



HARTMAN-BLACK USW A 1, HARTMAN-BLACK USW B 1, HARTMAN-BLACK USW C 1, HARTMAN-BLACK USW D 1

Pad Drilling Program

11/28/2023

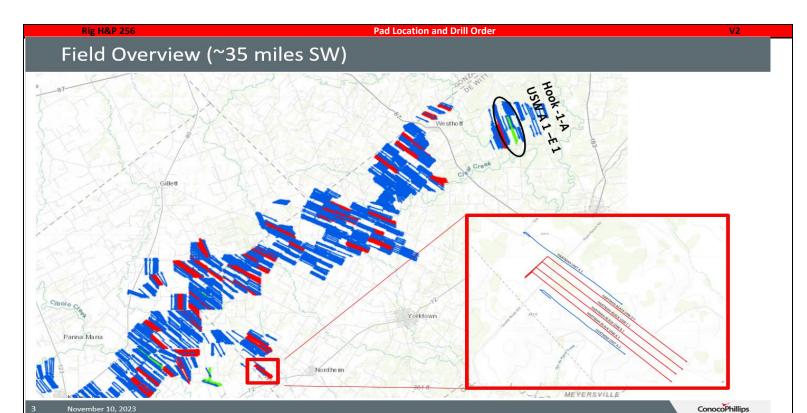
·	-,
Area: Cuero West	County: De Witt
Objective: DEVELOPMENT	Pad Size: 4

At ConocoPhillips, our work is never so urgent or important that we cannot take the time to do it safely and in an environmentally prudent manner.

The information provided in this drilling program is prepared to assist the on-site drilling representatives in planning and conducting drilling operations. It is not the intent of this document to be followed verbatim and without question, but instead to serve as a guide. It is expected that the Drilling Representative(s) will question and discuss operational practices, utilizing all available resources including, but not limited to, the Eagle Ford Basis of Design, Standard Operating Procedure, and the ConocoPhillips Well Control Manual. Operational parameters can and will be modified on-site as dictated by hole conditions and observed trends. It is imperative to observe and document actual drilling parameters while drilling and make adjustments as required to achieve set objectives.

Prepared by:		
	Taylor Daughtrey	
	Drilling Engineer	
Approved by:		
	Robert Taliaferro	
	Engineering Supervisor	
Approved by:		
	Brian Sexton	
	Drilling Superintendent	

Any deviation from this program requires an MOC approved by the Drilling Superintendent and Engineering Supervisor



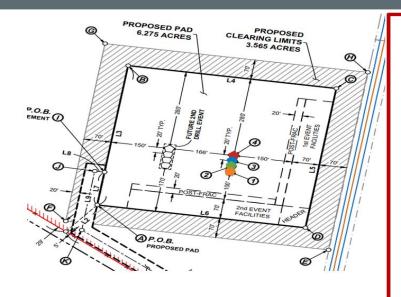
Drill Order

Surface

- 1. Hartman-Black USW D 1
- 2. Hartman-Black USW C 1
- 3. Hartman-Black USW B 1
- 4. Hartman-Black USW A 1

Production

- 1. Hartman-Black USW D 1 (L1)
- 2. Hartman-Black USW C 1 (L2)
- 3. Hartman-Black USW B 1 (L1)
- 4. Hartman-Black USW A 1 (L2)



PROPOSED SURFACE LOCATION:
DIRLINGTON RESOURCES
O 8 G CO LOCATION:
HARTMAN-BLACK USW A 1
AS-STAKED ON 01/11/2023
X = 2422280' (MADD7 1/85C)
X = 2422280' (MADD7 1/85C)
LOCATION ON 1/87C (MADD7 1/85C)
LOCATION ON 1/87C (MADD 1/85C)
LOCATION ON 1/87C

PROPOSED SURFACE LOCATION:
BURLINGTON RESOURCES
O & G CO LP
HARTMAN-BLACK USW B 1
AS-STAKED ON 01/11/2023
X = 242/20%

PROPOSED SURFACE LOCATION: BURLINGTON RESOURCES

BURLINGTON RESOURCES O & G CO LP HARTMAN-BLACK USW C 1 AS-STAKED ON 01/11/2023 X = 2.422.331 (ADDZ7 Tx5C) Flow, 404.47 (NAVD 1088) LAT. 28° 56° 41.81 N (NADZ7) LONG, 97° 40′ 41.15° W (NADZ8) LAT. 28° 56° 22.75° N (NADZ8) LAT. 28° 56° 22.75° N (NADZ8) LONG, 97° 40′ 42.14° W

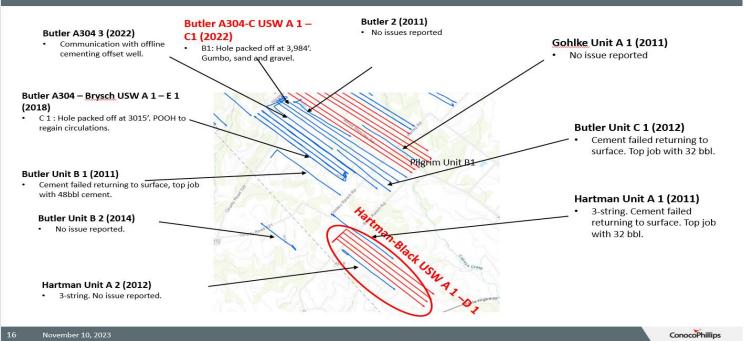
PROPOSED SURFACE LOCATION:

BURLINGTON RESOURCES
0 & G CO LP
HARTMAN-BLACK USW D 1
AS-STAKED ON 01/11/2023
X + 2422.884 (NAD27 145C)
EM-414.9 (NAM2 1989)
LONG 07 40 41.11 W (NAD27)
LAT. 29 59 42.61 W (NAD28)
LAT. 29 59 42.61 W (NAD28)

ConocoPhillips

Hazards and Mitigations

Offset Map – Surface Issues



Risks and Mitigations - Surface Hole

Risk 1: Hole packing off and lost returns

- 1 offset well experienced hole packing off and lost returns
 - Monitor drilling parameters trend, adjust pump rate and ROP accordingly
 - · Consider to circulate 1-2min to flush cuttings farther above BHA before making connections
 - · Stage up pump cautiously with drill pipe rotation to break the gels if there is a long pause between connections
 - Be prepared for hole packing off and discuss best practices

Risk 2 : Offset well communications while drilling

- 1 surface holes had communication with neighbor wells.
 - Monitor target well on returns for signs of communication
 - · WOC for neighbor well until 500psi UCA if communication is noticed

• Risk 3: Cement failed returning to surface

- 3 surface cement didn't get returns to surface, top jobs.
 - Circulate 1.5x BU before pumping cement to condition the wellbore for cementing.
 - · Review and prepare for top job as needed.

Section goals

- Manage hole packing off, avoid losses
- Set surface casing in competent shales
- Success offline cement jobs
- Safe & Efficient Surface Moves

Offset Map – Production Holes

- 1 motor failure at 15,860'.
- No other issue is reported.
- 13.5ppg max MW

Butler A304-C USW A 1 - C 1 and Brys-Butler A 1(2022)

- A 1-L1: Gamma failure @17,594'. Weight up from 13.2ppg to 13.4ppg MW. Well breathing @3bph. Butler A304 2 (2011) L2 Hole tight. Increased back ground gas while circulating. BROOH, spot LCM and mud cap for BHA trips. Wash and cut mud back to 13.2ppg for drilling. 13.6ppg max MW
- B1-L2: 2 MWD failures. Cement plug didn't bump. Floats failed. WOC. Set RBP. 13.6ppg max MW at Butler A304 - Brysch USW A 1 - E 1 @ 701 TD. C1-L1: Lost circulation at 20,178' while drilling w/ 13.2ppg MW. Attempted to open Churchill sub-

Brvs A1-11: Lost circulations at 19/700'. Pumped LCM pills, was able to resume drilling with 500gpm

- 3-string
- 2 x bailout BHAs.

2 x bailout BHAs.

13.6ppg max MW.

Butler Unit C 1 (2012) L2

2 motor failures and 2 MWD

failures in curve and lateral

No issue reported, 13.5ppg max MW.

(2018)A1-U2: Well started ballooning after BHA trip success, well stabilized with 325-400gpm. Continued to drill with 13.2ppg. 13.5ppg max HWW

at 18,898' w/ 13.3ppg MW. 13.4ppg max* MW. Toe valve opened, SI, WOC and set RP.

B 1-L2: Annulus flow after production cement

MW. To with 13.2 ppg MW. 13.5 ppg max MW.

3-string

job. WOC and bled pressure. 13.3ppg max MW.

C 1-L1: Floats failed, annulus flow. WOC. Set RBP. 13.4ppg max MW.

D 1-L2: No issues. 13.4ppg max MW.

E 1-U2: Floats failed. WOC and bled pressure set RBP. 13.6ppg max MW.

701-AC: (AC) MW 12.8ppg.

Butler Unit B 1 (2011) L2

- 3-string
- 2 motors and 1 MWD failure in curve and lateral.
- No other issue is reported. 13.8ppg max MW.

Butler Unit B 2 (2014) L2

- Vertical BHA failure.
 - No issue is reported. 13.3ppg max MW.

Hartman Unit A 2 (2012) Multi

November 10, 2023

- 3-string slim hole. 14.5ppg max MW.
- Annulus flowing after cementing job. WOC. Bled off as pressure reaches 1850psi

Hartman Unit A 1 (2011) Multi

Pilgrim Unit B1

3-string slim hole.

16,010'

3-string

7-5/8" casing differential stuck. Worked

No issue reported. 13.5ppg max

- High downhole temperature 320deg. TD with 13.6ppg MW. 13.8ppg max MW.
- Cement plug bumped 14 bbls early.

Blackwell Gas Unit 2 C 1 H

Annulus flowing. WOC. Bled off as pressure reaches 1222psi.

ConocoPhillips

Repsol Offset Wells

3-string (13-3/8, 9-5/8, 5-1/2") 19,947' Blackwell Gas Unit 2 C 2 H 3-string (13-3/8, 9-5/8, 5-1/2") 20,133 Blackwell Gas Unit 2 C 3 H 2014 3-string (13-3/8, 9-5/8, 5-1/2") 19,465 Blackwell Gas Unit 2 2 3-string (13-3/8, 9-5/8, 5-1/2") 19,010' Blackwell Gas Unit 11 3-string (9-5/8, 7', 4-1/2")

Blackwell Gas Unit 11H

- 2012
- 3-string (13-3/8", 9-5/8, 5-1/2 x 4-1/2"")
- 19,661'

Blackwell Gas Unit 12H

- 3-string (13-3/8", 9-5/8, 5-1/2 x
- 19,704

Risks and Mitigations - Production Hole

Risk #1: Lost circulations and wellbore breathing

- · The recently drilled wells experienced well breathing and lost circulations due to offset well frac and productions.
- · Keep the mud weight and properties within planned ranges.
- · Stage up pump after connections, and extremely cautious to re-establish circulation after a pause of drilling.

