eceined by Och: Appropriate 12:40:30	State of New Mexic	n	Form C-103
Office <u>District I</u> – (575) 393-6161	Energy, Minerals and Natural	=	Revised July 18, 2013
1625 N. French Dr., Hobbs, NM 88240	837	W	ELL API NO. 30-025-49630
<u>District II</u> – (575) 748-1283 811 S. First St., Artesia, NM 88210	OIL CONSERVATION DI	VISION	I I' / T CI WEEDEDAL
<u>District III</u> – (505) 334-6178	1220 South St. Francis	Dr. 5.	Indicate Type of Lease XFEDERAL STATE FEE
1000 Rio Brazos Rd., Aztec, NM 87410 District IV – (505) 476-3460	Santa Fe, NM 8750	5 6.	State Oil & Gas Lease No.
1220 S. St. Francis Dr., Santa Fe, NM		0.	7173
87505 SUNDRY NOT	ICES AND REPORTS ON WELLS	7.	Lease Name or Unit Agreement Name
(DO NOT USE THIS FORM FOR PROPO	SALS TO DRILL OR TO DEEPEN OR PLUG E CATION FOR PERMIT" (FORM C-101) FOR SI	ACK TO A PA	R THREE 25 36 06 FED COM
1. Type of Well: Oil Well	Gas Well Other	8.	Well Number 105H
2. Name of Operator AMEREDEV OPERATING, LLC		9.	OGRID Number 372224
3. Address of Operator		10.	Pool name or Wildcat (33813)
2901 VIA FORTUNA, STE. 600	AUSTIN, TX 78746		L; WOLFCAMP WEST
4. Well Location		1	
Unit Letter_2	:200feet from the _NORTH	line and1800:	feet from theEASTline
Section 6		e 36E	NMPM County LEA
	11. Elevation (Show whether DR, RK	B, RT, GR, etc.)	
	3293' GR		
12 01 1		CNI (C. D.	0.1 D
12. Check A	Appropriate Box to Indicate Natu	re of Notice, Rep	ort or Other Data
NOTICE OF IN	ITENTION TO:	SUBSEC	QUENT REPORT OF:
PERFORM REMEDIAL WORK		EMEDIAL WORK	☐ ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS	OMMENCE DRILLIN	G OPNS. □ P AND A □
PULL OR ALTER CASING	MULTIPLE COMPL CA	ASING/CEMENT JO	В
DOWNHOLE COMMINGLE			
CLOSED-LOOP SYSTEM OTHER:		THER:	
			rtinent dates, including estimated date of
	RULE 19.15.7.14 NMAC. For Multiple		
completion or recompletion.	ı	1	8 1 1
TT	T d d d DING	1 1 111	1.16
The Ameredev contingency wellbor	e diagram that was part of the BLM app	roved drilling permi	it is attached. (See pages 1-15)
Per the BLM approved contingency	plan Ameredev added a 10-3/4" casing	string to 5 408' (Se	ee page 16 for detailed as-drilled wellbore
diagram information.)	plan, rimereaev added a 10 3/1 casing	54 mg to 5, 100 . (50	be page 10 for detailed as diffice well-core
,			
Spud Date: 1/6/2022	Rig Release Date:	3/11/2022	
Space Bate.			
I hereby certify that the information	above is true and complete to the best of	f my knowledge and	l belief
i nerecy certify that the infermation	acove is true and complete to the sest of	i my miowieuge une	. cenen
SIGNATURE _ Christie Hanna	_TITLERegulatory Coordinator	DATE 4/2	29/2024
_			
	a E-mail address: _cha	nna@ameredev.com	n_ PHONE: _737-300-4700
For State Use Only			
APPROVED BY: Conditions of Approval (if any):	TITLE		DATE

Ameredev Drilling Plan: 3 String with 4 String Contingency

- Contingency plan if losses exceed 50% in the 12-1/4" intermediate interval:
 - Utilize an MB4 wellhead that will enable the conversion of the planned 3 string design to a 4 string design. (Schematic attached.)
 - Displace well with fresh water and drill or condition to run 10-3/4", 45.5#
 L-80HC SCC (additional fourth string) casing string approximately 125' into the
 Lamar Limestone, utilizing a DV tool w/ ACP at the Tansill to isolate Capitan Reef and cement to surface.
 - Casing will be tested to 1500 psi or .22 psi/ft, whichever is greater, for 30 minutes with <10% leak off, but will not exceed 70% of the burst rating per Onshore Order No. 2.
- 7-5/8" Casing will be run as planned.
 - o Drill remaining hole section to base of Third Bone Spring.
 - o Run 7-5/8" 29.7# L-80HC FJM casing.
- Variance Request
 - o Run 5-1/2" casing to surface in 6-3/4" open hole on production casing.
 - o Cement will be programmed to surface for tie back isolation.



