



Partner Drilling Report

Well Name: UNIVERSITY 3-35 #104HB

Report Date: 7/30/2017
Report #: 21.0, DFS: 10.29
Time Log DFS: 10.29
Depth Progress: 2,095.00

API/UWI No. 42461405810000		Surface Legal Location A-U47; SEC. 11; BLK 4; UL SURVEY		Well License/Permit No. 824982		State/Province TEXAS			
Original Spud/Spud Rig Date 7/19/2017 23:00		Rig Release Date		KB to GL (ft) 25.00		KB-Casing Flange Distance (ft) 25.00			
Original Spud/Spud Rig Date 7/19/2017		Weather CLEAR		Temperature (°F) 72.0		Road Condition GOOD		Hole Condition GOOD	
Current Status/OART ROTATE / SLIDE DRLG BUILDING IN LATERAL PRODUCTION SECTION AT REPORT TIME.				24 Hour Forecast DRILL AHEAD AS PER DRILLING PROG AND DIRECTIONAL PLAN IN PRODUCTION SECTION.					
Short Report ROTATE / SLIDE DRLG BUILDING CURVE TO LANDING POINT OF 8859', CONTINUE TO ROTATE / SLIDE DRLG IN LATERAL PRODUCTION SECTION, C/O SWAB CONTINUE TO ROTATE / SLIDE DRLG BUILDING IN LATERAL PRODUCTION SECTION.									

Mud Volumes						
Active Volume (bbl) 3,724.4	Var Active Vol (bbl) 229.0	Balance (bbl) 153.0	Tank Volume (bbl) 1,316.0	Additions (bbl) 222.0	Losses (bbl) 146.0	Hole Volume (bbl) 2,408.4

Time Log						
Start Time	End Time	Dur (hr)	Phase	Ops Code	Sub Code	Time Code
06:00	16:15	10.25	22PHCD, Prod Hole Curve Drill	DR	b	O
ROTATE / SLIDE DRLG BUILDING CURVE F/8345' TO 8859' LANDING POINT OF CURVE @ 1615 HRS. 514' @ 50 FPH AVG ROP INC: 87.72, AZM: 358.95, TVD: 8382.74 NOTE: PUMPING 10 BBL HI-VIS SWEEPS EVERY STAND.						
16:15	00:30	8.25	23PHLD, Prod Hole Lat Drill	DR	c	O
ROTATE / SLIDE DRLG IN LATERAL PRODUCTION SECTION F/8859' TO 9852'. 993' @ 120 FPH AVG ROP						
00:30	01:00	0.50	23PHLD, Prod Hole Lat Drill	TR	o	O
C/O SWAB ON MP #2 POD #3						
01:00	06:00	5.00	23PHLD, Prod Hole Lat Drill	DR	c	O
ROTATE / SLIDE DRLG IN LATERAL PRODUCTION SECTION F/9852' TO 10440 588' @ 118 FPH AVG ROP						

Mud Checks						
Time 15:00	Type INVERMUL	Depth (ftKB) 8,600.0	Density (kg/m³) (lb/g... 8.95	Funnel Viscosity (s/qt) 58	PV Calc (cP) 14.0	YP Calc (lb/100ft²) 13.005
Gel 10 sec (kPa) (lb... 11.005	Gell 10 min (kPa) (l... 17.007	Gel 30 min (kPa) (lb... 19.008	Filtrate (mL/30min) 42,000.000	Filter Cake (1/32") 18,000.000	pH Potassium (mg/L) Electric Stab (V) 610.0	Solids (%) 10.0
MBT (lb/bbl)	Percent Oil (%) 68.0	Percent Water (%) 22.0	Chlorides (kg/m³) (... 42,000.000	Calcium (kg/m³) (m... 18,000.000	Potassium (mg/L) Electric Stab (V) 610.0	Solids (%) 10.0
Time 05:00	Type INVERMUL	Depth (ftKB) 9,727.0	Density (kg/m³) (lb/g... 8.90	Funnel Viscosity (s/qt) 59	PV Calc (cP) 13.0	YP Calc (lb/100ft²) 12.005
Gel 10 sec (kPa) (lb... 11.005	Gell 10 min (kPa) (l... 17.007	Gel 30 min (kPa) (lb... 19.008	Filtrate (mL/30min) 40,000.000	Filter Cake (1/32") 18,400.000	pH Potassium (mg/L) Electric Stab (V) 620.0	Solids (%) 9.5
MBT (lb/bbl)	Percent Oil (%) 70.0	Percent Water (%) 20.5	Chlorides (kg/m³) (... 40,000.000	Calcium (kg/m³) (m... 18,400.000	Potassium (mg/L) Electric Stab (V) 620.0	Solids (%) 9.5

Mud Volumes			
Tank/Addition/Loss	Type	Volume (bbl)	Subtype
Hole	ANNULUS	478.5	
Hole	PIPE CAP	167.3	
Hole	TOTAL HOLE	645.8	
Tank	ACTIVE PITS	471.0	
Hole	TOTAL CIRC.	1,116.8	
Tank	RESERVE	845.0	
Addition	BASE	162.7	
Addition	DRILL WATER	45.0	
Addition	WHOLE MUD	0.0	
Addition	CHEMICALS	11.5	
Loss	SCE	94.0	
Loss	DOWNHOLE	32.0	
Loss	EVAPORATION	4.0	
Loss	FILTRATION	16.0	
Addition	BARITE	2.8	

AFE Number DD.17.30781.CAP.DRL	AFE+Supp Amt (Cost) 2,331,000.00
Day Total (Cost) 72,278	Cum To Date (Cost) 1,292,347
Mud Field Est (Cost) 5,344	Cum Mud Field Est (Co... 54,136
Start Depth (ftKB) 8,345.0	End Depth (ftKB) 10,440.0
Planned Formation WOLFCAMP B	Planned TMD (ftKB) 19,337.0
Last Casing String Intermediate Casing, 5,058.0ftKB	

Daily Contacts	
Job Contact	Mobile
BRIAN ALLEMAN, Engineer	214-978-8000
CHRISTOPHER ABSHIRE, Foreman	281-220-5828
MARTY ARREZOLA, Consultant	281-220-5828
DEAN DUFFY, Rig Clerk/Logistics	281-220-5829

Personnel Log	
Head Count	22.0

Rigs	
HELMERICH & PAYNE DRILLING, 3	
Contractor HELMERICH & PAYNE DRILLING	Rig Number 394
Rig Supervisor THOMAS PENDERGRASS, Toolpusher	Phone Mobile

1, Gardner-Denver, PZ-11			
Pump Number 1	Pwr (hp) 1,300.0	Rod Diameter...	
Liner Size (in) 5	Stroke (in) 11.00	Vol/Stk OR (b...	
P (psi) 560.0	Slow Spd Yes	Strokes (s... 60	Eff (%) 87
P (psi) 3,029.0	Slow Spd No	Strokes (s... 105	Eff (%) 87
2, Gardner-Denver, PZ-11			
Pump Number 2	Pwr (hp) 1,300.0	Rod Diameter...	
Liner Size (in) 5	Stroke (in) 11.00	Vol/Stk OR (b...	
P (psi) 460.0	Slow Spd Yes	Strokes (s... 40	Eff (%) 87
P (psi) 3,029.0	Slow Spd No	Strokes (s... 105	Eff (%) 87

Mud Additive Amounts		
Mud Additive Description	Field Est (Cost/unit)	Consumed
12 HR MUD ENGINEER	700.00	1.0
BARABLOK 400	85.00	10.0
BARACARB 50	13.30	17.0
BAROID (BULK)	205.00	2.0
BARO-TROL PLUS	77.97	16.0
DRILTREAT	97.02	3.0
LIME	6.00	45.0
SCALE CHARGE	10.00	1.0
SUSPENTONE	134.10	5.0
TRANSPORTATI ON	1.00	668.5



