collar Assembly Velocity	1	8.54	6.560		4.490	4 1/2 IF			VC650310
650 Grounding Sub Assembly PHX (VL 650216)	1	3.52	6.630		3.780	4 1/2 IF			VL650216
650 Crossover Sub PHX Velocity Crossover Sub	1	1.56	6.250		2.750	4-1/2 XH			VX650063
Pony Slick Collar Non-Mag - 6 1/2in 4 1/2 XH Pin x Box	1	13.47	6.380		2.880	4-1/2 XH			DR38328
Non Mag IBS w/ 8.5" blades	1	6.67	8.500		2.810	4-1/2 XH			SD603196
CROSSOVER	1	2.12	6.250			4-1/2 XH			NEXSEX007
EMS BLACKBOX TOOL	1	10.26	7.200		3.130	4 1/2 IF			EMS
CROSSOVER	1	3.49	6.380		2.940	4 1/2 IF			RIG
PHX FBH MUD MOTOR 7/8 LOBE. STAGE 8.5. SET @ 1.50°	1	32.90	8.500			4-1/2 XH			PHX-725046 -PTS
RUN #1 BIT #3 8.75" NOV SKC713M (7X10's) SN: A250608	1	0.85	8.750	8.750		4 1/2 IF			A250608

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/14/2018 21:00		3	869.14		DRILL 8.75" INTERMEDIATE SECTION

Remarks

Trash Disposal: 0 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115

Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

From Pecos- From Major Intersection Hwy 302 at Hwy 285

Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

University 20 27 Pad Performance Project:

AFE: \$1.4m under

Days: 1 days over

University 20 PW 2702H Well Specific:

AFE: \$200k over

EP WELLS DAILY OPERATIONS REPORT

Report 18 12/15/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Days: .5 days under

EP WELLS DAILY OPERATIONS REPORT

Report 19

12/16/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

Event Summary

Event Type	Drilling only	Event Start Date	10/08/2018	Days on Location	17.02
Objective	Drill - Alpha A2 Shale	Original Spud Date	10/18/2018	Days Since Spud	7.75
Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Bubba Palmer	Measured Depth(ft)	11,360.00
Engineer	Yermek Tynyshbayev	TVD(ft)	11,317.66
Other Supervisor	Justin Kibbey	24 Hr Progress(ft)	463.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	2.50/10.42	Last Casing MD	9.625in@5,037.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.625in@
Actual cost to date/AFE	1,381,043/3,425,497.41	Current MW / BH EMW(ppg)	9.50/
Actual divided by AFE	0.40	LOT/FIT EMW(ppg)	
Daily Cost	54,842	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	795	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	2

Safety Comments:

No HSE issue

UnCAAP-Field superintendent and UnCAAP coach joined for a seven step conversation before laying down drill pipe. The focus was that a 7 step conversation does not replace a JSA. Once they reviewed the JSA they went into a 7 step, outlining the plan, making sure the area was cleared of unnecessary items were removed from the drill floor. The hazards were pointed out by the crew such as line of fire when moving drill pipe to the trough and maintain good buffer zone around catwalk and loader. The floorhands checked the slips and ST-80 dies/keepers before starting the job.

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	18
Last Derrick Inspection Last BOP function test Last BOP Test Next BOP Test	12/11/2018 11/27/2018 12/18/2018	5 19		

Operations Summary

24 Hour Summary
Drill 8.75" intermediate to TD at 11360'. Perform clean up cycles, 600 gpm, 65 rpms, and 65 ft/hr. Repair HPU on the floor. Flow check, pump slug and trip out of the hole, laying down drill pipe to 4000'.
Update Since Report Time
Continue tripping out of hole to 600'.
24 Hour Forecast
Lay down BHA. Run 7.625" intermediate casing. Perform cement job.

EP WELLS DAILY OPERATIONS REPORT

Report 19

12/16/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	6.00	INT1	DRL		11,333.00	0		Drill 8.75" intermediate from 10897' to 11333'
6:00	1.00	INT1	DRL		11,360.00	0		Drill 8.75" intermediate from 11333' to 11360'
7:00	2.00	INT1	CBU		11,360.00	0		Perform clean up cycles, 600 gpm, 65 rpms, and 65 ft/hr.
9:00	0.50	INT1	SVC		11,360.00	0		Rig service
9:30	2.50	INT1	SVC		11,360.00	1		NPT-Repair rig floor HPU.
12:00	0.50	INT1	TOH		11,360.00	0		Flow check and pump slug.
12:30	1.00	INT1	TOH		11,360.00	0		Trip out hole from 11360' to 10764'.
13:30	1.00	INT1	TOH		11,360.00	0		UnCAAP with Shell personal, rig manager and crew. See safety section for details of meeting.
14:30	3.50	INT1	TOH		11,360.00	0		Trip out of hole laying down drill pipe from 10764 to 8656'
18:00	6.00	INT1	TOH		11,360.00	0		Trip out of hole laying down drill pipe from 8656' to 4335'
Total	24.00							

NPT Summary

Start Date/Time	Responsible Company	NPT Code	Failure MD (ft)	Ops Code	Type*	Equipment Type	Net time (hr)	Gross time (hr)	Severity	Status
12/16/2018 09:30	PRECISION DRILLING COMPANY LP	Rig/Work Unit Misc	11,360.00	SVC	EN	Rig Engine		2.50	1	OPEN
Description: The coupling on the HPU motor was damaged due to improper fit and need to be replaced.						Title: NPT Precision- HPU coupling damaged and replaced.				
Total								2.50		

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
10,879.00	2.12	222.91	10,837.26	477.73	65.58	-440.16	0.62	PTW MWD+HDGM_2016
11,066.00	2.89	217.87	11,024.08	471.48	60.33	-435.63	0.43	PTW MWD+HDGM_2016
11,253.00	2.75	219.40	11,210.86	464.29	54.59	-430.34	0.08	PTW MWD+HDGM_2016
11,280.00	3.59	220.50	11,237.81	463.15	53.63	-429.51	3.12	PTW MWD+HDGM_2016
11,360.00	3.50	220.00	11,317.66	459.37	50.43	-426.78	0.12	PTW MWD+HDGM_2016

Fluid Details

Mud type	NaCl Brine	Oil/Water (%)	0.00/92.50	pH/Pm (cc)	9.60/0.20
MD (ft)	11,360.00	TS/HGS/LGS (%)	0.60//	Pf/Mf (cc)	0.10/0.30
Mud Density (ppg)	9.50	Sand (%)		Ca+ (ppm)	
Vis (s/qt)	28.00			Cl- (ppm)	119,000
PV/YP (cp/lbf/100ft²)	1.00/3.000	MBT (lbm/bbl)			
Gels 10 s/m (lbf/100ft²)	1.000/1.000	LCM (lbm/bbl)			
API/HTHP WL (cc/30min)	100.0/	ECD (ppg)	9.500	R600/300 (°)	
FC/HTHP FC (32nd")	1.0/	H2S (gas unit)		R200/100 (°)	
		KCl (%)		R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

EP WELLS DAILY OPERATIONS REPORT

Report 19

12/16/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)	Avg. trip gas (gas unit)	Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)	Max. trip gas (gas unit)	Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)	Avg H2S Gas (gas unit)	Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)	Max H2S Gas (gas unit)	Total Losses	0.00/0.00
		End vol. (bbl)	0.00

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	14,571.00	Gals	150.00
CNG	1,668.33	Gals	2,324.67

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
3	8.750	NATIONAL OILW	SKC713M			A250608	7x10	9,292.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
5.5" DP	268	10,490.86	5.500			GPDS55			RIG
HWDP	12	366.65	7.250		4.000	GPDS55			RIG
GPDS55 Box x 4 1/2IF Pin Crossover	1	1.04	7.000		3.000	4 1/2 IF			SXO1153
DC's	12	366.16	7.250		3.000	4 1/2 IF			RIG
Rental Crossover 650	1	2.95	6.690		2.810	4-1/2 XH			DR9030
Rental Screen Sub	1	3.25	6.380		3.250	4-1/2 XH			DR30029
Non Mag IBS w/ 8.5" Blades	1	6.81	8.500		281.000	4-1/2 XH			SD603754
Slick Collar	1	28.43	6.310		2.810	4-1/2 XH			DR9123
Non Mag IBS w/ 8.5" Blades	1	6.89	8.500		2.810	4-1/2 XH			SD26769
650 Gap Sub Assembly	1	3.58	6.500		3.940	4-1/2 XH			VG650224P TS
650 Centralizer Collar Assembly Velocity	1	8.54	6.560		4.490	4 1/2 IF			VC650310
650 Grounding Sub Assembly PHX (VL650216)	1	3.52	6.630		3.780	4 1/2 IF			VL650216
650 Crossover Sub PHX Velocity Crossover Sub	1	1.56	6.250		2.750	4-1/2 XH			VX650063
Pony Slick Collar Non-Mag - 6 1/2in 4 1/2 XH Pin x Box	1	13.47	6.380		2.880	4-1/2 XH			DR38328
Non Mag IBS w/ 8.5" blades	1	6.67	8.500		2.810	4-1/2 XH			SD603196
CROSSOVER	1	2.12	6.250			4-1/2 XH			NEXSEX007
EMS BLACKBOX TOOL	1	10.26	7.200		3.130	4 1/2 IF			EMS
CROSSOVER	1	3.49	6.380		2.940	4 1/2 IF			RIG
PHX FBH MUD MOTOR 7/8 LOBE. STAGE 8.5. SET @ 1.50°	1	32.90	8.500			4-1/2 XH			PHX-725046 -PTS
RUN #1 BIT #3 8.75" NOV SKC713M (7X10's) SN: A250608	1	0.85	8.750	8.750		4 1/2 IF			A250608

EP WELLS DAILY OPERATIONS REPORT

Report 19

12/16/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/14/2018 21:00		3	869.14		DRILL 8.75" INTERMEDIATE SECTION

Remarks

Trash Disposal:0 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115

Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

From Pecos- From Major Intersection Hwy 302 at Hwy 285

Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

University 20 27 Pad Performance Project:

AFE: \$1.4m under

Days: 1.1 days over

University 20 PW 2702H Well Specific:

AFE: \$200k over

Days: .3 days under

EP WELLS DAILY OPERATIONS REPORT

Report 20

12/17/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

Event Summary

Event Type	Drilling only	Event Start Date	10/08/2018	Days on Location	18.02
Objective	Drill - Alpha A2 Shale	Original Spud Date	10/18/2018	Days Since Spud	8.75
Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Bubba Palmer	Measured Depth(ft)	11,360.00
Engineer	Yermek Tynyshbayev	TVD(ft)	11,317.66
Other Supervisor	Justin Kibbey	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	9.625in@5,037.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.625in@
Actual cost to date/AFE	1,768,224/3,425,497.41	Current MW / BH EMW(ppg)	9.50/
Actual divided by AFE	0.52	LOT/FIT EMW(ppg)	
Daily Cost	387,181	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	796	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	2

Safety Comments:

No HSE issues

UnCAAP: Crew had a 7 step conversation with Phoenix before laying down BHA. The plan was discussed on how it each piece would be laid down. They talked about the hazards of line of fire and pinch points while laying down the individual pieces. The crew checked the equipment before starting the job.

UnCAAP: The crew had a UnCAAP discussion with Franks before starting rig up and running casing. The crew first discussed the rig up. They made sure the items had tag line and the catwalk winch was used bringing up tongs. Made sure no one was under the loads before bringing up. The crew then discussed the casing job. They made sure that the casing crew understood the make up process. The hazards of tailing in casing and avoid standing in between the stump. Also made sure the pumps were locked out and tested. All casing tools were checked before usage.

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	19
Last Derrick Inspection Last BOP function test Last BOP Test Next BOP Test	12/11/2018 11/27/2018 12/18/2018	6 20		

Operations Summary

24 Hour Summary
Lay down drill pipe and directional BHA. Pick up shoe track and pump through. Run 7.625" 29.7# L80 BTC intermediate casing to 11343' (Shoe), float at 11247'. Rig up cement head and begin circulation.
Update Since Report Time

EP WELLS DAILY OPERATIONS REPORT

Report 20

12/17/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Finish circulation and finish rigging up cement lines on floor. Test lines 250psi low and 5000 psi high for 5 min. Pump 50 bbl dyed spacer, pump cement and displace with 517 bbl of brine. bump plug 500 psi over and test casing to 2500 psi for 30 min.

24 Hour Forecast

Install packoff, centerfuges, and BOP test. Finish cleaning tanks and fill with OBM. Pick up production BHA.

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.50	INT1	TOH		11,360.00	0		Trip out of hole laying down drill pipe from 4335' to 3900'
0:30	0.50	INT1	TOH		11,360.00	0		Trip in hole with 12 stands of drill pipe.
1:00	2.00	INT1	TOH		11,360.00	0		Trip out of hole laying down drill pipe from 3900' to 869'.
3:00	2.00	INT1	TOH		11,360.00	0		Trip out of hole laying down drill collars and HWDP.
5:00	1.00	INT1	BHA		11,360.00	0		UnCAAP with Phoenix and laydown directional.
6:00	1.00	INT1	BHA		11,360.00	0		Continue laying down directional tools.
7:00	1.50	INT1	BHA		11,360.00	0		Bit Grade: NOV SKC713M S/N:A250608 (2-2-WT-A-X-0-NP-TD) Clean rig floor of tools and mud. Lay down lift sub and crossovers.
8:30	1.50	INT1	RIC		11,360.00	0		UnCAAP with Franks and rig up casing tools.
10:00	8.00	INT1	CLR		11,360.00	0		Pick up 3 joint shoe track and test. Run 7.625" #29.7 BTC L80 intermediate casing to 7311'. Filling every 30 joints.
18:00	4.00	INT1	CLR		11,360.00	0		Run 7.625" #29.7 BTC L80 intermediate casing from 7311' to 11343.54" Land hanger in wellhead.
22:00	2.00	INT1	RCC		11,360.00	0		Install cement head and circulate casing volume. Rig down casing crew.
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
11,253.00	2.75	219.40	11,210.86	464.29	54.59	-430.34	0.08	PTW MWD+HDGM_2016
11,253.00	2.75	219.40	11,210.86	465.36	54.32	-431.44	0.08	PTW MWD+HDGM_2016
11,280.00	3.59	220.50	11,237.81	463.15	53.63	-429.51	3.12	PTW MWD+HDGM_2016
11,280.00	3.59	220.50	11,237.81	464.21	53.36	-430.61	3.12	PTW MWD+HDGM_2016
11,360.00	3.50	220.00	11,317.66	459.37	50.43	-426.78	0.12	PTW MWD+HDGM_2016

Fluid Details

Mud type	NaCl Brine	Oil/Water (%)	pH/Pm (cc)	9.50/0.20
MD (ft)	11,360.00	TS/HGS/LGS (%)	Pf/Mf (cc)	0.10/0.30
Mud Density (ppg)	9.50	Sand (%)	Ca+ (ppm)	
Vis (s/qt)	28.00		Cl- (ppm)	118,000
PV/YP (cp/lbf/100ft²)	1.00/3.000	MBT (lbm/bbl)		
Gels 10 s/m (lbf/100ft²)	1.000/1.000	LCM (lbm/bbl)		
API/HTHP WL (cc/30min)	100.0/	ECD (ppg)	R600/300 (°)	
FC/HTHP FC (32nd")	1.0/	H2S (gas unit)	R200/100 (°)	
		KCl (%)	R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)		

EP WELLS DAILY OPERATIONS REPORT

Report 20

12/17/2018

Well
WellboreUNIVERSITY 20 TG UNIT 2702H
UNIVERSITY 20 TG UNIT 2702H

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)	Avg. trip gas (gas unit)	Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)	Max. trip gas (gas unit)	Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)	Avg H2S Gas (gas unit)	Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)	Max H2S Gas (gas unit)	Total Losses	0.00/0.00
		End vol. (bbl)	0.00

