Form 3160-3 FORM APPROVED OMB No. 1004-0137 (June 2015) Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. NMNM84711 **BUREAU OF LAND MANAGEMENT** APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. **✓** DRILL REENTER 1a. Type of work: Oil Well 1b. Type of Well: Gas Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing ✓ Single Zone Multiple Zone PINTA 28/29 B3FE FED COM 4Н. 2. Name of Operator 9. API Well No. MEWBOURNE OIL COMPANY 30**-015-5**5718 3a. Address 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory Avalon/BONE SPRING P O BOX 5270, HOBBS, NM 88241 (575) 393-5905 4. Location of Well (Report location clearly and in accordance with any State requirements.*) 11. Sec., T. R. M. or Blk. and Survey or Area SEC 29/T20S/R27E/NMP At surface SWNW / 1970 FNL / 355 FWL / LAT 32.5465234 / LONG -104.3108473 At proposed prod. zone SENE / 2100 FNL / 100 FEL / LAT 32.5458321 / LONG -104.2608154 14. Distance in miles and direction from nearest town or post office* 12. County or Parish 13. State **EDDY** NM 8 miles 15. Distance from proposed* 16. No of acres in lease 17. Spacing Unit dedicated to this well 205 feet location to nearest property or lease line, ft. 480.0 (Also to nearest drig. unit line, if any) 18. Distance from proposed location* 19. Proposed Depth 20. BLM/BIA Bond No. in file to nearest well, drilling, completed, 20 feet 8276 feet / 23225 feet FED: NM1693 applied for, on this lease, ft. 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start* 23. Estimated duration 3214 feet 03/31/2023 60 days 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable) 1. Well plat certified by a registered surveyor. 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. SUPO must be filed with the appropriate Forest Service Office). 6. Such other site specific information and/or plans as may be requested by the Name (Printed/Typed) Date 25. Signature BRADLEY BISHOP / Ph: (575) 393-5905 01/31/2023 (Electronic Submission) Title Regulatory Approved by (Signature) Date Name (Printed/Typed) (Electronic Submission) CODY LAYTON / Ph: (575) 234-5959 09/18/2024 Title Office Assistant Field Manager Lands & Minerals Carlsbad Field Office Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the

applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



eived by	OCD: 10	/14/2024 3:	00:48 PM							Page 2					
<u>C-10</u>	<u>2</u>		Ene	ergy. Mir	State of Nev nerals & Natura	v Mexico al Resources Departm	nent		I	Revised July 9, 2024					
Submit	Electronicall	v				TION DIVISION	10111								
) Permitting	,						Submit	Mal Initial Su	bmittal					
								Type:	☐ Amended	l Report					
						☐ As Drilled									
					WELL LOCAT	ATION INFORMATION									
API Nu	mber 30-015-5	5718	Pool Code	96381	1	Pool Name AVALO									
Property	y Code 336487		Property Na	me PIN	ITA 28/29 E	3FE FED COM			Well Number	TH					
OGRID	No. 14	744	Operator Na	ame ME	WBOURNE	OIL COMPAN	Υ		Ground Leve 3214	el Elevation					
Surface	Owner: 🗆 S	State □ Fee □	Tribal 🛛 Fed	eral		Mineral Owner:	State □ Fee	□ Tribal	X Federal						
					Surf	ace Location									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude		Longitude	County					
Е	29	20S	27E		1970 FNL	355 FWL	32.546	5234	-104.3108473	EDDY					
					Bottom	Hole Location									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude		Longitude	County					
Н	27	20S	27E		2100 FNL	100 FWL	32.545	8321	-104.2608154	EDDY					
	l	l	•		•										
	ed Acres	Infill or Defin	Č	Defining	Well API	Overlapping Spacing Unit (Y/N) Consolidation Code									
	Jumbers.	<i>D</i> 2.1 v				Well setbacks are und	der Common	Ownershi	o: □Yes □No						
					Kick O	ff Point (KOP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude		Longitude	County					
E	29	20	27		2100 FNL										
						ake Point (FTP)	-104.3119730								
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	County								
Е	29	20	27		2100 FNL	. 100 FWL	32.546	-104.3116808							
					Last Ta	ıke Point (LTP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude		Longitude	County					
Н	27	20	27		2100 FNL	100 FEL	32.545	8321	-104.2608154	EDDY					
	I .	l	I.		l		<u> </u>								
Unitized	d Area or Ar	ea of Uniform I	nterest	Spacing	Unit Type 🔀 Horiz	contal Vertical	Grou	nd Floor I	Elevation: 32′	14					
OPERA	TOR CERT	IFICATIONS				SURVEYOR CERTIFIC	CATIONS								
I hereby	certify that the	e information cont	ained herein is	rue and com	plete to the best of	I hereby certify that the we	ell location sho	wn on thic	nlat was plotted from	m field notes of actual					
my know organiza including location interest,	ledge and beli tion either own g the proposed pursuant to a d	ef, and, if the well ns a working inter bottom hole loca contract with an o ury pooling agreen	is a vertical or est or unleased tion or has a rig wner of a worki	directional w mineral inten ht to drill thi ng interest o	vell, that this rest in the land	surveys made by me or una my belief.									
If this we consent of in each to	ell is a horizon of at least one ract (in the tar	tal well, I further lessee or owner o	f a working inter tion) in which a	rest or unleas ny part of the	sed mineral interest well's completed										
-	Lnadle	y C Birly			10/14/24	4									
Signature			Date	-		Signature and Seal of Profess	sional Surveyor								
ВІ	RADLE'	Y BISHOF)				1								
Printed N	lame					Certificate Number	Date of Surve	ey							
l BI	BISHOE	D@N/E\\/E		COM											

Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

Email Address

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 Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462 State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

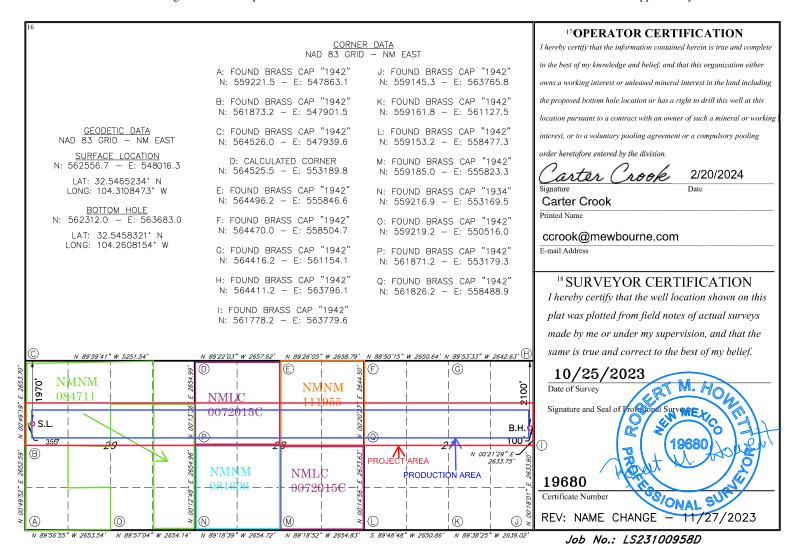
WELL LOCATION AND ACREAGE DEDICATION PLAT

	² Pool Code	³ Pool Name					
	96381	AVALON; BONE SPRING					
⁴ Property Code		perty Name B B3FE FED COM	⁶ Well Number 1H				
70GRID NO. 14744		erator Name E OIL COMPANY	⁹ Elevation 3214				

¹⁰ Surface Location

Surface Education												
UL or lot no.	ot no. Section Township Range		Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County				
E	29	20S	27E	1970		NORTH	355	WEST	EDDY			
			11]	Bottom H	Iole Location	If Different Fr	om Surface					
UL or lot no.	Section Township		Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County			
H	H 27 20S		27E		2100	NORTH	100	EAST	EDDY			
12 Dedicated Acre	s 13 Joint	or Infill 14	Consolidation	Code 15 (Order No.							
		I										

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.