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Drill Strings

BHA #6, Curve

Bit Run	Drill Bit	IADC Bit Dull	TFA (incl Noz) (in ²)
1	8 1/2in, MMD55DM, 1287411	-----	1.86
Nozzles (1/32")		BHA Length (ft)	String Wt (1000lbf)
22/22/22/22/22		12,105.26	84.2

Mud Motors

Motor Bend	Bit to Bend	Rotor Nozzle Diameter (in)
2.00 FIXED	4.05	

Drill String Components

Item Des	Manual/Tally Jts	OD (in)	ID (in)	Len (ft)	Top Thread
HWDP	21	5	3.00	639.59	IF
Drill Pipe	306	5	4.28	9,638.80	IF
Agitator	1	6 9/16	2.50	23.78	IF
Drill Pipe	54	5	4.28	1,702.49	IF
Drill Collar - Non Mag	1	6 1/2	3.25	30.67	IF
Non-Mag Hangoff Sub	1	6 1/2	3.25	5.45	IF
Drill Collar - Non Mag	1	6 1/2	3.25	30.72	IF
Mud Motor - Bent Housing	1	6 1/2	2.50	33.76	IF

Drilling Parameters

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth (ft)	Drilling Time (hr)	Cum Drill Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
UNIVERSITY 3-35 #104HB	8,345.0	8,346.0	1.00	0.47	6.03	2.1	556
WOB (1000lbf)	Rotary RPM (rpm)	SPP (psi)	Drill Str Wt (1000...)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Btm Tq
32	44	2,883.0	180	184	182	0.0	
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...)	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...)

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.8	0.4	96.1	76.6	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.26
Error				

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth (ft)	Drilling Time (hr)	Cum Drill Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
UNIVERSITY 3-35 #104HB	8,346.0	8,380.0	35.00	0.61	6.64	55.7	556
WOB (1000lbf)	Rotary RPM (rpm)	SPP (psi)	Drill Str Wt (1000...)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Btm Tq
30	0	2,784.0	180	184	182	0.0	0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...)	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...)

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257.3	51.8	99.6	48.5	9.26
Error				

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth (ft)	Drilling Time (hr)	Cum Drill Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
UNIVERSITY 3-35 #104HB	8,380.0	8,394.0	49.00	0.35	6.99	40.0	556
WOB (1000lbf)	Rotary RPM (rpm)	SPP (psi)	Drill Str Wt (1000...)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Btm Tq
26	40	2,834.0	180	184	182	10.0	
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...)	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...)

Hydraulic Calculations

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257.3	51.8	99.6	48.5	9.26
Error				

Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth (ft)	Drilling Time (hr)	Cum Drill Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
UNIVERSITY 3-35 #104HB	8,394.0	8,432.0	87.00	0.71	7.70	53.5	556
WOB (1000lbf)	Rotary RPM (rpm)	SPP (psi)	Drill Str Wt (1000...)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Btm Tq
31	0	2,782.0	180	184	182	0.0	0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...)	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...)

Job Supplies

Supply Item Description	Unit Label
DIESEL FOR OBM	Gal
Total Received	Total Consumed
29,057.0	22,513.0
On Loc	
6,544.0	

Supply Item Description	Unit Label
DRILLING CUTTINGS	Cu. Yds
Total Received	Total Consumed
240.0	240.0
On Loc	
0.0	

Supply Item Description	Unit Label
DRILLING WATER	Bbl
Total Received	Total Consumed
5,994.6	5,994.6
On Loc	
0.0	

Supply Item Description	Unit Label
FUEL	Gal
Total Received	Total Consumed
42,764.0	21,513.0
On Loc	
9,453.0	

Supply Item Description	Unit Label
LIQUID DRILLING WASTE	Bbl
Total Received	Total Consumed
200.0	200.0
On Loc	
0.0	

Supply Item Description	Unit Label
POTABLE WATER	Gal
Total Received	Total Consumed
26,800.0	26,800.0
On Loc	
0.0	

Supply Item Description	Unit Label
SEWAGE	Gal
Total Received	Total Consumed
18,500.0	18,500.0
On Loc	
0.0	

Supply Item Description	Unit Label
THREAD PROTECTORS	Box
Total Received	Total Consumed
1.0	1.0
On Loc	
0.0	

Supply Item Description	Unit Label
TRASH/GENERAL WASTE	Box
Total Received	Total Consumed
0.0	0.0
On Loc	
0.0	

Safety Checks

Time	Type	Safety Topic
17:30	Pre-Tour	FORKLIFT / LOADER SAFETY
05:30	Pre-Tour	FORKLIFT / LOADER SAFETY

Wellbores

Wellbore Name
UNIVERSITY 3-35 #104HB

Kick Offs & Key Depths

Type	Top Depth (ftKB)



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Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.8	0.4	96.1	76.6	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.26

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 8,432.0	End Depth (ftKB) 8,441.0	Cum Depth (ft) 96.00	Drilling Time (hr) 0.34	Cum Drill Time (hr) 8.04	Interval ROP (ft/hr) 26.5	Flow Rate (gpm) 556
WOB (1000lbf) 28	Rotary RPM (rpm) 0	SPP (psi) 2,815.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 10.0	Off Btm Tq
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

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Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.26

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 8,441.0	End Depth (ftKB) 8,479.0	Cum Depth (ft) 134.00	Drilling Time (hr) 0.66	Cum Drill Time (hr) 8.70	Interval ROP (ft/hr) 57.6	Flow Rate (gpm) 556
WOB (1000lbf) 22	Rotary RPM (rpm) 0	SPP (psi) 2,770.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 0.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.8	0.4	96.1	76.6	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.26

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 8,479.0	End Depth (ftKB) 8,488.0	Cum Depth (ft) 143.00	Drilling Time (hr) 0.32	Cum Drill Time (hr) 9.02	Interval ROP (ft/hr) 28.1	Flow Rate (gpm) 556
WOB (1000lbf) 8	Rotary RPM (rpm) 36	SPP (psi) 2,728.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 8.0	Off Btm Tq
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.8	0.4	96.1	76.6	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.26

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 8,488.0	End Depth (ftKB) 8,527.0	Cum Depth (ft) 182.00	Drilling Time (hr) 0.67	Cum Drill Time (hr) 9.69	Interval ROP (ft/hr) 58.2	Flow Rate (gpm) 556
WOB (1000lbf) 20	Rotary RPM (rpm) 0	SPP (psi) 2,734.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 0.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.8	0.4	96.1	76.6	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.26

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 8,527.0	End Depth (ftKB) 8,535.0	Cum Depth (ft) 190.00	Drilling Time (hr) 0.34	Cum Drill Time (hr) 10.03	Interval ROP (ft/hr) 23.5	Flow Rate (gpm) 556
WOB (1000lbf) 19	Rotary RPM (rpm) 38	SPP (psi) 2,729.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 8.0	Off Btm Tq
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...



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24.8	0.4	96.1	76.6	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.26

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Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 8,535.0	End Depth (ftKB) 8,573.0	Cum Depth (ft) 228.00	Drilling Time (hr) 0.69	Cum Drill Time (hr) 10.72	Interval ROP (ft/hr) 55.1	Flow Rate (gpm) 556
WOB (1000lbf) 25	Rotary RPM (rpm) 0	SPP (psi) 2,725.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 0.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

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Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.26

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Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 8,573.0	End Depth (ftKB) 8,582.0	Cum Depth (ft) 237.00	Drilling Time (hr) 0.29	Cum Drill Time (hr) 11.01	Interval ROP (ft/hr) 31.0	Flow Rate (gpm) 556
WOB (1000lbf) 26	Rotary RPM (rpm) 38	SPP (psi) 2,816.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 9.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

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Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 8,582.0	End Depth (ftKB) 8,614.0	Cum Depth (ft) 269.00	Drilling Time (hr) 0.59	Cum Drill Time (hr) 11.60	Interval ROP (ft/hr) 54.2	Flow Rate (gpm) 556
WOB (1000lbf) 30	Rotary RPM (rpm) 0	SPP (psi) 2,723.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 0.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

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257.3	51.8	99.6	48.5	9.26

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 8,614.0	End Depth (ftKB) 8,630.0	Cum Depth (ft) 285.00	Drilling Time (hr) 0.40	Cum Drill Time (hr) 12.00	Interval ROP (ft/hr) 40.0	Flow Rate (gpm) 556
WOB (1000lbf) 26	Rotary RPM (rpm) 39	SPP (psi) 2,817.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 9.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.8	0.4	96.1	76.6	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.26

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 8,630.0	End Depth (ftKB) 8,660.0	Cum Depth (ft) 315.00	Drilling Time (hr) 0.45	Cum Drill Time (hr) 12.45	Interval ROP (ft/hr) 66.7	Flow Rate (gpm) 556
WOB (1000lbf) 29	Rotary RPM (rpm) 0	SPP (psi) 2,756.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 0.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...