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	13,567.00	Gals	1,004.00
CNG	1,875.97	Gals	2,322.36

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
3	8.750	NATIONAL OILW	SKC713M			A250608	7x10	9,292.00	11,360.00	2-2-WT-A-X-I-NO-TD

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
5.5" DP	268	10,490.86	5.500			GPDS55			RIG
HWDP	12	366.65	7.250		4.000	GPDS55			RIG
GPDS55 Box x 4 1/2IF Pin Crossover	1	1.04	7.000		3.000	4 1/2 IF			SXO1153
DC's	12	366.16	7.250		3.000	4 1/2 IF			RIG
Rental Crossover 650	1	2.95	6.690		2.810	4-1/2 XH			DR9030
Rental Screen Sub	1	3.25	6.380		3.250	4-1/2 XH			DR30029
Non Mag IBS w/ 8.5" Blades	1	6.81	8.500		281.000	4-1/2 XH			SD603754
Slick Collar	1	28.43	6.310		2.810	4-1/2 XH			DR9123
Non Mag IBS w/ 8.5" Blades	1	6.89	8.500		2.810	4-1/2 XH			SD26769
650 Gap Sub Assembly	1	3.58	6.500		3.940	4-1/2 XH			VG650224P TS
650 Centralizer Collar Assembly Velocity	1	8.54	6.560		4.490	4 1/2 IF			VC650310
650 Grounding Sub Assembly PHX (VL650216)	1	3.52	6.630		3.780	4 1/2 IF			VL650216
650 Crossover Sub PHX Velocity Crossover Sub	1	1.56	6.250		2.750	4-1/2 XH			VX650063
Pony Slick Collar Non-Mag - 6 1/2in 4 1/2 XH Pin x Box	1	13.47	6.380		2.880	4-1/2 XH			DR38328
Non Mag IBS w/ 8.5" blades	1	6.67	8.500		2.810	4-1/2 XH			SD603196
CROSSOVER	1	2.12	6.250			4-1/2 XH			NEXSEX007
EMS BLACKBOX TOOL	1	10.26	7.200		3.130	4 1/2 IF			EMS
CROSSOVER	1	3.49	6.380		2.940	4 1/2 IF			RIG
PHX FBH MUD MOTOR 7/8 LOBE. STAGE 8.5. SET @ 1.50°	1	32.90	8.500			4-1/2 XH			PHX-725046 -PTS
RUN #1 BIT #3 8.75" NOV SKC713M (7X10's) SN: A250608	1	0.85	8.750	8.750		4 1/2 IF			A250608

EP WELLS DAILY OPERATIONS REPORT

Report 20

12/17/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/14/2018 21:00	12/17/2018 07:00	3	869.14		DRILL 8.75" INTERMEDIATE SECTION

Remarks

Trash Disposal:0 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115

Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

From Pecos- From Major Intersection Hwy 302 at Hwy 285

Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

University 20 27 Pad Performance Project:

AFE: \$1.3m under

Days: 1.0 days over

University 20 PW 2702H Well Specific:

AFE: \$100k over

Days: .2 days under

EP WELLS DAILY OPERATIONS REPORT

Report 21

12/18/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

Event Summary

Event Type	Drilling only	Event Start Date	10/08/2018	Days on Location	19.02
Objective	Drill - Alpha A2 Shale	Original Spud Date	10/18/2018	Days Since Spud	9.75
Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Theron Knight	Measured Depth(ft)	11,360.00
Engineer	Yermek Tynyshbayev	TVD(ft)	11,317.66
Other Supervisor	Justin Kibbey	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	9.625in@5,037.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.625in@
Actual cost to date/AFE	1,874,581/3,425,497.41	Current MW / BH EMW(ppg)	/
Actual divided by AFE	0.55	LOT/FIT EMW(ppg)	
Daily Cost	82,130	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	797	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	2

Safety Comments:

No HSE issues

Assist and Assure: Held safety stand down with OSR, rig manager, crew, and third party due to multiple SIMOPS. Discussed OTZ and each specific task that was taken place. Made everyone aware of the specific zone owner and reiterate to each individual to stay in the zone they are working in.

Safety Discussion: Precision HSE supervisor visited the rig to speak to the crews about recent incidents on PD rigs. The focus was on people and persons and make sure to watch out for each other and ask questions when unsure of job task. Then we talked about hand injuries, watching hand placement and wearing impact gloves.

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	12/18/2018	0	JSA's/Toolbox Talks Days Since Last Drill	20
Last BOP function test	12/18/2018	0		
Last BOP Test	01/08/2019			
Next BOP Test				

Operations Summary

24 Hour Summary
Test lines 250psi low and 5000 psi high for 5 min. Pump 50 bbl dyed spacer, pump cement and displace with 517 bbl of brine. Bump plug 500 psi over and test casing to 2500 psi for 30 min. Install packoff and test. Remove 5.5" tools and install 4.5" saver subs and tools. Perform full BOP test with 4.5" drill pipe. Install wear bushing.
Update Since Report Time
Stage BHA, strap 4.5" drill pipe, and change bridge gate rubbers. Pick up 6.75" production BHA.

EP WELLS DAILY OPERATIONS REPORT

Report 21

12/18/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

24 Hour Forecast

Trip in hole and displace to OBM. Drill out shoe track and start 6.75" production curve.

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.50	INT1	RCC		11,360.00	0		Rig up cement lines on floor.
0:30	3.50	INT1	CEM		11,360.00	0		Perform cement job as per following schedule: Pressure test lines. Low: 250psi High: 5000psi. Pump spacer: 50bbl of fresh water with dye. Drop bottom plug Pump lead cement: 140 bbl of 10.5 ppg of Class C. Pump tail cement: 35 bbl at 14.5 ppg Class H. Drop plug. Pump displacement: 517 bbls of 9.6 ppg brine. Bumped plug on schedule at 500 psi over circulating pressure. Casing test: held 2500 psi for 30min. Floats held, 3.5 bbl back. TRRC Notified 12/16/18 at 8:00pm, Spoke with Audrey #2
4:00	2.00	INT1	CEM		11,360.00	0		Bullhead well and monitor well for flow.
6:00	1.50	INT1	LCH		11,360.00	0		Rig down cementers and lay down cement head, lines and restraints.
7:30	2.00	MNH1	RUP		11,360.00	0		Lay down casing landing joint. Make up pack off tool, set pack off, and test chart for 15 min.
9:30	3.00	MNH1	RUP		11,360.00	0		Laydown 5.5" handling tools and subs.
12:30	0.50	MNH1	RUP		11,360.00	0		Safety stand down with Shell, rig manager, crew, and third party. Discuss SIMOPS, Own The Zone, and remaining in you assigned area of work.
13:00	3.00	MNH1	RUP		11,360.00	0		Continue swapping top drive components for 4.5" drill pipe, stabbing guide, grabber dies, elevators, while cleaning mud tanks.
16:00	2.00	MNH1	BOP		11,360.00	0		Pick up 4.5" drill pipe and make up test plug. Start BOP testing. Continue cleaning pits.
18:00	1.00	MNH1	BOP		11,360.00	0		Safety stand down with PD field superintendent and HSE Advisors.
19:00	0.50	MNH1	BOP		11,360.00	0		Full pressure test on blow out preventer to: Annular: 250 psi low and 3500 psi high for 5 minutes Rams, kill side, and choke side: 250 psi low and 10000 psi high for 5 minutes
19:30	2.50	MNH1	BOP		11,360.00	0		Attempt to test surface lines, test failed. Change out swivel packing and 4 inch pump valve.
22:00	1.50	MNH1	BOP		11,360.00	0		Full pressure test on blow out preventer to: Mud lines: 250 psi low and 6800 psi high Blind rams: 250 psi low and 10000 psi high TIW and DART: 250 psi low and 10000 psi high for 5 minutes
23:30	0.50	MNH1	PUP		11,360.00	0		Rig down BOP tester. Pick up joint of drill pipe and install wear bushing.
Total	24.00							

NPT Summary

Start Date/Time	Responsible Company	NPT Code	Failure MD (ft)	Ops Code	Type*	Equipment Type	Net time (hr)	Gross time (hr)	Severity	Status
12/18/2018 19:30				BOP	EN		2.50	2.50		
Description: Unable to test surface lines during BOP test. Replace swivel pack and 4 inch valve on pumps.						Title: NPT Precision- Leaking swivel pack and 4 inch valve on pump.				
Total							2.50	2.50		

EP WELLS DAILY OPERATIONS REPORT

Report 21

12/18/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
11,253.00	2.75	219.40	11,210.86	464.29	54.59	-430.34	0.08	PTW MWD+HDGM_2016
11,253.00	2.75	219.40	11,210.86	465.36	54.32	-431.44	0.08	PTW MWD+HDGM_2016
11,280.00	3.59	220.50	11,237.81	463.15	53.63	-429.51	3.12	PTW MWD+HDGM_2016
11,280.00	3.59	220.50	11,237.81	464.21	53.36	-430.61	3.12	PTW MWD+HDGM_2016
11,360.00	3.50	220.00	11,317.66	459.37	50.43	-426.78	0.12	PTW MWD+HDGM_2016

Fluid Details

Mud type	NaCl Brine	Oil/Water (%)	pH/Pm (cc) Pf/Mf (cc) Ca+ (ppm) Cl- (ppm)
MD (ft)		TS/HGS/LGS (%)	
Mud Density (ppg)		Sand (%)	
Vis (s/qt)			
PV/YP (cp/lbf/100ft²)		MBT (lbm/bbl)	
Gels 10 s/m (lbf/100ft²)		LCM (lbm/bbl)	
API/HTHP WL (cc/30min)		ECD (ppg)	
FC/HTHP FC (32nd")		H2S (gas unit)	R600/300 (°)
		KCl (%)	R200/100 (°)
FL temp. (°F)			R6/3 (°)
		Ditch Magnet in Last 24hrs/Cum. (gm)	

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)	Avg. trip gas (gas unit)	Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)		Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)		Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)		Total Losses	0.00/0.00
		End vol. (bbl)	0.00

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	13,381.00	Gals	186.00
CNG	3,374.38	Gals	1,031.59

Remarks

Trash Disposal:0 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115

Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

From Pecos- From Major Intersection Hwy 302 at Hwy 285

Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

University 20 27 Pad Performance Project:

AFE: \$1.1m under

Days: .9 days over

University 20 PW 2702H Well Specific:

AFE: \$200k over

Days: 0 days under

EP WELLS DAILY OPERATIONS REPORT

Report 22

12/19/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

Event Summary

Event Type	Drilling only	Event Start Date	10/08/2018	Days on Location	20.02
Objective	Drill - Alpha A2 Shale	Original Spud Date	10/18/2018	Days Since Spud	10.75
Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Theron Knight	Measured Depth(ft)	11,360.00
Engineer	Yermek Tynyshbayev	TVD(ft)	11,317.66
Other Supervisor	Justin Kibbey	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	9.625in@5,037.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.625in@
Actual cost to date/AFE	1,950,839/3,425,497.41	Current MW / BH EMW(ppg)	13.40/
Actual divided by AFE	0.57	LOT/FIT EMW(ppg)	
Daily Cost	68,520	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	798	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	2

Safety Comments:

No HSE issues

Own the zone: Centerfuge hand suggested having an available buffer zone for track hoe and end dump when emptying cutting boxes. Set up cones and chains for when c

Assist and Assure: Crew held seven step conversation before moving OBM to pits. Discussed the plan on which frac tanks and the hose line up to mud pits. The derrickman and pit hand walked the line, checking connections and discharge point. Had individuals at the pump and discharge point that communicated through the radio to stop the job quickly.

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	12/18/2018	1	JSA's/Toolbox Talks	21
Last BOP function test	12/18/2018	1	Days Since Last Drill	
Last BOP Test	01/08/2019			
Next BOP Test				

Operations Summary

24 Hour Summary
Pick up 6.75" production BHA and trip in hole picking up 4.5" drill pipe. Install rotating head and displace to OBM.
Update Since Report Time
Tag float and drill at 11244' and shoe at 11338', hard cement in shoe track. Drill 6.75" production to 11386'.
24 Hour Forecast
Drill 6.75" production build section.

EP WELLS DAILY OPERATIONS REPORT

Report 22

12/19/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	2.00	MNH1	PUP		11,360.00	0		Stage and strap 4.5" drill pipe.
2:00	1.50	MNH1	BHA		11,360.00	0		UnCAAP with Phoenix, pick up production curve BHA.
3:30	2.50	MNH1	TIH		11,360.00	0		Trip in hole picking up 4.5" drill pipe to 1300'.
6:00	11.50	MNH1	TIH		11,360.00	0		Trip in hole picking up 4.5" drill pipe from 1300' to 9671', filling every 30 stands.
17:30	0.50	MNH1	TIH		11,360.00	0		Rig service top drive
18:00	4.00	MNH1	TIH		11,360.00	0		Trip in hole pick up 4.5" drill pipe from 9671' to 11150'. Install rotating head.
22:00	2.00	MNH1	DCM		11,360.00	0		Start displace of well to 13.2 ppg OBM. Pump at 175 gpm while washing down stand.
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
11,253.00	2.75	219.40	11,210.86	464.29	54.59	-430.34	0.08	PTW MWD+HDGM_2016
11,253.00	2.75	219.40	11,210.86	465.36	54.32	-431.44	0.08	PTW MWD+HDGM_2016
11,280.00	3.59	220.50	11,237.81	463.15	53.63	-429.51	3.12	PTW MWD+HDGM_2016
11,280.00	3.59	220.50	11,237.81	464.21	53.36	-430.61	3.12	PTW MWD+HDGM_2016
11,360.00	3.50	220.00	11,317.66	459.37	50.43	-426.78	0.12	PTW MWD+HDGM_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	57.00/18.00	POM (cc)	
MD (ft)	11,343.00	TS/HGS/LGS (%)	23.40/17.80/5.60	CaCl2 (%)	
Mud Density (ppg)	13.40	Sand (%)		Caom/Clom (ppm)	
Vis (s/qt)	107.00	Oil/Water Ratio (%)	76.00/24.00	ACT	
PV/YP (cp/lbf/100ft²)	25.00/11.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	
Gels 10 s/m (lbf/100ft²)	9.000/12.000	ECD (ppg)		ES (Volts)	
API/HTHP WL (cc/30min)	/9.0	H2S (gas unit)		R600/300 (°)	
FC/HTHP FC (32nd")	/2.0	KCl (%)		R200/100 (°)	
WPS (ppm)	231,181			R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)		Avg. trip gas (gas unit)		Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)		Max. trip gas (gas unit)		Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)		Avg H2S Gas (gas unit)		Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)		Max H2S Gas (gas unit)		Total Losses	0.00/0.00
				End vol. (bbl)	0.00

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	12,675.00	Gals	706.00
CNG	2,370.33	Gals	1,004.05

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
4	6.750	SECURITY DBS	GTD63C			13155689	6x11	11,360.00		-----

EP WELLS DAILY OPERATIONS REPORT

Report 22

12/19/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
Drill Pipe	1	9,586.43	4.500		4.000	DELTA 425			RIG
HWDP	15	475.00	5.250		2.810	DELTA 425			RIG
Drill Pipe (Drill Pipe)	39	1,200.00	5.250		3.000	DELTA 425			RIG
Delta 425 Box x 3 1/2 IF Pin Crossover	1	3.61	5.500		2.250	DELTA 425			WS26-11774
475 Filter Sub	1	2.99	4.750		2.250	3 1/2 IF			DR32636
475 Float Sub	1	3.53	4.750		2.380	3 1/2 IF			DR40023
475 NM Slick Collar	1	28.62	4.690		2.750	3 1/2 IF			DR27011
475 Velocity Gap Sub	1	3.76	5.060		2.380	3 1/2 IF			VG475190P TS
475 Velocity Centralizer Sub	1	8.34	5.060		3.630	4.3 ACME			VC475142
475 Velocity Landing Sub	1	3.41	5.250		3.140	4.3 ACME			VL475151
475 Velocity Crossover	1	1.63	5.000		2.380	3 1/2 IF			VX475096
475 Flex Pony	1	9.58	5.060		2.440	DS38			P518005
Mud Motor 513 24XH - PHX 5" 6/7 8.0 Sta. FBH @ 1.75° w	1	32.10	6.250			DS38			24XH51305 6
RUN #1 BIT #4 6.75" SECURITY GTD63C (6X11's) SN: 13155689	1	1.00	6.750	6.750		DS38			13155689