Contingency Wellbore Schematic

B - 13-5/8" 10M x 13-5/8" 10M

Lea, NM GL: XXXX

Wellhead: A - 13-5/8" 10M x 13-5/8" SOW **Field:** Delaware

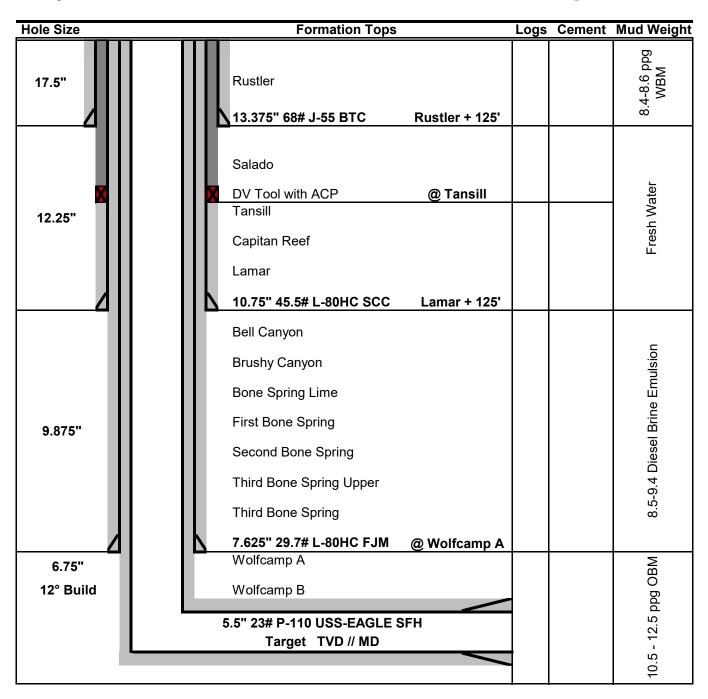
C - 13-5/8" 10M x 13-5/8" 10M **TVD:** xxxxx Tubing Spool - 7-1/16" 15M x 13-3/8" 10M **MD:** xxxxx

Xmas Tree: 2-9/16" 10M Rig: TBD KB 27'

Tubing: 2-7/8" L-80 6.5# 8rd EUE E-Mail: Wellsite2@ameredev.com

Objective:

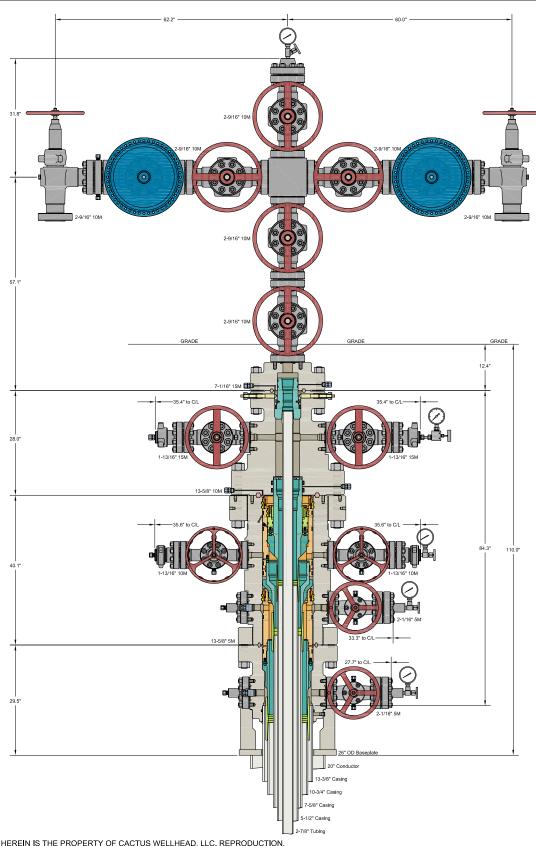
Target Zone



Example Contingency Casing Design and Safety Factor Check

		Casing .	Specificati	ons		
Segment	Hole ID	Depth	OD	Weight	Grade	Coupling
Surface	17.5	1,555'	13.375	68	J-55	BTC
Int #1	12.25	5,248'	10.75	45.5	HCL-80	SCC
Int #2	9.875	11,045'	7.625	29.7	HCL-80	FJM
Prod Segment A	6.75	11,045'	5.5	23	P-110	SFH
Prod Segment B	6.75	21,533'	5.5	23	P-110	SFH

	Chec	k Surface (Casing	
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
14.38	1,069	1,140	1,950	3,450
	S	afety Facto	ors	
1.56	10.11	10.78	2.41	1.10
	Che	ck Int #1 C	asing	
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
11.25	1040	1063	3130	5210
	S	afety Facto	ors	
0.50	4.36	4.45	1.00	0.86
	Che	ck Int #2 C	asing	
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
7.625	940	558	6700	9460
	S	afety Facto	ors	
0.56	2.87	1.98	1.11	1.25
	Check Pro	od Casing,	Segment A	ı
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
5.777	728	655	12780	14360
	S	afety Facto	ors	
0.49	3.13	2.82	1.78	1.90
	Check Pro	od Casing,	Segment B	
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
5.777	728	655	12780	14360
		afety Facto		
0.49	63.53	57.16	1.69	1.90



INFORMATION CONTAINED HEREIN IS THE PROPERTY OF CACTUS WELLHEAD, LLC. REPRODUCTION, DISCLOSURE, OR USE THEREOF IS PERMISSIBLE ONLY AS PROVIDED BY CONTRACT OR AS EXPRESSLY AUTHORIZED BY CACTUS WELLHEAD, LLC.

ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC 20" x 13-3/8" x 10-3/4" x 7-5/8" x 5-1/2" x 2-7/8" MBU-4T-SOW Sys. With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head And 2-9/16" 10M x 2-9/16" 10M Production Tree Assembly

	DELAWARE	
DRAWN	DLE	17DEC19
APPRV		

AMEREDEV

DRAWING NO. HBE0000176

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Example Contingency Cement Calculations

	Hole Size	Casing Size	Depth	Sacks	Yield	Density		
	17.5	13.375	1555	1,074	1.76	13.5		
Stage 1 Lead	Bbl/Sk bbls Stage Tool Deptl Top MD of Segm Bottom MD of Segm Cement Type Additves Quantity (sks) Yield (cu ft/sk)	ent ent egment Bentonite, Accel		efoamer, Cellofla	0.31372549 337.0034275 N/A 0 1169 C Ke	13.5		
	Density (lbs/gal)				13.5			
	Volume (cu ft)				1,890.59	T+ 0/	1000/	OV
	Percent Excess				2,723.88	Target %	100%	UK
	Column Height				2,723.00			
		Target TOC	0					
		Calc TOC	-1555	bbl	25% Excess	100%		
		calc vol	0.12372195		240.4845397	384.7752635		
			0.220.220					
	Hole Size	Casing Size	Depth	Sacks	Yield	Density		
	Hole Size 17.5	Casing Size 13.375	Depth 1555	Sacks 200	Yield 1.34	Density 14.8		
	Bbl/Sk bbls Top MD of Segm	13.375 ent			1.34 0.23885918 47.77183601 1169			
	Bbl/Sk bbls Top MD of Segm Bottom MD of Segm	13.375 ent			1.34 0.23885918 47.77183601 1169 1555			
	Bbl/Sk bbls Top MD of Segm Bottom MD of Se	13.375 ent			1.34 0.23885918 47.77183601 1169			
1	Bbl/Sk bbls Top MD of Segm Bottom MD of Segm	13.375 ent			1.34 0.23885918 47.77183601 1169 1555			
age 1 Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of Se	13.375 ent			1.34 0.23885918 47.77183601 1169 1555			
Stage 1 Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of Segment Type Additives	13.375 ent			1.34 0.23885918 47.77183601 1169 1555 C			
Stage 1 Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of Segment Type Additives Quantity (sks)	13.375 ent			1.34 0.23885918 47.77183601 1169 1555 C			
Stage 1 Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of Segment Type Additives	ent egment			1.34 0.23885918 47.77183601 1169 1555 C			
Stage 1 Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of Segm Cement Type Additives Quantity (sks) Yield (cu ft/sk)	ent egment			1.34 0.23885918 47.77183601 1169 1555 C 200 1.34			
Stage 1 Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of Segm Cement Type Additives Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft) Percent Excess	ent egment			1.34 0.23885918 47.77183601 1169 1555 C 200 1.34 14.8 268 100%			
Stage 1 Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of Segm Cement Type Additives Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft)	ent egment			1.34 0.23885918 47.77183601 1169 1555 C 200 1.34 14.8 268			
Stage 1 Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of Segm Cement Type Additives Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft) Percent Excess	ent egment			1.34 0.23885918 47.77183601 1169 1555 C 200 1.34 14.8 268 100%			
Stage 1 Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of Segm Cement Type Additives Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft) Percent Excess	ent egment			1.34 0.23885918 47.77183601 1169 1555 C 200 1.34 14.8 268 100%			
Stage 1 Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of Segm Cement Type Additives Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft) Percent Excess	ent egment			1.34 0.23885918 47.77183601 1169 1555 C 200 1.34 14.8 268 100%			

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Example Contingency Cement Calculations (Continued)