Risks #2: Differential sticking and stuck pipe

- · Keep the mud weight and properties within planned ranges.
- · Keep monitoring hole condition for signs of differential sticking. Adjust mud weight and properties accordingly.
- Keep the pipe moving, avoid stationary for long time.

Section goals

- · Manage well breathing and lost circulations.
- Drill lateral to TD with 2 curve/lateral BHAs.
- · Float casing in with wet shoe.

OFFSET OPERATOR # of Csg Strings



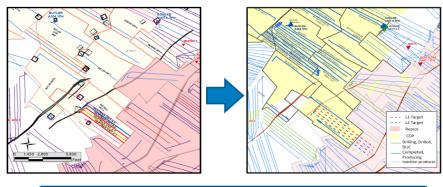
LAND - Hartman-Black USW A1, B1, C1, D1

- Depths lying deeper than the stratigraphic equivalent of the base of the Eagle Ford Shale Formation, as seen in the BROG Hooks #1 well (API 42-123-32193) at a depth of 13,087' are not unitized and should not be produced
- If wellbores traverse any depth below the stratigraphic equivalent of the base of the Eagle Ford formation as defined above:
 - · Sidetrack the well
- Ensure each well remains at legal a location off the unit boundaries since surrounded by non-operated acreage (Repsol)
- Surface
 - Contact Lyndsay Drahuschak with any surface issues: 832-486-2851



4 November 10, 2023 ConocoPhillips

Project Summary



On average increase P2P by 2584' with Repsol JV Opportunity

	Step-out	P2P	TMD	Dip	Azimuth	Target	P2P Δ
HARTMAN-BLACK USW A 1	431	7195	22874	87	130	L2	2552
HARTMAN-BLACK USW B 1	691	7115	22789	87	129	L1	2562
HARTMAN-BLACK USW C 1	1046	7164	22849	87	129	L2	2728
HARTMAN-BLACK USW D 1	1379	7046	22757	87	129	L1	2497

Justification	Discretionary Infill					
Exp vs. Dev	DEVELOPMENT					
LRP Ranking	P60 - P70					
Spud Date	11/8/2023					
Critical Date	None					
Rig Name	H&P 256					
DSM Status	Pre-Ready to Implement					
Unit Size	671 acres					
SUE & SSUE	SUE required & SSUE required					
Yield	133-139 bbls/mmcf					
Tests	NA					
Collision Risk	No AC Issues identified					
Multi-Well Pad	4 well Q12021					
Type Curve	Q12023_EF_PH1_G2S_80_HL_15ftCS_HIP					
T, P, Thickness	338 F, 12865-12891 psi, 178 ft					
Closest Pilot Hole(s)	BUTLER A304 1PH, LONG 01 1PH					
FE Data Collection	Standard					

5 Conoco Phillips



- Utilize WBS in the production hole to prepare the well for higher MW, than planned, when needed on 1st well and as needed on following wells
- Utilize NOV agitator for curve/lateral and lateral BHAs to improve build rate and ROP
- Planning to TD approx. 250' prior to large fault at toe
- Floating casing on all wells / wet shoe design unless high gas is seen or mud cap is used
- All wells are JV with Repsol

Goals

- 1. Continue to strive for the attainable goal of ZERO recordable incidents
- 2. Reduce sliding time in vertical section, continue to utilize and optimize digital roadmap
- 3. 2-run C/L bha no curve bailouts
- 4. 100% <24hr curve
- 5. < 2.5 day/well TT
- No major mud loss or communication events
- No sidetracks steer wells with no geologic issues
- Less reaming casing down, less reaming out of Wilcox
- 6. <16 days spud to TD avg

Phase Performance Target	:s			Dispensation	ıs	
Phase	Target	Well	Planned SF	Risk Level	MCR or Dispensation	Dispensation Notes
MIRU	2.5	HARTMAN-BLACK USW A 1	1.97		N/A	
SFC-SKID	0.1	HARTMAN-BLACK USW B 1	1.98		N/A	
SFC-DRILL	0.6	HARTMAN-BLACK USW C 1	2.07		N/A	
SFC-CSG	0.5	HARTMAN-BLACK USW D 1	1.54		N/A	
SCG-CMT	0.1					
PROD-MOVE	0.2					
PROD-DRILL-VERT	3.25					
PROD-DRILL-CURVE	0.9					
PROD-DRILL-LAT	10					
PROD-CSG	2.5					
PROD-CMT	0.5	**Risk category/workflow is	outlined in the	GCR Wellbor	e Collision Manage	ment Field Wide Practice.
PROD-WHDBOP	0.15			Notes		
SPUD-TD (AVG)	15.55					
SPUD-RR (AVG)	18.7	Allandi	ا میر مما اممیر ما	aurast plann	ad CE graatar than	1 5
RR-RR (AVG)	18.8	All well	is on pad nave i	owest plann	ed SF greater than	1.5.
PAD DAYS	77.7					

14.3 PPG

Wilcox ECD Limit

H&P 256			Anti-C	Collision		V2
		HAF	RTMAN-BLACK	USW A 1		
Offset Well	Min. SF	Min Op SF	MD	Planned SF < 1.5?	Where is SF < 1.5?	SF < 1? (MCR Req'd)
Hartman Unit A 2	1.97	1.595	19,125'	No		No
		НД	RTMAN-BLACK	USW B 1		
Offset Well	Min. SF	Min Op SF	MD	Planned SF < 1.5?	Where is SF < 1.5?	SF < 1? (MCR Reg'd)
Hartman-Black USW A1	1.98	0.087	10,375'	No	WHERE 13 31 × 1.3.	No No
Hartman Black GOTT / LZ	1.50	0.007	10,373			.,,
		HAI	RTMAN-BLACK			
Offset Well	Min. SF	Min Op SF	MD	Planned SF < 1.5?	Where is SF < 1.5?	SF < 1? (MCR Req'd)
Hartman-Black USW B1	2.07	1.715	21,475'	No		No
	L	HAF	RTMAN-BLACK	USW D 1		
Offset Well	Min. SF	Min Op SF	MD	Planned SF < 1.5?	Where is SF < 1.5?	SF < 1? (MCR Reg'd)
Hartman Unit A 1	1.54	1.224	17,575'	No		No
_						
					<u> </u>	

	P 256	PSHL: (N,E)	400467'	2422825'		AN-BLACK USW on: 415.48'	API #: 42-123-35317	V2 Network #: 10453742
ConocoPhillips	TEAPAR	PBHL: (N,E)		2429228'		on: 441.48'	KB to GL: 26'	APD Permit #: 893144
Formation	MD (ft)	TVD (ft)		Section I	nfo	Risks		Notes
2011 Construction			WBM	Surface E	BHA	Ch.		Surface
20" Conductor	120	120	VVDIVI	12-1/4" PC	C Bit	Gumbo		
				8.5" 7/8 - 4.0	C 1 5 EDW		1. (2/19) Offset gumbo/packi	ng off issues, 1 issue cmt
				•		Pack Off	communication.	
				0.166 R	PG		2. Mudloggers call TD on 1st	well. Must have min. 80% shale.
				Surface I	ИW		GYRO 3/4 WELLS - 1st well do	
				9 ppg - 9.5	5 nng		3. Fluid Pro Dewatering for su	
				- 646			4. Pump caliper sweep, if was	
								sceed 4,500' MD on surface (SCE
							_	
							depth), don't set shallower ti	
						Loss		20% of the CSG length or 1,000ft,
						communicatio		
Water Board Min De	epth: 500					n cmt	7. 100%/30% (lead/tail) exces	s for surface cmt
Casing Exception De	pth: 4500						8. (3/19) Offset cement retur	ns failed getting to surface,
					Ī		performed top job.	
Surface TD	4,400'	4,399	OBM			surf on cmt		
Perform Surface FIT	to 14.5 ppge @ (CSG Shoe +10'		Vertical E	BHA			Vertical
New Formation. Test							1 1st wall drill conservatively	and pay close attention to drilling
New Formation. 1es	casing to 2,000	þsi		0 3/4 0110110	8 3/4" Ulterra SPL616		· ·	· ·
				7" 1.83° slick FB	H, 6.9, 7/8,		ļ.	iting the Wilcox, watch for torque
				0.25 rp	g		spikes/stalls	
Sparta	4,723'	7,256'		l '		Transitions		
Queen City	5,064'	7,854'		I			2. 1st well use Stage 3 WBS ar	nd if needed on other 3 wells.
Upper Wilcox	6,276'	9,356'		I		Losses &		
Middle Wilcox	7,257'	10,387'		Vertical I	ИW	Ballooning	3. Pump sweeps per sweep sta	andardization - can add LCM for
Lower Wilcox	7,855'	7,854'		11.8 ppg - 1	2.8 ppg		prevention or as needed	
	,	,		110	110		•	
Midway Shale	9,357'	9,356'					4. Follow Vertical Roadmap	
Poth SD	10,388'	10,387'				ECD		
Olmos	11,982'	11,970'				Management		
КОР	13,143'	13,118'						
							Cu	rve/Lateral
								D will have to be sent to MagVar for a
							correction.	D Will have to be sent to Mag var for a
				Curve/Later	al DIIA			decomposit Only Byrne average in
				•			•	document. Only Pump sweeps in
				Baker 40			lateral as needed	
				7" 2.25° FBH, 8.4	1, 5/6, 0.35		3. Building on 10s.	
				rpg			•	fluctuate gpms unless build rate or
				Curve N	1W		loss issues occur, maintain cor	nsistent flow rate.
				12.8 ppg - 1	3.2 ppg		5. If DLS>15 deg needed to lar	nd, STOP drilling and consult Houston
							Engineering	
						1	6. Utilizing NOV's On Demand	d Agitator in C/L BHA
				Lateral N	١W		_	
Pecan Gap	13,154'			13.2 pp			7. Monitor hole conditions an	d watch for pack off tight/hole in the
r ecan dap	13,134				_	Holo	lateral while tripping	pack on aging note in the
	42.2521	40 0001		TD MV		Hole	nacerai winie trippilig	
A. CHALK	13,253'	13,230'		13.2ppg - 13	s.5 ppg	instability		
EF_UPPER	13,479'	13,436'						
EF_LOWER	13,574'	13,510'						
								Casing Running
Landing	14,051'	13,692'	\				1. Perform standard 5 stand c	lean up cycle.
						1	2. This well using 15K float sh	oe + collar from Arsenal (3 plug
		NA / 11					system / wet shoe)	
Formation To	ops from Referei AN-BLACK USW	nce Well A 1				1	3. 10%/10% (lead/tail) excess	for production cement
Total Depth	21494' MD	13687' TVD				1	, (, can, cacos	
		Casing Informa	ation]	Ceme	nt Information
Surface	Casing	Туре	Length					Surface Production
Section 1	9-5/8" J55		4400	1150 705 5 :=		1		
BTM Plug	HES BOT 24T 5		Top Plug	HES TOP 24T 5			Density (ppg)	Lead 11.8 ppg 14.3 ppg
Production	Casing Casing		Bottom	Tool	Run	-	7 (FF6)	Tail 14.5 ppg 16.4 ppg
	on Casing(5.5" 2 on Casing (5.5" 23			Float Sub Toe-Valve:	YES NO	1	Volume (bbl)	Lead 409 bbl 230 bbl
			וט	Sleeves:	NO NO	1		Tail 64 bbl 438 bbl Lead 100% 10%
	750 PSI - 4			2100703.1	110	•	% Excess	LCGG 10070 1070
BTM Plug Mid Plug	750 PSI - / 2,500 PSI -		Top Plug	2,500 PSI - A	Arsenal		/0 LACESS	Tail 30% 10%

