Form 3160-5 (June 2015)	orm 3160-5 June 2015) UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT							
SUNDRY Do not use t	NMLC062749B							
abandoned w	6. If Indian, Allottee or Tribe Name							
SUBMIT IN	7. If Unit or CA/Agreement, Name and/or No.							
1. Type of Well Soli Well Gas Well	8. Well Name and No. ZIA HILLS 19 FEI	DERAL C	:OM 110H					
2. Name of Operator CONOCOPHILLIPS COMPA	Contact: JEF NY E-Mail: Jeremy.L.Lee@	REMY LEE Dcop.com	RECE	IVED	 API Well No. 30-025-44237-0)0-X1		
3a. Address	Torrelain P	. Phone No. (inc 7: 832-486-25	lude area code)		10. Field and Pool or I WOLFCAMP	Explorator	ry Area	
MIDLAND, TX 79710	CLEWER LUD	LE LECLEU	Ultic	Ċ.	11. Country on Decist	04-4-		
4. Location of Well (Footage, Sec.,	T., R., M., or Survey Description)) Eeb!)g		11. County of Parish,	State		
Sec 19 126S R32E SENW 2 32.028664 N Lat, 103.71777	498FNL 1633FWL '3 W Lon				LEA COUNTY,	NM		
12. CHECK THE A	APPROPRIATE BOX(ES) TO	INDICATE 1	NATURE OF	F NOTICE,	REPORT, OR OTH	IER DA	TA	
TYPE OF SUBMISSION			TYPE OF	ACTION				
Notice of Intent	Acidize	🗖 Deepen		Product	ion (Start/Resume)	🗖 Wa	ter Shut-Off	
Subsequent Report	Alter Casing	🗖 Hydrauli	c Fracturing	🗖 Reclam	ation	🗖 We	ll Integrity	
	Casing Repair	New Cor	struction	Recomp	olete	Oth Chang	ner ge to Original A	
Final Abandonment Notice	Change Plans	Plug and Plug Bag	and Abandon		rarily Abandon PD		,	
			A.					
If the proposal is to deepen direction Attach the Bond under which the w following completion of the involve testing has been completed. Final a determined that the site is ready for	nally or recomplete horizontally, give ork will be performed or provide the H ed operations. If the operation results Abandonment Notices must be filed or final inspection.	subsurface locat Bond No. on file in a multiple con nly after all requir	ions and measur with BLM/BIA upletion or recor rements, includi	ed and true ve Required sul mpletion in a r ng reclamation	rtical depths of all pertin psequent reports must be new interval, a Form 316 n, have been completed a	ent marke filed with 0-4 must 1 and the op	rs and zones. in 30 days be filed once erator has	
ConocoPhillips respectfully r	equests to change the approve	ed drilling plan	as reflected	in the				
attached documents: Zia Hills 19 Fed Com 110H I	Kelly Cock			6	EE ATTACHI	ED FC)R	
Zia Hills 19 Fed Com 110H (Zia Hills 19 Fed Com 110H F	Choke Manifold			CONL	JIIIONS OF A	APPR	OVAL	
Zia Hills 19 Fed Com 110H (Casing Design							
Zia Hills 19 Fed Com 110H [Drill Plan							
In particular the casing desig	In is being modified due to avai	ilability of casi	ng. As such	we request				
approval at your earliest con	venience.		0					
14. I hereby certify that the foregoing	is true and correct. Electronic Submission #4484	195 verified by	the BLM Well	Information	System			
For CONOCOPHILLIPS COMPANY, sent to the Hobbs Committed to AFMSS for processing by PRISCILLA PEREZ on 12/20/2018 (19PP0688SE)								
Name(Printed/Typed) JEREMY	LEE	Titl	e REGUL/	ATORY CO	ORDINATOR		20 BBR 11	
Signature (Electronic	Submission)	Dat	<mark>∘ 12/19/20</mark>)18				
THIS SPACE FOR FEDERAL OR STATE OFFICE USE								
Approved By ZOTA STEVENS		Tit	1ePETROLE	JM ENGINI	ER	Г	Date 12/21/2018	
Conditions of approval, if any, are attach	red. Approval of this notice does not v	warrant or						
which would entitle the applicant to con-	luct operations thereon.	Of	fice Hobbs					
Title 18 U.S.C. Section 1001 and Title 4 States any false, fictitious or fraudulen	3 U.S.C. Section 1212, make it a crimit statements or representations as to an	e for any person in a matter within it	knowingly and the jurisdiction.	willfully to ma	ke to any department or	agency of	the United	
(Instructions on page 2) ** BLM RE	VISED ** BLM REVISED **	BLM REVIS	ED ** BLM	REVISED	** BLM REVISE	D ** /	Cz.	