		0 1 01			\ <i>a</i> _11			
	Hole Size	Casing Size	Depth	Sacks	Yield	Density		
	12.25	10.75	5323	353	3.5	9		
	Bbl/Sk				0.623885918			
	bbls				220.1825428			
	Stage Tool Dept	h			N/A			
	Top MD of Segm	ent			0			
	Bottom MD of S	egment			3908			
	Cement Type				С			
e 1	Additves	Bentonite,Salt,Ko	olseal, Defoamer, C	Celloclake				
Stage 1 Lead								
	Quantity (sks)				353			
	Yield (cu ft/sk)				3.5			
	Density (lbs/gal)				9			
	Volume (cu ft)				1,235.22			
	Percent Excess				50%	Target %	50%	OK
	Column Height				6,569.74			
		Target TOC	0					
		Calc TOC	-2661.5	bbl	25% Excess	50%		
		calc vol	0.033514669	178.3985817	222.9982271	267.5978725		
	Hole Size	Casing Size	Depth	Sacks	Yield	Density		
	Hole Size 12.25	Casing Size 10.75	Depth 5323	Sacks 200	Yield 1.33	Density 14.8		
	12.25							
					1.33			
	12.25 Bbl/Sk	10.75			1.33 0.237076649			
	12.25 Bbl/Sk bbls	10.75 nent			1.33 0.237076649 47.41532977			
	Bbl/Sk bbls Top MD of Segm	10.75 nent			1.33 0.237076649 47.41532977 3908			
	Bbl/Sk bbls Top MD of Segm Bottom MD of S	10.75 nent			1.33 0.237076649 47.41532977 3908 5323			
ge 1 ail	Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type	10.75 nent			1.33 0.237076649 47.41532977 3908 5323			
Stage 1 Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type Additives	10.75 nent			1.33 0.237076649 47.41532977 3908 5323 C			
Stage 1 Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type Additives Quantity (sks)	10.75 nent			1.33 0.237076649 47.41532977 3908 5323 C			
Stage 1 Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type Additives Quantity (sks) Yield (cu ft/sk)	nent egment			1.33 0.237076649 47.41532977 3908 5323 C			
Stage 1 Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type Additives Quantity (sks) Yield (cu ft/sk) Density (lbs/gal)	nent egment			1.33 0.237076649 47.41532977 3908 5323 C 200 1.33 14.8			
Stage 1 Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type Additives Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft)	nent egment			1.33 0.237076649 47.41532977 3908 5323 C 200 1.33 14.8 266			
Stage 1 Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type Additives Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft) Percent Excess	nent egment			1.33 0.237076649 47.41532977 3908 5323 C 200 1.33 14.8 266 25%			
Stage 1 Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type Additives Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft)	nent egment			1.33 0.237076649 47.41532977 3908 5323 C 200 1.33 14.8 266			
Stage 1 Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type Additives Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft) Percent Excess	nent egment			1.33 0.237076649 47.41532977 3908 5323 C 200 1.33 14.8 266 25%			
Stage 1 Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type Additives Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft) Percent Excess	nent egment			1.33 0.237076649 47.41532977 3908 5323 C 200 1.33 14.8 266 25%			
Stage 1 Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type Additives Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft) Percent Excess	nent egment			1.33 0.237076649 47.41532977 3908 5323 C 200 1.33 14.8 266 25%			

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Example Contingency Cement Calculations (Continued)

	Hole Size	Casing Size	Depth	Sacks	Yield	Density	
	9.875	7.625	10674	492	2.47	9	
	Bbl/Sk				0.440285205		
	bbls				216.475221		
	Stage Tool Dept				N/A		
	Top MD of Segm				0		
	Bottom MD of S	egment			6759		
	Cement Type				<u>H</u>		
т т	Additves	Bentonite,Retard	ler,Kolseal,Defoar	ner,Celloflake, An	iti-Settling		
Stage 1 Lead	Expansion Addit	ive					
St							
	Quantity (sks)				492		
	Yield (cu ft/sk)				2.47		
	Density (lbs/gal)				9		
	Volume (cu ft)				1,214.43		
	Percent Excess				50%	Target %	50% <mark>OK</mark>
	Column Height				12,096.47		
		Target TOC	0				
		Calc TOC	-5337	bbl	25% Excess	50%	
		calc vol	0.01789574	191.0191313	238.7739141	286.5286969	
		care voi	0.01703371	131.0131313	230.7733111	200.3200303	
	Hole Size	Casing Size	Depth	Sacks	Yield	Density	
	8.75	7.625	10674	300	1.31	14.2	
					<u> </u>		
	Bbl/Sk				0.233511586		
	bbls				70.05347594		
	Top MD of Segm	ent			6759		
	Bottom MD of S				10674		
	Cement Type	-0			H		
		Salt Pontonito Po	etarder, Dispersant	t.Fluid Loss			
	Additves	Dail Delituline N					
e 1 ii	Additves	Jail, Bellionite, Ne		,			
tage 1 Tail	Additves	Sait, Beritoinite, Ne					
Stage 1 Tail		Sait, bentunite, Ne		,	300		
Stage 1 Tail	Quantity (sks)	Sait, bentunite, No		,	300		
Stage 1 Tail	Quantity (sks) Yield (cu ft/sk)			,	1.31		
Stage 1 Tail	Quantity (sks) Yield (cu ft/sk) Density (lbs/gal)				1.31 14.2		
Stage 1 Tail	Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft)				1.31 14.2 393		
Stage 1 Tail	Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft) Percent Excess				1.31 14.2 393 25%		
Stage 1 Tail	Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft)				1.31 14.2 393		
Stage 1 Tail	Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft) Percent Excess				1.31 14.2 393 25%		
Stage 1 Tail	Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft) Percent Excess				1.31 14.2 393 25%		
Stage 1 Tail	Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft) Percent Excess				1.31 14.2 393 25%		