Partner Drilling Report

Report Date: 7/30/2017
Report #: 21.0, DFS: 10.29
Time Log DFS: 10.29
Depth Progress: 2,095.00

Well Name: UNIVERSITY 3-35 #104HB

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.8	0.4	96.1	76.6	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.26

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 8,660.0	End Depth (ftKB) 8,677.0	Cum Depth (ft) 332.00	Drilling Time (hr) 0.38	Cum Drill Time (hr) 12.83	Interval ROP (ft/hr) 44.7	Flow Rate (gpm) 556
WOB (1000lbf) 0	Rotary RPM (rpm) 38	SPP (psi) 2,828.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 10.0	Off Btm Tq
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.8	0.4	96.1	76.6	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.26

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 8,677.0	End Depth (ftKB) 8,705.0	Cum Depth (ft) 360.00	Drilling Time (hr) 0.48	Cum Drill Time (hr) 13.31	Interval ROP (ft/hr) 58.3	Flow Rate (gpm) 556
WOB (1000lbf) 37	Rotary RPM (rpm) 0	SPP (psi) 2,777.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 0.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.8	0.4	96.1	76.6	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.26

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 8,705.0	End Depth (ftKB) 8,724.0	Cum Depth (ft) 379.00	Drilling Time (hr) 0.39	Cum Drill Time (hr) 13.70	Interval ROP (ft/hr) 48.7	Flow Rate (gpm) 556
WOB (1000lbf) 28	Rotary RPM (rpm) 38	SPP (psi) 2,779.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 10.0	Off Btm Tq
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.8	0.4	96.1	76.6	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.26

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 8,724.0	End Depth (ftKB) 8,751.0	Cum Depth (ft) 406.00	Drilling Time (hr) 0.41	Cum Drill Time (hr) 14.11	Interval ROP (ft/hr) 65.9	Flow Rate (gpm) 556
WOB (1000lbf) 18	Rotary RPM (rpm) 0	SPP (psi) 2,779.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 0.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.8	0.4	96.1	76.6	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.26

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 8,751.0	End Depth (ftKB) 8,818.0	Cum Depth (ft) 473.00	Drilling Time (hr) 0.86	Cum Drill Time (hr) 14.97	Interval ROP (ft/hr) 77.9	Flow Rate (gpm) 556
WOB (1000lbf) 27	Rotary RPM (rpm) 48	SPP (psi) 2,863.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 11.0	Off Btm Tq
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...



Partner Drilling Report

Report Date: 7/30/2017
Report #: 21.0, DFS: 10.29
Time Log DFS: 10.29
Depth Progress: 2,095.00

Well Name: UNIVERSITY 3-35 #104HB

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.3	0.4	96.1	74.9	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.05

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 8,818.0	End Depth (ftKB) 8,818.0	Cum Depth (ft) 473.00	Drilling Time (hr) 0.27	Cum Drill Time (hr) 15.24	Interval ROP (ft/hr) 0.0	Flow Rate (gpm) 556
WOB (1000lbf) 33	Rotary RPM (rpm) 0	SPP (psi) 2,797.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 0.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.3	0.4	96.1	74.9	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.05

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 8,818.0	End Depth (ftKB) 8,858.0	Cum Depth (ft) 513.00	Drilling Time (hr) 0.23	Cum Drill Time (hr) 15.47	Interval ROP (ft/hr) 173.9	Flow Rate (gpm) 556
WOB (1000lbf) 28	Rotary RPM (rpm) 60	SPP (psi) 2,862.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 11.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.3	0.4	96.1	74.9	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.05

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 8,858.0	End Depth (ftKB) 8,860.0	Cum Depth (ft) 515.00	Drilling Time (hr) 0.01	Cum Drill Time (hr) 15.48	Interval ROP (ft/hr) 200.0	Flow Rate (gpm) 556
WOB (1000lbf) 22	Rotary RPM (rpm) 0	SPP (psi) 2,814.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 0.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.3	0.4	96.1	74.9	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.05

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 8,860.0	End Depth (ftKB) 9,020.0	Cum Depth (ft) 675.00	Drilling Time (hr) 1.55	Cum Drill Time (hr) 17.03	Interval ROP (ft/hr) 103.2	Flow Rate (gpm) 556
WOB (1000lbf) 32	Rotary RPM (rpm) 70	SPP (psi) 2,988.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 11.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.3	0.4	96.1	74.9	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.05

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 9,020.0	End Depth (ftKB) 9,035.0	Cum Depth (ft) 690.00	Drilling Time (hr) 0.31	Cum Drill Time (hr) 17.34	Interval ROP (ft/hr) 48.4	Flow Rate (gpm) 556
WOB (1000lbf) 28	Rotary RPM (rpm) 0	SPP (psi) 2,755.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 0.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...



Partner Drilling Report

Report Date: 7/30/2017
Report #: 21.0, DFS: 10.29
Time Log DFS: 10.29
Depth Progress: 2,095.00

Well Name: UNIVERSITY 3-35 #104HB

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.3	0.4	96.1	74.9	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.05

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 9,035.0	End Depth (ftKB) 9,151.0	Cum Depth (ft) 806.00	Drilling Time (hr) 0.70	Cum Drill Time (hr) 18.04	Interval ROP (ft/hr) 165.7	Flow Rate (gpm) 556
WOB (1000lbf) 30	Rotary RPM (rpm) 70	SPP (psi) 2,924.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 11.0	Off Btm Tq
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.3	0.4	96.1	74.9	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.05

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 9,151.0	End Depth (ftKB) 9,126.0	Cum Depth (ft) 781.00	Drilling Time (hr) 0.21	Cum Drill Time (hr) 18.25	Interval ROP (ft/hr) -119.0	Flow Rate (gpm) 556
WOB (1000lbf) 16	Rotary RPM (rpm) 0	SPP (psi) 2,831.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 184	SO Str Wt (1000lbf) 182	Drilling Torque 0.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.3	0.4	96.1	74.9	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.05

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 9,126.0	End Depth (ftKB) 9,587.0	Cum Depth (ft) 1,242.00	Drilling Time (hr) 3.39	Cum Drill Time (hr) 21.64	Interval ROP (ft/hr) 136.0	Flow Rate (gpm) 556
WOB (1000lbf) 31	Rotary RPM (rpm) 70	SPP (psi) 3,006.0	Drill Str Wt (1000... 185	PU Str Wt (1000lbf) 188	SO Str Wt (1000lbf) 185	Drilling Torque 12.0	Off Btm Tq
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.3	0.4	96.1	74.9	2
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.05

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 9,587.0	End Depth (ftKB) 9,600.0	Cum Depth (ft) 1,255.00	Drilling Time (hr) 0.30	Cum Drill Time (hr) 21.94	Interval ROP (ft/hr) 43.3	Flow Rate (gpm) 556
WOB (1000lbf) 8	Rotary RPM (rpm) 0	SPP (psi) 2,854.0	Drill Str Wt (1000... 185	PU Str Wt (1000lbf) 188	SO Str Wt (1000lbf) 185	Drilling Torque 0.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.3	0.4	96.1	74.9	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.05

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 9,600.0	End Depth (ftKB) 9,773.0	Cum Depth (ft) 1,428.00	Drilling Time (hr) 1.54	Cum Drill Time (hr) 23.48	Interval ROP (ft/hr) 112.3	Flow Rate (gpm) 556
WOB (1000lbf) 31	Rotary RPM (rpm) 70	SPP (psi) 3,043.0	Drill Str Wt (1000... 185	PU Str Wt (1000lbf) 188	SO Str Wt (1000lbf) 185	Drilling Torque 12.0	Off Btm Tq
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...