	AP 256	Well Bore Diagram HARTMAN-BLACK USW B 1 Target: L1						
ConocoPhillips	s 🛣	PSHL: (N,E)	400487'	2422828'		on: 415.15'	API #: 42-123-35318	Network #: 10453900
Formation	MD (ft)	PBHL: (N,E)	395962'	2429427' Sectio		on: 441.15' Risks	KB to GL: 26'	APD Permit #: 893145 Notes
	(10)	100 (10)		Surfac				Surface
20" Conductor	120	120	WBM	12-1/4"		Gumbo		Sarrace
	120	120			.0 S 1.5 FBH,	D. 1.65	1. (2/19) Offset gumbo/packi	ng off issues, 1 issue cmt
				0.166	•	Pack Off	communication.	,
				Surfac			2. Mudloggers call TD on 1st	well. Must have min. 80% shale.
							GYRO 3/4 WELLS - 1st well do	
				9 ppg -	9.5 ppg		3. Fluid Pro Dewatering for su	
							4. Pump caliper sweep, if was	
								xceed 4,500' MD on surface (SCE
							depth), don't set shallower th	
						Loss	• •	20% of the CSG length or 1,000ft,
					comi		· · · · · · · · · · · · · · · · · · ·	20% of the CSG length of 1,000ft,
Water Board Min D	epth: 500					n cmt	whichever is less. (Before XS)	s for surface and
Casing Exception De	epth: 4500						7. 100%/30% (lead/tail) excess	
				<u> </u>		No returns to	8. (3/19) Offset cement retur	ns falled getting to surface,
Surface TD	4,400'	4,400'				surf on cmt	performed top job.	
	•	<u> </u>	-	1/	J DLIA	22 0 0		Vertical
Perform Surface FIT				Vertica				Vertical
New Formation. Tes	st casing to 2,000	psi	ОВМ	8 3/4" Ulte	rra SPL616		·	and pay close attention to drilling
			OBIVI	7" 1.83° slick	7" 1.83° slick FBH, 6.9, 7/8, 0.25 rpg		[·	iting the Wilcox, watch for torque
							spikes/stalls	
Sparta	4,723'	7,256'		0.25	· P5	Transitions		
Queen City	5,064'	7,854'				Transitions	2. 1st well use Stage 3 WBS ar	nd if needed on other 3 wells.
Upper Wilcox	6,276'	9,356'				Losses &	_	
Middle Wilcox	7,257'	10,387'		Vertica	al MW	Ballooning	3. Pump sweeps per sweep sta	andardization - can add LCM for
Lower Wilcox	7,855'	7,854'		11.8 ppg -	12.8 nng		prevention or as needed	
Midway Shale	9,357'	9,356'		11.0 668	22.0 668		p	
Poth SD	10,388'	10,387'				ECD	4. Follow Vertical Roadmap	
							4. Follow Vertical Roadillap	
Olmos	11,982'	11,970'				Management		
КОР	13,089'	13,031'						
								ırve/Lateral
							· · · · · · · · · · · · · · · · · · ·	D will have to be sent to MagVar for a
								· ·
							correction.	·
				Curve/Lat			2. Follow standardized sweep	document. Only Pump sweeps in
				Curve/Lat Baker				document. Only Pump sweeps in
				1	406TS		 Follow standardized sweep lateral as needed Building on 10s. 	
				Baker	406TS 8.4, 5/6, 0.35		 Follow standardized sweep lateral as needed Building on 10s. 	document. Only Pump sweeps in fluctuate gpms unless build rate or
				Baker 7" 2.25° FBH,	406TS 8.4, 5/6, 0.35 g		 Follow standardized sweep lateral as needed Building on 10s. 	fluctuate gpms unless build rate or
				Baker 7" 2.25° FBH, rp	406TS 8.4, 5/6, 0.35 g MW		2. Follow standardized sweep lateral as needed 3. Building on 10s. 4. Curve: 525-550 GPM, don't loss issues occur, maintain cor	fluctuate gpms unless build rate or
				Baker 7" 2.25° FBH, rp Curve	406TS 8.4, 5/6, 0.35 g MW		2. Follow standardized sweep lateral as needed 3. Building on 10s. 4. Curve: 525-550 GPM, don't loss issues occur, maintain cor	fluctuate gpms unless build rate or nsistent flow rate.
				Baker 7" 2.25° FBH, rp Curve	406TS 8.4, 5/6, 0.35 g MW		 Follow standardized sweep lateral as needed Building on 10s. Curve: 525-550 GPM, don't loss issues occur, maintain cor If DLS>15 deg needed to lar Engineering 	fluctuate gpms unless build rate or nsistent flow rate. nd, STOP drilling and consult Houston
				Baker 7" 2.25° FBH, rp Curve 12.8 ppg -	406TS 8.4, 5/6, 0.35 Ig • MW 13.2 ppg		 Follow standardized sweep lateral as needed Building on 10s. Curve: 525-550 GPM, don't loss issues occur, maintain cor If DLS>15 deg needed to lar 	fluctuate gpms unless build rate or nsistent flow rate. nd, STOP drilling and consult Houston
Dogon Coo	12 4541			Baker 7" 2.25° FBH, rp Curve 12.8 ppg - Latera	406TS 8.4, 5/6, 0.35 IS MW 13.2 ppg		2. Follow standardized sweep lateral as needed 3. Building on 10s. 4. Curve: 525-550 GPM, don't loss issues occur, maintain cor 5. If DLS>15 deg needed to lar Engineering 6. Utilizing NOV's On Demand	fluctuate gpms unless build rate or nsistent flow rate. nd, STOP drilling and consult Houston d Agitator in C/L BHA
Pecan Gap	13,154'			Baker 7" 2.25° FBH, rp Curve 12.8 ppg - Latera 13.2	406TS 8.4, 5/6, 0.35 IS MW 13.2 ppg	11-11	 Follow standardized sweep lateral as needed Building on 10s. Curve: 525-550 GPM, don't loss issues occur, maintain cor If DLS>15 deg needed to lar Engineering Utilizing NOV's On Demand Monitor hole conditions and 	fluctuate gpms unless build rate or nsistent flow rate. nd, STOP drilling and consult Houston
•	·			Baker 7" 2.25° FBH, rp Curve 12.8 ppg - Latera 13.2 TD N	406TS 8.4, 5/6, 0.35 IS MW 13.2 ppg	Hole	2. Follow standardized sweep lateral as needed 3. Building on 10s. 4. Curve: 525-550 GPM, don't loss issues occur, maintain cor 5. If DLS>15 deg needed to lar Engineering 6. Utilizing NOV's On Demand	fluctuate gpms unless build rate or nsistent flow rate. nd, STOP drilling and consult Houston d Agitator in C/L BHA
A. CHALK	13,253'	13,230'		Baker 7" 2.25° FBH, rp Curve 12.8 ppg - Latera 13.2	406TS 8.4, 5/6, 0.35 IS MW 13.2 ppg	Hole instability	 Follow standardized sweep lateral as needed Building on 10s. Curve: 525-550 GPM, don't loss issues occur, maintain cor If DLS>15 deg needed to lar Engineering Utilizing NOV's On Demand Monitor hole conditions and 	fluctuate gpms unless build rate or nsistent flow rate. nd, STOP drilling and consult Houston d Agitator in C/L BHA
	13,253' 13,479'	13,436'		Baker 7" 2.25° FBH, rp Curve 12.8 ppg - Latera 13.2 TD N	406TS 8.4, 5/6, 0.35 IS MW 13.2 ppg		 Follow standardized sweep lateral as needed Building on 10s. Curve: 525-550 GPM, don't loss issues occur, maintain cor If DLS>15 deg needed to lar Engineering Utilizing NOV's On Demand Monitor hole conditions and 	fluctuate gpms unless build rate or nsistent flow rate. nd, STOP drilling and consult Houston d Agitator in C/L BHA
A. CHALK	13,253'	•		Baker 7" 2.25° FBH, rp Curve 12.8 ppg - Latera 13.2 TD N	406TS 8.4, 5/6, 0.35 IS MW 13.2 ppg		 Follow standardized sweep lateral as needed Building on 10s. Curve: 525-550 GPM, don't loss issues occur, maintain cor If DLS>15 deg needed to lar Engineering Utilizing NOV's On Demand Monitor hole conditions and 	fluctuate gpms unless build rate or nsistent flow rate. nd, STOP drilling and consult Houston d Agitator in C/L BHA
A. CHALK EF_UPPER EF_LOWER	13,253' 13,479' 13,574'	13,436' 13,510'		Baker 7" 2.25° FBH, rp Curve 12.8 ppg - Latera 13.2 TD N	406TS 8.4, 5/6, 0.35 IS MW 13.2 ppg		2. Follow standardized sweep lateral as needed 3. Building on 10s. 4. Curve: 525-550 GPM, don't loss issues occur, maintain cor 5. If DLS>15 deg needed to lar Engineering 6. Utilizing NOV's On Demand 7. Monitor hole conditions an lateral while tripping	fluctuate gpms unless build rate or nsistent flow rate. nd, STOP drilling and consult Houston d Agitator in C/L BHA
A. CHALK EF_UPPER	13,253' 13,479'	13,436'		Baker 7" 2.25° FBH, rp Curve 12.8 ppg - Latera 13.2 TD N	406TS 8.4, 5/6, 0.35 IS MW 13.2 ppg		2. Follow standardized sweep lateral as needed 3. Building on 10s. 4. Curve: 525-550 GPM, don't loss issues occur, maintain cor 5. If DLS>15 deg needed to lar Engineering 6. Utilizing NOV's On Demand 7. Monitor hole conditions an lateral while tripping	fluctuate gpms unless build rate or esistent flow rate. Ind, STOP drilling and consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the location of th
A. CHALK EF_UPPER EF_LOWER	13,253' 13,479' 13,574'	13,436' 13,510'		Baker 7" 2.25° FBH, rp Curve 12.8 ppg - Latera 13.2 TD N	406TS 8.4, 5/6, 0.35 IS MW 13.2 ppg		2. Follow standardized sweep lateral as needed 3. Building on 10s. 4. Curve: 525-550 GPM, don't loss issues occur, maintain cor 5. If DLS>15 deg needed to lar Engineering 6. Utilizing NOV's On Demand 7. Monitor hole conditions and lateral while tripping TD and 1. Perform standard 5 stand co	fluctuate gpms unless build rate or naistent flow rate. Ind, STOP drilling and consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the least of the l
A. CHALK EF_UPPER EF_LOWER Landing	13,253' 13,479' 13,574' 13,974	13,436' 13,510' 13,579		Baker 7" 2.25° FBH, rp Curve 12.8 ppg - Latera 13.2 TD N	406TS 8.4, 5/6, 0.35 IS MW 13.2 ppg		2. Follow standardized sweep lateral as needed 3. Building on 10s. 4. Curve: 525-550 GPM, don't loss issues occur, maintain cor 5. If DLS>15 deg needed to lar Engineering 6. Utilizing NOV's On Demand 7. Monitor hole conditions and lateral while tripping TD and 1. Perform standard 5 stand co	fluctuate gpms unless build rate or naistent flow rate. Ind, STOP drilling and consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the leasing Running lean up cycle.
A. CHALK EF_UPPER EF_LOWER Landing Formation T	13,253' 13,479' 13,574'	13,436' 13,510' 13,579		Baker 7" 2.25° FBH, rp Curve 12.8 ppg - Latera 13.2 TD N	406TS 8.4, 5/6, 0.35 IS MW 13.2 ppg		2. Follow standardized sweep lateral as needed 3. Building on 10s. 4. Curve: 525-550 GPM, don't loss issues occur, maintain cor 5. If DLS>15 deg needed to lar Engineering 6. Utilizing NOV's On Demand 7. Monitor hole conditions and lateral while tripping TD and 1. Perform standard 5 stand cor 2. This well using 15K float she	fluctuate gpms unless build rate or naistent flow rate. Ind, STOP drilling and consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the least growth of the least
A. CHALK EF_UPPER EF_LOWER Landing Formation T HARTM	13,253' 13,479' 13,574' 13,974	13,436' 13,510' 13,579		Baker 7" 2.25° FBH, rp Curve 12.8 ppg - Latera 13.2 TD N	406TS 8.4, 5/6, 0.35 IS MW 13.2 ppg		2. Follow standardized sweep lateral as needed 3. Building on 10s. 4. Curve: 525-550 GPM, don't loss issues occur, maintain cor 5. If DLS>15 deg needed to lar Engineering 6. Utilizing NOV's On Demand 7. Monitor hole conditions an lateral while tripping TD and 1. Perform standard 5 stand cor 2. This well using 15K float should be supported by the system / wet shoe)	fluctuate gpms unless build rate or naistent flow rate. Ind, STOP drilling and consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the least growth of the least
A. CHALK EF_UPPER EF_LOWER Landing Formation T HARTM Total Depth	13,253' 13,479' 13,574' 13,974 Tops from Referent MAN-BLACK USW 21328' MD	13,436' 13,510' 13,579 nce Well A 1 13606' TVD Casing Informa		Baker 7" 2.25° FBH, rp Curve 12.8 ppg - Latera 13.2 TD N	406TS 8.4, 5/6, 0.35 IS MW 13.2 ppg		2. Follow standardized sweep lateral as needed 3. Building on 10s. 4. Curve: 525-550 GPM, don't loss issues occur, maintain cor 5. If DLS>15 deg needed to lar Engineering 6. Utilizing NOV's On Demand 7. Monitor hole conditions and lateral while tripping TD and 1. Perform standard 5 stand c 2. This well using 15K float sh system / wet shoe) 3. 10%/10% (lead/tail) excess	fluctuate gpms unless build rate or ensistent flow rate. Ind, STOP drilling and consult Houston and Agitator in C/L BHA Id watch for pack off tight/hole in the lean up cycle. Independent of the collar from Arsenal (3 plug for production cement lent Information
A. CHALK EF_UPPER EF_LOWER Landing Formation T HARTM Total Depth Surface	13,253' 13,479' 13,574' 13,974 Tops from Referendent HAN-BLACK USW 21328' MD Casing	13,436' 13,510' 13,579 The Well A 1 13606' TVD Casing Informa	Length	Baker 7" 2.25° FBH, rp Curve 12.8 ppg - Latera 13.2 TD N	406TS 8.4, 5/6, 0.35 IS MW 13.2 ppg		2. Follow standardized sweep lateral as needed 3. Building on 10s. 4. Curve: 525-550 GPM, don't loss issues occur, maintain cor 5. If DLS>15 deg needed to lar Engineering 6. Utilizing NOV's On Demand 7. Monitor hole conditions and lateral while tripping TD and 1. Perform standard 5 stand c 2. This well using 15K float sh system / wet shoe) 3. 10%/10% (lead/tail) excess	fluctuate gpms unless build rate or ensistent flow rate. Ind, STOP drilling and consult Houston and Agitator in C/L BHA Id watch for pack off tight/hole in the lean up cycle. Independent of the collar from Arsenal (3 plug for production cement lent Information
A. CHALK EF_UPPER EF_LOWER Landing Formation T HARTM Total Depth Surface Section 1	13,253' 13,479' 13,574' 13,974 Tops from Referent ANN-BLACK USW 21328' MD Casing 9-5/8" J55	13,436' 13,510' 13,579 The Well A 1 13606' TVD Casing Informa Type 36# BTC	Length 4400	Baker 7" 2.25° FBH, rp Curve 12.8 ppg - Latera 13.2 TD N 13.2ppg -	406TS 8.4, 5/6, 0.35 g : MW 13.2 ppg al MW ppg ww 13.5 ppg		2. Follow standardized sweep lateral as needed 3. Building on 10s. 4. Curve: 525-550 GPM, don't loss issues occur, maintain cor 5. If DLS>15 deg needed to lar Engineering 6. Utilizing NOV's On Demand 7. Monitor hole conditions and lateral while tripping TD and 1. Perform standard 5 stand c 2. This well using 15K float sh system / wet shoe) 3. 10%/10% (lead/tail) excess	fluctuate gpms unless build rate or esistent flow rate. Ind, STOP drilling and consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the at a consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the at a consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the at a consult Houston at a consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the at a consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the at a consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the at a consult Houston in C/L BHA Id watch for pack off tight/hole in the at a consult Houston in C/L BHA Id watch for pack off tight/hole in the at a consult Houston in C/L BHA Id watch for pack off tight/hole in the at a consult Houston in C/L BHA Id watch for pack off tight/hole in the at a consult Houston in C/L BHA Id watch for pack off tight/hole in the at a consult Houston in C/L BHA Id watch for pack off tight/hole in the at a consult Houston in C/L BHA Id watch for pack off tight/hole in the at a consult Houston in C/L BHA Id watch for pack off tight/hole in the at a consult Houston in C/L BHA Id watch for pack off tight/hole in the at a consult Houston in C/L BHA Id watch for pack off tight/hole in the at a consult Houston in C/L BHA Id watch for pack off tight/hole in the at a consult Houston in C/L BHA Id watch for pack off tight/hole in the at a consult Houston in C/L BHA Id watch for pack off tight/hole in the at a consult Houston in C/L BHA Id watch for pack off tight/hole in the at a consult Houston in C/L BHA Id watch for pack off tight/hole in the at a consult Houston in C/L BHA Id watch for pack off tight/hole in the at a consult Houston in C/L BHA Id watch for pack off tight/hole in the at a consult Houston in C/L BHA Id watch for pack off tight/hole in the at a consult Houston in C/L BHA Id watch for pack off tight/hole in the at a consult Houston in C/L BHA Id watch for pack of
A. CHALK EF_UPPER EF_LOWER Landing Formation T HARTM Total Depth Surface Section 1 BTM Plug	13,253' 13,479' 13,574' 13,974 Tops from Referent MAN-BLACK USW 21328' MD Casing 9-5/8" J55 HES BOT 24T 5	13,436' 13,510' 13,579 The Well A 1 13606' TVD Casing Informa Type 36# BTC 5 WIPER NR	Length 4400 Top Plug	Baker 7" 2.25° FBH, rp Curve 12.8 ppg - Latera 13.2 TD N 13.2ppg -	406TS 8.4, 5/6, 0.35 Ig 13.2 ppg 13.2 ppg 14 MW 13.5 ppg 14 MW 15 ppg 16 MW 16 Ppg 17 MW 17 Ppg 18 MW 18 MW		2. Follow standardized sweep lateral as needed 3. Building on 10s. 4. Curve: 525-550 GPM, don't loss issues occur, maintain cor 5. If DLS>15 deg needed to lar Engineering 6. Utilizing NOV's On Demand 7. Monitor hole conditions and lateral while tripping TD and 1. Perform standard 5 stand c 2. This well using 15K float sh system / wet shoe) 3. 10%/10% (lead/tail) excess	fluctuate gpms unless build rate or esistent flow rate. Ind, STOP drilling and consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the at a consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the at a consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the at a consult Houston at a consult Ho
A. CHALK EF_UPPER EF_LOWER Landing Formation T HARTM Total Depth Surface Section 1 BTM Plug Production	13,253' 13,479' 13,574' 13,974 Tops from Referent AN-BLACK USW 21328' MD Casing 9-5/8" J55 HES BOT 24T 5 Casing	13,436' 13,510' 13,579 TOTAL MENT OF THE PROPERTY OF THE PRO	Length 4400 Top Plug Bottom	Baker 7" 2.25° FBH, rp Curve 12.8 ppg - Latera 13.2 TD N 13.2ppg -	406TS 8.4, 5/6, 0.35 If 13.2 ppg I MW ppg VW 13.5 ppg 5 WIPER NR Run		2. Follow standardized sweep lateral as needed 3. Building on 10s. 4. Curve: 525-550 GPM, don't loss issues occur, maintain cor 5. If DLS>15 deg needed to lar Engineering 6. Utilizing NOV's On Demand 7. Monitor hole conditions and lateral while tripping TD and 1. Perform standard 5 stand cor 2. This well using 15K float should system / wet shoe) 3. 10%/10% (lead/tail) excess Ceme	fluctuate gpms unless build rate or esistent flow rate. Ind, STOP drilling and consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the at a consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the at a consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the at a consult in
A. CHALK EF_UPPER EF_LOWER Landing Formation T HARTM Total Depth Surface Section 1 BTM Plug Production Section 1 Let	13,253' 13,479' 13,574' 13,974 Tops from Referent MAN-BLACK USW 21328' MD Casing 9-5/8" J55 HES BOT 24T 5	13,436' 13,510' 13,579 Take Well A 1 13606' TVD Casing Informa Type 36# BTC 5WIPER NR Type 3# P110-S, TXP E	Length 4400 Top Plug	Baker 7" 2.25° FBH, rp Curve 12.8 ppg - Latera 13.2 TD N 13.2ppg -	406TS 8.4, 5/6, 0.35 Ig 13.2 ppg 13.2 ppg 14 MW 13.5 ppg 14 MW 15 ppg 16 MW 16 Ppg 17 MW 17 Ppg 18 MW 18 MW		2. Follow standardized sweep lateral as needed 3. Building on 10s. 4. Curve: 525-550 GPM, don't loss issues occur, maintain cor 5. If DLS>15 deg needed to lar Engineering 6. Utilizing NOV's On Demand 7. Monitor hole conditions an lateral while tripping TD and 1. Perform standard 5 stand c 2. This well using 15K float sh system / wet shoe) 3. 10%/10% (lead/tail) excess	fluctuate gpms unless build rate or esistent flow rate. Ind, STOP drilling and consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the at a consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the at a consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the at a consult Houston at a consult Ho
A. CHALK EF_UPPER EF_LOWER Landing Formation T HARTM Total Depth Surface Section 1 BTM Plug Production Section 1 pct	13,253' 13,479' 13,574' 13,974 Tops from Referent MAN-BLACK USW 21328' MD Casing 9-5/8" J55 HES BOT 24T 5 Casing tion Casing(5.5" 2	13,436' 13,510' 13,579 The Well A 1 13606' TVD Casing Informative 36# BTC 5 WIPER NR Type 3# P110-ICY, TXP Arsenal	Length 4400 Top Plug Bottom 6532	Baker 7" 2.25° FBH, rp Curve 12.8 ppg - Latera 13.2 TD N 13.2 ppg -	406TS 8.4, 5/6, 0.35 Ig 13.2 ppg 13.2 ppg 14 MW 13.5 ppg 14 MW 13.5 ppg 15 WIPER NR Run YES NO NO		2. Follow standardized sweep lateral as needed 3. Building on 10s. 4. Curve: 525-550 GPM, don't loss issues occur, maintain cor 5. If DLS>15 deg needed to lar Engineering 6. Utilizing NOV's On Demand 7. Monitor hole conditions and lateral while tripping TD and 1. Perform standard 5 stand cor 2. This well using 15K float should system / wet shoe) 3. 10%/10% (lead/tail) excess Ceme	fluctuate gpms unless build rate or ensistent flow rate. Ind, STOP drilling and consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the at a consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the at a consult Houston at Agitator in C/L BHA Id watch for pack off tight/hole in the at a consult Hole in the at a consult Houston in