Additional data for EC transaction #448495 that would not fit on the form

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32. Additional remarks, continued

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Thank you for your time spent reviewing this request.

<u> </u>					WELL P	LAN	SUMM	ARY						Date: Dec 19, 2018
ConocoPhillips 1280 Extended Reach Single Lateral Prepared by: M. Smith														
WELL	L: ZH 19 110H					COUNT	Y,STATE:	Lea, Co,	NM			<u> </u>		AFE: WAF.OND.
SURFACE LOO BH LOO	C: SENW 19 S26 F C: NESW 7 S26 R	R32E 32E	2498' FNL 2618' FSL	1633' FWL 1650' FWL		BL	M Permit:						Invoice Han	dier ID: VENNECP ESTIMATE
ELEVATION	S: GL KB	3,182.4' +28.5'				W (NA	H Coord.: D-83)	LAT LON	32° 103°	1' 43'	43,19" N 3,99" W	co	DRILLING MPLETION FACILITIES	
	FORMATI	ON TOP:	TVD	SUBSEA			DRIL	LING RIG	PTEN	256	TARGET	FORMATIO	Wolfc	amp A Lower
17-1/2" × 13-3/8"	Base of Fresh Wa Rustler Surface Casing Top of Salt / Salad Castille Delaware Base of	nter Point do Salt	300 1,119 1,172 1,289 3,126 4,254	(2,882) (2,092) (2,039) (1,922) (85) 1043	Fresh Water Fresh Water Fresh Water Satt Satt Gas / Oil	From the the Texa (Directly onto the travel 60 Lat: 32-4	e intersecti as and New west of Ba lease road 00' to the k 01-42.74N	ion of U.S w Mexico : attle Axe I d and trav ocation. Long: 103	5. Hwy 285 state (ine) Road). Tu rel 1/10 of 3-43-02.68	and Sta and cont on left (M a mile to	te Hwy 652 in inue onto New) onto the lese the location le	Cria, TX, go Oria, TX, go Mexico Cour e road and tra ease road. Tu	east on Stat nty Road 1 fo avel 1.1 miles arn right (E) o	e Hwy 652 for 16.6 miles to or 2 miles to lease road s to lease road, Turn right (N anto location lease road and
	Cherry Canyon Brushy Canyon Bone Springs Bone Springs 1st : Avalon A Bone Springs 1st : ERS Shale	Carb Sand	5,163 6,639 8,025 8,271 8,549 9,215 9,493	1951,9006 3427,8933 4813,6807 5060,0713 5338,1055 6004,4326 6282,0146	Gas / Oil Gas / Oil Gas / Oil Gas / Oil Gas / Oil Gas / Oil	Losses Elevated Wellbord Strong f	in the Cany pressure a instability ormation p	yon group / gas in th r in the PF ush in late	POT s; flow in f ne Wolfcar ROD hole eral -> Mai	he Bone mp prior -> Ready intain wit	HAZARUS Springs -> Fra to INT setpoint to elevate MV thin 30' L/R of I	-> MITIG ac tanks full v t -> Set at mi V, watching g line, putting is	ATIONS with cut brine nimum depth as on conne n quick main	., LCM a of 11454' TVD ctions tenance slides
12 1/4" X 9 5/8"	Bone Springs 2nd Bone Springs 2nd Bone Springs 3rd Bone Springs 3rd Wolfcamp Wolfcamp A Top Target Intermediate Casis Bottom Target	Carb Sand Carb Sand ng Point	9,583 9,923 10,425 11,055 11,454 11,659 11,944 11,948 11,952	6371.6387 6371.9014 7214 7844 8243 8448 8733 8737 8741	Gas / Oil Gas / Oil									
	yartonada 10, tarihinda karr Ind		******											
	8 1/2"" X 5-1/2"	া অ	Movelee		wre D	CONT	ACTS					0		Coll
8 5/8 in, shoe 12360' ME) TARG	ET	1 1,948	8,737	Gas / Oil		Drilling	Engin ee r:	Matt Sr	nith		281-20	<u>ice</u> 6-5199	<u>Leii</u> 432-269-6432
1904' FNL	Forma PBT	tion Dip Rate: D	est 90.1 11,948	° (up dip) 8.737	Gas / Oil		(Onsite Dril	Geologist: lling Rep.:	Josh D Greg R Dennis	ay ivera Housiv	,	281-20 432-84	6-5620 8-5238	423-512-0347
Estimated BH Static Ter Max. Anticipated BH Pro	mperature (°F): essure:	203 0,690 psi/ft	6,244 psi				Field Drill	ing Supt.;	James Patrick	Taylor Wellm	an	830-58	3-4828	956-229-1393 432-215-7079