Partner Drilling Report

Well Name: UNIVERSITY 3-35 #104HB

Report Date: 7/30/2017
Report #: 21.0, DFS: 10.29
Time Log DFS: 10.29
Depth Progress: 2,095.00

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.3	0.4	96.1	74.9	2
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.05

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth (ft)	Drilling Time (hr)	Cum Drill Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
	9,773.0	9,789.0	1,444.00	0.28	23.76	57.1	556
WOB (1000lbf)	Rotary RPM (rpm)	SPP (psi)	Drill Str Wt (1000...)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Btm Tq
12	0	2,906.0	185	188	185	0.0	0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...)	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.3	0.4	96.1	74.9	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.05

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth (ft)	Drilling Time (hr)	Cum Drill Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
	9,789.0	10,147.0	1,802.00	3.46	27.22	103.5	556
WOB (1000lbf)	Rotary RPM (rpm)	SPP (psi)	Drill Str Wt (1000...)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Btm Tq
24	70	3,020.0	185	188	185	12.0	
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...)	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.3	0.4	96.1	74.9	2
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.05

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth (ft)	Drilling Time (hr)	Cum Drill Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
	10,147.0	10,163.0	1,818.00	0.30	27.52	53.3	556
WOB (1000lbf)	Rotary RPM (rpm)	SPP (psi)	Drill Str Wt (1000...)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Btm Tq
19	0	2,982.0	185	188	185	0.0	0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...)	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.3	0.4	96.1	74.9	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.05

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth (ft)	Drilling Time (hr)	Cum Drill Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
	10,163.0	10,440.0	2,095.00	2.27	29.79	122.0	556
WOB (1000lbf)	Rotary RPM (rpm)	SPP (psi)	Drill Str Wt (1000...)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Btm Tq
30	70	3,096.0	185	188	185	13.0	
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...)	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.2	0.4	96.1	74.5	2
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.00

Error

Kicks

Kick Date	Kick Depth (ftKB)	Control Date	Control Depth (ftKB)	Kick Class
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Kill Notes

Lost Circulation

Start Date	Top Depth (ftKB)	Bottom Depth (ftKB)	Ops In Prog	Vol Lost Tot (bbl)	End Date
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Partner Drilling Report

Well Name: UNIVERSITY 3-35 #104HB

Report Date: 7/30/2017
Report #: 21.0, DFS: 10.29
Time Log DFS: 10.29
Depth Progress: 2,095.00

Interval Problems

Problem Type	Problem Subtype	Start Date	Start Depth (ftKB)	End Depth (ftKB)	Est Cost (Cost)	Est Lost Time (hr)
Action Taken						

Interval Lessons

Lesson Type	Start Date	End Date	Start Depth (ftKB)	End Depth (ftKB)	Est Cost Saving (Co..)	Est Time Saving (hr)
Comment						

Safety Incidents

Time	Category	Type	Subtype	Cause	Lost time?	Severity

Leak Off and Formation Integrity Tests

Run Date	OD (in)	Set Depth (ft...)	Set Depth (T...	Comment	MACP Press...
7/20/2017	13 3/8	1,461.0	1,460.8	TEST ON CHART: GOOD TEST	500.0
Test Date	Test Type	Fluid Density (lb/gal)	EMW (lb/gal)		
7/21/2017	Casing Test	8.30	14.80		
Run Date	OD (in)	Set Depth (ft...)	Set Depth (T...	Comment	MACP Press...
7/24/2017	9 5/8	5,058.0	4,973.7	TEST ON CHART: GOOD TEST	1,500.0
Test Date	Test Type	Fluid Density (lb/gal)	EMW (lb/gal)		
7/25/2017	Casing Test	9.90	15.71		
Run Date	OD (in)	Set Depth (ft...)	Set Depth (T...	Comment	MACP Press...
7/24/2017	9 5/8	5,058.0	4,973.7	TEST ON CHART: GOOD TEST	96.0
Test Date	Test Type	Fluid Density (lb/gal)	EMW (lb/gal)		
7/26/2017	F.I.T.	9.90	10.27		

Survey Data

MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
8,386.00	44.05	354.96	8,222.53	185.27	72.08	1,171.70	10.47
8,432.00	49.45	353.86	8,254.04	218.13	105.42	1,168.42	11.87
8,481.00	54.47	354.22	8,284.22	255.93	143.79	1,164.42	10.26
8,527.00	60.44	355.30	8,308.96	294.00	182.38	1,160.89	13.13
8,576.00	66.14	355.97	8,330.97	337.10	226.01	1,157.57	11.70
8,622.00	71.68	356.74	8,347.52	379.45	268.83	1,154.84	12.14
8,670.00	76.36	357.45	8,360.73	425.08	314.90	1,152.51	9.85
8,718.00	81.04	358.16	8,373.94	470.71	360.81	1,150.18	8.85
8,765.00	84.59	359.18	8,376.44	517.94	408.46	1,149.77	8.85
8,813.00	87.72	358.95	8,382.74	564.17	456.02	1,148.24	3.34
8,861.00	90.85	358.80	8,386.11	610.40	503.25	1,146.38	0.55
8,909.00	93.98	358.65	8,389.48	656.63	550.48	1,144.52	0.55
8,954.00	96.11	358.80	8,386.11	705.41	597.15	1,146.38	0.55
9,002.00	99.24	358.65	8,386.82	754.19	644.38	1,145.74	3.34
9,048.00	90.91	0.42	8,386.82	798.89	691.13	1,145.74	3.34
9,094.00	93.04	1.99	8,386.26	847.67	738.36	1,147.72	2.06
9,142.00	89.77	1.99	8,386.26	892.61	785.11	1,147.72	2.06
9,188.00	90.30	2.37	8,386.20	937.05	830.55	1,151.33	0.69
9,237.00	90.30	2.37	8,386.20	987.45	880.04	1,151.33	0.69
9,283.00	90.74	1.96	8,385.35	1,031.28	923.97	1,154.88	0.64
9,331.00	90.74	1.96	8,385.35	1,081.28	973.97	1,154.88	0.64
9,377.00	90.87	1.52	8,384.02	1,126.06	1,018.91	1,157.77	0.48
9,426.00	90.87	1.52	8,384.02	1,176.06	1,068.91	1,157.77	0.48
9,472.00	91.74	1.26	8,381.87	1,220.78	1,113.63	1,160.05	0.97
9,520.00	91.74	1.26	8,381.87	1,269.78	1,162.86	1,160.05	0.97
9,566.00	90.54	0.85	8,379.98	1,314.47	1,207.57	1,161.79	1.33
9,615.00	90.54	0.85	8,379.98	1,364.47	1,257.82	1,161.79	1.33
9,661.00	91.61	1.37	8,378.22	1,408.17	1,301.17	1,163.62	1.27
9,709.00	91.61	1.37	8,378.22	1,458.17	1,351.79	1,163.62	1.27
9,755.00	90.03	0.19	8,376.86	1,502.82	1,396.46	1,164.91	2.08
9,804.00	90.03	0.19	8,376.86	1,552.82	1,446.76	1,164.91	2.08
9,850.00	90.00	359.75	8,376.84	1,602.37	1,491.76	1,164.86	0.46
9,899.00	90.00	359.75	8,376.84	1,647.37	1,541.76	1,164.86	0.46
9,945.00	90.13	358.77	8,376.73	1,691.80	1,586.25	1,163.64	1.05
9,993.00	90.13	358.77	8,376.73	1,740.80	1,635.75	1,163.64	1.05
10,039.00	90.67	358.05	8,376.07	1,785.06	1,680.01	1,161.01	0.95
10,088.00	90.67	358.05	8,376.07	1,835.06	1,730.71	1,161.01	0.95
10,134.00	88.96	359.47	8,376.37	1,879.39	1,774.69	1,158.97	2.36
10,182.00	88.96	359.47	8,376.37	1,928.39	1,824.69	1,158.97	2.36
10,228.00	89.40	359.33	8,377.73	2,022.83	1,919.67	1,157.98	0.49
10,277.00	89.40	359.33	8,377.73	2,072.83	1,969.67	1,157.98	0.49