Rig H	&P 256				_	AN-BLACK USW				V2
ConocoPhillip	s	PSHL: (N,E)	400506'	2422831'		ion: 414.9'	API #: 42-123-35319		etwork #: 10	
Formation	MD (ft)	PBHL: (N,E)	396189'	2429707' Section		ion: 440.9' Risks	KB to GL: 26'	Notes	PD Permit #:	893146
	IVID (IC)	145 (10)		Surface				Surface		
20" Conductor	120	120	WBM	12-1/4"	PDC Bit	Gumbo	1. (2/19) Offset gumbo/packi	ng off issue	es, 1 issue cn	nt
				8.5" 7/8 - 4.	0 S 1.5 FBH,	Dook Off	communication.	J	•	
				0.166	RPG	Pack Off	2. Mudloggers call TD on 1st	well. Must	have min. 80)% shale.
				Surface	e MW		GYRO 3/4 WELLS - 1st well do			or silaici
				9 ppg -	9.5 ppg		3. Fluid Pro Dewatering for su			
							4. Pump caliper sweep, if was			_
									•	
						Loss	5. Casing set ~4,400'. Don't ex			tace (SCE
Water Board Min L	Denth: 500					communicatio	depth), don't set shallower th			
	-					n cmt	6. Tail CMT required to cover	20% of the	CSG length o	or 1,000ft,
Casing Exception D	reptn: 4500						whichever is less. (Before XS)			
						No returns to	7. 100%/30% (lead/tail) exces			
Surface TD	4.400	4 400				surf on cmt	8. (3/19) Offset cement retur	ns failed ge	etting to surf	ace,
Surface 1D	4,400	4,400				Suit off clift	performed top job.			
Perform Surface FI	T to 14.5 ppge @ C	SG Shoe +10'	0014	Vertica	l BHA			Vertical		
New Formation. Te			OBM	8 3/4" Ultei	ra SPI 616		1. 1st well drill conservatively	and nay clc	se attention	to drilling
Trew Formation: Te	.st casing to 2,000	931		0 3/4 01101	14 31 2010		parameters while entering/ex			_
				7" 1.83° slick	FBH, 6.9, 7/8,		spikes/stalls	iting the W	, water	ioi toique
Cont	4.7331	7.356		0.25	rpg	-	יאיעבא <i>ן אנמוו</i> א			
Sparta	4,723'	7,256'				Transitions	2 4 1 11 21 21:			. 11.
Queen City	5,064'	7,854'		l		ļ	2. 1st well use Stage 3 WBS ar	ia it needed	on other 3	wells.
Upper Wilcox	6,276'	9,356'				Losses &				
Middle Wilcox	7,257'	10,387'		Vertica	l MW	Ballooning	3. Pump sweeps per sweep st	andardizati [,]	on - can add	LCM for
Lower Wilcox	7,855'	7,854'		11.8 ppg -	12.8 ppg		prevention or as needed			
Midway Shale	9,357'	9,356'								
Poth SD	10,388'	10,387'				ECD	4. Follow Vertical Roadmap			
Olmos	11,982'	11,970'				Management				
	,	,								
							1			
KOD	12 224	12 122								
КОР	13,234	13,122						/1 -+		
								ırve/Latera		
							Every survey from KOP to T	ש wiii nave	to be sent to	iviagvar for a
							correction.			
				Curve/Lat			2. Follow standardized sweep	document.	Only Pump s	sweeps in
				Baker 4			lateral as needed			
				7" 2.25° FBH,	8.4, 5/6, 0.35		3. Building on 10s.			
				rp	g		4. Curve: 525-550 GPM, don't	fluctuate g	pms unless b	ouild rate or
				Curve	MW		loss issues occur, maintain cor	nsistent flow	w rate.	
				12.8 ppg -	13.2 ppg		5. If DLS>15 deg needed to lar	nd, <mark>STOP d</mark> r	illing and co	nsult Houston
							Engineering			
							6. Utilizing NOV's On Demand	d Agitator i	n C/L BHA	
				Latera	l MW	<u> </u>		-0200. 11	-,	
						1	7. Monitor hole conditions an	d watch for	nack off tigh	nt/hole in the
				13.2		11010	lateral while tripping	a water ioi	pack off tigi	ignore in the
				TD N		Hole	liateral wille tripping			
A. CHALK	13,253'	13,230'		13.2ppg -	13.5 ppg	instability				
EF_UPPER	13,479'	13,436'		l	4	1				
EF_LOWER	13,574'	13,510'			4					
							TD and	Casing Rur	nning	
Landing	14,115	13,659	\				1. Perform standard 5 stand c	lean up cyc	le.	
							2. This well using 15K float sh			al (3 plug
Eo	Tons from Dafa	so Wall				-	system / wet shoe)			
	Tops from Referen MAN-BLACK USW A						3. 10%/10% (lead/tail) excess	for product	tion cement	
Total Depth	21532' MD	13707' TVD			▼	l .	2. 20/0/ 20/0 (icaa/ tail/ cace33	. J. product		
. Ctar Deptil		Casing Informa	ition]	Ceme	nt Informa	tion	
Surface	Casing T	уре	Length						Surface	Production
Section 1	9-5/8" J55 3		4400			1				
BTM Plug	HES BOT 24T 5		Top Plug	HES TOP 24T			Density (ppg)	Lead	11.8 ppg	14.3 ppg
Production 1 10	Casing T	ype	Bottom	Tool	Run	-	/ W-F0/	Tail	14.5 ppg	16.4 ppg
	ction Casing(5.5" 23		6532 TD	Float Sub Toe-Valve:	YES NO	1	Volume(bbl)	<u>Lead</u> Tail	409 bbl 64 bbl	234 bbl 436 bbl
	750 PSI - A		10	Sleeves:	NO NO	1		Lead	100%	10%
BTM Plug				SICEVES.		•	0/ 5	Ledu	100/0	
BTM Plug Mid Plug	2,500 PSI - /		Top Plug	2,500 PSI			% Excess	Tail	30%	10%