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Example Contingency Cement Calculations (Continued)

		r				-		
		Hole Size	Casing Size	Depth	Sacks	Yield	Density	
		6.75	5.5	21533	2,011	1.34	14.2	
		Bbl/Sk				0.23885918		
		bbls				480.4605535		
		Stage Tool Dept				N/A		
		Top MD of Segm				0		
		Bottom MD of S	egment			21533		
		Cement Type				Н		
Stage 1	ਰੂ	Additves	Salt, Bentonite, F	luid Loss, Dispers	ant, Retarder, De	foamer		
tag	Lead							
Š		Quantity (sks)				2,011		
		Yield (cu ft/sk)				1.34		
		Density (lbs/gal)				14.2		
		Volume (cu ft)				2,695.38		
		Percent Excess				50%	Target %	50% <mark>OK</mark>
		Column Height				32,299.50	J	
						<u> </u>		
			Target TOC	0				
			Calc TOC	-10766.5	bbl	25% Excess	50%	
			calc vol	0.01487517	320.3070357	400.3837946	480.4605535	
		Hole Size	Casing Size	Depth	Sacks	Yield	Density	
		6.75	5.5	21533	0	0	0	
		6.75				0		
		6.75 Bbl/Sk				0 0		
		6.75 Bbl/Sk bbls	5.5			0 0		
		6.75 Bbl/Sk bbls Top MD of Segm	5.5 nent			0 0 0 21533		
		Bbl/Sk bbls Top MD of Segm Bottom MD of S	5.5 nent			0 0		
		6.75 Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type	5.5 nent			0 0 0 21533		
ge 1	E	Bbl/Sk bbls Top MD of Segm Bottom MD of S	5.5 nent			0 0 0 21533		
stage 1	Tail	6.75 Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type	5.5 nent			0 0 0 21533		
Stage 1	Tail	6.75 Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type	5.5 nent			0 0 0 21533		
Stage 1	Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type Additives	5.5 nent			0 0 0 21533		
Stage 1	Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type Additives Quantity (sks)	5.5 nent egment			0 0 0 21533 21533 C		
Stage 1	Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type Additives Quantity (sks) Yield (cu ft/sk)	5.5 nent egment			0 0 21533 21533 C		
Stage 1	Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type Additives Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft) Percent Excess	5.5 nent egment			0 0 21533 21533 C C		
Stage 1	Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type Additives Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft)	5.5 nent egment			0 0 21533 21533 C C		
Stage 1	Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type Additives Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft) Percent Excess	5.5 nent egment			0 0 21533 21533 C 0 0 0		
Stage 1	Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type Additives Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft) Percent Excess	5.5 nent egment			0 0 21533 21533 C 0 0 0		
Stage 1	Tail	Bbl/Sk bbls Top MD of Segm Bottom MD of S Cement Type Additives Quantity (sks) Yield (cu ft/sk) Density (lbs/gal) Volume (cu ft) Percent Excess	5.5 nent egment			0 0 21533 21533 C 0 0 0		

PERFORMANCE DATA

API BTC 13.375 in 68.00 lbs/ft J-55

Technical Data Sheet

Tubular Parameters					
Size	13.375	in	Minimum Yield	55,000	I
Nominal Weight	68.00	lbs/ft	Minimum Tensile	75,000	
Grade	J-55		Yield Load	1,069,000	
PE Weight	66.10	lbs/ft	Tensile Load	1,458,000	
Wall Thickness	0.480	in	Min. Internal Yield Pressure	3,500	
Nominal ID	12.415	in	Collapse Pressure	1,950	
Drift Diameter	12.259	in		1	
Nom. Pipe Body Area	19.445	in²			
	1	1			
Connection Parameters					
Connection OD	14.375	in			
Coupling Length	10.625	in			
Threads Per Inch	5.000	in			
Standoff Thread Turns	1.000				
Make-Up Loss	4.513	in			
Yield Load In Tension		lbs			
Min. Internal Yield Pressure	3,500	psi			
		1			

Printed on: February-13-2015

NOTE

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API 5CT 10.750" 45.50lb/ft HCL80 Casing Performance Data Sheet

Manufactured to specifications of API 5CT 9th edition and bears the API monogram.