Partner Drilling Report

Report Date: 7/30/2017
Report #: 21.0, DFS: 10.29
Time Log DFS: 10.29
Depth Progress: 2,095.00

Well Name: UNIVERSITY 3-35 #104HB

Survey Data

MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
10,371.00	90.03	358.19	8,378.20	2,116.17	2,013.65	1,155.95	1.39
MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
10,465.00	89.70	359.67	8,378.42	2,209.54	2,107.63	1,154.19	1.61



Partner Drilling Report

Well Name: UNIVERSITY 3-35 #104HB

Report Date: 7/31/2017
Report #: 22.0, DFS: 11.29
Time Log DFS: 11.29
Depth Progress: 2,434.00

API/UWI No. 42461405810000	Surface Legal Location A-U47; SEC. 11; BLK 4; UL SURVEY	Well License/Permit No. 824982	State/Province TEXAS
Original Spud/Spud Rig Date 7/19/2017 23:00	Rig Release Date	KB to GL (ft) 25.00	KB-Casing Flange Distance (ft)
Original Spud/Spud Rig Date 7/19/2017	Weather CLEAR	Temperature (°F) 77.0	Road Condition GOOD
Current Status/OART ROTATE / SLIDE DRLG IN LATERAL PRODUCTION SECTION AT REPORT TIME.		24 Hour Forecast DRILL AHEAD AS PER DRILLING PROG AND DIRECTIONAL PLAN IN PRODUCTION SECTION.	

Short Report
ROTATE / SLIDE DRLG IN LATERAL PRODUCTION SECTION, RIG SERVICE, C/O MP #1 SWAB & LINER, WAIT ON
ELECTRICIAN TO REPAIR DRAWWORKS, ROTATE / SLIDE DRLG IN LATERAL PRODUCTION SECTION

Mud Volumes						
Active Volume (bbl) 4,134.8	Var Active Vol (bbl) 410.4	Balance (bbl) 321.8	Tank Volume (bbl) 1,266.0	Additions (bbl) 223.3	Losses (bbl) 134.7	Hole Volume (bbl) 2,868.8

Time Log						
Start Time	End Time	Dur (hr)	Phase	Ops Code	Sub Code	Time Code
06:00	16:30	10.50	23PHLD, Prod Hole Lat Drill	DR	c	O
ROTATE / SLIDE DRLG IN LATERAL PRODUCTION SECTION F/10440' TO 11556'						
1116' @ 106 FPH AVG ROP						
16:30	17:00	0.50	23PHLD, Prod Hole Lat Drill	RM	b	O
RIG SERVICE						
17:00	17:30	0.50	23PHLD, Prod Hole Lat Drill	TR	o	O
C/O MP #1 LINER AND SWAB						
17:30	19:30	2.00	23PHLD, Prod Hole Lat Drill	DT	c	O
WAIT ON ELECTRICIAN TO T/S AND INSPECT DRAW WORKS AND BLOWER AND REPAIR COMPONENTS						
NOTE: CIRC AND ROTATE WHILE MAKING REPAIRS.						
19:30	06:00	10.50	23PHLD, Prod Hole Lat Drill	DR	c	O
ROTATE / SLIDE DRLG IN LATERAL PRODUCTION SECTION F/11556' TO 12874'						
1318' @ 126 FPH AVG ROP						
NOTE: PUMPING 10 BBL LCM SWEEPS EVERY STAND.						

Mud Checks						
Time 15:00	Type INVERMUL	Depth (ftKB) 11,221.0	Density (kg/m³) (lb/g... 8.90	Funnel Viscosity (s/qt) 55	PV Calc (cP) 12.0	YP Calc (lb/100ft²) 13.005
Gel 10 sec (kPa) (lb... 11.005	Gell 10 min (kPa) (l... 15.006	Gel 30 min (kPa) (lb... 17.007	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%) 9.5
MBT (lb/bbl)	Percent Oil (%) 68.8	Percent Water (%) 21.8	Chlorides (kg/m³) (... 39,000.000	Calcium (kg/m³) (m... 16,800.000	Potassium (mg/L) 494.0	Electric Stab (V) 494.0
Time 05:00	Type INVERMUL	Depth (ftKB) 11,939.0	Density (kg/m³) (lb/g... 8.85	Funnel Viscosity (s/qt) 55	PV Calc (cP) 11.0	YP Calc (lb/100ft²) 10.004
Gel 10 sec (kPa) (lb... 10.004	Gell 10 min (kPa) (l... 14.006	Gel 30 min (kPa) (lb... 16.007	Filtrate (mL/30min)	Filter Cake (1/32")	pH	Solids (%) 9.5
MBT (lb/bbl)	Percent Oil (%) 70.5	Percent Water (%) 20.0	Chlorides (kg/m³) (... 40,000.000	Calcium (kg/m³) (m... 17,200.000	Potassium (mg/L) 694.0	Electric Stab (V) 694.0

Mud Volumes			
Tank/Addition/Loss	Type	Volume (bbl)	Subtype
Hole	ANNULUS	578.5	
Hole	PIPE CAP	205.7	
Hole	TOTAL HOLE	784.3	
Tank	ACTIVE PITS	516.0	
Hole	TOTAL CIRC.	1,300.3	
Tank	RESERVE	750.0	
Addition	BASE	154.8	
Addition	DRILL WATER	44.0	
Addition	WHOLE MUD	0.0	
Addition	CHEMICALS	24.5	
Loss	SCE	105.7	
Loss	DOWNHOLE	0.0	
Loss	EVAPORATION	6.0	
Loss	FILTRATION	23.0	
Addition	BARITE	0.0	

AFE Number DD.17.30781.CAP.DRL	AFE+Supp Amt (Cost) 2,331,000.00
Day Total (Cost) 70,297	Cum To Date (Cost) 1,362,645
Mud Field Est (Cost) 10,565	Cum Mud Field Est (Co... 64,702
Start Depth (ftKB) 10,440.0	End Depth (ftKB) 12,874.0
Planned Formation WOLFCAMP B	Planned TMD (ftKB) 19,337.0
Last Casing String Intermediate Casing, 5,058.0ftKB	

Daily Contacts	
Job Contact	Mobile
BRIAN ALLEMAN, Engineer	214-978-8000
CHRISTOPHER ABSHIRE, Foreman	281-220-5828
MARTY ARREZOLA, Consultant	281-220-5828
DEAN DUFFY, Rig Clerk/Logistics	281-220-5829

Personnel Log	
Head Count	22.0

Rigs	
HELMERICH & PAYNE DRILLING, 3	
Contractor HELMERICH & PAYNE DRILLING	Rig Number 394
Rig Supervisor THOMAS PENDERGRASS, Toolpusher	Phone Mobile

1, Gardner-Denver, PZ-11			
Pump Number 1	Pwr (hp) 1,300.0	Rod Diameter...	
Liner Size (in) 5	Stroke (in) 11.00	Vol/Stk OR (b...	
P (psi) 3,375.0	Slow Spd No	Strokes (s... 105	Eff (%) 87
P (psi) 3,375.0	Slow Spd No	Strokes (s... 105	Eff (%) 87