Max Anticipated Surface	e Pressure: Tvo		5,616 psi	rval	Density	Vis	Drill	ing Supt.: YP	Scott N	FL		281-20 NaCl	6-5392 Remarks	432-230-8010
Surface	a: Fresh V a: Emulsifie	vater d Brine	(M Surface 1172' -	D) - 1,172 12360	PPg DBF DBF	sec/qt 28-50 28-50	сР 1-5 1-5	#100ft2 2-6 2-6	7.5-8.5 7.5-8.5	nL NC NC	% by vol < 5.0 < 5.0	ppb sol 10,000 180,000	Rig Tanks Rig Tanks	
Production	n: OBM	vî	12360'	- 22222'	639	50-70	18-25	8-14	9,5-10	< 8	< 8.0	400 - 00	Rig Tanks	
CASING:	Hoje 17-1/2	TOP (MD)	BTM (MD)	Length	Size 13.3/8	<u>Wt</u> 54.50	Grade	Conne	ction		BOP: Minimum	COR Class	3 Well Con	rol Deguirements
Intermediate	e: 12-1/4" //2!//////////////////////////////////	29' 29' 29'	12,360' 22,222'	12,332' 	9 5/8 9 5/8 5 1/2	40.00 40.00 23.00	L80-IC L80-IC P-110	BT BT TX	с с (P		Rig - Stackup -	 13-5/8"x1 Rotating He Pipe Ram, Mud Cross 	0M psi Rams ead, Annular Blind Ram, (Choke & Ki	s / 4-1/16"x10M psi Manifold Preventer, III Valves),
CENTRALIZATION: Surface Casing: Intermediate Casing:	1 each joint on firs Shoe joint, 1 per jo	t 3 joints, 1 per bint from FC to 3	2 joints from F 7,800'. 1 per 2	C to 1,700', 1 joints 7,800'	l per 4 joints fro to 2,300'. 1 per	m 1,700' i 4 joints 2,	lo surface 300' to surfi	ace.			Mud Pit:	Float Base Gravity Trip	d Electronic Tank, Alam	PVT with Flow Sensor and ns +/- 10 BBLS
Production Casing:	1 per joint to TOC										Wellhead:	13-5/8" x 1	OM psi (Casi	ng Head - "A" Section)
CEMENT: Surface	<u>Hole</u> a: 17-1/2"X13-3/8"	<u>MD</u> 1,172'	1,172'	20 b	bis FW	5	30 sx Clas	ad ISC+ado 105 #^3/el	is		<u>Tail</u> 450 sxClass C 14 8 ppg 1 32	+ adds	Comme Cement	ed to surface w/ 100%XS
Intermediate	a: 12-1/4"X9-5/8"	12,360'	11,948	20 bbls 10	5 ppg spacer	1	280 sx Cla 11 ppg 2.	.05 ft-3/sk .97 ft3/sk	is x	Integrat	Cem Lite C01+ 13,8 ppg 1,18	FP+Retarder 3 ft3/sk	+FL Cement 30%T X Add Fib	ed to Surface w/ 100%L / S calc'd on 12,25" hole erBlock
Production	n: 8-1/2"X5-1/2"	22,222	11,948'	30 bbls 14	t ppg spacer	2661 sx	Class H+F	iber+Reta	arder+Add	s + adds	i		Cement on 8,5"	ed to TOC w/ 15% XS calc'd hole.
Reference Comenting R DIRECTIONAL PLAN:	lecommendation						15.6 ppg	1.19ft3/sk						
Comments		<u>MD</u> (ft)	(NC) (deg)	<u>AZI</u> (deg)	<u>TVD</u> (ft)	<u>NS</u> (ft)	<u>EW</u> (ft)	<u>DLS</u> (*/100*)	<u>VS</u> (ft)	S	EC-T-R	Section	Line Distar	nce
Build @ 1.5°/100' End Build @ 4°		5,000	0	0	5.000	0	0	0	0	19 i 19 i	S26 R32E	2498' FN 2507' FN	L 1633'	FWL
Drop @ 1.5°/100'		6,765	4	172	5.761	-112	16	0	-113	19	526 R32E	2610' FN	L 1649	FWL
Intermediate Curve LP		12.360	90 -	359	11,948'	594	13	10	594	19	S26 R32E	1904' FN	L 1646	FWL
Toe Skeeve 2 Toe Skeeve 1		22,017 22,062	90 90	359 359	11,948' 11,948'	10250 10295	-49 -49	0	10,250 10,295	7 9	26 R32E 26 R32E	2433' FS 2483' FS	L 1650' L 1650'	rwL FWL
PBHL/TD Reference Directional Pi	lan	22.222'	90 MWD Surve	359 vs will be tal	11,948' ken at 90' inte	10455 rval belm	-49 v surface d	0 asina, 30	10,455 I' while bui	7 S Idina cur	26 R32E ve. and every	2618' FS 90' while drill	L 1650' ing lateral	FWL
FORMATION EVALUAT Mud Logging - Mud Logging - Open Hole -	TION: One-Man: Two-Man: PEX	First interme Intermediate CNL on 1 we	diate hole to Casing Poin all on the pad	TD t to TD , as deep as	s possible into	curve se	ection of int	ermediate	8					·····
Cased Hole - MWD -	GR/CBL/USIT	NA 200' above k												
OUR WORK IS NEVER SO URGENT OR IMPORTANT THAT WE CANNOT TAKE THE TIME TO DO IT SAFELYI														