Grade	HCL80
	Pipe Body Mechanical Properties
Minimum Yield Strength	80,000 psi
Maximum Yield Strength	95,000 psi
Minimum Tensile Strength	95,000 psi
Maximum Hardness	23.0 HRC
	<u>Sizes</u>
OD	10 3/4
Nominal Wall Thickness	.400 in
Nominal Weight, T&C	45.50 lb/ft
Nominal Weight, PE	44.26 lb/ft
Nominal ID	9.950 in
Standard Drift	9.794 in
Alternate Drift	9.875 in
Coupling Special Clearance	<u>Size</u>
OD	11.25 in
Min. Length	10.625 in
Diameter of Counter Bore	10.890 in
Width of bearing face	.375 in
[Minimum Performance
Collapse Pressure	2,940 psi
Internal Pressure Yield	5,210 psi
Pipe body Tension Yield	1,040,000 lbs
Joint Strength STC	692,000 lbs
Joint Strength LTC	N/A
Joint Strength BTC	1,063,000 lbs
	lususetian and Testina
Visual	Inspection and Testing OD Longitidunal and independent 3rd party SEA
Visual	OD Longitudinal and independent 3rd party 3EA
NET	Independent 3rd party full body EMI and End Area Inspection after hydrotest
NDT	Calibration notch sensitivity: 10% of specified wall thickness
	Color code
Pipe ends	One red, one brown and one blue band
Couplings	Red with one brown band
	ned with one brown band

CASING -

OCTG Data Sheet

10.750 -



L80 HC

Type OD Size T&C LB/FT PE LB/FT Grade

45.50

44.26 🕶

Grade - Material Properties

Minimum Yield Strength: 80.0 ksi Maximum Yield Strength: 95 ksi Minimum Tensile Strength: 95 ksi

Pipe Body Data (PE)

Geometery

Nominal ID: 9.950 inch
Wall: 0.400 inch
Nominal Area: 13.006 inch ²
API Drift: 9.794 inch
Alternate Drift: 9.875 inch

Performance

Pipe Body Yield Strength: 1,040 kips Collapse Resistance: 3,140 psi Internal Yield Pressure (API Historical): 5,210 psi

Lamé - Internal Yield Pressure

Lamé Open: 5,200 psi Lamé Capped: 5,810 psi Lamé Ductile Rupture: 5,530 psi

API Connection Data

STC Internal Pressure: 5,210 psi STC Joint Strength: 692 kips

LC Internal Pressure: N/A psi LC Joint Strength: N/A kips

BC Internal Pressure: 5,210 psi BC Joint Strength: 1,063 kips

LC Torque (ft-lbs)

Minimum: N/A Optimum: N/A Maximum: N/A

Disclaimer

This data sheet is for informational purposes only. While every effort has been made to ensure the accuracy of all data and that the information contained herein is correct, this material is presented as a reference guide only. Vallourec assumes no responsibility for the results obtained through the use of this material.

API grades with enhanced performance are supplied with API couplings produced from standard API grades.



U. S. Steel Tubular Products

6/6/2017 6:18:53 PM

7.625" 29.70lbs/ft (0.375" Wall) HCL80 USS-LIBERTY FJM®

		······	
MECHANICAL PROPERTIES	Pipe	USS-LIBERTY FJM [®]	
Minimum Yield Strength	110,000		psi
Maximum Yield Strength	140,000		psi
Minimum Tensile Strength	125,000		psi
DIMENSIONS	Pipe	USS-LIBERTY FJM [®]	
Outside Diameter	7.625	7.625	in.
Wall Thickness	0.375		in.
Inside Diameter	6.875	6.789	in.
Standard Drift	6.750	6.750	in.
Alternate Drift			in.
Nominal Linear Weight, T&C	29.70		lbs/ft
Plain End Weight	29.06		lbs/ft
ECTION AREA	Pipe	USS-LIBERTY FJM [®]	
Critical Area	8.541	5.074	sq. in.
Joint Efficiency		59.4	%
ERFORMANCE	Pipe	USS-LIBERTY FJM [®]	
Minimum Collapse Pressure	6,700	6,700	psi
Minimum Internal Yield Pressure	9,460	9,460	psi
Minimum Pipe Body Yield Strength	940,000		lbs
Joint Strength		558,000	lbs
Compression Rating		558,000	lbs
Reference Length		12,810	ft
Maximum Uniaxial Bend Rating		39.3	deg/100 ft
MAKE-UP DATA	Pipe	USS-LIBERTY FJM [®]	
Make-Up Loss		3.92	in.
Minimum Make-Up Torque		10,800	ft-lbs
Maximum Make-Up Torque		15,250	ft-lbs

- Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness and Specified Minimum Yield Strength (SMYS).
- 2. Compressive & Tensile Connection Efficiencies are calculated by dividing the connection critical area by the pipe body area.
- 3. Uniaxial bending rating shown is structural only, and equal to compression efficiency.
- 4. USS-LIBERTY FJM™ connections are optimized for each combination of OD and wall thickness and cannot be interchanged.
- 5. Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
- 6. Reference length is calculated by joint strength divided by nominal plain end weight with 1.5 safety factor.
- 7. Connection external pressure leak resistance has been verified to 100% API pipe body collapse pressure following the guidelines of API 5C5 Cal III.