2, Gardner-Denver, PZ-11			
Pump Number 2	Pwr (hp) 1,300.0	Rod Diameter...	
Liner Size (in) 5	Stroke (in) 11.00	Vol/Stk OR (b...	
P (psi) 3,375.0	Slow Spd No	Strokes (s... 104	Eff (%) 87
P (psi) 3,375.0	Slow Spd No	Strokes (s... 104	Eff (%) 87

Mud Additive Amounts		
Mud Additive Description	Field Est (Cost/unit)	Consumed
12 HR MUD ENGINEER	700.00	1.0
BARABLOK 400	85.00	17.0
BARACARB 150	13.30	30.0
BARACARB 50	13.30	30.0
BARO-TROL PLUS	77.97	10.0
CALCIUM CHL 95 -98%	17.10	27.0
DRILTREAT	97.02	6.0
GELTONE V	65.00	7.0
LIME	6.00	55.0
MICA FINE	15.00	40.0
STOPPIT	40.00	50.0
SUSPENTONE	134.10	18.0



Partner Drilling Report

Well Name: UNIVERSITY 3-35 #104HB

Report Date: 7/31/2017
Report #: 22.0, DFS: 11.29
Time Log DFS: 11.29
Depth Progress: 2,434.00

Drill Strings							
BHA #6, Curve							
Bit Run	Drill Bit	IADC Bit Dull			TFA (incl Noz) (in ²)		
1	8 1/2in, MMD55DM, 1287411	-----			1.86		
Nozzles (1/32")		BHA Length (ft)		String Wt (1000lbf)	Bit ROP (ft/hr)		
22/22/22/22/22		12,105.26			84.2		
Mud Motors							
Motor Bend		Bit to Bend		Rotor Nozzle Diameter (in)			
2.00 FIXED		4.05					
Drill String Components							
Item Des	Manual/Tally Jts	OD (in)	ID (in)	Len (ft)	Top Thread		
HWDP	21	5	3.00	639.59	IF		
Drill Pipe	306	5	4.28	9,638.80	IF		
Agitator	1	6 9/16	2.50	23.78	IF		
Drill Pipe	54	5	4.28	1,702.49	IF		
Drill Collar - Non Mag	1	6 1/2	3.25	30.67	IF		
Non-Mag Hangoff Sub	1	6 1/2	3.25	5.45	IF		
Drill Collar - Non Mag	1	6 1/2	3.25	30.72	IF		
Mud Motor - Bent Housing	1	6 1/2	2.50	33.76	IF		
Drilling Parameters							
Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth (ft)	Drilling Time (hr)	Cum Drill Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
UNIVERSITY 3-35 #104HB	10,440.0	10,456.0	2,111.00	0.31	30.10	51.6	556
WOB (1000lbf)	Rotary RPM (rpm)	SPP (psi)	Drill Str Wt (1000...)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Btm Tq
33	0	3,104.0	180	182	180	0.0	0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...
Hydraulic Calculations							
Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)		Bit Pressure Drop (psi)		% P @ bit (%)	
24.2	0.4	96.1		74.5		2	
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)		Min Open Hole AV (ft/min)		ECD End (lb/gal)	
257.3	51.8	99.6		48.5		9.00	
Error							
Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth (ft)	Drilling Time (hr)	Cum Drill Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
UNIVERSITY 3-35 #104HB	10,456.0	10,625.0	2,280.00	1.46	31.56	115.8	556
WOB (1000lbf)	Rotary RPM (rpm)	SPP (psi)	Drill Str Wt (1000...)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Btm Tq
30	70	3,065.0	180	182	180	13.0	0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...
Hydraulic Calculations							
Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)		Bit Pressure Drop (psi)		% P @ bit (%)	
24.2	0.4	96.1		74.5		2	
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)		Min Open Hole AV (ft/min)		ECD End (lb/gal)	
257.3	51.8	99.6		48.5		9.00	
Error							
Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth (ft)	Drilling Time (hr)	Cum Drill Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
UNIVERSITY 3-35 #104HB	10,625.0	10,644.0	2,299.00	0.39	31.95	48.7	556
WOB (1000lbf)	Rotary RPM (rpm)	SPP (psi)	Drill Str Wt (1000...)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Btm Tq
35	0	2,930.0	180	182	180	0.0	0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...
Hydraulic Calculations							
Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)		Bit Pressure Drop (psi)		% P @ bit (%)	
24.2	0.4	96.1		74.5		3	
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)		Min Open Hole AV (ft/min)		ECD End (lb/gal)	
257.3	51.8	99.6		48.5		9.00	
Error							
Wellbore	Start Depth (ftKB)	End Depth (ftKB)	Cum Depth (ft)	Drilling Time (hr)	Cum Drill Time (hr)	Interval ROP (ft/hr)	Flow Rate (gpm)
UNIVERSITY 3-35 #104HB	10,644.0	10,719.0	2,374.00	0.62	32.57	121.0	556
WOB (1000lbf)	Rotary RPM (rpm)	SPP (psi)	Drill Str Wt (1000...)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Drilling Torque	Off Btm Tq
31	70	3,118.0	180	182	180	13.0	0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Job Supplies		
Supply Item Description		Unit Label
DIESEL FOR OBM		Gal
Total Received	Total Consumed	On Loc
29,057.0	22,513.0	6,544.0
Supply Item Description		Unit Label
DRILLING CUTTINGS		Cu. Yds
Total Received	Total Consumed	On Loc
240.0	240.0	0.0
Supply Item Description		Unit Label
DRILLING WATER		Bbl
Total Received	Total Consumed	On Loc
5,994.6	5,994.6	0.0
Supply Item Description		Unit Label
FUEL		Gal
Total Received	Total Consumed	On Loc
42,764.0	21,513.0	9,453.0
Supply Item Description		Unit Label
LIQUID DRILLING WASTE		Bbl
Total Received	Total Consumed	On Loc
200.0	200.0	0.0
Supply Item Description		Unit Label
POTABLE WATER		Gal
Total Received	Total Consumed	On Loc
26,800.0	26,800.0	0.0
Supply Item Description		Unit Label
SEWAGE		Gal
Total Received	Total Consumed	On Loc
18,500.0	18,500.0	0.0
Supply Item Description		Unit Label
THREAD PROTECTORS		Box
Total Received	Total Consumed	On Loc
1.0	1.0	0.0
Supply Item Description		Unit Label
TRASH/GENERAL WASTE		Box
Total Received	Total Consumed	On Loc
0.0	0.0	0.0
Safety Checks		
Time	Type	Safety Topic
17:30	Pre-Tour	HOUSEKEEPING
05:30	Pre-Tour	HOUSEKEEPING
Wellbores		
Wellbore Name		
UNIVERSITY 3-35 #104HB		
Kick Offs & Key Depths		
Type	Top Depth (ftKB)	



Partner Drilling Report

Well Name: UNIVERSITY 3-35 #104HB

Report Date: 7/31/2017
Report #: 22.0, DFS: 11.29
Time Log DFS: 11.29
Depth Progress: 2,434.00

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.2	0.4	96.1	74.5	2
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.00

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 10,719.0	End Depth (ftKB) 10,734.0	Cum Depth (ft) 2,389.00	Drilling Time (hr) 0.31	Cum Drill Time (hr) 32.88	Interval ROP (ft/hr) 48.4	Flow Rate (gpm) 556
WOB (1000lbf) 34	Rotary RPM (rpm) 0	SPP (psi) 2,914.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 182	SO Str Wt (1000lbf) 180	Drilling Torque 0.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.2	0.4	96.1	74.5	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.00

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 10,734.0	End Depth (ftKB) 11,099.0	Cum Depth (ft) 2,754.00	Drilling Time (hr) 2.87	Cum Drill Time (hr) 35.75	Interval ROP (ft/hr) 127.2	Flow Rate (gpm) 556
WOB (1000lbf) 33	Rotary RPM (rpm) 70	SPP (psi) 3,176.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 182	SO Str Wt (1000lbf) 180	Drilling Torque 14.0	Off Btm Tq
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.2	0.4	96.1	74.5	2
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.00