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/19/2018 02:00		4	573.57		DRILL 6.75" PRODUCTION HOLE

Remarks

Trash Disposal: 0 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115

Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

From Pecos- From Major Intersection Hwy 302 at Hwy 285

Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

University 20 27 Pad Performance Project: Update with new targets 12-18-18

AFE: \$1.6m under

Days: 6 days under

University 20 PW 2702H Well Specific:

AFE: \$100k under

Days: 1.5 days under

EP WELLS DAILY OPERATIONS REPORT

Report 23

12/20/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

Event Summary

Event Type	Drilling only	Event Start Date	10/08/2018	Days on Location	21.02
Objective	Drill - Alpha A2 Shale	Original Spud Date	10/18/2018	Days Since Spud	11.75
Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Theron Knight	Measured Depth(ft)	11,386.00
Engineer	Yermek Tynyshbayev	TVD(ft)	11,343.60
Other Supervisor	Tanner Manuel	24 Hr Progress(ft)	26.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	18.50/77.08	Last Casing MD	9.625in@5,037.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.625in@
Actual cost to date/AFE	2,026,192/3,425,497.41	Current MW / BH EMW(ppg)	13.10/
Actual divided by AFE	0.59	LOT/FIT EMW(ppg)	
Daily Cost	75,353	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	799	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							
No HSE issues							
UnCAAP: Discuss pulling out of hole after motor locked up. Unable to pump slug, string will have to be pulled wet. When motor comes to surface ensure to cover well, in-case anything is not 100% connected due to possible damage.							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	22
Last Derrick Inspection	12/18/2018	2		
Last BOP function test	12/18/2018	2		
Last BOP Test	01/08/2019			
Next BOP Test				

Operations Summary

24 Hour Summary
Finish displacing well to 13.2ppg oil based mud. Drill shoe track from 11,244' to 11,338'. Drill 6.75" production hole to 11'386'. Trip out of hole due to motor failure. Change out motor and MWD. Trip in hole.
Update Since Report Time
Drill 6.75" production hole to 11,490'.
24 Hour Forecast
Drill 6.75" production hole to heel of curve. Trip out of hole to pick up lateral BHA.

EP WELLS DAILY OPERATIONS REPORT

Report 23

12/20/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	1.00	MNH1	DCM		11,360.00	0		Start displace of well to 13.2 ppg OBM. Pump at 175 gpm while washing down stand.
1:00	2.00	MNH1	DCM		11,360.00	0		Tag cement at 11,240' and drill cement to 11,360'. Tagged float at 11,244' and shoe at 11,338'.
3:00	2.00	MNH1	DRL		11,386.00	0		Drill 6.75" production hole from 11,360' to 11,386'.
5:00	0.50	MNH1	SVC		11,386.00	0		Rig service: service top drive.
5:30	0.50	MNH1	TOH		11,386.00	1		NPT: Trip out of hole due to motor failure. Trip out of hole from 11,386' to 10,938
6:00	0.50	MNH1	TOH		11,386.00	1		NPT: Unclog drip pan due to pulling wet.
6:30	6.50	MNH1	TOH		11,386.00	1		NPT: Trip out of hole from from 10,938' to 98'.
13:00	1.50	MNH1	BHA		11,386.00	1		NPT: Lay down MWD tool and motor. Break off bit. AAR: discuss added actions taken due to pulling string wet. Highlight the importance of proper hand placement, footing, and body placement. Added hazards discussed due to using mud bucket on every stand, floor slippery due to OBM.
14:30	0.50	MNH1	BHA		11,386.00	1		NPT: Clean and clear rig floor.
15:00	0.50	MNH1	SVC		11,386.00	1		NPT: Rig service: service top drive.
15:30	2.00	MNH1	BHA		11,386.00	1		NPT: Pick up motor and MWD tool. Re-run bit.
17:30	0.50	MNH1	TIH		11,386.00	1		NPT: Trip in hole from 98' to 380'.
18:00	6.00	MNH1	TIH		11,386.00	1		NPT: Trip in hole from 380' to 11,386'.
Total	24.00							

NPT Summary

Start Date/Time	Responsible Company	NPT Code	Failure MD (ft)	Ops Code	Type*	Equipment Type	Net time (hr)	Gross time (hr)	Severity	Status
12/20/2018 05:30	PHOENIX TECHNOLOGY SERVICES USA INC	Directional (Motors/Tools)	11,386.00	TOH	EN	Mud Motor	18.50	18.50	1	OPEN
Description: Trip out of hole due to motor spikes, failure.						Title: Trip for motor failure.				
							Total	18.50	18.50	

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
11,253.00	2.75	219.40	11,210.86	464.29	54.59	-430.34	0.08	PTW MWD+HDGM_2016
11,253.00	2.75	219.40	11,210.86	465.36	54.32	-431.44	0.08	PTW MWD+HDGM_2016
11,280.00	3.59	220.50	11,237.81	463.15	53.63	-429.51	3.12	PTW MWD+HDGM_2016
11,280.00	3.59	220.50	11,237.81	464.21	53.36	-430.61	3.12	PTW MWD+HDGM_2016
11,360.00	3.50	220.00	11,317.66	459.37	50.43	-426.78	0.12	PTW MWD+HDGM_2016

EP WELLS DAILY OPERATIONS REPORT

Report 23

12/20/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Fluid Details

Mud type	Invermul	Oil/Water (%)	56.00/20.00	POM (cc)	1.81 528.0
MD (ft)	11,386.00	TS/HGS/LGS (%)	22.20/17.50/4.70	CaCl2 (%)	
Mud Density (ppg)	13.10	Sand (%)		Caom/Clom (ppm)	
Vis (s/qt)	77.00	Oil/Water Ratio (%)	73.70/26.30	ACT	
PV/YP (cp/lbf/100ft²)	25.00/9.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	
Gels 10 s/m (lbf/100ft²)	8.000/10.000	ECD (ppg)	13.100	ES (Volts)	
API/HTHP WL (cc/30min)	/6.0	H2S (gas unit)		R600/300 (°)	
FC/HTHP FC (32nd")		KCl (%)		R200/100 (°)	
WPS (ppm)	227,847			R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)	Avg. trip gas (gas unit)	Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)	Max. trip gas (gas unit)	Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)	Avg H2S Gas (gas unit)	Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)	Max H2S Gas (gas unit)	Total Losses	0.00/0.00
		End vol. (bbl)	0.00

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	11,554.00	Gals	1,121.00
CNG	3,201.05	Gals	1,699.28

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
4	6.750	SECURITY DBS	GTD63C			13155689	6x11	11,386.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
Drill Pipe	1	9,589.29	4.500		4.000	DELTA 425			RIG
HWDP	15	474.16	5.250		2.810	DELTA 425			RIG
Drill Pipe (Drill Pipe)	39	1,224.07	5.250		3.000	DELTA 425			RIG
Delta 425 Box x 3 1/2 IF Pin Crossover	1	3.61	5.500		2.250	DELTA 425			WS26-11774
475 Filter Sub	1	2.99	4.750		2.250	3 1/2 IF			DR32636
475 Float Sub	1	3.53	4.750		2.380	3 1/2 IF			DR40023
475 NM Slick Collar	1	28.62	4.690		2.750	3 1/2 IF			DR27011
475 Velocity Gap Sub	1	3.77	5.060		2.380	3 1/2 IF			VG475154P TS
475 Velocity Centralizer Sub	1	8.31	5.060		3.630	4.3 ACME			VC475129
475 Velocity Grounding Sub	1	3.43	5.250		3.140	4.3 ACME			VL475144
475 Velocity Crossover	1	1.62	5.000		2.380	3 1/2 IF			VX475091
475 Flex Pony	1	9.58	5.060		2.440	DS38			P518005
MUD MOTOR 513 24HX513021XH-PHX 5" 6/7 8.0	1	32.02	6.250			DS38			24XH51302 1

EP WELLS DAILY OPERATIONS REPORT

Report 23

12/20/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
RUN #2 BIT #4 6.75" SECURITY GTD63C (6X11's) SN: 13155689	1	1.00	6.750	6.750		DS38			13155689

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/20/2018 14:30		5	572.64		DRILL 6.75" PRODUCTION HOLE

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
4	6.750	SECURITY DBS	GTD63C			13155689	6x11	11,360.00	11,386.00	-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
Drill Pipe	1	9,612.43	4.500		4.000	DELTA 425			RIG
HWDP	15	475.00	5.250		2.810	DELTA 425			RIG
Drill Pipe (Drill Pipe)	39	1,200.00	5.250		3.000	DELTA 425			RIG
Delta 425 Box x 3 1/2 IF Pin Crossover	1	3.61	5.500		2.250	DELTA 425			WS26-11774
475 Filter Sub	1	2.99	4.750		2.250	3 1/2 IF			DR32636
475 Float Sub	1	3.53	4.750		2.380	3 1/2 IF			DR40023
475 NM Slick Collar	1	28.62	4.690		2.750	3 1/2 IF			DR27011
475 Velocity Gap Sub	1	3.76	5.060		2.380	3 1/2 IF			VG475190P TS
475 Velocity Centralizer Sub	1	8.34	5.060		3.630	4.3 ACME			VC475142
475 Velocity Landing Sub	1	3.41	5.250		3.140	4.3 ACME			VL475151
475 Velocity Crossover	1	1.63	5.000		2.380	3 1/2 IF			VX475096
475 Flex Pony	1	9.58	5.060		2.440	DS38			P518005
Mud Motor 513 24XH - PHX 5" 6/7 8.0 Sta. FBH @ 1.75" w	1	32.10	6.250			DS38			24XH51305 6
RUN #1 BIT #4 6.75" SECURITY GTD63C (6X11's) SN: 13155689	1	1.00	6.750	6.750		DS38			13155689

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/19/2018 02:00	12/20/2018 14:30	4	1,146.21		DRILL 6.75" PRODUCTION HOLE

Remarks

Trash Disposal:0 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115
Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

From Pecos- From Major Intersection Hwy 302 at Hwy 285
Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

EP WELLS DAILY OPERATIONS REPORT

Report 23 12/20/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

University 20 27 Pad Performance Project: Update with new targets 12-18-18
AFE: \$1.5m under
Days: 5.5 days under

University 20 PW 2702H Well Specific:
AFE: \$ Even
Days: .5 days under

EP WELLS DAILY OPERATIONS REPORT

Report 24

12/21/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

Event Summary

Event Type	Drilling only	Event Start Date	10/08/2018	Days on Location	22.02
Objective	Drill - Alpha A2 Shale	Original Spud Date	10/18/2018	Days Since Spud	12.75
Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Theron Knight	Measured Depth(ft)	12,203.00
Engineer	Yermek Tynyshbayev	TVD(ft)	11,859.33
Other Supervisor	Tanner Manuel	24 Hr Progress(ft)	817.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	24.00/100.00	Last Casing MD	9.625in@5,037.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.625in@
Actual cost to date/AFE	2,087,015/3,425,497.41	Current MW / BH EMW(ppg)	13.10/
Actual divided by AFE	0.61	LOT/FIT EMW(ppg)	
Daily Cost	60,823	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	800	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							
No HSE issues							
UnCAAP: Discuss changing out BHA from curve to lateral BHA. Ensure all lifting tools are OD and ID prior to use. Discuss added line of fire while laying down BHA in catwalk and picking up BHA out of catwalk.							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	23
Last Derrick Inspection				
Last BOP function test	12/18/2018	3		
Last BOP Test	12/18/2018	3		
Next BOP Test	01/08/2019			

Operations Summary

24 Hour Summary
Drill 6.75" curve from 11,386' to 12,203'. Circulate hole clean. Trip out of hole.
Update Since Report Time
Change out 6.75" curve BHA to 6.75" lateral BHA. Trip in hole to 2,162'.
24 Hour Forecast
Finish trip in hole. Slip and cut drill line at 7-5/8" shoe. Drill 6.75" production hole.

EP WELLS DAILY OPERATIONS REPORT

Report 24

12/21/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	6.00	MNH1	DRL		11,584.00	1		Drill 8.75" curve from 11,386' to 11,584'.
6:00	7.50	MNH1	DRL		12,054.00	1		Drill 8.75" curve from 11,584' to 12,054'.
13:30	0.50	MNH1	SVC		12,054.00	1		Rig service: service top drive.
14:00	3.50	MNH1	DRL		12,203.00	1		Drill 8.75" curve from 12,054' to 12,203'. (Land curve)
17:30	0.50	MNH1	CBU		12,203.00	1		Perform cleanup cycle prior to trip. 20 rpm and 350 gpm. 1 Openhole volume per ream down.
18:00	1.00	MNH1	CBU		12,203.00	1		Perform cleanup cycle prior to trip. 20 rpm and 350 gpm. 1 Openhole volume per ream down.
19:00	4.50	MNH1	TOH		12,203.00	1		Trip out of hole from 12,203' to 89'.
23:30	0.50	MNH1	BHA		12,203.00	1		Lay down 6.75" curve BHA.
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
11,907.00	55.73	173.27	11,771.02	198.69	53.35	-175.75	7.73	PTW MWD+HDGM_2016
12,001.00	64.94	169.88	11,817.51	118.02	65.41	-94.93	10.28	PTW MWD+HDGM_2016
12,096.00	77.06	166.87	11,848.38	30.23	83.56	-5.58	13.10	PTW MWD+HDGM_2016
12,148.00	83.75	165.50	11,857.05	-19.53	95.80	45.62	13.12	PTW MWD+HDGM_2016
12,203.00	91.50	165.00	11,859.33	-72.63	109.78	100.51	14.12	PTW MWD+HDGM_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	56.00/20.00	POM (cc)	
MD (ft)	11,580.00	TS/HGS/LGS (%)	22.10/17.50/4.70	CaCl2 (%)	
Mud Density (ppg)	13.10	Sand (%)		Caom/Clom (ppm)	
Vis (s/qt)	75.00	Oil/Water Ratio (%)	73.70/26.30	ACT	
PV/YP (cp/lbf/100ft²)	25.00/10.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	2.85
Gels 10 s/m (lb/100ft²)	9.000/11.000	ECD (ppg)	14.440	ES (Volts)	535.0
API/HTHP WL (cc/30min)	/6.0	H2S (gas unit)		R600/300 (°)	
FC/HTHP FC (32nd")	/2.0	KCl (%)		R200/100 (°)	
WPS (ppm)	237,213			R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)	Avg. trip gas (gas unit)	Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)	Max. trip gas (gas unit)	Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)	Avg H2S Gas (gas unit)	Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)	Max H2S Gas (gas unit)	Total Losses	0.00/0.00
		End vol. (bbl)	0.00

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	10,723.00	Gals	831.00
CNG	3,831.55	Gals	1,829.50

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
4	6.750	SECURITY DBS	GTD63C			13155689	6x11	11,386.00		-----