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	2.427 Intermediate Cashin (TAI): 9.425 Intermediate Cashin (CAI): 9.828 Intermediate Cashin (C) (n) 12.25 Intermediate Cashin (C) (n) 12.26 Here C(C) (n) 2.207 Here C(C) (n) 2.208 (N)	Top Tail (F) - 1000' above KOP 2.97 Y Mad Tail (Li, FLSX) Show Jutin (F) 3,780 Show Votume (Ci, F!)	Calc. Tal Volume (Cu. F.) Required Tal Volume (SJ) Tal Volume (bbs) Displacement Volume (bbs)	90: http://dimensional.com/ http://dimensional.com/ 0.55 base calabilities 0.55 base calabilities 0.55 base calabilities 0.55 base calabilities 0.55 base calabilities 0.55 base calabilities 0.4 Bavoris RS2 0.4 Bavoris RS2
	Stage 1 8.45" Intermediate Casing 4.4 et di: Intermediate Casing 0.0, (n.) Intermediate Casing 10 (n) Hete 0.0, (n) Eccess (%) DV Tool Depth	Yield Leed (Cu. FL/Sx) Celoutated Total Leed (Cu. FL)	Cait. Load Volume (Sa) Load Volume (D65)	Informations June German Description Na. Wught 11 (19) Integration (National Science) Integration (National Science) (15) but Integrational Flow (15) but Science) Ge BWOB FL-23 Ge BWOB FL-23 Ge BWOB CH-23 Ge BWOB CH-23 Ge BWOB CH-23 Ge BWOB CH-23 Germania
	1,172 13.3/8 12.615 17.1/2 100%	205 285 285 285 285	1,663 560 560 1,073 1,073 165,2 105,2 175,0	
201 19 11 19 19 19 19 19 19 19 19 19 19 19	13-34* Burface Creating Surface Ceating Depth (F) Surface Ceating O.D. (In) Surface Ceating O.D. (In) Hele O.D. (In) Hele O.D. (In) Contense (N)	venume nav (su) Yedd Tai (cu, FJSx) Yhed Lead (cu, FJSx) Shos John (F) Shos dulume (cu, F) Tai feet of cameri	Calculated Total Volume (Cu. F.) Calculated Total Volume (Cu. F.) Calc. Land Volume (Cu. F.) Calc. Land Volume (Sa) Tal Volume (BHs) Tal Volume (BHs) Displacement Volume (MHs)	<u>Laad Commu Description:</u> Mex Weyn 17.8 pop Class C. 25 box Ingerssea Fiber 0.55 box Capefisae 0.50 box Capefisae 2 BNUN Nach 6 BNUN Nach 1 Al Comm Messacae 6 BNUN Nach 1 Al Comm Messacae 1 Al Comm Messacae 1 Comm Messacae