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 11,099.0	End Depth (ftKB) 11,118.0	Cum Depth (ft) 2,773.00	Drilling Time (hr) 0.45	Cum Drill Time (hr) 36.20	Interval ROP (ft/hr) 42.2	Flow Rate (gpm) 556
WOB (1000lbf) 38	Rotary RPM (rpm) 0	SPP (psi) 2,947.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 182	SO Str Wt (1000lbf) 180	Drilling Torque 0.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.2	0.4	96.1	74.5	3
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.00

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 11,118.0	End Depth (ftKB) 11,382.0	Cum Depth (ft) 3,037.00	Drilling Time (hr) 2.16	Cum Drill Time (hr) 38.36	Interval ROP (ft/hr) 122.2	Flow Rate (gpm) 556
WOB (1000lbf) 31	Rotary RPM (rpm) 70	SPP (psi) 3,179.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 182	SO Str Wt (1000lbf) 180	Drilling Torque 13.0	Off Btm Tq
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.2	0.4	96.1	74.5	2
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.00

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 11,382.0	End Depth (ftKB) 11,404.0	Cum Depth (ft) 3,059.00	Drilling Time (hr) 0.47	Cum Drill Time (hr) 38.83	Interval ROP (ft/hr) 46.8	Flow Rate (gpm) 556
WOB (1000lbf) 36	Rotary RPM (rpm) 0	SPP (psi) 3,001.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 182	SO Str Wt (1000lbf) 180	Drilling Torque 0.0	Off Btm Tq
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...



Partner Drilling Report

Well Name: UNIVERSITY 3-35 #104HB

Report Date: 7/31/2017
Report #: 22.0, DFS: 11.29
Time Log DFS: 11.29
Depth Progress: 2,434.00

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.2	0.4	96.1	74.5	2
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.00
Error				

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 11,404.0	End Depth (ftKB) 11,476.0	Cum Depth (ft) 3,131.00	Drilling Time (hr) 0.64	Cum Drill Time (hr) 39.47	Interval ROP (ft/hr) 112.5	Flow Rate (gpm) 556
WOB (1000lbf) 33	Rotary RPM (rpm) 17	SPP (psi) 2,986.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 182	SO Str Wt (1000lbf) 180	Drilling Torque 5.0	Off Btm Tq
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.2	0.4	96.1	74.5	2
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.00
Error				

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 11,476.0	End Depth (ftKB) 11,492.0	Cum Depth (ft) 3,147.00	Drilling Time (hr) 0.40	Cum Drill Time (hr) 39.87	Interval ROP (ft/hr) 40.0	Flow Rate (gpm) 556
WOB (1000lbf) 43	Rotary RPM (rpm) 0	SPP (psi) 3,010.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 182	SO Str Wt (1000lbf) 180	Drilling Torque 0.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.2	0.4	96.1	74.5	2
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.00
Error				

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 11,492.0	End Depth (ftKB) 11,841.0	Cum Depth (ft) 3,496.00	Drilling Time (hr) 5.67	Cum Drill Time (hr) 45.54	Interval ROP (ft/hr) 61.6	Flow Rate (gpm) 556
WOB (1000lbf) 30	Rotary RPM (rpm) 70	SPP (psi) 3,353.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 182	SO Str Wt (1000lbf) 180	Drilling Torque 14.0	Off Btm Tq
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.2	0.4	96.1	74.5	2
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.00
Error				

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 11,841.0	End Depth (ftKB) 11,856.0	Cum Depth (ft) 3,511.00	Drilling Time (hr) 0.29	Cum Drill Time (hr) 45.83	Interval ROP (ft/hr) 51.7	Flow Rate (gpm) 556
WOB (1000lbf) 15	Rotary RPM (rpm) 0	SPP (psi) 3,240.0	Drill Str Wt (1000... 180	PU Str Wt (1000lbf) 182	SO Str Wt (1000lbf) 180	Drilling Torque 0.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.2	0.4	96.1	74.5	2
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.00
Error				

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 11,856.0	End Depth (ftKB) 11,937.0	Cum Depth (ft) 3,592.00	Drilling Time (hr) 0.65	Cum Drill Time (hr) 46.48	Interval ROP (ft/hr) 124.6	Flow Rate (gpm) 556
WOB (1000lbf) 30	Rotary RPM (rpm) 70	SPP (psi) 3,347.0	Drill Str Wt (1000... 200	PU Str Wt (1000lbf) 220	SO Str Wt (1000lbf) 214	Drilling Torque 14.0	Off Btm Tq
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...



Partner Drilling Report

Report Date: 7/31/2017
Report #: 22.0, DFS: 11.29
Time Log DFS: 11.29
Depth Progress: 2,434.00

Well Name: UNIVERSITY 3-35 #104HB

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.2	0.4	96.1	74.5	2
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.00
Error				

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 11,937.0	End Depth (ftKB) 11,949.0	Cum Depth (ft) 3,604.00	Drilling Time (hr) 0.21	Cum Drill Time (hr) 46.69	Interval ROP (ft/hr) 57.1	Flow Rate (gpm) 556
WOB (1000lbf) 12	Rotary RPM (rpm) 0	SPP (psi) 3,206.0	Drill Str Wt (1000... 200	PU Str Wt (1000lbf) 220	SO Str Wt (1000lbf) 214	Drilling Torque 0.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.2	0.4	96.1	74.5	2
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.00
Error				

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 11,949.0	End Depth (ftKB) 12,123.0	Cum Depth (ft) 3,778.00	Drilling Time (hr) 1.24	Cum Drill Time (hr) 47.93	Interval ROP (ft/hr) 140.3	Flow Rate (gpm) 556
WOB (1000lbf) 32	Rotary RPM (rpm) 70	SPP (psi) 3,424.0	Drill Str Wt (1000... 200	PU Str Wt (1000lbf) 220	SO Str Wt (1000lbf) 214	Drilling Torque 15.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.2	0.4	96.1	74.5	2
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.00
Error				

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 12,123.0	End Depth (ftKB) 13,137.0	Cum Depth (ft) 4,792.00	Drilling Time (hr) 0.38	Cum Drill Time (hr) 48.31	Interval ROP (ft/hr) 2,668.4	Flow Rate (gpm) 556
WOB (1000lbf) 14	Rotary RPM (rpm) 0	SPP (psi) 3,219.0	Drill Str Wt (1000... 200	PU Str Wt (1000lbf) 220	SO Str Wt (1000lbf) 214	Drilling Torque 0.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.2	0.4	96.1	74.5	2
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	
Error				

Unable to calculate ECD because unable to interpolate TVD

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 13,137.0	End Depth (ftKB) 12,400.0	Cum Depth (ft) 4,055.00	Drilling Time (hr) 1.70	Cum Drill Time (hr) 50.01	Interval ROP (ft/hr) -433.5	Flow Rate (gpm) 556
WOB (1000lbf) 32	Rotary RPM (rpm) 70	SPP (psi) 3,410.0	Drill Str Wt (1000... 200	PU Str Wt (1000lbf) 220	SO Str Wt (1000lbf) 214	Drilling Torque 16.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.2	0.4	96.1	74.5	2
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.00
Error				

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 12,400.0	End Depth (ftKB) 12,414.0	Cum Depth (ft) 4,069.00	Drilling Time (hr) 0.30	Cum Drill Time (hr) 50.31	Interval ROP (ft/hr) 46.7	Flow Rate (gpm) 556
WOB (1000lbf) 12	Rotary RPM (rpm) 0	SPP (psi) 3,257.0	Drill Str Wt (1000... 200	PU Str Wt (1000lbf) 220	SO Str Wt (1000lbf) 214	Drilling Torque 0.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...