Rig H	1&P 256			Well Bore Di		ARTMAN-BLACK USW D 1 Target: L1					
ConocoPhillip	os 📆	PSHL: (N,E)		2422834'		on: 414.61'	API #: 42-123-35320		etwork #: 10		
-	MD (ft)	PBHL: (N,E)	396556'	2429878'		on: 440.61'	KB to GL: 26'		PD Permit #:	893148	
Formation	IVID (It)	I VD (It)		Sectio Surfac		Risks	 	Notes Surface			
20" Conductor	120	120	WBM		PDC Bit	Gumbo	1 /2/10) Offert south - /				
	120	120		•			1. (2/19) Offset gumbo/pack	ting off issue	es, 1 issue cm	it	
				•	.0 S 1.5 FBH,	Pack Off	communication.				
				0.166			2. Mudloggers call TD on 1st			% shale.	
			Surface MW				GYRO 3/4 WELLS - 1st well d				
				9 ppg -	9.5 ppg		3. Fluid Pro Dewatering for si	urface. Watc	h MBT's.		
							4. Pump caliper sweep, if wa	ash casing, p	ump anothe	r.	
							5. Casing set ~4,400'. Don't e	exceed 4,500)' MD on sur	face (SCE	
							depth), don't set shallower t	than 500' (G	AU).		
						Loss	6. Tail CMT required to cover	20% of the	CSG length o	r 1,000ft,	
Water Board Min	Denth: 500					communicatio	whichever is less. (Before XS)		Ü	, ,	
Casing Exception	•					n cmt	7. 100%/30% (lead/tail) exce		e cmt		
cusing Exception	Берин. 4300					No returns to	8. (3/19) Offset cement retu			are	
ConferenTD	4.400	4 200					performed top job.	ilis fallea ge	itting to sur	ucc,	
Surface TD	4,400	4,399		77	LDUA	surf on cmt	performed top job.				
	IT to 14.5 ppge @ C		ОВМ	Vertica				Vertical			
New Formation. To	est casing to 2,000 p	osi		8 3/4" Ulte	rra SPL616		1. 1st well drill conservatively			_	
				7" 1 83° click	FBH, 6.9, 7/8,		parameters while entering/e	xiting the Wi	ilcox, watch f	or torque	
							spikes/stalls				
Sparta	4,723'	7,256'		0.25	1 PR	Teo ::4'					
Queen City	5,064'	7,854'				Transitions	2. 1st well use Stage 3 WBS a	ind if needed	on other 3 v	vells.	
Upper Wilcox	6,276'	9,356'		1		Losses &	1				
Middle Wilcox	7,257'	10,387'		Vertica	al MW	Ballooning	3. Pump sweeps per sweep s	tandardizatio	on - can add	LCM for	
Lower Wilcox	7,855'	7,854'			· 12.8 ppg	246618	prevention or as needed				
	9,357'			11.0 ррб	12.0 ppg		prevention of as needed				
Midway Shale		9,356'				ECD	4. Follow Vertical Roadmap				
Poth SD	10,388'	10,387'					4. Follow Vertical Roadillap				
Olmos	11,982'	11,970'				Management	4				
							4				
_											
КОР	13,266	13,079									
								urve/Lateral			
							1. Every survey from KOP to	TD will have	to be sent to	MagVar for a	
							correction.				
				Curve/Lat	teral BHA		Follow standardized sweep	o document.	Only Pump s	weeps in	
				Baker	406TS		lateral as needed				
				7" 2.25° FBH,	8.4, 5/6, 0.35		3. Building on 10s.				
				rp	og		4. Curve: 525-550 GPM, don'	t fluctuate g	pms unless b	uild rate or	
				Curve			loss issues occur, maintain co	•			
				12.8 ppg -	· 13.2 ppg		5. If DLS>15 deg needed to la			sult Houston	
					669		Engineering	110, 5101 01	and con	isait mouston	
							6. Utilizing NOV's On Deman	nd Agitator i	C/I BUA		
				1	al NAVA/		o. Othizing NOV 5 On Deman	iu Agitator II	CLEDIA		
					al MW		7 Manthaut 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		and the second	# /h = 1	
					ppg	<u> </u>	7. Monitor hole conditions ar	nd watch for	pack off tigh	t/noie in the	
				1 DT		Hole	lateral while tripping				
A. CHALK	13,253'	13,230'		13.2ppg -	· 13.5 ppg	instability	_				
EF_UPPER	13,479'	13,436'		1							
EF_LOWER	13,574'	13,510'			4						
							TD an	d Casing Rur	nning		
Landing	14,139	13,599	\				1. Perform standard 5 stand				
							2. This well using 15K float s			l (3 plug	
Farmat!	Tone from Dafa	so Wall					system / wet shoe)				
	n Tops from Referen FMAN-BLACK USW <i>A</i>						3. 10%/10% (lead/tail) excess	s for product	ion cement		
Total Depth	21462' MD	13659' TVD			┫		10/9/ 10/0 (icaa/ tail/ caces	product	.s comen		
		Casing Informa				1	Cem	ent Informa	tion		
Surface	Casing T	уре	Length			1			Surface	Production	
Section 1	9-5/8" J55 3		4400	LIEC TOD O	E MURER ::	4			44.0	112	
BTM Plug	HES BOT 24T 5		Top Plug		5 WIPER NR	1	Density (ppg)	Lead	11.8 ppg	14.3 ppg	
Production Section 11	Casing T action Casing(5.5" 23		Bottom 6532	Tool Float Sub	Run YES	1	1 1 2 2	Tail Lead	14.5 ppg 409 bbl	16.4 ppg 237 bbl	
Section 2	tion Casing (5.5" 23	# P110-ICY. TXP	D TD	Toe-Valve:	NO NO	ı	Volume(bbl)	Tail	64 bbl	430 bbl	
Jeetion Ze	750 PSI - A			Sleeves:	NO	1	% Excess	Lead	100%	10%	
BTM Plug											
BTM Plug Mid Plug	2,500 PSI - /		Top Plug	2,500 PSI	- Arsenal		/6 LACESS	Tail	30%	10%	