8.678 Interme Interme Interme Hole 0. Hole 1. Yield 1. Yield 1. Shoe J. Shoe J.	8.87° intermediate Casing I att: Intermediate Casing Depth (FI) Intermediate Casing O.O. (In.) Intermediate Casing ID (In) Hote O.D. (In) Ecress (%) Koress (%)	Top Tail (F1) - 1000 above KOP Yield Tail (Cu. FL/SX) Shoe Joint (F1) Shoe Volume (Cu. F1)	Calc. Tail Volume (Cu. Ft.)
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Stage 2 2.4% Tritemediate Casimo (Late Surface Casing Depth (1) Surface Casing (1). (n) OV Tool Depth (F) Intermediate Casing (1). (n.) Intermediate Casing (1). (n.)	Hota O. D. (In) Excess (%) Top Cement (Surface) Yield Tai (Cu. PL/Sx)	Calic, Lead Volume (Cu, FL)	Raquitred Laad Volume (Sx) Laad Volume (bbis) Displacement Volume (bbis)
12,360 8,625 8,625 8,635 8,635 12,25 30%	11,235 10,235 1,18 1,18 90 38,3	506	

htt smediate Lead Cement Description: Mix Weight ppg Integracem Lie Col 10 bisk: A.so	0.1ga/wk FP-6L 0.4 BW/OB FL-68 0.5 Emergen 51 30	0.5 BWOB CIV-32 1 BWOB Cypsum 3 SBWOB Sodium Metas@cate 40 BWOD Benvinia
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1,172 12,615 4,200 8,625 8,625 8,625 1,255 1,225 1,225 1,225 1,225 3,27