Partner Drilling Report

Well Name: UNIVERSITY 3-35 #104HB

Report Date: 7/31/2017
Report #: 22.0, DFS: 11.29
Time Log DFS: 11.29
Depth Progress: 2,434.00

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.2	0.4	96.1	74.5	2
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.00

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 12,414.0	End Depth (ftKB) 12,687.0	Cum Depth (ft) 4,342.00	Drilling Time (hr) 1.88	Cum Drill Time (hr) 52.19	Interval ROP (ft/hr) 145.2	Flow Rate (gpm) 556
WOB (1000lbf) 29	Rotary RPM (rpm) 62	SPP (psi) 3,511.0	Drill Str Wt (1000... 200	PU Str Wt (1000lbf) 220	SO Str Wt (1000lbf) 214	Drilling Torque 16.0	Off Btm Tq
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.2	0.4	96.1	74.5	2
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.00

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 12,687.0	End Depth (ftKB) 12,706.0	Cum Depth (ft) 4,361.00	Drilling Time (hr) 0.35	Cum Drill Time (hr) 52.54	Interval ROP (ft/hr) 54.3	Flow Rate (gpm) 556
WOB (1000lbf) 12	Rotary RPM (rpm) 0	SPP (psi) 3,230.0	Drill Str Wt (1000... 200	PU Str Wt (1000lbf) 220	SO Str Wt (1000lbf) 214	Drilling Torque 0.0	Off Btm Tq 0.0
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.2	0.4	96.1	74.5	2
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	9.00

Error

Wellbore UNIVERSITY 3-35 #104HB	Start Depth (ftKB) 12,706.0	End Depth (ftKB) 12,874.0	Cum Depth (ft) 4,529.00	Drilling Time (hr) 1.25	Cum Drill Time (hr) 53.79	Interval ROP (ft/hr) 134.4	Flow Rate (gpm) 556
WOB (1000lbf) 30	Rotary RPM (rpm) 70	SPP (psi) 3,230.0	Drill Str Wt (1000... 200	PU Str Wt (1000lbf) 220	SO Str Wt (1000lbf) 214	Drilling Torque 16.0	Off Btm Tq
Q Gas Inj (ft ³ /min)	T Inj (°F)	P BH Ann (psi)	T BH (°F)	P Surf Annulus (p...	T Surf Annulus (°F)	Q Liq Return (gpm)	Q Gas Return (f...

Hydraulic Calculations

Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	Bit Jet Velocity (ft/s)	Bit Pressure Drop (psi)	% P @ bit (%)
24.0	0.4	96.1	74.0	2
Max Casing AV (ft/min)	Max Open Hole AV (ft/min)	Min Casing AV (ft/min)	Min Open Hole AV (ft/min)	ECD End (lb/gal)
257.3	51.8	99.6	48.5	8.94

Error

Kicks

Kick Date	Kick Depth (ftKB)	Control Date	Control Depth (ftKB)	Kick Class
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Kill Notes

Lost Circulation

Start Date	Top Depth (ftKB)	Bottom Depth (ftKB)	Ops In Prog	Vol Lost Tot (bbl)	End Date
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Interval Problems

Problem Type Circ System	Problem Subtype C/O MP #1 LINER AND SWAB	Start Date 7/30/2017	Start Depth (ftKB) 11,556.0	End Depth (ftKB) 11,556.0	Est Cost (Cost)	Est Lost Time (hr)
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Action Taken
C/O SWAB

Problem Type Drawworks	Problem Subtype T/S AND REPAIR DRAWWORKS AND BLOWER	Start Date 7/30/2017	Start Depth (ftKB) 11,556.0	End Depth (ftKB) 11,556.0	Est Cost (Cost)	Est Lost Time (hr)
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Action Taken

Interval Lessons

Lesson Type	Start Date	End Date	Start Depth (ftKB)	End Depth (ftKB)	Est Cost Saving (Co..)	Est Time Saving (hr)
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Comment



Partner Drilling Report

Well Name: UNIVERSITY 3-35 #104HB

Report Date: 7/31/2017
Report #: 22.0, DFS: 11.29
Time Log DFS: 11.29
Depth Progress: 2,434.00

Safety Incidents

Time	Category	Type	Subtype	Cause	Lost time?	Severity

Leak Off and Formation Integrity Tests

Run Date 7/20/2017	OD (in) 13 3/8	Set Depth (ft... 1,461.0	Set Depth (T... 1,460.8	Comment TEST ON CHART: GOOD TEST	MACP Press... 500.0
Test Date 7/21/2017		Test Type Casing Test		Fluid Density (lb/gal) 8.30	EMW (lb/gal) 14.80
Run Date 7/24/2017	OD (in) 9 5/8	Set Depth (ft... 5,058.0	Set Depth (T... 4,973.7	Comment TEST ON CHART: GOOD TEST	MACP Press... 1,500.0
Test Date 7/25/2017		Test Type Casing Test		Fluid Density (lb/gal) 9.90	EMW (lb/gal) 15.71
Run Date 7/24/2017	OD (in) 9 5/8	Set Depth (ft... 5,058.0	Set Depth (T... 4,973.7	Comment TEST ON CHART: GOOD TEST	MACP Press... 96.0
Test Date 7/26/2017		Test Type F.I.T.		Fluid Density (lb/gal) 9.90	EMW (lb/gal) 10.27

Survey Data

MD (ftKB)	Inclination (°)	Azimuth (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
10,560.00	90.91	358.72	8,377.91	2,303.95	2,202.61	1,152.86	1.62
10,654.00	89.50	359.57	8,377.58	2,397.36	2,296.60	1,151.45	1.75
10,749.00	87.65	0.75	8,379.94	2,491.90	2,391.56	1,151.72	2.31
10,843.00	87.25	359.26	8,384.12	2,585.36	2,485.47	1,151.73	1.64
10,938.00	87.55	359.02	8,388.43	2,679.67	2,580.36	1,150.30	0.40
11,033.00	88.49	357.92	8,391.71	2,773.88	2,675.26	1,147.77	1.52
11,127.00	89.40	359.90	8,393.44	2,867.23	2,769.23	1,145.98	2.32
11,221.00	90.20	359.09	8,393.77	2,960.70	2,863.22	1,145.15	1.21
11,316.00	90.87	358.59	8,392.89	3,055.04	2,958.20	1,143.23	0.88
11,410.00	90.60	359.83	8,391.68	3,148.46	3,052.18	1,141.93	1.35
11,501.00	89.03	1.06	8,391.97	3,239.09	3,143.17	1,142.64	2.19
11,593.00	89.16	0.52	8,393.43	3,330.76	3,235.15	1,143.91	0.60
11,685.00	89.23	359.76	8,394.72	3,422.34	3,327.14	1,144.13	0.83
11,776.00	89.56	357.89	8,395.68	3,512.70	3,418.11	1,142.27	2.09
11,867.00	89.66	359.02	8,396.30	3,603.00	3,509.07	1,139.81	1.25
11,958.00	89.36	1.21	8,397.08	3,693.58	3,600.06	1,139.99	2.43
12,050.00	89.83	0.46	8,397.73	3,785.26	3,692.05	1,141.33	0.96
12,144.00	88.69	0.23	8,398.94	3,878.86	3,786.04	1,141.90	1.24
12,239.00	89.26	359.79	8,400.64	3,973.40	3,881.02	1,141.92	0.76
12,333.00	89.77	359.13	8,401.44	4,066.87	3,975.02	1,141.03	0.89
12,428.00	88.52	359.99	8,402.85	4,161.33	4,070.00	1,140.30	1.60
12,522.00	89.43	359.12	8,404.54	4,254.80	4,163.98	1,139.57	1.34
12,617.00	90.81	359.17	8,404.34	4,349.20	4,258.97	1,138.15	1.45
12,712.00	88.76	359.23	8,404.69	4,443.61	4,353.95	1,136.83	2.16
12,806.00	88.79	358.47	8,406.70	4,536.95	4,447.91	1,134.94	0.81
12,874.00	88.79	358.47	8,408.14	4,604.41	4,515.87	1,133.13	0.00