EP WELLS DAILY OPERATIONS REPORT

Report 24

12/21/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
Drill Pipe	1	10,406.29	4.500		4.000	DELTA 425			RIG
HWDP	15	474.16	5.250		2.810	DELTA 425			RIG
Drill Pipe (Drill Pipe)	39	1,224.07	5.250		3.000	DELTA 425			RIG
Delta 425 Box x 3 1/2 IF Pin Crossover	1	3.61	5.500		2.250	DELTA 425			WS26-11774
475 Filter Sub	1	2.99	4.750		2.250	3 1/2 IF			DR32636
475 Float Sub	1	3.53	4.750		2.380	3 1/2 IF			DR40023
475 NM Slick Collar	1	28.62	4.690		2.750	3 1/2 IF			DR27011
475 Velocity Gap Sub	1	3.77	5.060		2.380	3 1/2 IF			VG475154P TS
475 Velocity Centralizer Sub	1	8.31	5.060		3.630	4.3 ACME			VC475129
475 Velocity Grounding Sub	1	3.43	5.250		3.140	4.3 ACME			VL475144
475 Velocity Crossover	1	1.62	5.000		2.380	3 1/2 IF			VX475091
475 Flex Pony	1	9.58	5.060		2.440	DS38			P518005
MUD MOTOR 513 24HX513021XH-PHX 5" 6/7 8.0	1	32.02	6.250			DS38			24XH51302 1
RUN #2 BIT #4 6.75" SECURITY GTD63C (6X11's) SN: 13155689	1	1.00	6.750	6.750		DS38			13155689

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/20/2018 14:30		5	572.64		DRILL 6.75" PRODUCTION HOLE

Remarks

Trash Disposal:0 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115

Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

From Pecos- From Major Intersection Hwy 302 at Hwy 285

Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

University 20 27 Pad Performance Project: Update with new targets 12-18-18

AFE: \$1.5m under

Days: 5.5 days under

University 20 PW 2702H Well Specific:

AFE: \$ Even

Days: .5 days under

EP WELLS DAILY OPERATIONS REPORT

Report 25

12/22/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

Event Summary

Event Type	Drilling only	Event Start Date	10/08/2018	Days on Location	23.02
Objective	Drill - Alpha A2 Shale	Original Spud Date	10/18/2018	Days Since Spud	13.75
Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Theron Knight	Measured Depth(ft)	13,242.00
Engineer	Yermek Tynyshbayev	TVD(ft)	11,830.32
Other Supervisor	Tanner Manuel	24 Hr Progress(ft)	1,039.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	24.00/100.00	Last Casing MD	9.625in@5,037.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.625in@
Actual cost to date/AFE	2,147,883/3,425,497.41	Current MW / BH EMW(ppg)	13.40/
Actual divided by AFE	0.63	LOT/FIT EMW(ppg)	
Daily Cost	61,721	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	801	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							
No HSE issues							
UnCAAP: Discuss							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	12/18/2018	4	JSA's/Toolbox Talks	24
Last BOP function test	12/18/2018	4	Days Since Last Drill	
Last BOP Test	01/08/2019			
Next BOP Test				

Operations Summary

24 Hour Summary
Pick up 6.75" lateral BHA. Trip in hole. Slip and cut drill line. Drill 6.75" production hole from 12,203' to 13,242'. MWD failure (unable to receive gamma). Circulate bottoms up and trip out of hole from 13,242' to 8,320'.
Update Since Report Time
Finish trip out of hole. Change out MWD tool.
24 Hour Forecast
Trip in hole. Drill 6.75" production hole.

EP WELLS DAILY OPERATIONS REPORT

Report 25

12/22/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	2.50	MNH1	BHA		12,203.00	1		Change out 6.75" curve to 6.75" lateral BHA.
2:30	3.50	MNH1	TIH		12,203.00	1		Trip in hole with 6.75" lateral BHA to 5,706'.
6:00	3.50	MNH1	TIH		12,203.00	1		Trip in hole with 6.75" lateral BHA from 5,706' to 11,625'.
9:30	1.00	MNH1	CUT		12,203.00	1		Slip and cut 90' of drill line.
10:30	1.00	MNH1	TIH		12,203.00	1		Trip in hole with 6.75" lateral BHA from 11,625' to 12,203'. Washed last stand to bottom.
11:30	6.50	MNH1	DRL		12,203.00	1		Drill 6.75" production hole from 12,203' to 12,919'.
18:00	2.50	MNH1	DRL		13,242.00	1		Drill 6.75" production hole from 12,919' to 13,242'. AAR: discuss working on mud pump. Highlight the line of fire while working on pumps. Ensure all equipment is locked out and tagged out. Function test all equipment prior to working on them.
20:30	1.00	MNH1	CBU		13,242.00	1		NPT: Circulate bottoms up to trip out of hole due to MWD failure.
21:30	2.50	MNH1	TOH		13,242.00	1		NPT: Trip out of hole from 13,242' to 8,320'.
Total	24.00							

NPT Summary

Start Date/Time	Responsible Company	NPT Code	Failure MD (ft)	Ops Code	Type*	Equipment Type	Net time (hr)	Gross time (hr)	Severity	Status
12/22/2018 20:30	PHOENIX TECHNOLOGY SERVICES USA INC	Directional (MWD Measurement While Drilling/gyr o)	13,242.00	CBU	EN	MWD Tools	0.00	0.00		OPEN
Description: Unable to receive gamma, trip out of hole to change out MWD tool.						Title: Trip for MWD Failure.				
Total							0.00	0.00		

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
12,336.00	94.40	166.24	11,850.49	-202.26	138.26	232.92	2.66	PTW MWD+HDGM_2016
12,430.00	93.06	164.28	11,844.38	-292.97	162.12	326.68	2.52	PTW MWD+HDGM_2016
12,524.00	89.56	164.06	11,842.23	-383.36	187.75	420.64	3.73	PTW MWD+HDGM_2016
12,618.00	90.30	164.59	11,842.34	-473.87	213.15	514.63	0.97	PTW MWD+HDGM_2016
12,713.00	91.17	165.10	11,841.12	-565.55	237.98	609.60	1.06	PTW MWD+HDGM_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	52.00/22.00	POM (cc)	3.11 320.0
MD (ft)	12,203.00	TS/HGS/LGS (%)	23.60/17.10/6.60	CaCl2 (%)	
Mud Density (ppg)	13.40	Sand (%)	0.10	Caom/Clom (ppm)	
Vis (s/qt)	85.00	Oil/Water Ratio (%)	70.30/29.70	ACT	
PV/YP (cp/lbf/100ft²)	30.00/14.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	
Gels 10 s/m (lbf/100ft²)	10.000/17.000	ECD (ppg)	13.400	ES (Volts)	
API/HTHP WL (cc/30min)	/5.0	H2S (gas unit)		R600/300 (°)	
FC/HTHP FC (32nd")	/1.0	KCl (%)		R200/100 (°)	
WPS (ppm)	261,838	Ditch Magnet in Last 24hrs/Cum. (gm)		R6/3 (°)	
FL temp. (°F)					

EP WELLS DAILY OPERATIONS REPORT

Report 25

12/22/2018

Well
WellboreUNIVERSITY 20 TG UNIT 2702H
UNIVERSITY 20 TG UNIT 2702H

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)		Avg. trip gas (gas unit)		Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)		Max. trip gas (gas unit)		Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)		Avg H2S Gas (gas unit)		Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)		Max H2S Gas (gas unit)		Total Losses	0.00/0.00
				End vol. (bbl)	0.00

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	9,780.00	Gals	943.00
CNG	3,405.55	Gals	2,956.00

Remarks

Trash Disposal:0 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115

Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

From Pecos- From Major Intersection Hwy 302 at Hwy 285

Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

University 20 27 Pad Performance Project: Update with new targets 12-18-18

AFE: \$1.75m under

Days: 5 days under

University 20 PW 2702H Well Specific:

AFE: \$25k under

Days: days even

EP WELLS DAILY OPERATIONS REPORT

Report 26

12/23/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

Event Summary

Event Type	Drilling only	Event Start Date	10/08/2018	Days on Location	24.02
Objective	Drill - Alpha A2 Shale	Original Spud Date	10/18/2018	Days Since Spud	14.75
Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Theron Knight	Measured Depth(ft)	14,557.00
Engineer	Yermek Tynyshbayev	TVD(ft)	11,842.06
Other Supervisor	Tanner Manuel	24 Hr Progress(ft)	1,315.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	24.00/100.00	Last Casing MD	9.625in@5,037.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.625in@
Actual cost to date/AFE	2,252,551/3,425,497.41	Current MW / BH EMW(ppg)	13.05/
Actual divided by AFE	0.66	LOT/FIT EMW(ppg)	
Daily Cost	84,093	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	802	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							
No HSE issues							
UnCAAP: Discuss making up stands out of the catwalk while drilling production hole. Highlight line of fire hazards with tailing in pipe and inspecting single latch prior to lifting each joint.							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	25
Last Derrick Inspection	12/18/2018	5		
Last BOP function test	12/18/2018	5		
Last BOP Test	01/08/2019			
Next BOP Test				

Operations Summary

24 Hour Summary
Trip out of hole. Lay down MWD tool and pick up new MWD tool. Trip in hole. Relog from 12,959' to 13,242'. Drill 6.75" production hole from 13,242' to 14,557'.
Update Since Report Time
Drill 6.75" production hole from 14,557' to 14,939'.
24 Hour Forecast
Drill 6.75" production hole.

EP WELLS DAILY OPERATIONS REPORT

Report 26

12/23/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	3.50	MNH1	TOH		13,242.00	1		NPT: Trip out of hole from 8,320' to 95'.
3:30	1.00	MNH1	BHA		13,242.00	1		NPT: Lay down MWD tool.
4:30	1.00	MNH1	BHA		13,242.00	1		NPT: Pick up new MWD tool.
5:30	0.50	MNH1	TIH		13,242.00	1		NPT: Trip in hole from 95' to 2,000'.
6:00	6.00	MNH1	TIH		13,242.00	1		NPT: Trip in hole from 2,000' to 12,959'. AAR: discuss current trip. Positives: once out of hole and changed out MWD took time to clean and clear floor. Ensured all lifting subs were properly torqued prior to lifting and laying down tools.
12:00	2.00	MNH1	TIH		13,242.00	1		NPT: Wash and ream from 12,959' to 13,242' to log gamma.
14:00	3.50	MNH1	DRL		13,806.00	1		Drill 6.75" production hole from 13,242' to 13,806'.
17:30	0.50	MNH1	SVC		13,806.00	1		Rig service: service top drive.
18:00	6.00	MNH1	DRL		14,557.00	1		Drill 6.75" production hole from 13,806' to 14,557'.
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
14,124.00	89.99	159.33	11,840.06	-1,924.98	613.63	2,019.82	1.94	PTW MWD+HDGM_2016
14,218.00	89.53	159.54	11,840.45	-2,012.99	646.65	2,113.56	0.54	PTW MWD+HDGM_2016
14,312.00	89.84	158.73	11,840.97	-2,100.82	680.13	2,207.26	0.92	PTW MWD+HDGM_2016
14,406.00	89.68	158.02	11,841.36	-2,188.20	714.77	2,300.85	0.77	PTW MWD+HDGM_2016
14,500.00	89.68	161.45	11,841.89	-2,276.37	747.33	2,394.61	3.65	PTW MWD+HDGM_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	56.00/20.00	POM (cc)	
MD (ft)	13,030.00	TS/HGS/LGS (%)	22.50/16.90/5.50	CaCl2 (%)	
Mud Density (ppg)	13.05	Sand (%)		Caom/Clom (ppm)	
Vis (s/qt)	84.00	Oil/Water Ratio (%)	73.70/26.30	ACT	
PV/YP (cp/lbf/100ft²)	21.00/14.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	2.33
Gels 10 s/m (lbf/100ft²)	11.000/14.000	ECD (ppg)	15.610	ES (Volts)	350.0
API/HTHP WL (cc/30min)	/4.0	H2S (gas unit)		R600/300 (°)	
FC/HTHP FC (32nd")	/2.0	KCl (%)		R200/100 (°)	
WPS (ppm)	216,542			R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)	Avg. trip gas (gas unit)	Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)	Max. trip gas (gas unit)	Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)	Avg H2S Gas (gas unit)	Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)	Max H2S Gas (gas unit)	Total Losses	0.00/0.00
		End vol. (bbl)	0.00

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	14,334.00	Gals	2,449.00
CNG	6,122.55	Gals	2,343.00

EP WELLS DAILY OPERATIONS REPORT

Report 26

12/23/2018

Well
WellboreUNIVERSITY 20 TG UNIT 2702H
UNIVERSITY 20 TG UNIT 2702H

Remarks

Trash Disposal:0 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115

Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

From Pecos- From Major Intersection Hwy 302 at Hwy 285

Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

University 20 27 Pad Performance Project: Update with new targets 12-18-18

AFE: \$1.75m under

Days: 5 days under

University 20 PW 2702H Well Specific:

AFE: \$25k under

Days: days even

EP WELLS DAILY OPERATIONS REPORT

Report 27

12/24/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

Event Summary

Event Type	Drilling only	Event Start Date	10/08/2018	Days on Location	25.02
Objective	Drill - Alpha A2 Shale	Original Spud Date	10/18/2018	Days Since Spud	15.75
Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Theron Knight	Measured Depth(ft)	16,010.00
Engineer	Yermek Tynyshbayev	TVD(ft)	11,839.53
Other Supervisor	Tanner Manuel	24 Hr Progress(ft)	1,453.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	6.00/25.00	Last Casing MD	9.625in@5,037.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.625in@
Actual cost to date/AFE	2,311,217/3,425,497.41	Current MW / BH EMW(ppg)	13.10/
Actual divided by AFE	0.67	LOT/FIT EMW(ppg)	
Daily Cost	58,665	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	803	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							
No HSE issues							
UnCAAP conversation on backing in and hauling off OBM cuttings. Highlight that all trucks backing up must have a spotter. Discuss proper tools for the job including liner to be put on ground prior to removing cuttings.							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	26
Last Derrick Inspection	12/18/2018	6		
Last BOP function test	12/18/2018	6		
Last BOP Test	01/08/2019			
Next BOP Test				

Operations Summary

24 Hour Summary
Drill 6.75" production section from 14,557' to 16,010'. Trip out of hole from 16,010' to 1,500. due to decreased ROP and pressure spike.
Update Since Report Time
Finish trip out of hole and change out motor and bit. Trip in hole to '.
24 Hour Forecast
Trip in hole and drill 6.75" production hole.