I&P 256			Contacts	and Alarms	V2	
			COP Contac	ts		
Position	Name			Cell Phone	Email	
Drilling Engineer	Taylor Daugh			306) 274-1918	taylor.hickman@conocophillips.com	
Drilling Supervisor	Robert Taliafe			32) 924-2103	Robert.Taliaferro@conocophillips.com	
Drilling Superintendent	Kurt Alexa			07) 787-9637	Kurt.j.alexa@conocophillips.com	
Drilling Superintendent	Brian Sexto			330) 299-8873	brian.sexton@conocophillips.com	
Drilling Field Superintendent	Lupe Rios		· ·	330) 400-9041	Lupe.rios@conocophillips.com	
Drilling Field Superintendent	James Taylo			30) 299-8873	james.l.taylor@conocophillips.com	
Drilling Supervisor (Day)	Ronald Thorn	ton	(3	318) 801-3636	ronald.thornton@contractor.conocophillips.cor	
Drilling Supervisor (Day)	Justin Richard	son	(4	32) 530-7073	justin.a.richardson@conocophillips.com	
Drilling Supervisor (Night)	Pierre Castr	0	(9	009) 231-5713	pierre.castro@contractor.conocophillips.com	
Drilling Supervisor (Night)	Monroe Alva	rez	(8	30) 305-0526	monroe.alvarez@contractor.conocophillips.con	
Ops Geologist	Rob McConn	ell	(8	32) 917-2053	rob.h.mcconnell@conocophillips.com	
Ops Geologist	Robert Scrug	ggs	(3	46) 203-0037	Robert.R.Scruggs@conocophillips.com	
Geology Supervisor	Todd Lippinc	ott	(2	81) 794-1417	todd.a.lippincott@conocophillips.com	
Completions Engineer	Brian Brouss	ard	(3	37) 967-0516	brian.t.broussard@conocophillips.com	
Asset Geologist	Austin Kreh			46) 205-1681	austin.krehel@conocophillips.com	
Reservoir Engineer	Phillip Estra	da (81) 352-5012	phillip.n.estrada@conocophillips.com	
Land	Lindsay Smi	th		81) 206-5340	Lindsay.R.Smith@conocophillips.com	
Regulatory Coordinator	Stephanie Tomk	kinson		81) 253-9794	stephanie.tomkinson@conocophillips.com	
			<u> </u>			
-			Service Conta			
Company	Item		ntact	Cell Phone	Email	
H&P Rig	Rig		256	(432) 200-0789	drillingrighp256@conocophillips.com	
H&P	Motive Performance		Malik	(361) 648-0862	Aaron.Malik@hpinc.com	
H&P	Remote Ops		mand Center	(469) 203-0201	command.center@hpinc.com	
H&P DAT	Auto Slide		King	(512) 644-7344	Eli.king@hpinc.com	
Fluid Pro	Dewatering		rgan	(307) 851-1452	-	
Pro Directional	MWD Coordinator		Hendrix	(214) 620-7936	chendrix@prodirectional.com	
Pro Directional	Directional Coordinator		wberry	(936) 525-9719	kdewberry@prodirectional.com	
Pro Directional	Well Planner		o Garza	(713) 438-4165	RGarza@prodirectional.com	
Scientific Drilling	Gyro		Shedd	(832) 527-7720	wes.shedd@scientificdrilling.com	
Cameron	Wellhead		Byrne	(832) 278-8097	JRumsey@slb.com	
Baroid	Drilling Fluids		oungrana	(361) 813-1951	abdel.zoungrana@halliburton.com	
Halliburton	Cementing		Garza	(956) 285-2903	aroldo.garza@halliburton.com	
Halliburton	Wireline		/aldem	(303) 240-4756	joel.walden@haliburtion.com	
Butch's	Casing Equipment Rep	Joel Fit	zgerald	(979) 324-7546	jfitzgerald@eeslp.com	
	i l					

Emergency Contacts

Axiom - (281) 419-7063

Nordheim Fire Department - (361) 275-5734

Otto Kaiser Memorial Hospital (Kenedy) - (830) 583-3401

Runge Ambulance - (830) 780-3931

Wild Well Control (1st call) - (281) 784-4700

Boots & Coots (2nd call) - (281) 931-8884

	Alerts (Only list well-specific alerts)									
Alerts	Low Limit	High Limit	Section	Alert Level	Wells					
ECD at casing shoe	N/A	14.5	Vertical	Email						
Gamma	50	100	Lateral	Text						
Overpull Limits	N/A	30	General	Text	Wilcox (All Wells)					
ROP	N/A	550	Vertical	In-App	All Wells					
Operational torque limit	N/A	19	Casing	Email						
Window (directional)	N/A	15	Vertical	Text	All wells					
Window (directional)	N/A	20	Lateral	Text	All wells					

Rig	H&P 256		Operation	n Summary				V2
*		hannell ha maldad an the	·	·	ell elementale CUD e	and adopt to a		
A plate with th			North side of the Cellar deck. wells are not in numerical orde		_	-	case or any o	aiscrepancies
	T				Ι		ı	
Well	HARTMAN-BLACK	HARTMAN-BLACK USW	HARTMAN-BLACK USW C 1	HARTMAN-BLACK USW D				
	USW A 1	B 1		1				
SFC. Order PRD. Order	4	3	2	1				
- KD. Order		-			l			
	Refer to the Eagle Fo	ord BOD and SOP for deta	iled information related to Dri	lling Operations, Well Cate	gory, PCE Class and	l Well Conti	rol Plan.	
1	Drill surface hole to p	lanned depth. Do not ex	eed SCE depth when setting c	asing. (Phase code: SURFA	CE-DRILL)			
2			r, POOH, rack back 12-1/4" BHA	a. If excess drag is seen, con	sult DE about wiper	trip. (Phase	e code: SURF	FACE-CASING)
		S AFTER FIRST SURFACE	ing. Land casing with landing jo	int as ner vendor's wellhea	d procedure Circul	ate B/II (Pł	nase rode: S	IIRFΔCF-
3		UP CSG VALVE DURING C		int as per vendor s weimea	a procedure. erredi	ate b/ 0. (11	iase code. s	ONIACE
4	R/D casing equipment	. (Phase code: SURFACE-	CASING)					
	_	•	nenters to cement the offline w	hile picking up surface drill	ing assembly.			
5	NOTES FOR SURFACE	CEMENTING: aliper to determine hole ve	aluma					
3	' '	•	reight and look for abnormally l	nigh pressures				
			a 100 bbl weighted spacer					
6	<i>'</i>		hing. Latch onto 8.75" vertical		to within one stand	of float sho	e. Conduct	choke drill and
	circulate through the	gas buster prior to drilling	shoe track. (Phase code: PROI	D1-MOVE)				
7	Drill out shoe track an	d 10' of new formation. P	erform FIT to a 14.5 ppg EMW.	Record pressures in WellV	iew. (Phase code: P	ROD1-MOV	E)	
8	There are no AC conce	erns with offset wells on t	his pad IN THE VERTICAL. Verify	y AC with as drilled surveys	from wells on pad.			
9	According to direction	nal plan, drill VERTICAL sec	tion as per plan (Phase code: F	ROD1-Drill Vert)				
10	Drill to 100' above KO	P. POOH with the vertical	BHA and PU, TIH with curve/la	teral BHA. (Phase code: PR	OD1-DRILL-VERTICA	L)		
		•	n (Phase code: PROD1-Drill Cui	rve), surveying every 45' ac	cording to the proce	edure below	<i>ı</i> :	
11	· ·	AW per plan prior to landi	ng curve. n wall plot after every survey w	hilo the congration is loss th	aan 2 or overy third	curvoy if th	o constation	a factor is
	greater than 2.	viii lieed to plot surveys of	i wali plot after every survey w	ille tile separation is less ti	ian 2 or, every time	Survey II til	ie separatioi	i iactor is
		th in narameters continue	e drilling the LATERAL, surveyin	g every stand. If SE is below	/ 1.5. alert DE and w	ell nlanner	Real time A	C will be run
12		•	al anti-collision guidance. Notify			-		
	send an e-mail confir	mation of approval. (Phas	se code: PROD1-DRILL-Lateral)				-	_
	Unon reaching TD, had	ckream 5 stands @ 2 ft/m	in and rotating at 80 RPM. Do	not hegin to trin until shal	ers show the hole	is clean. Pu	ıll 5 stands w	vet then if
13			nt spot is seen record depth for	•				-
	tight spot is seen, rem	nember to record depth of	tight spots. (Phase code: PRO	D1-CASING)				
1.4	TOH laying down drill	pipe. If excess drag is see	n, RIH with 2 stands and circula	te 1 bottoms up. Perform v	viper trip to KOP on	ly if needed	. (Phase cod	e: PROD1-
14	CASING)							
15	Pull wear bushing. (F	Phase code: PROD1-CASIN	G)					
16	P/U and run casing pe	er casing layout. (Phase co	de: PROD1-CASING)					
17			ulation at KOP and TD. Keep ca					
18	0 0.		rk a scribe line to line up flutes ase code: PROD1-CASING)	in nanger with casing valve	s to allow the stack	to drain fre	ely after cen	nent Job.
		•	ow cement head. ***If well loo	cks up and pressure spikes	, pressure up to the	test pressu	ire of the lin	nes and hold, it
19			(Phase code: PROD1-Cement)					
	> This pad is using a	a WET SHOE DESIGN						
	Coment essing in plac	WET CHOE DDOCED	URE, begin displacement with !	hble of MANACD water and	than finish displasio	a with fract	ator Dun	turo the
	· .	* 1	until the top plug ruptures. Or		•	U		
20			displacement. (Phase code: PR			•		
	NOTE: When inputting	g cement volumes into W	ellView, <u>be sure to include a ca</u>	Iculation for top of cemen	t with 10% and 30%	washout in	n the comm	ents section.
	B.d it - i		ta flandara torre de la la la cal					Name of the same o
21	Monitor annular retur PROD1-Cement)	rns for 30 minutes. If well	is flowing, immediately shut-in	and monitor pressure while	e contacting field su	perintende	nt and DE. (F	rnase code:
	,	ld, or the annulus is not st	atic, WOC until tail reaches 1,5	00 psi and flow check. If w	ell is static install BF	V and proce	eed to N/D.	If well will not
22		· ·	barriers. (Phase code: PROD1-	•			,	
23		• • •	ose the annular around the lan	ding joint and blow the sta	ck out with air thro	ugh either t	he choke or	kill line. L/D
		ackoff and test. (Phase co		00: /Db	MAILDROS)			
24	_ ·		Ilhead procedure. Test to 10,00 ne correct wellhead is placed or		•	JP.		
25	_	walk to the next well or p	· · · · · · · · · · · · · · · · · · ·		, a. a. a placalla Sc	•		