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U. S. Steel Tubular Products 10343 Sam Houston Park Dr., #120 Houston, TX 77064 1-877-893-9461 connections@uss.com www.usstubular.com

HALLIBURTON

Permian Basin, Ft Stockton

Lab Results- Lead

Request/Slurr	y 24	88456/2	Ri	ig Name		Date	18/DEC/	2018
Submitted By	Di	llon Briers	Jo	b Type	Intermediate Casing	Bulk Plan	nt	
Customer	Ar	meredev	Lo	ocation	Lea	Well		
Well Infor	rmation							
Casing/Liner S	Size 7.6	625 in	D	epth MD	5013 ft	BHST	165°F	
Hole Size	8.7	75 in	D	epth TVD	5013 ft	ВНСТ	130°F	
Cement Inf	formatio	on - Lead De	sign					~
Conc UON	<u>М</u> <u>С</u>	ement/Additive				C	ement Proper	ties
100 % B	WOC N	eoCem				Slurry Density	9	lbm/gal
14.68 gal/s	sack H	eated Fresh Water				Slurry Yield	3.5	ft3/sack
						Water Requirement	nt 14.68	gal/sack
API Rheol		Request ID 2 quest Test ID 200			30	Water Requirement	14.68 3	
API Rheolo Temp (degF)	ogy, Red	quest Test ID 200	0:3566534 100	60		6	3	Cond Time
API Rheold Temp (degF) 80 (up)	ogy, Red 300	quest Test ID 200 67	0:3566534 100 49	60 42	39	6 36	3 28	Cond Time (min)
API Rheold Femp (degF) 80 (up) 80 (down)	ogy, Red	quest Test ID 200	0:3566534 100	60		6	3	Cond Time
	300 82 82 82 82	200 67 59 63	100 49 35 42	60 42 26	39 18 29	6 36 10	3 28 9	Cond Time (min)

API Rheology, Request Test ID:35665341									
Temp (degF)	300	200	100	60	30	6	3	Cond Time (min)	Cond Temp (degF)
134 (up)	63	47	29	21	15	7	6	30	134
134 (down)	63	46	29	21	14	7	4	30	134
134 (avg.)	63	47	29	21	15	7	5	30	134
PV (cP) & YP	(lbs/100ft2):	57.12	7.98	(Least-squares mo	ethod)				
PV (cP) & YP	(lbs/100ft2):	51	12	(Traditional meth	od (300 & 100 :	rpm based))			

 $Generalized \ Herschel-Bulkley \ 4: \ YP(lbf/100ft2) = 2.26 \quad MuInf(cP) = 30.64 \qquad m = 0.41 \qquad n = 0.41$

Generalized Herschel-Bulkley 4: YP(lbf/100ft2)=20.33 MuInf(cP)=52.39 m=0.81 n=0.81

API Fluid Loss, Request Test ID:35665342							
Test Temp (degF)	Test Pressure (psi)	Test Time (min)	Meas. Vol.	Calculated FL (<30 min)	Conditioning time (min)	Conditioning Temp (degF)	
134	1000	9.12	52	189	30	134	

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Global Customer Report

Free Fluid API 10B-2, Request Test ID:35665343

 Con. Temp (degF)
 Cond. Time (min)
 Static T. (F)
 Static time (min)
 Incl. (deg)
 % Fluid

 134
 30
 80
 120
 0
 0

Pilot Test Results Request ID 2504116/5

Thickening Time - ON-OFF-ON, Request Test ID:35852392

Test Temp Pressure (psi) Reached in (min) 70 Bc (hh:min) Start Bc

(degF) 126

5800 40 6:18 16

UCA Comp. Strength, Request Test ID:35852394

End Temp Pressure (psi) 50 psi (hh:mm) 500 psi 12 hr CS (psi) 24 hr CS (psi) 48 hr CS (psi)