	SENW 19 S26 R32E Lea, Co, NM				<u>,</u>	12/19/2018					
	ESIGN INFO	RMATION				Setting Depth:	1,172' MD	1,172' TVD			
SIZE	WEIGHT	PERFORMANCE		BOREID	ORIETIO		BURST (PSI)	TENSION (41 1 BS)	Surface	Casing Tast Pros	euro = 1 500 nei
(Inches)	// B/STO	GRADE	TYPE	(Insher)	(Inches)	COLLAPSE (PSI)	BURST (FSI)	ENSION (IKEBS)	Surrace	Casing rest Pres	Drill Out
13.375	54.5	J-55	BTC	12 615	12 459	1 130 / 1 076	2 730 / 2 373	853 / 609	<i>F/</i> E	ssure restrict	o Drill Out
L		CONNECTION	DIMENSIONAL	/ PERFORMA		.,			Burst 1.15	Minimum Design Collapse 1.05	/ Safety Factors Tension (Body 1.40
		OD	aı	DRIFT	CPLG	COLLAPSE (PSI)	BURST (PSI)	TENSION (1k LBS)		Actual Decin	n / Safoty Eactor
		(inches)	(Inches)	(Inches)	ТҮРЕ	API / CoP	API / CoP	API / CoP	Burst	Collapse	Tension (Body
		14.375	12.615	12.459	втс	1,130 / 1,076	2,730 / 2,373	909 / 649	5.21	2.16	13.36
	ING DESIGN					Setting Depth:	12,360' MD	11,948' TVD			
SIZE	WEIGHT		CPLG	BORE ID	DRIFTID	COLLAPSE (PSI)	BURST (PSI)	TENSION (1k LBS)	Intermedia	te Casing Test Pi	essure = 4550 ps
(inches)	(LB/FT)	GRADE	ТҮРЕ	(inches)	(Inches)	API / CoP	API / CoP	API / CoP	Pre	ssure Test Prior	o Drill Out
		1			N - /	a I					
9,625	40.0	L80-IC	BTC	8,835	8.75	3,870 / 3,685	5,750 / 5000	916 / 654			
9,625	40,0			8.835	NCE DATA:	3,870 / 3,685	5,750 / 5000 BURST (PSI)	916 / 654	Mini Burst 1.15	mum Design / Sa Collapse 1.05	iety Factors Tension (Body 1.40
9,625	40.0	CONNECTION OD (Inches)	DIMENSIONAL	8.835	8.75 NCE DATA: CPLG TYPE	3,870 / 3,685 COLLAPSE (PSI) API / CoP	5,750 / 5000 BURST (PSI) API / CoP	916 / 654 TENSION (1k LBS) API / CoP	Mini Burst 1.15	imum Design / Sa Collapse 1.05	fety Factors Tension (Body 1.40
9,625	40.0	CONNECTION OD (Inches) 10,625	BTC DIMENSIONAL ID (Inches) 8.835	8.835 / PERFORMAI DRIFT (Inches) 8.75	8.75 NCE DATA: CPLG TYPE BTC	3,870 / 3,685 COLLAPSE (PSI) API / CoP 3,870 / 3,685	5,750 / 5000 BURST (PSI) API / CoP 5,750 / 5000	916 / 654 TENSION (1k LBS) API / CoP 947 / 676	Mini Burst 1.15 Burst	mum Design / Sa: Collapse 1.05 Actual Desig Collapse	fety Factors Tension (Body 1.40 n / Safety Factor Tension (Body
9.625	40.0	CONNECTION OD (Inches) 10.625	DIMENSIONAL ID (Inches) 8,835	8.835 - / PERFORMAI DRIFT (Inches) 8.75	8.75 NCE DATA: CPLG TYPE BTC	3,870 / 3,885 COLLAPSE (PSI) API / CoP 3,870 / 3,685	5,750 / 5000 BURST (PSI) API / CoP 5,750 / 5000	916 / 654 TENSION (1k LBS) API / CoP 947 / 676	Mini Burst 1.15 Burst 0.97	imum Design / Sa Collapse 1.05 Actual Desig Collapse 1.99 *1/3 Evacuation	tety Factors Tension (Body 1.40 n / Safety Factor: Tension (Body 1.92 1.92
9,625	40,0	CONNECTION OD (Inches) 10.625	DIMENSIONAL ID (Inches) 8,835	8.835 / PERFORMAI ORIFT (Inches) 8.75	8.75 NCE DATA: CPLG TYPE BTC	3,870 / 3,885 COLLAPSE (PSI) API / CoP 3,870 / 3,685	5,750 / 5000 BURST (PSI) API / CoP 5,750 / 5000	916 / 654 TENSION (1k LBS) API / CoP 947 / 676	Mini Burst 1.15 Burst 0.97	mum Design / Sa Collapse 1.05 Actual Desig Collapse 1.99 *1/3 Evacuation	fety Factors Tension (Body 1.40 n / Safety Factors Tension (Body 1.92 1.92