5 1/2 " Wet Shoe Cement Job Procedure

Arsenal Float Equipment	Arsenal Cement Plugs
5 1/2" 15K Float Shoe	Bottom Plug – 750 or 1,250 psi burst
5 1/2" 15K Float Collar – 3 Plug System	Middle Plug – 2,500 psi burst
	Top Plug – 2,500 psi burst

- RU cement pumps, bulk trucks, booster pumps, high pressure iron, and ancillary equipment per normal procedure.
- Install 10K FOSV and autoclave double valve with gauge.
- Test high-pressure iron and cement head to 8,000 psi.
- Drop Bottom Pluq.
- Pump Spacer volume, Lead cement, and Tail cement. Shut down and flush lines.
- Load and drop Middle Plug.
- Pump 10 bbls of 0.5 gal/bbl MMCR water.
- Load and drop Top Plug.

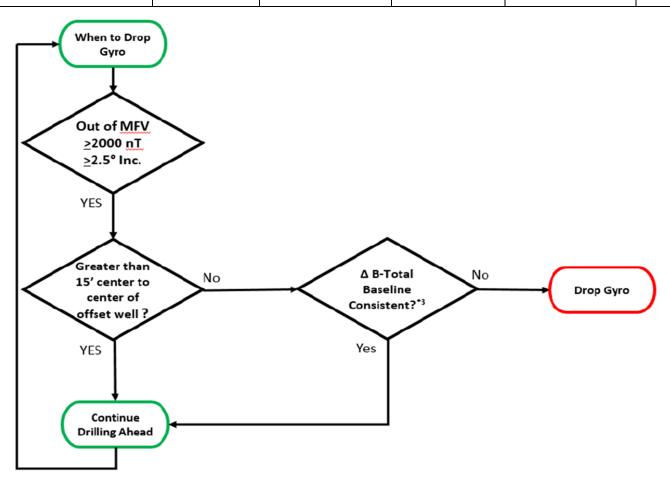
NOTE: When breaking off the top cap, ensure the cap seal does not come off due to the vacuum while loading plugs.

- Begin displacement with 5 bbls of MMCR water, then continue displacing with fresh water until Top Plug bumps.
 - a. +/-10 bbls from Top Plug bump you may see a pressure spike from Middle Plug. Walk
 up pressure until Middle Plug ruptures, then continue to pump until Top Plug bumps.
 - If the Middle Plug does not rupture and the max pressure (iron test pressure) is reached, shut down and check floats.
 - If Top Plug does not bump, stop at 5 bbls over calculated displacement.
- When Top Plug bumps, walk pressure up until plug ruptures. Once ruptured, pump 5 bbls, shut down and check floats.
- 11. If you reach max pressure (iron test pressure) and still no Top Plug rupture, shut down. Hold pressure 5 min, bleed off, and check floats.
 - a. If floats hold, rig down cementers while monitoring annulus for 30 min.
 - If floats do not hold, shut in well and contact Sup/DE.

NOTE: if need 12k cement head, contact HES prior to cement callout to notify them to bring it.

With the 12k head we can test iron to 10k prior to starting job.

H&P 256	H&P 256 Surface Operating Parameters V2								
Recommended Spud Parameters									
Depth	100' - 300'	300' - 500'	500' - 1000'	1000' - 2000'	2000'+				
GPM	400-500	500-650	650-800	800	650 - 800				
ROP	300-400	400-500	500-800	800	500-800				
RPM	40-50	50-70	70-80	80-100	70-80				



H&P 256	Operating	g Parameters V2				
INTERVAL	ROTATING PARAMETERS	COMMENTS				
	RPM: 60	WINDOW: 15' R/L				
	WOB SETPOINT: 5-20 KLBS	STAND 1: 400 GPM/250 FPH				
DRILL OUT	DIFFERENTIAL PRESSURE: 200-500 PSI	STAND 2: 450 GPM/300 FPH				
-	FLOWRATE: 450-600 GPM	STAND 2: 430 GFM/350 FPH				
FIRST 3 STANDS	ROP MAX SETPOINT: 250-450 FPH	STAND 4: 550 GPM/400 FPH				
	PROTORQUE: ON	STAND 5: 550 GPM/450 FPH				
	FROTORQUE. ON	•				
	RPM: 75	CLOSELY MONITOR FOR PACK OFF WINDOW: 15' R/L				
	WOB SETPOINT: 20-40 KLBS	WINDOW. 13 K/L				
TOP HOLE	DIFFERENTIAL PRESSURE: 600-1000 PSI					
TOP HOLE		CLOSELV MONITOR FOR BACK OFF				
	FLOWRATE: 550 GPM	CLOSELY MONITOR FOR PACK OFF				
	ROP MAX SETPOINT: 500 FPH					
	PROTORQUE: ON	MAND OVER 15 In It				
	RPM: 75	WINDOW: 15' R/L				
	WOB SETPOINT: 15-25 KLBS					
MIDDLE WILCOX	DIFFERENTIAL PRESSURE: 500-700 PSI					
7,257' MD	FLOWRATE: 400-500 GPM	WATCH FOR SAND/SHALE TRANSITIONS WITHIN MIDDLE WILCOX				
7,256' TVD	ROP MAX SETPOINT: 400 FPH					
	PROTORQUE: ON					
	RPM: 70	WINDOW: 15' R/L				
LOWER WILCOX	WOB SETPOINT: 15-25 KLBS DIFFERENTIAL PRESSURE: 500-700 PSI	ADJUST PARAMETERS BASED ON TORQUE SWINGS IN TRANSITION ZON				
7,855' MD	FLOWRATE: 400-500 GPM	*ADJUST RPM/GPM TO ASSIST IN HOLDING TANGENT ANGLE IF NEEDI				
7,854' TVD	ROP MAX SETPOINT: 400 FPH	-After kelly down don't pick 1' and set in slips, ream up 10' and then come				
7,034 140	PROTORQUE: ON	down and make connection (this allows time to pump cuttings up from around				
	FNOTONQUE. UN	before shutting pumps off to perform a drilling connection.				
	RPM: 70	WINDOW: 15' R/L				
MIDWAY	WOR CETROINT: 20 25 KI PC					
9,357' MD	WOB SETPOINT: 20-35 KLBS DIFFERENTIAL PRESSURE: 700-1100 PSI					
9,356' TVD	FLOWRATE: 550 GPM					
•	ROP MAX SETPOINT: 500 FPH					
	PROTORQUE: ON					
	RPM: 65	WINDOW: 15' R/L				
	WOB SETPOINT: 25-35 KLBS					
POTH	DIFFERENTIAL PRESSURE: 700-1100 PSI					
10,388' MD	FLOWRATE: 550 GPM					
10,387' TVD	ROP MAX SETPOINT: 500 FPH					
•	PROTORQUE: ON					
	RPM: 65	WINDOW: 15' R/L				
	WOB SETPOINT: 20-40 KLBS	2323				
OLMOS	DIFFERENTIAL PRESSURE: 700-1100 PSI					
11,982' MD	FLOWRATE: 550 GPM					
11,970' TVD	ROP MAX SETPOINT: 500 FPH					
11,5.0 . 10	PROTORQUE: ON					
	RPM: 60-80	Form. U1 L1 L2 AC				
LATERAL (EACLEGORD)						
LATERAL (EAGLEFORD)	FLOWRATE: 425-475 GPM ROP MAX SETPOINT: 175 FPH	Flow 600 600 600 550 ROP 300 300 300 170				
	PROTORQUE: ON	Diff. PSI 1300 1300 1300 1000				
	•	Window 15/15 15/15 15/15 15/15				
	***Flow rate for Curve should stay at 525-550 gpm	*Derate motor DIFF by temp				
		2 F 22 C				