EP WELLS DAILY OPERATIONS REPORT

Report 27

12/24/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	5.50	MNH1	DRL		15,124.00	0		Drill 6.75" production hole from 14,557' to 15,124'.
5:30	0.50	MNH1	SVC		15,124.00	0		Rig service: service top drive.
6:00	7.50	MNH1	DRL		15,832.00	0		Drill 6.75" production hole from 15,124' to 15,832'.
13:30	0.50	MNH1	DRL		15,832.00	0		Rig service: service top drive.
14:00	2.00	MNH1	DRL		15,992.00	0		Drill 6.75" production hole from 15,832' to 15,992'.
16:00	1.50	MNH1	DRL		15,992.00	0		Work on mud pump. Change out bolt on p-quip system. AAR: discuss working on #1 mud pump p-quip system. Ensure the pump is locked out and functioned prior to starting work. Positive: having all proper tools for the pump repair prepared prior to starting the job.
17:30	0.50	MNH1	DRL		16,010.00	0		Drill 6.75" production hole from 15,992' to 16,010'.
18:00	1.00	MNH1	CBU		16,010.00	1		NPT: Circulate and prepare to trip out of hole due to motor spike and ROP decrease. Downlink MWD tool. Flow check. Pump slug.
19:00	4.50	MNH1	TOH		16,010.00	1		NPT: Trip out of hole from 16,010' to 1,500'.
23:30	0.50	MNH1	TOH		16,010.00	1		NPT: Rig service: service top drive.
Total	24.00							

NPT Summary

Start Date/Time	Responsible Company	NPT Code	Failure MD (ft)	Ops Code	Type*	Equipment Type	Net time (hr)	Gross time (hr)	Severity	Status
12/24/2018 18:00	SHELL	Drillstring/B HA Bottom Hole Assembly	16,010.00	CBU	N		0.00	0.00		OPEN
Description: ROP decreased and motor stalled out.						Title: Trip out of hole for decrease in ROP.				
Total							0.00	0.00		

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
15,536.00	94.46	160.22	11,837.69	-3,263.19	1,060.02	3,429.52	2.99	PTW MWD+HDGM_2016
15,630.00	91.50	162.35	11,832.80	-3,352.08	1,090.14	3,523.29	3.88	PTW MWD+HDGM_2016
15,724.00	91.27	162.05	11,830.53	-3,441.56	1,118.86	3,617.23	0.40	PTW MWD+HDGM_2016
15,818.00	87.78	163.78	11,831.31	-3,531.39	1,146.47	3,711.20	4.14	PTW MWD+HDGM_2016
15,912.00	87.47	163.51	11,835.20	-3,621.51	1,172.92	3,805.12	0.44	PTW MWD+HDGM_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	POM (cc)
MD (ft)		TS/HGS/LGS (%)	CaCl2 (%)
Mud Density (ppg)	13.10	Sand (%)	Caom/Clom (ppm)
Vis (s/qt)		Oil/Water Ratio (%)	ACT
PV/YP (cp/lbf/100ft²)			XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)		LCM (lbm/bbl)	ES (Volts)
API/HTHP WL (cc/30min)		ECD (ppg)	R600/300 (°)
FC/HTHP FC (32nd")		H2S (gas unit)	R200/100 (°)
WPS (ppm)		KCl (%)	R6/3 (°)
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)	

EP WELLS DAILY OPERATIONS REPORT

Report 27

12/24/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)		Avg. trip gas (gas unit)		Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)		Max. trip gas (gas unit)		Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)		Avg H2S Gas (gas unit)		Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)		Max H2S Gas (gas unit)		Total Losses	0.00/0.00
				End vol. (bbl)	0.00

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	11,450.00	Gals	2,884.00
CNG	6,025.63	Gals	2,626.92

Remarks

Trash Disposal:0 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115

Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

From Pecos- From Major Intersection Hwy 302 at Hwy 285

Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

University 20 27 Pad Performance Project: Update with new targets 12-18-18

AFE: \$2m under

Days: 4.75 days under

University 20 PW 2702H Well Specific:

AFE: \$50k under

Days: .25 days over

EP WELLS DAILY OPERATIONS REPORT

Report 28

12/25/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

Event Summary

Event Type	Drilling only	Event Start Date	10/08/2018	Days on Location	26.02
Objective	Drill - Alpha A2 Shale	Original Spud Date	10/18/2018	Days Since Spud	16.75
Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Tanner Manuel	Measured Depth(ft)	17,383.00
Engineer	Yermek Tynyshbayev	TVD(ft)	11,853.43
Other Supervisor	Cade Pilcher	24 Hr Progress(ft)	1,373.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	11.00/45.83	Last Casing MD	9.625in@5,037.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.625in@
Actual cost to date/AFE	2,388,891/3,425,497.41	Current MW / BH EMW(ppg)	13.40/
Actual divided by AFE	0.70	LOT/FIT EMW(ppg)	
Daily Cost	77,675	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	12/18/2018		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	804	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	2569

Safety Comments:

No HSE issues

UnCAAP/Assist & Assure conversation: Step 7 discussion with drill crew on the plan to build stands in mousehole while drilling ahead; floor hands checked the single lift elevators; tongs position and rigging; rig floor was clear and air hoist operator had line of sight communication with the floor hand; floor hand stayed away and did not turn back to the rotary while making up the singles; Driller and floor hands all agreed that line of sight would be continuously kept while performing the task.

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	12/25/2018	0	JSA's/Toolbox Talks Days Since Last Drill	3
Last BOP function test	12/18/2018	7		
Last BOP Test	01/08/2019			
Next BOP Test				

Operations Summary

24 Hour Summary
Trip out of hole from 1,500' to surface due to decreased ROP and pressure spike. Break off 6.75" bit and lay down BHA ; Pick up new motor with 6.75" bit and trip in hole to 15877'; Wash & ream from 15877' to 16010'; Rotary and Slide drill from 16010' to 17383'
Update Since Report Time
0400 HRS: Drilling ahead at 17731'
24 Hour Forecast
Drill 6.75" production hole from 17383' to ~19900' target TD; Perform cleanup cycles as per procedure; Pull 5 stands wet monitoring well; Flow check; Pump slug and trip out of hole monitoring well on trip tank for proper fill

EP WELLS DAILY OPERATIONS REPORT

Report 28

12/25/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.50	MNH1	TOH		16,010.00	1		NPT: Trip out of hole from 1,500' to BHA.
0:30	2.00	MNH1	BHA		16,010.00	1		NPT: Lay down motor and bit. Pick up new motor and bit.
2:30	3.50	MNH1	TIH		16,010.00	1		NPT: Trip in hole BHA to 8,066'.
6:00	4.00	MNH1	TIH		16,010.00	1		NPT: Trip in hole from 8,066' to 15,877'.
10:00	0.50	MNH1	TIH		16,010.00	1		NPT: Dowlink MWD tool.
10:30	0.50	MNH1	TIH		16,010.00	1		NPT: Wash and ream from 15,877' to 16,010'.
11:00	6.50	MNH1	DRL		16,752.00	0		Drill 6.75" production hole from 16,010' to 16752'.
17:30	0.50	MNH1	SVC		16,752.00	0		Grease top drive and perform general rig service
18:00	6.00	MNH1	DRL		17,383.00	0		Drill 6.75" production hole from 16752' to 17383'
								*** 0000 - 0400 *** Drill 6.75" production hole from 17383' to 17731'
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
16,947.00	89.82	160.03	11,864.51	-4,618.92	1,444.14	4,838.57	2.64	PTW MWD+HDGM_2016
17,041.00	91.02	161.24	11,863.82	-4,707.60	1,475.31	4,932.43	1.81	PTW MWD+HDGM_2016
17,135.00	90.99	159.47	11,862.17	-4,796.11	1,506.90	5,026.25	1.88	PTW MWD+HDGM_2016
17,229.00	92.20	161.50	11,859.55	-4,884.67	1,538.29	5,120.06	2.51	PTW MWD+HDGM_2016
17,324.00	92.96	162.11	11,855.27	-4,974.82	1,567.93	5,214.91	1.03	PTW MWD+HDGM_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	55.00/19.00	POM (cc)	
MD (ft)	16,349.00	TS/HGS/LGS (%)	23.60//	CaCl2 (%)	
Mud Density (ppg)	13.40	Sand (%)		Caom/Clom (ppm)	
Vis (s/qt)	80.00	Oil/Water Ratio (%)	74.30/25.70	ACT	
PV/YP (cp/lbf/100ft²)	20.00/16.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	2.46
Gels 10 s/m (lbf/100ft²)	10.000/17.000	ECD (ppg)	15.600	ES (Volts)	806.0
API/HTHP WL (cc/30min)		H2S (gas unit)		R600/300 (°)	
FC/HTHP FC (32nd")	/2.0	KCl (%)		R200/100 (°)	
WPS (ppm)	295,794			R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)	Avg. trip gas (gas unit)	Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)	Max. trip gas (gas unit)	Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)	Avg H2S Gas (gas unit)	Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)	Max H2S Gas (gas unit)	Total Losses	0.00/0.00
		End vol. (bbl)	0.00

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	8,939.00	Gals	2,511.00
CNG	5,797.31	Gals	2,758.32

EP WELLS DAILY OPERATIONS REPORT

Report 28

12/25/2018

Well
WellboreUNIVERSITY 20 TG UNIT 2702H
UNIVERSITY 20 TG UNIT 2702H

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
8	6.750	BAKER HUGHES	DD406T			5294335	3x12, 3x14	16,010.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DP	351	12,140.02	5.260		3.000	DELTA 425			RIG
CROSSOVER	1	4.09	5.250		2.688	DELTA 425			WS26-11725
SHOCK SUB	1	11.11	5.000		2.000	XT-39			169-0043
CROSSOVER	1	4.44	5.250		2.690	XT-39			WS26-11734
DP	108	3,388.03	5.260		3.000	DELTA 425			RIG
5" 1.45 PLATE AGITATOR/SHOCK SUB	1	22.66	5.110		2.000	DELTA 425			AGHF0525-004178-001 4HE
DP	45	1,412.45	5.250		3.000	DELTA 425			RIG
DRILL-N-REAM	1	8.58	6.500		2.250	DELTA 425			DTI-DNR-35 4
DP	9	282.52	5.250		3.000	DELTA 425			RIG
CROSSOVER	1	3.61	5.500		2.250	DELTA 425			WS26-11774
SCREEN SUB	1	2.99	4.810		2.380	3 1/2 IF			DR32636
FLOAT SUB	1	3.53	4.810		2.380	3 1/2 IF			DR40023
ROLLER REAMER	1	4.18	6.500		2.000	DS38			XM2160
SLICK COLLAR	1	28.62	4.760		2.250	DS38			DR27011
GAP SUB VELOCITY	1	3.77	5.070		3.125	3 1/2 IF			VG475154P TS
CENTRALIZER COLLAR VELOCITY	1	8.31	5.190		3.630	4.3 ACME			VC475129
475 LANDING SUB	1	3.43	5.190		3.140	4.3 ACME			VL475144
CROSS OVER VELOCITY	1	1.62	5.130		2.440	3 1/2 IF			VX475091
NMPC	1	9.61	5.125		2.500	DS38			P513003
ROLLER REAMER	1	4.21	6.500		2.000	DS38			XM2161
CROSS OVER	1	2.17	5.130			DS38			MX475176
5" PHX FBH MUD MOTOR 6/7 LOBE. STAGE 8.8. SET @ 1.75°	1	32.10	5.400			3 1/2 IF			24XH-51305 4-PTS
BIT #8 RUN #1 6.75" BAKER DD406T SN: 5294335 3X12.	1	0.95	6.750	6.750		3 1/2 REG			5294335

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/25/2018 00:00		8	159.98		DRILL 6.75" PRODUCTION SECTION

Remarks

Trash Disposal:0 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115

Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile

EP WELLS DAILY OPERATIONS REPORT

Report 28

12/25/2018

Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H

and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

From Pecos- From Major Intersection Hwy 302 at Hwy 285

Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

University 20 27 Pad Performance Project: Update with new targets 12-18-18

AFE: \$2m under

Days: 4.5 days under

University 20 PW 2702H Well Specific:

AFE: \$50k under

Days: .5 days over

EP WELLS DAILY OPERATIONS REPORT

Report 29

12/26/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

Event Summary

Event Type	Drilling only	Event Start Date	10/08/2018	Days on Location	27.02
Objective	Drill - Alpha A2 Shale	Original Spud Date	10/18/2018	Days Since Spud	17.75
Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Tanner Manuel	Measured Depth(ft)	18,890.00
Engineer	Yermek Tynyshbayev	TVD(ft)	11,853.74
Other Supervisor	Cade Pilcher	24 Hr Progress(ft)	1,507.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	7.625in@11,343.54ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@19,617.00ft
Actual cost to date/AFE	2,502,966/3,425,497.41	Current MW / BH EMW(ppg)	13.40/
Actual divided by AFE	0.73	LOT/FIT EMW(ppg)	
Daily Cost	112,584	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	12/18/2018		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	805	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	2569

Safety Comments:

No HSE issues

UnCAAP/Assist & Assure conversation * Step 7 discussion with Pilot Fuel truck driver and Motor Man about task of taking on 7000 gallons of diesel fuel; Motor man and Driver communicated hands signals as trucked backed in; Driver checked transfer hoses and Motor Man checked connections and safety pins; Motor Man made proper valve alignments and confirmed path of flow; Transfer was completed and valves closed while rolling up hoses and checked area for any loose items left out.

* Step 7 discussion with Karma Truck drivers and Motor Man for offloading Franks casing equipment; Safe work Plan was filled out and discussed; Driver agreed to flag for forklift operator at a safe distance; Forklift operator and driver inspected the rigging and moved the tie down straps out of the way; Forklift Operator offloaded and spotted the equipment.

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	12/25/2018	1	JSA's/Toolbox Talks Days Since Last Drill	4
Last BOP function test	12/18/2018	8		
Last BOP Test	01/08/2019			
Next BOP Test				

Operations Summary

24 Hour Summary
Drill 6.75" production hole from 17383' to 18890'
Update Since Report Time
0400 HRS: Slide drilling ahead at 19108'

EP WELLS DAILY OPERATIONS REPORT

Report 29

12/26/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

24 Hour Forecast

Drill 6.75" production hole F/ 18890' T/ 19617' TD; Perform cleanup cycles as per procedure; Pull 5 stands wet monitoring well; Flow check; Pump slug & TOH monitoring well on trip tank for proper fill; Rig up and run 4.5" x 5.5" production casing

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	5.50	MNH1	DRL		17,853.00	0		Drill 6.75" production hole from 17383' to 17853'
5:30	0.50	MNH1	SVC		17,853.00	0		Rig service: service top drive.
6:00	5.00	MNH1	DRL		18,266.00	0		Drill 6.75" production hole from 17853' to 18266'
11:00	0.50	MNH1	SVC		18,266.00	0		Grease top drive and perform general rig service
11:30	6.50	MNH1	DRL		18,865.00	0		Drill 6.75" production hole from 18266' to 18565'
18:00	6.00	MNH1	DRL		18,890.00	0		Drill 6.75" production hole from 18565' to 18890'
								*** 0000 - 0400 ***
								Drill 6.75" production hole from 18890' to 19108 '
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
18,454.00	86.77	168.42	11,855.65	-6,068.45	1,840.80	6,341.17	2.88	PTW MWD+HDGM_2016
18,548.00	87.73	169.15	11,860.16	-6,160.55	1,859.06	6,434.69	1.28	PTW MWD+HDGM_2016
18,642.00	89.96	166.11	11,862.06	-6,252.33	1,879.19	6,528.44	4.01	PTW MWD+HDGM_2016
18,736.00	89.70	158.83	11,862.34	-6,341.91	1,907.48	6,622.35	7.75	PTW MWD+HDGM_2016
18,831.00	94.70	160.06	11,858.69	-6,430.76	1,940.80	6,716.99	5.42	PTW MWD+HDGM_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	55.00/18.50	POM (cc)	
MD (ft)	18,419.00	TS/HGS/LGS (%)	24.20//	CaCl2 (cc)	
Mud Density (ppg)	13.40	Sand (%)		Caom/Clom (ppm)	
Vis (s/qt)	73.00	Oil/Water Ratio (%)	74.80/25.20	ACT	
PV/YP (cp/lbf/100ft²)	24.00/16.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	2.46
Gels 10 s/m (lb/100ft²)	12.000/19.000	ECD (ppg)	15.200	ES (Volts)	594.0
API/HTHP WL (cc/30min)		H2S (gas unit)		R600/300 (°)	
FC/HTHP FC (32nd")	/2.0	KCl (%)		R200/100 (°)	
WPS (ppm)	283,101			R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)	Avg. trip gas (gas unit)	Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)	Max. trip gas (gas unit)	Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)	Avg H2S Gas (gas unit)	Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)	Max H2S Gas (gas unit)	Total Losses	0.00/0.00
		End vol. (bbl)	0.00

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	13,669.00	Gals	2,270.00
CNG	6,169.82	Gals	2,157.49