 $(degF) \hspace{3cm} (hh:mm)$

159 4000 8:55 12:23 456 749 681

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Global Customer Report



U. S. Steel Tubular Products

5 1/2 20.00 lb (0.361) P110 HP

USS-EAGLE SFH™

	PIPE	CONNECTION	
MECHANICAL PROPERTIES			
Minimum Yield Strength	125,000	125,000	psi
Maximum Yield Strength	140,000	140,000	psi
Minimum Tensile Strength	130,000	130,000	psi
DIMENSIONS			
Outside Diameter	5.500	5.830	in.
Wall Thickness	0.361		in.
Inside Diameter	4.778	4.693	in.
Drift - API	4.653	4.653	in.
Nominal Linear Weight, T&C	19.83		lbs/ft
Plain End Weight	19.83	19.83	lbs/ft
SECTION AREA			
Cross Sectional Area Critical Area	5.828	5.054	sq. in.
Joint Efficiency		86.25	%
PERFORMANCE			
Minimum Collapse Pressure	13,150	13,150	psi
External Pressure Leak Resistance		10,000	psi
Minimum Internal Yield Pressure	14,360	14,360	psi
Minimum Pipe Body Yield Strength	729,000		lbs
Joint Strength		631,750	lbs
Compression Rating		631,750	lbs
Reference Length		21,240	ft
Maximum Uniaxial Bend Rating		89.9	deg/100 ft
MAKE-UP DATA			
Minimum Make-Up Torque		14,000	ft-lbs
Maximum Make-Up Torque		16,900	ft-lbs
Maximum Operating Torque		25,000	ft-lbs
Make-Up Loss		5.92	in.

Notes:

- Other than proprietary collapse and connection values, performance properties have been calculated using standard
 equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal
 pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
- 2) Compressive & Tensile Connection Efficiencies are calculated by dividing the connection critical area by the pipe body area.
- 3) Uniaxial bending rating shown is structural only, and equal to compression efficiency.
- 4) Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
- 5) Reference length is calculated by joint strength divided by plain end weight with 1.5 safety factor.
- 6) Connection external pressure resistance has been verified to 10,000 psi (Application specific testing).

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Manuel USS Product Data Sheet 2017 rev25 (April)



Wellbore Schematic - AS-DRILLED

Well: Par Three 25 36 06 Federal Com 105H SHL: Sec. 6, T25S, R36E, 200' FNL & 1800' FEL BHL: Sec. 07 T25S, R36E, 50' FSL & 2318' FEL

Lea, NM

Wellhead: A - 13-5/8" 10M x 13-5/8" SOW

B - 13-5/8" 10M x 13-5/8" 10M C - 13-5/8" 10M x 13-5/8" 10M

Tubing Spool - 7-1/16" 15M x 13-3/8" 10M

Xmas Tree: 2-9/16" 10M

Tubing: 2-7/8" L-80 6.5# 8rd EUE

Co. Well ID: 40577 AFE No.: 2021-085 API No.: 30-025-49630

GL: 3,290'
Field: Delaware
Objective: Wolfcamp A
TVD: 11,757'

MD: 22,308' **Rig:** Nabors X12 **KB:** 27.5'

E-Mail: drillingcr@ameredev.com

Hole Size	Formation Tops (MD/TVD)	Cement	Mud Wgt
17.5"	Rustler 1,515' 13.375" 68# L-80BTC 1,608'		8.4-8.6 ppg WBM
12.25"	Salado Tansill DV Tool with ACP Capitan Reef Lamar Bell Canyon 10-3/4" Csg 0-3890' 40.5# K55 BTC, 3890'-5408' 45.5# L80 BTC 2037/2035 3483/3478 3483/3478 3980' 3942/3935 5258/5246 5258/5246 5456/5444 55408'	Lead: 11.0 ppg 860sks 338 bbls; Tail: 14.8 ppg 145 sks 34 bbls, No CTS; 2nd Stage: Lead 12 ppg 780 sks 266 bbls; Tail 14.8 ppg 160 sks 37 bbls - 25 bbls CTS	10.0 ppf Brine Water, Partial Returns beginning @ 4320', 9.0 ppg Cut Brine to Csg Depth
9.875"	Brushy Canyon 7242/7223 Bone Spring Lime 8427/8408 First Bone Spring 9762/9742 Second Bone Spring 10304/10284 Third Bone Spring Upper 10886/10863 7.625" 29.7# L-80HC BTC 11,099'	Lead: 10.5ppg 1000 sks 517 bbls; Tail: 14.2 ppg 270 sks 62 bbls; 168 bbls CTS	8.7 ppg - 9.0 ppg Cut Brine Wtr
6.75" 10 - 23° Build Curve @ 11,130' MD thru 11,973' MD	Third Bone Spring 11419/11396 Wolfcamp A 11670/11603 Survey LTP @ 22258' MD/ 11757' TVD Csg LTP @ 22248' MD/ 11757' TVD 22,308' TD / 5.5" 23# RYSP-110 USS-Eagle SFH 0-11,851'; 23# P-110CY Anaconda 11,851'-22,275' Marker Jts - 17,460' & 11,340'; Floation Sub - 11,439'	Lead: 697 sks 246 bbls 12.5 ppg(35% Excess) Tail: 885 sks 202 bbls 14.2 ppg(25% Excess) 100 bbls CTS	11.0-11.4 ppg 70:30 OBM

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II 811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 338699

CONDITIONS

Operator:	OGRID:
AMEREDEV OPERATING, LLC	372224
2901 Via Fortuna	Action Number:
Austin, TX 78746	338699
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By		Condition Date
pkautz	None	4/29/2024