JCTION LINER	40.0 R DESIGN IN	CONNECTION OD (Inches) 10.625 FORMATION	DIMENSIONAL ID (Inches) 8,835	8.835 / PERFORMAI ORIFT (Inches) 8.75	8.75 NCE DATA: CPLG TYPE BTC	COLLAPSE (PSI) API / CoP 3,870 / 3,685 Setting Depth: Hanger:	5,750 / 5000 BURST (PSI) API / CoP 5,750 / 5000 22,222' MD 29' MD / TVD	916 / 654 TENSION (1k LBS) API / CoP 947 / 676 11,948' TVD	Mini Burst 1.15 Burst 0.97	imum Design / Sa Collapse 1.05 Actual Desig Collapse 1.99 *1/3 Evacuation	tety Factors Tension (Body 1.40 n / Safety Factors Tension (Body 1.92 1.92
UCTION LINEF PIPE BODY DII	40.0 R DESIGN IN MENSIONAL / I WEIGHT	CONNECTION OD (Inches) 10.625 FORMATION PERFORMANCE	DIMENSIONAL ID (Inches) 8,835	8.835 / PERFORMAI ORIFT (Inches) 8.75 8.75	NCE DATA: CPLG TYPE BTC DRIFT ID	3,870 / 3,885 COLLAPSE (PSI) API / CoP 3,870 / 3,685 Setting Depth: Hanger: COLLAPSE (PSI)	5,750 / 5000 BURST (PSI) API / CoP 5,750 / 5000 22,222' MD 29' MD / TVD BURST (PSI)	916 / 654	Mini Burst 1.15 Burst 0.97 Produc:	imum Design / Sa Collapse 1.05 Actual Desig Collapse 1.99 *1/3 Evacuation	tety Factors Tension (Body 1.40 n / Safety Factors Tension (Body 1.92 1.92 1.92
UCTION LINEF PIPE BODY DII SiZE (Inches)	40.0 R DESIGN IN MENSIONAL / I WEIGHT (LB/FT)	CONNECTION OD (Inches) 10.625 FORMATION PERFORMANCE GRADE	DIMENSIONAL ID (Inches) 8,835 E DATA: CPLG TYPE	8.835 / PERFORMAI ORIFT (Inches) 8.75 8.75 BORE ID (Inches)	0RIFT ID (Inches)	3,870 / 3,885 COLLAPSE (PSI) API / CoP 3,870 / 3,685 Setting Depth: Hanger: COLLAPSE (PSI) API / CoP	5,750 / 5000 BURST (PSI) API / CoP 5,750 / 5000 22,222' MD 29' MD / TVD BURST (PSI) API / CoP	916 / 654 TENSION (1k LBS) API / CoP 947 / 676 11,948' TVD TENSION (1k LBS) API / CoP	Mini Burst 1.15 Burst 0.97 Product	imum Design / Sa Collapse 1.05 Actual Desig Collapse 1.99 *1/3 Evacuation	tety Factors Tension (Body 1.40 n / Safety Factors Tension (Body 1.92 1.92 1.92
UCTION LINEF PIPE BODY DI SIZE (Inches) 5.5	40.0 R DESIGN IN MENSIONAL / I WEIGHT (LB/FT) 23	CONNECTION OD (Inches) 10.625 FORMATION PERFORMANCE GRADE P-110	DIMENSIONAL ID (Inches) 8,835 EDATA: CPLG TYPE TXP	8.835 / PERFORMAI ORIFT (Inches) 8.75 8.75 BORE ID (Inches) 4.778	DRIFT ID (Inches)	3,870 / 3,885 COLLAPSE (PSI) API / CoP 3,870 / 3,685 Setting Depth: Hanger: COLLAPSE (PSI) API / CoP 11,110 / 10,581	5,750 / 5000 BURST (PSI) API / CoP 5,750 / 5000 22,222' MD 29' MD / TVD BURST (PSI) API / CoP 12,630 / 10,982	916 / 654 TENSION (1k LBS) API / CoP 947 / 676 11,948' TVD TENSION (1k LBS) API / CoP 641 / 457	Mini Burst 1.15 Burst 0.97 Product	imum Design / Sa Collapse 1.05 Actual Desig Collapse 1.99 *1/3 Evacuation *1/3 Evacuation tion Casing Test I	tety Factors Tension (Body 1.40 n / Safety Factors Tension (Body 1.92 1.92 Pressure = TBD
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Maria pipohandle.