EP WELLS DAILY OPERATIONS REPORT

Report 29

12/26/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
8	6.750	BAKER HUGHES	DD406T			5294335	3x14, 3x12	16,010.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DP	351	13,647.02	5.260		3.000	DELTA 425			RIG
CROSSOVER	1	4.09	5.250		2.688	DELTA 425			WS26-11725
SHOCK SUB	1	11.11	5.000		2.000	XT-39			169-0043
CROSSOVER	1	4.44	5.250		2.690	XT-39			WS26-11734
DP	108	3,388.03	5.260		3.000	DELTA 425			RIG
5" 1.45 PLATE AGITATOR/SHOCK SUB	1	22.66	5.110		2.000	DELTA 425			AGHF0525-004178-001 4HE
DP	45	1,412.45	5.250		3.000	DELTA 425			RIG
DRILL-N-REAM	1	8.58	6.500		2.250	DELTA 425			DTI-DNR-35 4
DP	9	282.52	5.250		3.000	DELTA 425			RIG
CROSSOVER	1	3.61	5.500		2.250	DELTA 425			WS26-11774
SCREEN SUB	1	2.99	4.810		2.380	3 1/2 IF			DR32636
FLOAT SUB	1	3.53	4.810		2.380	3 1/2 IF			DR40023
ROLLER REAMER	1	4.18	6.500		2.000	DS38			XM2160
SLICK COLLAR	1	28.62	4.760		2.250	DS38			DR27011
GAP SUB VELOCITY	1	3.77	5.070		3.125	3 1/2 IF			VG475154P TS
CENTRALIZER COLLAR VELOCITY	1	8.31	5.190		3.630	4.3 ACME			VC475129
475 LANDING SUB	1	3.43	5.190		3.140	4.3 ACME			VL475144
CROSS OVER VELOCITY	1	1.62	5.130		2.440	3 1/2 IF			VX475091
NMPC	1	9.61	5.125		2.500	DS38			P513003
ROLLER REAMER	1	4.21	6.500		2.000	DS38			XM2161
CROSS OVER	1	2.17	5.130			DS38			MX475176
5" PHX FBH MUD MOTOR 6/7 LOBE. STAGE 8.8. SET @ 1.75°	1	32.10	5.400			3 1/2 IF			24XH-51305 4-PTS
BIT #8 RUN #1 6.75" BAKER DD406T SN: 5294335 3X12.	1	0.95	6.750	6.750		3 1/2 REG			5294335

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/25/2018 00:00		8	159.98		DRILL 6.75" PRODUCTION SECTION

Remarks

Trash Disposal:0 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115
Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile

EP WELLS DAILY OPERATIONS REPORT

Report 29

12/26/2018

Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H

and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

From Pecos- From Major Intersection Hwy 302 at Hwy 285

Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

University 20 27 Pad Performance Project: Update with new targets 12-18-18

AFE: \$2m under

Days: 4.5 days under

University 20 PW 2702H Well Specific:

AFE: \$50k under

Days: .5 days over

EP WELLS DAILY OPERATIONS REPORT

Report 30

12/27/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

Event Summary

Event Type	Drilling only	Event Start Date	10/08/2018	Days on Location	28.02
Objective	Drill - Alpha A2 Shale	Original Spud Date	10/18/2018	Days Since Spud	18.75
Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Tanner Manuel	Measured Depth(ft)	19,617.00
Engineer	Yermek Tynyshbayev	TVD(ft)	11,829.59
Other Supervisor	Cade Pilcher	24 Hr Progress(ft)	727.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	6.750
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	7.625in@11,343.54ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@19,617.00ft
Actual cost to date/AFE	2,577,764/3,425,497.41	Current MW / BH EMW(ppg)	13.50/
Actual divided by AFE	0.75	LOT/FIT EMW(ppg)	
Daily Cost	74,798	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	12/18/2018		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	806	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	2569

Safety Comments:

No HSE issues

UnCAAP/Assist & Assure conversation: * Step 7 discussion with rig crew prior to tripping out of hole; Driller revived roles and responsibilities asking open questions to crew; Each crew member elaborated on a hazard of the task and stated the mitigation to put in place; Floor hands checked equipment and confirmed all in order and floor cleaned up; Derrick Man inspected safety equipment and harness; Pit man confirmed 13.5 ppg mud in trip tanks; Floor hands stated specifically what areas to stay out of the line of fire with an escape route and to stay where driller can see at all times;

* Step 7 discussion with Shell and Rig crew prior to back reaming operations; reviewed the back reaming procedures and agreed to take 5 x 5 to understand and confirm the process of pulling out of the hole while always keeping the cuttings above the BHA;

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	5
Last Derrick Inspection	12/25/2018	2		
Last BOP function test	12/18/2018	9		
Last BOP Test	01/08/2019			
Next BOP Test				

Operations Summary

24 Hour Summary
Drill 6.75" production hole from 18,890' to 19,617' (well TD). Perform clean up cycles. Trip out of hole from 19,617' to 16880' then observed tight spots with over pull; Decision made to perform cleanup cycles while monitoring torque, drag, pressure and shakers
Update Since Report Time
0400 HRS: Back reaming out of 6.75 production hole @ 16754' as per procedure

EP WELLS DAILY OPERATIONS REPORT

Report 30

12/27/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

24 Hour Forecast

Complete cleanup cycles and pull 5 stands wet observing drag; Pump slug and TOH; Rig up and run 4.5" x 5.5" production casing

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	5.50	MNH1	DRL		19,172.00	0		Drill 6.75" production hole from 18890' to 19172'.
5:30	0.50	MNH1	SVC		19,172.00	0		Rig service: service top drive.
6:00	7.00	MNH1	DRL		19,617.00	0		Drill 6.75" production hole from 19172' to 19617'. (TD Well)
13:00	5.00	MNH1	CBU		19,617.00	0		Perform cleanup cycle prior to trip, 4 ream downs at 120 rpm and 350 gpm. 3 Openhole volumes per ream down. 12 Total open hole volumes.
18:00	0.50	MNH1	CBU		19,617.00	0		Completed cleanup cycles observed shakers clean;
18:30	2.00	MNH1	TOH		19,617.00	0		Pull out of hole from 19617' to 19157' wet observed no excess overpull; Flow check well; Trip out of hole from 19157' to 16880' monitor well on trip tank for proper fill;
20:30	3.50	MNH1	CBU		19,617.00	0		Observed tight spots at 16800' & 16880' with overpull; Decision made to perform cleanup cycles at max rates. Perform cleanup cycles as per procedure *** 0000 - 0130 *** Complete cleanup cycles and pull wet from 16880' to 16756' observed tight spot with overpull; *** 0130 - 0200 ***Reamed from 16756' to 17060' 3 stands @ 325 GPM 120 RPM; *** 0200 - 0230 ***Pump out of hole from 17060' to 16806' 325 GPM *** 0230 - 0500 *** Back ream from 16806' to 16220' as per procedure
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
19,207.00	91.39	163.51	11,833.70	-6,785.98	2,061.11	7,091.69	2.33	PTW MWD+HDGM_2016
19,302.00	93.10	165.34	11,829.98	-6,877.41	2,086.59	7,186.60	2.64	PTW MWD+HDGM_2016
19,396.00	88.93	163.86	11,828.32	-6,968.00	2,111.54	7,280.55	4.71	PTW MWD+HDGM_2016
19,490.00	89.87	165.75	11,829.30	-7,058.70	2,136.18	7,374.52	2.25	PTW MWD+HDGM_2016
19,617.00	89.87	165.75	11,829.59	-7,181.79	2,167.44	7,501.44	0.00	PTW MWD+HDGM_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	56.00/17.00	POM (cc)	
MD (ft)	19,617.00	TS/HGS/LGS (%)	24.90//	CaCl2 (%)	
Mud Density (ppg)	13.50	Sand (%)		Caom/Clom (ppm)	
Vis (s/qt)	65.00	Oil/Water Ratio (%)	76.70/23.30	ACT	
PV/YP (cp/lbf/100ft²)	22.00/16.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	2.85
Gels 10 s/m (lbf/100ft²)	12.000/21.000	ECD (ppg)	15.490	ES (Volts)	520.0
API/HTHP WL (cc/30min)		H2S (gas unit)		R600/300 (°)	
FC/HTHP FC (32nd")	/2.0	KCl (%)		R200/100 (°)	
WPS (ppm)	295,704			R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)		Avg. trip gas (gas unit)		Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)		Max. trip gas (gas unit)		Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)		Avg H2S Gas (gas unit)		Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)		Max H2S Gas (gas unit)		Total Losses	0.00/0.00
				End vol. (bbl)	0.00

EP WELLS DAILY OPERATIONS REPORT

Report 30

12/27/2018

Well
WellboreUNIVERSITY 20 TG UNIT 2702H
UNIVERSITY 20 TG UNIT 2702H

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	10,200.00	Gals	3,469.00
CNG	6,218.02	Gals	2,621.80

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
8	6.750	BAKER HUGHES	DD406T			5294335	3x14, 3x12	16,010.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DP	351	14,374.02	5.260		3.000	DELTA 425			RIG
CROSSOVER	1	4.09	5.250		2.688	DELTA 425			WS26-11725
SHOCK SUB	1	11.11	5.000		2.000	XT-39			169-0043
CROSSOVER	1	4.44	5.250		2.690	XT-39			WS26-11734
DP	108	3,388.03	5.260		3.000	DELTA 425			RIG
5" 1.45 PLATE AGITATOR/SHOCK SUB	1	22.66	5.110		2.000	DELTA 425			AGHF0525-004178-001 4HE
DP	45	1,412.45	5.250		3.000	DELTA 425			RIG
DRILL-N-REAM	1	8.58	6.500		2.250	DELTA 425			DTI-DNR-35 4
DP	9	282.52	5.250		3.000	DELTA 425			RIG
CROSSOVER	1	3.61	5.500		2.250	DELTA 425			WS26-11774
SCREEN SUB	1	2.99	4.810		2.380	3 1/2 IF			DR32636
FLOAT SUB	1	3.53	4.810		2.380	3 1/2 IF			DR40023
ROLLER REAMER	1	4.18	6.500		2.000	DS38			XM2160
SLICK COLLAR	1	28.62	4.760		2.250	DS38			DR27011
GAP SUB VELOCITY	1	3.77	5.070		3.125	3 1/2 IF			VG475154P TS
CENTRALIZER COLLAR VELOCITY	1	8.31	5.190		3.630	4.3 ACME			VC475129
475 LANDING SUB	1	3.43	5.190		3.140	4.3 ACME			VL475144
CROSS OVER VELOCITY	1	1.62	5.130		2.440	3 1/2 IF			VX475091
NMPC	1	9.61	5.125		2.500	DS38			P513003
ROLLER REAMER	1	4.21	6.500		2.000	DS38			XM2161
CROSS OVER	1	2.17	5.130			DS38			MX475176
5" PHX FBH MUD MOTOR 6/7 LOBE. STAGE 8.8. SET @ 1.75°	1	32.10	5.400			3 1/2 IF			24XH-51305 4-PTS
BIT #8 RUN #1 6.75" BAKER DD406T SN: 5294335 3X12.	1	0.95	6.750	6.750		3 1/2 REG			5294335

EP WELLS DAILY OPERATIONS REPORT

Report 30

12/27/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/25/2018 00:00		8	159.98		DRILL 6.75" PRODUCTION SECTION

Remarks

Trash Disposal:0 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115

Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

From Pecos- From Major Intersection Hwy 302 at Hwy 285

Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

University 20 27 Pad Performance Project: Update with new targets 12-18-18

AFE: \$2m under

Days: 4.0 days under

University 20 PW 2702H Well Specific:

AFE: \$25k under

Days: 1.0 days over

12/27/2018 1830 HRS

Notified TRRC of 4.5" X 5.5" production casing run and upcoming 1269 sks 14.5 ppg cement job

Operator 8 Linda Brown

EP WELLS DAILY OPERATIONS REPORT

Report 31

12/28/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

Event Summary

Event Type	Drilling only	Event Start Date	10/08/2018	Days on Location	29.02
Objective	Drill - Alpha A2 Shale	Original Spud Date	10/18/2018	Days Since Spud	19.75
Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Tanner Manuel	Measured Depth(ft)	19,617.00
Engineer	Yermek Tynyshbayev	TVD(ft)	11,829.59
Other Supervisor	Cade Pilcher	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	6.750
THF Datum			
Daily NPT(hr/%)	10.00/41.67	Last Casing MD	7.625in@11,343.54ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@19,617.00ft
Actual cost to date/AFE	2,685,100/3,425,497.41	Current MW / BH EMW(ppg)	13.65/
Actual divided by AFE	0.78	LOT/FIT EMW(ppg)	
Daily Cost	107,016	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	12/18/2018		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	807	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	2569

Safety Comments:

No HSE issues

UnCAAP/Assist & Assure conversation: * Step 7 discussion with Shell and Rig crew prior to MU mill BHA and proceeding in the hole with mill; 5X5 taken when driller tagged up before milling operations; discussed and documented the parameters to be utilized and importance of not getting impatient with mill;

* Step 7 discussion with Barite truck driver and Derrick Man about task of taking on 21 tons of barite; Derrickman Man and Driver communicated hand signals as trucked backed in; Driver checked transfer hoses and Derrick Man checked connections and safety pins; Derrickman Man made proper valve alignments and confirmed path of flow; Barite transfer was completed and all pressure bled off; Truck driver and Derrick Man rolled up hoses and checked area for any loose items left out.

After Action Review : * Drill crew put together plan to slip and cut drill line while out of the hole; All agreed to get their designated tools and equipment staged ahead of time; With good communication and following the plan the crew slipped and cut 120' of drill line and torque deadman and put away tools in one hour; Cut line was lowered to ground and forklift was waiting to take it to junk basket; Not much room for improvement but share the plan with other crews Good Job!

Drills

Drill Category	Drill Type	Detection (sec)	Complete (sec)	Crew drilled	Pass / Fail	PIC	Comments
Well Control Crew	Trip	30.00	145.00	Night	Pass	Joe Allenby	Tripping in hole Driller

EP WELLS DAILY OPERATIONS REPORT

Report 31

12/28/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	6
Last Derrick Inspection	12/25/2018	3		
Last BOP function test	12/18/2018	10		
Last BOP Test	01/08/2019			
Next BOP Test				

Operations Summary

24 Hour Summary

TOH ;Observed tight spots at 16800' & 16880' with overpull; Decision made to perform cleanup cycles as per procedure; Backreamed through tight spots up to 16,000'. Pumped slug and TOH to surface; Lay down BHA & discovered lost bit and lower motor housing; 22 feet including stator of motor in hole; slip & cut drill line; Picked up 6.75" mill BHA and TIH to 10746' filling every thirty stands and monitoring well on trip tank;

Update Since Report Time

0400 HRS: Washing and Milling on obstruction 11413'

24 Hour Forecast

TIH with 6.75" mill assembly to 16000'; Reduce TIH speed to top of fish estimated 16901' and push to bottom (19617') washing and reaming as necessary.