	H&P 256			Bottom Hol	e Assemblies			V2	
	RH/	\ #1: 12 1/4" S	urface Hole				BHA #1: Drilling Pa	rameters	
Bit:	12-1/4" Ulterra U616S or Securit						Pump Rate	400-900	
Motor:	8.5" 7/8 - 4.0 stage with 1.5 deg			stah			WOB	15K-40K	
· · · · · · · · · · · · · · · · · · ·	BHA Components	No. of Jts.	Top Conn.	Btm Conn.	Length	Cum.	RPM	90-120	
	12-1/4" PDC Bit	1	6 5/8" Reg	Denii Comiii	1	1	Comments		
8.5" 7	7/8 - 4.0 S 1.5 FBH, 0.166 RPG	1	6 5/8" Reg	6 5/8" Reg	30.97	31.97	*0.84 in2 TFA		
	11-3/4" Stabilizer	1	6 5/8" Reg	6 5/8" Reg	6	37.97	*Ensure enough soap and SAPP ar	e in the mud system to	
	UBHO Sub	1	6 5/8" Reg	6 5/8" Reg	3.89	41.86	prevent gumbo.	e iii tire iiida systeiii to	
	NMDC - MWD	1	6 5/8" Reg	6 5/8" Reg	29.93	71.79	*Follow Surface Parameters Chart		
	NMDC	1	6 5/8" Reg	6 5/8" Reg	29.35	101.14	*Circulate cuttings above BHA pric		
FILTER SUB		1	6 5/8" Reg	6 5/8" Reg	5.57	106.71	down and setting slips to make a h		
XO		1	4 1/2" IF	6 5/8" Reg	2.06	108.77	*Ensure WOB reset procedure is b		
5-1/2" Drill Pipe As Needed			UGPDS-55	UGPDS-55		108.77	·	· ·	
	·	II				1			
		3HA #2: 8 3/4"	Vertical				BHA #2: Drilling Pa	rameters	
Bit:	8-3/4" Baker D506TWSX w/ 9x12			PDC as backup)			1	Standard Parameters	
Motor:	7" 1.83° slick FBH, 6.9, 7/8, 0.25		51terra 51 E 010	i De as backap)			,	Standard Parameters	
	BHA Components	No. of Jts	Top Conn.	Btm Conn.	Length	Cum.		Standard Parameters	
	8 3/4" Ulterra SPL616	1	4 1/2" Reg	Dem Comm	1	1	Comments		
7" 1.8	3° slick FBH, 6.9, 7/8, 0.25 rpg	1	4 1/2" IF	4 1/2" Reg	34.56	35.56	*0.8353 in2 TFA		
	Pony Collar	1	4 1/2" IF	4 1/2" IF	8.19	43.75	Follow drillout procedure to avoid pack off. Do not		
	UBHO Sub	1	4 1/2" IF	4 1/2" IF	2.91	46.66	exceed ROP limits		
	NMDC (MWD)	1	4 1/2" IF	4 1/2" IF	30.5	77.16	Reduce RPMs when drilling through Wilcox transitions		
Flex Collar		1	4 1/2" IF	4 1/2" IF	28.47	105.63	prevent bit damage		
	Pony Collar	1	4 1/2" IF	4 1/2" IF	8.41	114.04	See vertical drilling parameters, attached. Do not excee		
	Float Sub	1	4 1/2" IF	4 1/2" IF	2.75	116.79	450 fph at any point.		
	Filter Sub	1	4 1/2" IF	4 1/2" IF	5.65	122.44	Ensure WOB reset procedure is being followed.		
	7.25 x/o IF x UGPDS-55		UGPDS-55	4 1/2" IF	1.91	124.35	1		
5-	-1/2" Drill Pipe As Needed		UGPDS-55	UGPDS-55					
	DII	. #3. 0.3/4II C					DUA #2. D.:::: D.		
Dia.		4 #3: 8 3/4" Cu					BHA #3: Drilling Pa		
Bit:	Baker 406TS 3" inch gauge lengt						Pump Rate	450-550	
Motor:	7" 2.25° slick FBH, 8.4, 5/6, 0.35						WOB	25K-40K	
	BHA Components Baker 406TS	No. of Jts	Top Conn.	Btm Conn.	Length 1	Cum.	RPM	70-80	
7" 1			4 1/2" Reg	4.4/211.0		1 25.66	Comments		
7" 2.25° FBH, 8.4, 5/6, 0.35 rpg		1	4 1/2" IF	4 1/2" Reg	34.66	35.66	**Consult backreaming decision tree		
Pony Collar		1	4 1/2" IF	4 1/2" IF	8.19	43.85	-*2.2273 in2 TFA		
UBHO Sub NMDC (MWD)		1	4 1/2" IF 4 1/2" IF	4 1/2" IF 4 1/2" IF	2.91 30.5	46.76 77.26	-Limit lateral ROP to 170 fph throughout entire sectio maintain smooth wellbore.		
	Flex Collar	1	4 1/2 IF 4 1/2" IF	4 1/2 IF 4 1/2" IF	28.47				
	Pony Collar	_				105.73	-Monitor torque to determine when sweeps/circulati		
	Float Sub	1	4 1/2" IF	4 1/2" IF	8.41	114.14	are necessary		
	Filter Sub	1	4 1/2" IF	4 1/2" IF	2.75	116.89	-5 stand cleanup cycle at TD. *Ensure WOR reset procedure is being followed		
		1	4 1/2" IF	4 1/2" IF	5.65	122.54	*Ensure WOB reset procedure is being followed.		
	7.25 x/o IF x UGPDS-55	1	UGPDS-55	4 1/2" IF	1.91	124.45	PowerPoint for this procedure has been sent. Contact if the file needs to be resent.		
	-1/2" Drill Pipe As Needed	98	UGPDS-55	UGPDS-55	3070	3194.45	-Agitator should be ~3,000'-3,500	' behind MWD	
	NOV On Demand Agitator	1	UGPDS-55	UGPDS-55	14.5	3208.95	The sacor should be 3,000 3,300	Jenna MVD	
5-	-1/2" Drill Pipe As Needed		UGPDS-55	UGPDS-55					

H&P 256				Mud, Cer	ment, Casing				V2	
110.1 230				Mud Weigh						
Hole Section	A 1	B 1	C 1	D 1	1					
Surface Start	9.0	9.0	9.0	9.0	1	†				
Surface TD	9.5	9.5	9.5	9.5		†				
Drill Out	11.8	11.8	11.8	11.8		+				
KOP	12.8	12.8	12.8	12.8		+				
Landing Point	13.2	13.2	13.2	13.2	+	+				
TD		1				+				
	13.2	13.2	13.2	13.2		+				
Clean Up Cycle	13.5	13.5	13.5	13.5		<u> </u>				
	Count Land	. 11 0		ment Program		112	Donal Taile	16.4	C	
AAC III	Surf. Lead			14.5 ppg	Prod Lead:		Prod Tail:		Comments	
Well	XS%	Vol	XS%	Vol	XS%	Vol	XS%	Vol		
HARTMAN-BLACK USW A 1	100%	409 bbl.	30%	64 bbl.	10%	230 bbl.	10%	438 bbl.		
HARTMAN-BLACK USW B 1	100%	409 bbl.	30%	64 bbl.	10%	232 bbl.	10%	428 bbl.		
HARTMAN-BLACK USW C 1	100%	409 bbl.	30%	64 bbl.	10%	234 bbl.	10%	436 bbl.		
HARTMAN-BLACK USW D 1	100%	409 bbl.	30%	64 bbl.	10%	237 bbl.	10%	430 bbl.		
						1				
	<u>l</u>		<u>l</u>		<u>.</u>					
				Casing Progr	am					
Dotaile	ed Surface Cas	ing Docign		Casing Flogi	aiii		Surface Centra	lizor Program		
Item/Vendor		ning Design	Lamath (ft)	\(\(\alpha \)	Type Size				Positioning	
HAL Super Seal II Flo			Length (ft)	.0	Туре	Size	Qty		rositioning	
			9		4			1 @ + 6' ahov	1 @ ± 6' above FS with stop collar, @ 6' above/below casing coupling,	
9-5/8" J55 36# E	SIC .		9	4	Bow Type	9-5/8" x	· 1 4	_		
HAL Super Seal II Float Colla	r (BTC Thread:	s)	2.	.0	(HES)	12-1/4"		-		
9-5/8" J55 36# E	RTC		As Ne	eded	†			@ i o below	FC with stop collar	
3 3/6 333 361			7.5.1.0			+				
					-			Surface to TD	will utilize One 12-1	
					Bow Type	9-5/8" x	47	size bow sprir	ng centralizer every	
Detailed	Duadination (asina dasia.			(HES)	12-1/4"	47	other joints o	f casing & 1 per joint	
	Production C	asing design		, ,				build & drop	sections.	
Item/Vendor			Length (ft)			1				
Arsenal 5-1/2" 15ksi Double			2.		_					
Arsenal 5-1/2" 15ksi Double Valve Float Collar		-	2	1						
5-1/2" P110-ICY 23# casing		As Ne	eded							
5-1/2" P110-ICY 23# TXP			2	0						
5.5" Arsenal 12K Air-Loc	k Float Sub		~100' ab	ove KOP	Tot	al	51			
5-1/2" P110-ICY 23	# TXP		As Ne	eded		P	roduction Cent	ralizer Program		
5-1/2" P110-S 23‡	† TXP		6,5	00	Type	Size	Qty		Positioning	
Wellhead Hanger			6	5	<u> </u>	1	•			
5.5" Landing Jo			2	6	1	8-1/2" x 5-			detail for 15' & 20' p	
					Dod V	1/2"		schematic for Nexgen subs *Tena		
					†	_,_		yard*		
						+				
			<u> </u>		1	8-1/2" v 5-		1 every joint i	in lateral and 1 every	
						8-1/2" x 5- 1/2" 182	1 every joint in lateral and 1 every			
					Red X		182	igint to KOP		
					Red X	1/2"	182	joint to KOP		
					Red X		182	joint to KOP		
					Red X	1/2"	182	,		
	Plug Progra					1/2" 8-1/2" x 5-		1 every 4 join	ts from KOP to 8000	
Plug	Make	N	/lodel	OD	Red X	1/2"	28	,	ts from KOP to 8000	
Plug SFC BTM		N	Aodel 5 WIPER NR	OD 9-5/8"		1/2" 8-1/2" x 5-		1 every 4 join	ts from KOP to 8000	
	Make	BOT 24T				1/2" 8-1/2" x 5- 1/2"		1 every 4 join	ts from KOP to 8000	
SFC BTM	Make HES	BOT 24T TOP 24T	5 WIPER NR	9-5/8"	Red X	1/2" 8-1/2" x 5- 1/2"	28	1 every 4 join	ts from KOP to 8000'	
SFC BTM SFC TOP	Make HES HES	BOT 24T TOP 24T 7	5 WIPER NR 5 WIPER NR	9-5/8" 9-5/8"	Red X	1/2" 8-1/2" x 5- 1/2"	28	1 every 4 join	ts from KOP to 8000'	



Wells: HARTMAN-BLACK USW A 1, HARTMAN-BLACK USW B 1, HARTMAN-BLACK USW C 1, HARTMAN-BLACK USW D 1

County: De Witt

Field: Cuero West

Rig Phone #: (432) 200-0789

Billing Address: ConocoPhillips

P.O. Box 2200 Bartlesville, OK 74005

Directions to Lease:

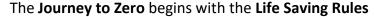
From the intersection of Hwy 72 and FM 81 in Runge Tx travel east on Hwy 72 for 1.5 miles to CR 322 on the left. Follow Cr 322 for 2.5 miles to the lease entrance on the left. Follow the lease road to location.

> LATITUDE: 28-55-35.27 LONGITUDE: 97-40-39.22









Emergency Information

Axiom - (281) 419-7063

Nordheim Fire Department - (361) 275-5734

Otto Kaiser Memorial Hospital (Kenedy) - (830) 583-3401

Runge Ambulance - (830) 780-3931

Wild Well Control (1st call) (281) 784-4700

Boots & Coots (2nd call) (281) 931-8884