the **IBOP** valves



Choke Manifold 10M psi



BOPE Configuration & Specifications 13-5/8" x 10,000 psi System



Choke Line 6" x 3" x 10k psi 4-1/16" x 10k psi Inner Manual Valve 4 - 1/16" x 10k psi Outer Remote HCR

> 2" x 5k psi Gate Valves Pressure Testing Lines

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	ConocoPhillips Co
LEASE NO.:	LC062749B
WELL NAME & NO.:	Zia Hills 19 Federal Com – 110H
SURFACE HOLE FOOTAGE:	2498'/N & 1633'/W
BOTTOM HOLE FOOTAGE	2618'/S & 1650'/W, sec. 7
LOCATION:	Sec. 19, T. 26 S, R. 32 E
COUNTY:	Lea County



All previous COAs still apply expect the following:							
H2S	C Yes	r No					
Potash	• None	C Secretary	C R-111-P				
Cave/Karst Potential	C Low		High				
Variance	∩ None	• Flex Hose	C Other				
Wellhead	Conventional	Multibowl	C Both				
Other	□ 4 String Area	Capitan Reef	WIPP				

A. Hydrogen Sulfide

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

- 1. The 17 1/2 inch surface casing shall be set at approximately 1172 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of 8 hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Operator shall fill 1/3rd of the casing with fluid while running intermediate casing.

2. The minimum required fill of cement behind the **4** 5/8 inch intermediate casing is:

Operator has proposed an with a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:Cement to surface. If cement does not circulate, contact the appropriate BLM office.
- In <u>High Cave/Karst Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

PRESSURE CONTROL

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).
- 2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.
- 3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9 5/8 intermediate casing shoe shall be 10,000 (10M) psi.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

Lea County
 Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement

program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

- <u>Wait on cement (WOC) for Potash Areas:</u> After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least <u>24 hours</u>. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. <u>Wait on cement (WOC) for Water Basin:</u> After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least <u>8 hours</u>. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.
- B. PRESSURE CONTROL
- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

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- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be

initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

- c. The tests shall be done by an independent service company utilizing a test plug. The results of the test shall be reported to the appropriate BLM office.
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes. This test shall be performed prior to the test at full stack pressure.
- g. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

Waste Minimization Plan (WMP)

In the interest of resource development, submission of additional well gas capture development plan information is deferred but may be required by the BLM Authorized Officer at a later date.

ZS 122118

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