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	1.00	MNH1	CBU		19,617.00	0		Observed tight spots at 16800' & 16880' with overpull; Decision made to perform cleanup cycles at max rates. Perform cleanup cycles as per procedure.
1:00	5.00	MNH1	TOH		19,617.00	0		Tight hole encountered at 16,880'. Back reamed through tight spots to 16,000'.
6:00	0.50	MNH1	CBU		19,617.00	0		CBU; pump slug
6:30	3.50	MNH1	TOH		19,617.00	0		Trip out of hole from 15595' to 5242'
10:00	0.50	MNH1	TOH		19,617.00	0		Lay down two crossovers and shock sub
10:30	2.00	MNH1	TOH		19,617.00	0		Trip out hole from 5242' to 109'
12:30	0.50	MNH1	BHA		19,617.00	0		Lay down agitator and filter sub; Pul remaining BHA through rotary and discovered lost bit and lower motor housing; 22 feet total including stator of motor
13:00	1.00	MNH1	BHA		19,617.00	1		*** NPT *** Consult with Shell engineer; lay down remaining BHA while taking pictures and inspecting assembly
14:00	1.00	MNH1	CUT		19,617.00	0		Slip and cut 120' of 1.375 drill line
15:00	3.00	MNH1	NOA		19,617.00	1		*** NPT *** Waiting on 6.75" mill; clear and clean rig floor; Stage tools to rig floor for mill run BHA; Service top drive and completed drops inspection
18:00	1.00	MNH1	BHA		19,617.00	1		*** NPT *** Pick up 6.75" mill BHA
19:00	5.00	MNH1	TIH		19,617.00	1		*** NPT *** TIH with 6.75" mill assembly to 10746' filling every thirty stands monitoring well on trip tank for proper steel displacement; *** 0000 - 0500 *** Install rotating head; TIH from 10746' to 11270; Filled pipe; PU 230 SO 200 TIH to 11388 and tagged; washed and milled through this tight spot with 30 RPM'S; 325 GPM Washed to 11412' and attempt to wash and mill at various RPM and Flow Rates through obstruction with no success; Max torque 12.5K stalling out rotary with Max WOB of 8K
Total	24.00							

EP WELLS DAILY OPERATIONS REPORT

Report 31

12/28/2018

Well
WellboreUNIVERSITY 20 TG UNIT 2702H
UNIVERSITY 20 TG UNIT 2702H

NPT Summary

Start Date/Time	Responsible Company	NPT Code	Failure MD (ft)	Ops Code	Type*	Equipment Type	Net time (hr)	Gross time (hr)	Severity	Status
12/28/2018 13:00	SHELL	Drillstring/B HA Bottom Hole Assembly	19,617.00	BHA	N		0.00	0.00		OPEN
Description: After laying down BHA, discovered 22 feet total, including bit and lower motor housing was missing. TIH w/milling assembly						Title: Lost bit and motor downhole				
Total							0.00	0.00		

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
19,207.00	91.39	163.51	11,833.70	-6,785.98	2,061.11	7,091.69	2.33	PTW MWD+HDGM_2016
19,302.00	93.10	165.34	11,829.98	-6,877.41	2,086.59	7,186.60	2.64	PTW MWD+HDGM_2016
19,396.00	88.93	163.86	11,828.32	-6,968.00	2,111.54	7,280.55	4.71	PTW MWD+HDGM_2016
19,490.00	89.87	165.75	11,829.30	-7,058.70	2,136.18	7,374.52	2.25	PTW MWD+HDGM_2016
19,617.00	89.87	165.75	11,829.59	-7,181.79	2,167.44	7,501.44	0.00	PTW MWD+HDGM_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	56.00/16.50	POM (cc)	3.11 538.0
MD (ft)	19,617.00	TS/HGS/LGS (%)	25.40//	CaCl2 (%)	
Mud Density (ppg)	13.65	Sand (%)		Caom/Clom (ppm)	
Vis (s/qt)	95.00	Oil/Water Ratio (%)	77.20/22.80	ACT	
PV/YP (cp/lbf/100ft²)	22.00/16.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	
Gels 10 s/m (lbf/100ft²)	15.000/22.000	ECD (ppg)	13.650	ES (Volts)	
API/HTHP WL (cc/30min)		H2S (gas unit)		R600/300 (°)	
FC/HTHP FC (32nd")	/3.0	KCl (%)		R200/100 (°)	
WPS (ppm)	303,644	Ditch Magnet in Last 24hrs/Cum. (gm)		R6/3 (°)	
FL temp. (°F)					

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)		Avg. trip gas (gas unit)		Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)		Max. trip gas (gas unit)		Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)		Avg H2S Gas (gas unit)		Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)		Max H2S Gas (gas unit)		Total Losses	0.00/0.00
				End vol. (bbl)	0.00

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	8,939.00	Gals	1,261.00
CNG	3,615.77	Gals	2,602.25

Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
8	6.750	BAKER HUGHES	DD406T			5294335	3x14, 3x12	16,010.00	19,617.00	-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)

EP WELLS DAILY OPERATIONS REPORT

Report 31

12/28/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
DP	351	14,374.02	5.260		3.000	DELTA 425			RIG
CROSSOVER	1	4.09	5.250		2.688	DELTA 425			WS26-11725
SHOCK SUB	1	11.11	5.000		2.000	XT-39			169-0043
CROSSOVER	1	4.44	5.250		2.690	XT-39			WS26-11734
DP	108	3,388.03	5.260		3.000	DELTA 425			RIG
5" 1.45 PLATE AGITATOR/SHOCK SUB	1	22.66	5.110		2.000	DELTA 425			AGHF0525-004178-001 4HE
DP	45	1,412.45	5.250		3.000	DELTA 425			RIG
DRILL-N-REAM	1	8.58	6.500		2.250	DELTA 425			DTI-DNR-35 4
DP	9	282.52	5.250		3.000	DELTA 425			RIG
CROSSOVER	1	3.61	5.500		2.250	DELTA 425			WS26-11774
SCREEN SUB	1	2.99	4.810		2.380	3 1/2 IF			DR32636
FLOAT SUB	1	3.53	4.810		2.380	3 1/2 IF			DR40023
ROLLER REAMER	1	4.18	6.500		2.000	DS38			XM2160
SLICK COLLAR	1	28.62	4.760		2.250	DS38			DR27011
GAP SUB VELOCITY	1	3.77	5.070		3.125	3 1/2 IF			VG475154P TS
CENTRALIZER COLLAR VELOCITY	1	8.31	5.190		3.630	4.3 ACME			VC475129
475 LANDING SUB	1	3.43	5.190		3.140	4.3 ACME			VL475144
CROSS OVER VELOCITY	1	1.62	5.130		2.440	3 1/2 IF			VX475091
NMPC	1	9.61	5.125		2.500	DS38			P513003
ROLLER REAMER	1	4.21	6.500		2.000	DS38			XM2161
CROSS OVER	1	2.17	5.130			DS38			MX475176
5" PHX FBH MUD MOTOR 6/7 LOBE. STAGE 8.8. SET @ 1.75°	1	32.10	5.400			3 1/2 IF			24XH-51305 4-PTS
BIT #8 RUN #1 6.75" BAKER DD406T SN: 5294335 3X12.	1	0.95	6.750	6.750		3 1/2 REG			5294335

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
12/25/2018 00:00	12/28/2018 14:00	8	159.98		DRILL 6.75" PRODUCTION SECTION

Remarks

Trash Disposal:0 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115

Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

From Pecos- From Major Intersection Hwy 302 at Hwy 285

Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

University 20 27 Pad Performance Project: Update with new targets 12-18-18

AFE: \$2m under

Days: 4.0 days under

University 20 PW 2702H Well Specific:

EP WELLS DAILY OPERATIONS REPORT

Report 31 12/28/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

AFE: \$10k over
Days: 1.5 days over

EP WELLS DAILY OPERATIONS REPORT

Report 32

12/29/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

Event Summary

Event Type	Drilling only	Event Start Date	10/08/2018	Days on Location	30.02
Objective	Drill - Alpha A2 Shale	Original Spud Date	10/18/2018	Days Since Spud	20.75
Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Tanner Manuel	Measured Depth(ft)	19,617.00
Engineer	Yermek Tynyshbayev	TVD(ft)	11,829.59
Other Supervisor	Cade Pilcher	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	6.750
THF Datum			
Daily NPT(hr/%)	24.00/100.00	Last Casing MD	7.625in@11,343.54ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@19,617.00ft
Actual cost to date/AFE	2,755,036/3,425,497.41	Current MW / BH EMW(ppg)	13.80/
Actual divided by AFE	0.80	LOT/FIT EMW(ppg)	
Daily Cost	69,948	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	12/18/2018		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	808	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	2569

Safety Comments:

No HSE issues

UnCAAP/Assist & Assure conversation: *

* Step 7 discussion with Diesel Fuel Truck driver and Motor Man about taking on 7000 gallons of fuel; Motor Man and Fuel Truck Driver communicated hand signals as trucked backed in; Driver checked transfer hoses and Motor Man checked connections when hooking up to line ; Motor Man made proper valve alignments and confirmed path of flow; Truck driver and Motor Man rolled up hoses and picked up the catch pans after fuel was transferred.

After Action Review : * Drill crew discussed when pulling the BHA through the rotary have the hole cover ready to install; When BHA was pulled through rotary with missing bit and part of motor the floor hands had to find the hole cover and then put it in place.

Drills

Drill Category	Drill Type	Detection (sec)	Complete (sec)	Crew drilled	Pass / Fail	PIC	Comments
Well Control Crew	Trip	25.00	180.00	Day	Pass	Henry Arroyo	Driller sounded one

EP WELLS DAILY OPERATIONS REPORT

Report 32

12/29/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	7
Last Derrick Inspection	12/25/2018	4		
Last BOP function test	12/18/2018	11		
Last BOP Test	01/08/2019			
Next BOP Test				

Operations Summary

24 Hour Summary
TIH with 6.75" mill assembly to 11388'; Washed and reamed to 11425'; pump slug and TOH; Make up 6.5" mill assembly & TIH to 11328'; Washed and reamed to 11511'; TIH on elevators to 17160'; Washed and reamed to 17531'
Update Since Report Time
0400 HRS: Washing and reaming with 6.5" mill to TD currently at 19572'
24 Hour Forecast
Wash and ream to TD 19615' or 19595'; Circulate bottoms up; flow check; pump slug and TOH; Lay down 6.5" mill; Rig up and run 4.5" x 5.5" production casing

EP WELLS DAILY OPERATIONS REPORT

Report 32

12/29/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	6.00	MNH1	TIH		19,617.00	1		*** NPT *** Install rotating head; TIH with 6.75" mill assembly from 10746' to 11270; Filled pipe; PU 230 SO 200 TIH to 11388' and tagged; washed and milled through this tight spot with 30 RPM'S; 325 GPM Washed and reamed to 11425' at various RPM and flow rates with little success; Max torque 12.5K stalling out rotary. Max WOB of 8K Consulted with Shell decision made to TOH
6:00	0.50	MNH1	CBU		19,617.00	1		*** NPT *** Circulated bottoms and pumped slug
6:30	3.50	MNH1	TOH		19,617.00	1		*** NPT *** TOH from 11425' to surface
10:00	0.50	MNH1	BHA		19,617.00	1		*** NPT *** Lay down 6.75 mill assembly
10:30	2.00	MNH1	NOA		19,617.00	1		*** NPT *** Wait on mill and consult with Shell about mill BHA assembly configuration to be run
12:30	0.50	MNH1	BHA		19,617.00	1		*** NPT *** Make up 6.5" mill assembly
13:00	1.50	MNH1	TIH		19,617.00	1		*** NPT *** TIH with 6.5" mill assembly to 5456' filling every thirty stands monitoring well on trip tank for proper steel displacement;
14:30	0.50	MNH1	BHA		19,617.00	1		*** NPT *** Make up shock sub/agitator and test; 870 PSI without & 1200 PSI with the agitator
15:00	2.50	MNH1	TIH		19,617.00	1		*** NPT *** TIH from 5493' to 11328" filling every thirty stands monitoring well on trip tank for proper steel displacement;
17:30	0.50	MNH1	WTR		19,617.00	1		*** NPT *** Wash down from 11328' to 11422'
18:00	4.00	MNH1	WTR		19,617.00	1		*** NPT *** Wash down through point of interest of 11422' to 11511' no weight observed; TIH on elevators from 11511' to 17160'
22:00	2.00	MNH1	WTR		19,617.00	1		*** NPT *** MU top drive on stand #125. Washed and reamed from 17160' to 17531' 120 RPM, 285 GPM, 13.5+ PPG 12.5K MAX TORQUE; 5K - 30K WOB; 100 -1000 ROP *** 0000 - 0430 *** Washed and reamed from 17531' to 19595' 120 RPM, 285 GPM, 13.5+ PPG 12.5K MAX TORQUE; 5K - 30K WOB; 100 -1000 ROP *** 0430 - XXXX *** Circulate bottoms up; flow check well; pump slug *** XXXX - XXXX *** Trip out of hole from 19595' to surface;
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
19,207.00	91.39	163.51	11,833.70	-6,785.98	2,061.11	7,091.69	2.33	PTW MWD+HDGM_2016
19,302.00	93.10	165.34	11,829.98	-6,877.41	2,086.59	7,186.60	2.64	PTW MWD+HDGM_2016
19,396.00	88.93	163.86	11,828.32	-6,968.00	2,111.54	7,280.55	4.71	PTW MWD+HDGM_2016
19,490.00	89.87	165.75	11,829.30	-7,058.70	2,136.18	7,374.52	2.25	PTW MWD+HDGM_2016
19,617.00	89.87	165.75	11,829.59	-7,181.79	2,167.44	7,501.44	0.00	PTW MWD+HDGM_2016

EP WELLS DAILY OPERATIONS REPORT

Report 32

12/29/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Fluid Details

Mud type	Invermul	Oil/Water (%)	55.00/17.00	POM (cc)	3.11 533.0
MD (ft)	19,617.00	TS/HGS/LGS (%)	25.90//	CaCl2 (%)	
Mud Density (ppg)	13.80	Sand (%)		Caom/Clom (ppm)	
Vis (s/qt)	95.00	Oil/Water Ratio (%)	76.40/23.60	ACT	
PV/YP (cp/lbf/100ft ²)	20.00/17.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	
Gels 10 s/m (lbf/100ft ²)	12.000/17.000	ECD (ppg)	13.800	ES (Volts)	
API/HTHP WL (cc/30min)		H2S (gas unit)		R600/300 (°)	
FC/HTHP FC (32nd")	/2.0	KCl (%)		R200/100 (°)	
WPS (ppm)	289,282	Ditch Magnet in Last 24hrs/Cum. (gm)		R6/3 (°)	
FL temp. (°F)					

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)		Avg. trip gas (gas unit)		Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)		Max. trip gas (gas unit)		Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)		Avg H2S Gas (gas unit)		Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)		Max H2S Gas (gas unit)		Total Losses	0.00/0.00
				End vol. (bbl)	0.00

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	16,507.00	Gals	538.00
CNG	4,325.77	Gals	1,820.00

Remarks

Trash Disposal:0 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115

Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

From Pecos- From Major Intersection Hwy 302 at Hwy 285

Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

University 20 27 Pad Performance Project: Update with new targets 12-18-18

AFE: \$2m under

Days: 2.5 days under

University 20 PW 2702H Well Specific:

AFE: \$60k over

Days: 3.0 days over

EP WELLS DAILY OPERATIONS REPORT

Report 33

12/30/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

Event Summary

Event Type	Drilling only	Event Start Date	10/08/2018	Days on Location	31.02
Objective	Drill - Alpha A2 Shale	Original Spud Date	10/18/2018	Days Since Spud	21.75
Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Tanner Manuel	Measured Depth(ft)	19,617.00
Engineer	Yermek Tynyshbayev	TVD(ft)	11,829.59
Other Supervisor	Cade Pilcher	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	6.750
THF Datum			
Daily NPT(hr/%)	12.50/52.08	Last Casing MD	7.625in@11,343.54ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@19,617.00ft
Actual cost to date/AFE	2,813,617/3,425,497.41	Current MW / BH EMW(ppg)	13.50/
Actual divided by AFE	0.82	LOT/FIT EMW(ppg)	
Daily Cost	58,513	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	12/18/2018		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	809	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	2569

Safety Comments:

No HSE issues

UnCAAP/Assist & Assure conversation: * Step 7 discussion with Franks and Rig Crew on rig up and run casing; driller reviewed the plan and discussed hazards involved while crew documented the mitigation; Drill crew inspected Franks equipment while rig up and prepared the area to leave escape routes; franks and rig crew identified many lines of fire and agreed where each person would stand; Fork lift driver reiterated that he would have to take extra precaution moving pipe across location and crew would move the light plant to allow proper lighting in area

* Step 7 discussion with Shell and BJ about rig up operations; reviewed the plan to unload and inspect iron and rig up iron to edge of catwalk; BJ foreman and OSR inspected all 1502 iron cert tags and NO GO; BJ inspected restraints while spotting beside iron; BJ erected the won the zone barrier tape and began hooking up iron form pump

After Action Review : * Drill crew discussed the importance of handover at tour change; if working on a piece of equipment it needs to be discussed and documented what is unhooked or taken off of it. All agreed to reiterate this

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	12/25/2018	5	JSA's/Toolbox Talks Days Since Last Drill	3
Last BOP function test	12/18/2018	12		
Last BOP Test	01/08/2019			
Next BOP Test				

Operations Summary

24 Hour Summary
Wash and ream, push fish to new TD 19595'; Circulate bottoms up; flow check; pump slug and TOH; Lay down 6.5" mill; Pull wear bushing; Rig up and run 4.5" x 5.5" production casing to 8312'

EP WELLS DAILY OPERATIONS REPORT

Report 33

12/30/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Update Since Report Time

0400 HRS: Running 5.5" production casing current depth of 12737'

24 Hour Forecast

Run production casing to 19566'; MU hanger and land out; Circulate minimum of 1 casing volume; Rig up BJ cementers and test lines;
Perform cement job;

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	4.50	MNH1	WTR		19,617.00	1		*** NPT *** Washed and reamed from 17531' to 19595' 120 RPM, 285 GPM, 13.5+ PPG 12.5K MAX TORQUE; 5K - 30K WOB; 100 -1000 ROP
4:30	1.50	MNH1	WTR		19,617.00	1		*** NPT *** Circulate bottoms up; flow check well; pump slug
6:00	6.00	MNH1	TOH		19,617.00	1		*** NPT *** Trip out of hole from 19,595' to surface.
12:00	0.50	MNH1	BHA		19,617.00	1		*** NPT *** Lay down mill and bit sub.
12:30	0.50	MNH1	PUP		19,617.00	0		Pull wear bushing
13:00	0.50	MNH1	RIC		19,617.00	0		Clear and clean rig floor; RD drill pipe handling equipment
13:30	1.50	MNH1	RIC		19,617.00	0		Step 7 discussion with rig crew and Franks Casing; Rig up casing handling equipment
15:00	3.00	MNH1	CLR		19,617.00	0		PU and run 4.5" 13.5 ppf TXP P110 production casing to 2854'
18:00	6.00	MNH1	CLR		19,617.00	0		PU and run 4.5" 13.5 ppf TXP P110 production casing from 2854' to 4618'; MU crossover 4.5" 13.5 ppf TXP P110 x 4.5" 13.5 ppf HYD 563 PU and run 21 joints 4.5" 13.5 ppf HYD 563 to 8205' installing torque spirals as per approved tally MU crossover 4.5" 13.5 ppf HYD 563 x 5.5" 23 ppf HDY 563 P110 PU and run 5.5" 23 ppf to 8312' *** 0000 - 0430 *** PU and run 5.5" 23 ppf production casing from 8312' to 13050 '
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
19,207.00	91.39	163.51	11,833.70	-6,785.98	2,061.11	7,091.69	2.33	PTW MWD+HDGM_2016
19,302.00	93.10	165.34	11,829.98	-6,877.41	2,086.59	7,186.60	2.64	PTW MWD+HDGM_2016
19,396.00	88.93	163.86	11,828.32	-6,968.00	2,111.54	7,280.55	4.71	PTW MWD+HDGM_2016
19,490.00	89.87	165.75	11,829.30	-7,058.70	2,136.18	7,374.52	2.25	PTW MWD+HDGM_2016
19,617.00	89.87	165.75	11,829.59	-7,181.79	2,167.44	7,501.44	0.00	PTW MWD+HDGM_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	55.50/17.50	POM (cc)	2.72 502.0
MD (ft)	19,617.00	TS/HGS/LGS (%)	25.40//	CaCl2 (%)	
Mud Density (ppg)	13.50	Sand (%)		Caom/Clom (ppm)	
Vis (s/qt)	90.00	Oil/Water Ratio (%)	76.00/24.00	ACT	
PV/YP (cp/lbf/100ft²)	21.00/14.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	
Gels 10 s/m (lbf/100ft²)	11.000/14.000	ECD (ppg)	13.500	ES (Volts)	
API/HTHP WL (cc/30min)		H2S (gas unit)		R600/300 (°)	
FC/HTHP FC (32nd")	/3.0	KCl (%)		R200/100 (°)	
WPS (ppm)	240,796	Ditch Magnet in Last 24hrs/Cum. (gm)		R6/3 (°)	
FL temp. (°F)					

EP WELLS DAILY OPERATIONS REPORT

Report 33

12/30/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)	Avg. trip gas (gas unit)	Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)	Max. trip gas (gas unit)	Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)	Avg H2S Gas (gas unit)	Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)	Max H2S Gas (gas unit)	Total Losses	0.00/0.00
		End vol. (bbl)	0.00

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	16,106.00	Gals	401.00
CNG	4,855.77	Gals	2,000.00

Remarks

Trash Disposal:0 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115

Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

From Pecos- From Major Intersection Hwy 302 at Hwy 285

Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

University 20 27 Pad Performance Project: Update with new targets 12-18-18

AFE: \$2m under

Days: 2.0 days under

University 20 PW 2702H Well Specific:

AFE: \$100k over

Days: 3.5 days over

EP WELLS DAILY OPERATIONS REPORT

Report 34

12/31/2018

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

Event Summary

Event Type	Drilling only	Event Start Date	10/08/2018	Days on Location	32.02
Objective	Drill - Alpha A2 Shale	Original Spud Date	10/18/2018	Days Since Spud	22.75
Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Tanner Manuel	Measured Depth(ft)	19,617.00
Engineer	Yermek Tynyshbayev	TVD(ft)	11,829.59
Other Supervisor	Cade Pilcher	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	6.750
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	7.625in@11,343.54ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@19,565.00ft
Actual cost to date/AFE	3,247,003/3,425,497.41	Current MW / BH EMW(ppg)	13.50/
Actual divided by AFE	0.95	LOT/FIT EMW(ppg)	
Daily Cost	433,386	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	12/18/2018		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	810	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	2569

Safety Comments:

No HSE issues

UnCAAP/Assist & Assure conversation: * Step 7 discussion with Drill Crew, Shell and BJ about cement pumping operations; reviewed the plan and discussed the hazards and mitigation; Derrick man and BJ discussed and verified the flow path of freshwater alignments to pump brine water; Shell confirmed restraints and BJ pump operator set and tested kick out; BJ and Rig Crew confirmed barricades were in place to own the zone;

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	4
Last Derrick Inspection Last BOP function test Last BOP Test Next BOP Test	12/25/2018 12/18/2018 01/08/2019	6 13		

Operations Summary

24 Hour Summary
Run production casing to 19566'; MU hanger and land out; Circulate minimum of 1 casing volume; Rig up BJ cementers and perform cement job; Pick up run, set and test pack off 10K
Update Since Report Time
0400 HRS: Complete preskid checklist
24 Hour Forecast
Nipple down BOP; release rig; prepare to walk rig to 2701H

EP WELLS DAILY OPERATIONS REPORT

Report 34

12/31/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	6.00	MNH1	CLR		19,617.00	0		PU and run 5.5" 23 ppf production casing from 8312' to 15075' monitoring well on trip tank for proper steel displacement
6:00	3.50	MNH1	CLR		19,617.00	0		PU and run 5.5" 23 ppf production casing from 15075' to 19565'; Land hanger w/ 170K
9:30	0.50	MNH1	RCC		19,617.00	0		RD Franks Casing handling equipmnet & RU BJ cement head
10:00	4.00	MNH1	RCC		19,617.00	0		Step 7 discussion with Rig Crew and BJ about pumping the cement job; Circulate casing capacity @ 5 BPM
14:00	3.50	MNH1	CEM		19,617.00	0		Test 2" 1502 cement lines to 8500 psi; Perform cement job as per following schedule: Pump spacer: 50 barrels 14.0 ppg spacer Dropped bottom plug Pump lead cement : 279 BBLS, 14.5 PPG, 1269 SKS, 1569 CUBIC FEET of 50/50/2 H+ 0.30% FL-66+ 0.10%ASA-301+ 0.35%CD-32A + 0.35%SMS+ 0.50%R-21+ 0.01GPS FP-6L+ 0.005 STATIC FREE Dropped top plug Pump displacement 361 barrels of 9.5 ppg brine Bumped plug on schedule at 500 psi over circulation pressure 5758 psi Floats held 5.5 barrels bled back.
17:30	0.50	MNH1	LCH		19,617.00	0		Rig down cement head and 1502 iron
18:00	1.50	MNH1	LCH		19,617.00	0		Rig down cement equipmnet clear & clean rig floor
19:30	1.00	MNH1	LCH		19,617.00	0		Lay down landing joint; Rig down casing elevators and Rig up drill pipe handling equipmnet
20:30	1.50	MNH1	RDP		19,617.00	0		Pick up Cameron jet tool and wash wellhead and BOP; Lay down jet tool
22:00	2.00	MNH1	WHD		19,617.00	0		Pick up, run and set Cameron packoff assembly; Install BPV and test packoff to 10K on chart as per procedure;
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
19,207.00	91.39	163.51	11,833.70	-6,785.98	2,061.11	7,091.69	2.33	PTW MWD+HDGM_2016
19,302.00	93.10	165.34	11,829.98	-6,877.41	2,086.59	7,186.60	2.64	PTW MWD+HDGM_2016
19,396.00	88.93	163.86	11,828.32	-6,968.00	2,111.54	7,280.55	4.71	PTW MWD+HDGM_2016
19,490.00	89.87	165.75	11,829.30	-7,058.70	2,136.18	7,374.52	2.25	PTW MWD+HDGM_2016
19,617.00	89.87	165.75	11,829.59	-7,181.79	2,167.44	7,501.44	0.00	PTW MWD+HDGM_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	56.00/17.00	POM (cc)	
MD (ft)	19,716.00	TS/HGS/LGS (%)	25.40//	CaCl2 (%)	
Mud Density (ppg)	13.50	Sand (%)		Caom/Clom (ppm)	
Vis (s/qt)	85.00	Oil/Water Ratio (%)	76.70/23.30	ACT	
PV/YP (cp/lbf/100ft²)	21.00/14.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	
Gels 10 s/m (lb/100ft²)	11.000/14.000	ECD (ppg)	13.500	ES (Volts)	
API/HTHP WL (cc/30min)		H2S (gas unit)		R600/300 (°)	
FC/HTHP FC (32nd")	/3.0	KCl (%)		R200/100 (°)	
WPS (ppm)	246,135			R6/3 (°)	
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)			

EP WELLS DAILY OPERATIONS REPORT

Report 34

12/31/2018

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)		Avg. trip gas (gas unit)		Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)		Max. trip gas (gas unit)		Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)		Avg H2S Gas (gas unit)		Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)		Max H2S Gas (gas unit)		Total Losses	0.00/0.00
				End vol. (bbl)	0.00

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	16,024.00	Gals	82.00
CNG	2,908.77	Gals	1,947.00

Remarks

Trash Disposal:0 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115

Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

From Pecos- From Major Intersection Hwy 302 at Hwy 285

Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

University 20 27 Pad Performance Project: Update with new targets 12-18-18

AFE: \$2m under

Days: 1.0 days under

University 20 PW 2702H Well Specific:

AFE: \$300K over

Days: 4.5 days over

EP WELLS DAILY OPERATIONS REPORT

Report 35

01/01/2019

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H
WBS No/API No	30288056 / 4249534173.00

Event Summary

Event Type	Drilling only	Event Start Date	10/08/2018	Days on Location	32.27
Objective	Drill - Alpha A2 Shale	Original Spud Date	10/18/2018	Days Since Spud	23.00
Est. Days	22.95	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Tanner Manuel	Measured Depth(ft)	19,617.00
Engineer	Yermek Tynyshbayev	TVD(ft)	11,829.59
Other Supervisor	Cade Pilcher	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,801.30 / 2,775.30	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	7.625in@11,343.54ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@19,565.00ft
Actual cost to date/AFE	3,246,565/3,425,497.41	Current MW / BH EMW(ppg)	/
Actual divided by AFE	0.95	LOT/FIT EMW(ppg)	
Daily Cost	-443	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	10/12/2016	811	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							
No HSE issues							
UnCAAP/Assist & Assure conversation: * Step 7 discussion with Drill Crew, and Cameron about running; setting and testing the 5.5" pack - off; Driller and Cameron to keep constant communication while setting it; and Cameron to prepare all the tools and area to test it							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	12/25/2018	7	JSA's/Toolbox Talks Days Since Last Drill	5
Last BOP function test	12/18/2018	14		
Last BOP Test	01/08/2019			
Next BOP Test				

Operations Summary

24 Hour Summary
Nipple down BOP; Swap out iron roughneck; complete pre skid checklist;
Update Since Report Time
Walk rig to University 20 TG 2701H
24 Hour Forecast
Rig release rig from University 20 TG Unit 2702H; walk to University 20 TG Unit 2701H

EP WELLS DAILY OPERATIONS REPORT

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01/01/2019

Well UNIVERSITY 20 TG UNIT 2702H
Wellbore UNIVERSITY 20 TG UNIT 2702H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	2.00	MNH1	RDP		19,617.00	0		Nipple down BOP
2:00	4.00	MNH1	RDP		19,617.00	0		Step 7 discussion with Rig Crew on rig down iron roughneck and lay down to ground level; Completed swap out of Iron roughneck
Total	6.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
19,207.00	91.39	163.51	11,833.70	-6,785.98	2,061.11	7,091.69	2.33	PTW MWD+HDGM_2016
19,302.00	93.10	165.34	11,829.98	-6,877.41	2,086.59	7,186.60	2.64	PTW MWD+HDGM_2016
19,396.00	88.93	163.86	11,828.32	-6,968.00	2,111.54	7,280.55	4.71	PTW MWD+HDGM_2016
19,490.00	89.87	165.75	11,829.30	-7,058.70	2,136.18	7,374.52	2.25	PTW MWD+HDGM_2016
19,617.00	89.87	165.75	11,829.59	-7,181.79	2,167.44	7,501.44	0.00	PTW MWD+HDGM_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	POM (cc)
MD (ft)		TS/HGS/LGS (%)	CaCl2 (%)
Mud Density (ppg)		Sand (%)	Caom/Clom (ppm)
Vis (s/qt)		Oil/Water Ratio (%)	ACT
PV/YP (cp/lbf/100ft²)			XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)		LCM (lbm/bbl)	ES (Volts)
API/HTHP WL (cc/30min)		ECD (ppg)	R600/300 (°)
FC/HTHP FC (32nd")		H2S (gas unit)	R200/100 (°)
WPS (ppm)		KCl (%)	R6/3 (°)
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)	

Gas Concentrations and Fluid Losses

Avg Connection Gas (gas unit)	Avg. trip gas (gas unit)	Losses Last 24 Hours/Cumulative...	
Max. connection gas (gas unit)	Max. trip gas (gas unit)	Surface Losses (bbl)	/0.00
Avg. background gas (gas unit)	Avg H2S Gas (gas unit)	Sub Surface Losses (bbl)	/0.00
Max. background gas (gas unit)	Max H2S Gas (gas unit)	Total Losses	0.00/0.00
		End vol. (bbl)	0.00

Bulks Summary

Product	Quantity Onboard	Units	Daily Usage
Diesel: Rig	16,024.00	Gals	
CNG	2,908.77	Gals	

Remarks

Trash Disposal:0 ft3

From Kermit- From Major Intersection Hwy 302 at State Hwy 115

Continue ahead on Hwy 302, 15.8 miles turn left at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road

From Pecos- From Major Intersection Hwy 302 at Hwy 285

Turn right off Hwy 285 at Hwy 302, continue ahead 19.4 miles turn right at A-3 lease road and continue a head 6.5 miles, road will curve to the left for 1 mile and then back to the right, then continue ahead for a 1 mile. Turn right onto location access road.

University 20 27 Pad Performance Project: Update with new targets 12-18-18

AFE: \$2m under

Days: 1.0 days under

University 20 PW 2702H Well Specific:

AFE: \$300K over

EP WELLS DAILY OPERATIONS REPORT

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Well	UNIVERSITY 20 TG UNIT 2702H
Wellbore	UNIVERSITY 20 TG UNIT 2702H

Days: 4.5 days over