State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

	N	ATURAL G	SAS MANA	GEMENT P	LAN		
This Natural Gas Mana	gement Plan m	ust be submitted v	vith each Applica	tion for Permit to I	Orill (APD) for a	new or	recompleted well.
			1 – Plan D Effective May 25				
I. Operator: Mev	wbourne (Oil Co.	OGRID:	14744	Date:	5/2	2/22
II. Type: X Original	☐ Amendment	due to □ 19.15.27	7.9.D(6)(a) NMA	C □ 19.15.27.9.D((6)(b) NMAC □	Other.	
If Other, please describe	e:						
III. Well(s): Provide the be recompleted from a s					wells proposed to	be dri	lled or proposed to
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	P	Anticipated roduced Water BBL/D
PINTA 28/29 B3FE FED COM 1H		E 29 20S 27E	1970' FNL x 355'	FWL 1500	3000		5000
IV. Central Delivery P V. Anticipated Schedu proposed to be recompl	le: Provide the	following inform		w or recompleted w			7.9(D)(1) NMAC] used to be drilled or
Well Name	API	Spud Date	TD Reached Date	Completion Commencement			First Production Date
PINTA 28/29 B3FE FED COM 1H		7/2/22	8/2/22	9/2/22	9/17/2	22	9/17/22
VI. Separation Equipmed VII. Operational Prace Subsection A through Figure 1. Will. Best Managemed during active and plann	etices: 🖾 Attac of 19.15.27.8	h a complete deso NMAC.	cription of the ac	ctions Operator wil	l take to comply	with t	he requirements of

Section 2 – Enhanced Plan EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

X Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. \square Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system	☐ will ☐ will not have capacity	to gather 100% of the anti	icipated natural gas
production volume from the well prior to the date of fi	st production.		

XIII. Line Pro	essure. Operator	☐ does ☐ does	not anticipate t	hat its existing v	well(s) connect	ted to the same	e segment,	or portion,	of the
natural gas gat	thering system(s)	described above	will continue t	o meet anticipat	ted increases in	line pressure	caused by	the new we	ell(s).

	Attach (Onerator's	nlan to	manage	production	in response	to the	increased	line press	sure
\square	Attach	Oberaior s	o Dian to	manage	DIOGUCLION	III Tesponse	LO LHE	micreased	Time bress	sure

XIV. Confidentiality:

Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Released to Imaging: 11/12/2024 8:35:57 AM

Section 3 - Certifications <u>Effective May</u> 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

🖾 Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or ☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. If Operator checks this box, Operator will select one of the following: Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or Venting and Flaring Plan.

Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including: power generation on lease; (a) (b) power generation for grid; compression on lease; (c) liquids removal on lease;

- (d)
- reinjection for underground storage; (e)
- reinjection for temporary storage; **(f)**
- reinjection for enhanced oil recovery; **(g)**
- fuel cell production; and (h)
- other alternative beneficial uses approved by the division.

Section 4 - Notices

- 1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:
- Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or
- Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.
- 2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature	Bradley Bishop
Printed Name:	BRADLEY BISHOP
Title:	REGULATORY MANAGER
E-mail Address:	BBISHOP@MEWBOURNE.COM
Date:	5/2/22
Phone:	575-393-5905
	OIL CONSERVATION DIVISION
	(Only applicable when submitted as a standalone form)
Approved By:	
Title:	
Approval Date:	
Conditions of A	pproval:

Mewbourne Oil Company

Natural Gas Management Plan – Attachment

- VI. Separation equipment will be sized by construction engineering staff based on stated manufacturer daily throughput capacities and anticipated daily production rates to ensure adequate capacity. Closed vent system piping, compression needs, and VRUs will be sized utilizing ProMax modelling software to ensure adequate capacity for anticipated production volumes and conditions.
- VII. Mewbourne Oil Company (MOC) will take following actions to comply with the regulations listed in 19.15.27.8:
 - A. MOC will maximize the recovery of natural gas by minimizing the waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. MOC will ensure that well(s) will be connected to a natural gas gathering system with sufficient capacity to transport natural gas. If there is no adequate takeaway for the gas, well(s) will be shut in until the natural gas gathering system is available.
 - B. All drilling operations will be equipped with a rig flare located at least 100 ft from the nearest surface hole. Rig flare will be utilized to combust any natural gas that is brought to surface during normal drilling operations. In the case of emergency venting or flaring the volumes will be estimated and reported appropriately.
 - C. During completion operations any natural gas brought to surface will be flared. Immediately following the finish of completion operations, all well flow will be directed to permanent separation equipment. Produced natural gas from separation equipment will be sent to sales. It is not anticipated that gas will not meet pipeline standards. However, if natural gas does not meet gathering pipeline quality specifications, MOC will flare the natural gas for 60 days or until the natural gas meets the pipeline quality specifications, whichever is sooner. MOC will ensure that the flare is sized properly and is equipped with automatic igniter or continuous pilot. The gas sample will analyzed twice per week and the gas will be routed into a gathering system as soon as pipeline specifications are met.
 - D. Natural gas will not be flared with the exceptions and provisions listed in the 19.15.27.8 D.(1) through (4). If there is no adequate takeaway for the separator gas, well(s) will be shut in until the natural gas gathering system is available with exception of emergency or malfunction situations. Venting and/or flaring volumes will be estimated and reported appropriately.
 - E. MOC will comply with the performance standards requirements and provisions listed in 19.15.27.8 E.(1) through (8). All equipment will be designed and sized to handle maximum anticipated pressures and throughputs in order to minimize the waste. Production storage tanks constructed after May 25, 2021 will be equipped with automatic gauging system. Flares constructed after May 25, 2021 will be equipped with automatic igniter or continuous pilot. Flares will be located at least 100' from the well and storage tanks unless otherwise approved by the division. MOC will conduct AVO inspections as described in 19.15.27.8 E (5) (a) with frequencies specified in 19.15.27.8 E (5) (b) and (c). All emergencies will be resolved as quickly and safely as feasible to minimize waste.
 - F. The volume of natural gas that is vented or flared as the result of malfunction or emergency during drilling and completions operations will be estimated. The volume of natural gas that is vented, flared or beneficially used during production operations, will be measured or estimated. MOC will install equipment to measure

the volume of natural gas flared from existing process piping or a flowline piped from equipment such as high pressure separators, heater treaters, or vapor recovery units associated with a well or facility associated with a well authorized by an APD issued after May 25, 2021 that has an average daily production greater than 60 Mcf/day. If metering is not practicable due to circumstances such as low flow rate or low pressure venting and flaring, MOC will estimate the volume of vented or flared natural gas. Measuring equipment will conform to industry standards and will not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

VIII. For maintenance activities involving production equipment and compression, venting will be limited to the depressurization of the subject equipment to ensure safe working conditions. For maintenance of production and compression equipment the associated producing wells will be shut in to eliminate venting. For maintenance of VRUs all gas normally routed to the VRU will be routed to flare to eliminate venting.



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

Well Name: PINTA 28/29 B3FE FED COM

Drilling Plan Data Report 10/14/2024

APD ID: 10400090502

Submission Date: 01/31/2023

Highlighted data reflects the most recent changes

Operator Name: MEWBOURNE OIL COMPANY

Well Number: 1H

Well Type: OIL WELL

Well Work Type: Drill

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
14161753	UNKNOWN	3250	28	28	OTHER : Topsoil	NONE	N
14161766	YATES	3046	204	204	SANDSTONE	NATURAL GAS, OIL	N
14161750	SEVEN RIVERS	2733	517	517	DOLOMITE	NATURAL GAS, OIL	N
14161751	QUEEN	1990	1260	1260	DOLOMITE, SANDSTONE	NATURAL GAS, OIL	N
14161772	CAPITAN REEF	1925	1325	1325	DOLOMITE, LIMESTONE	USEABLE WATER	N
14161759	DELAWARE	1065	2185	2185	LIMESTONE	NATURAL GAS, OIL	N
14161752	BONE SPRING	-716	3966	3966	LIMESTONE, SHALE	NATURAL GAS, OIL	N
14161755	BONE SPRING 1ST	-2263	5513	5513	SANDSTONE	NATURAL GAS, OIL	N
14161756	BONE SPRING 2ND	-2958	6208	6208	SANDSTONE	NATURAL GAS, OIL	N
14161771	BONE SPRING 3RD	-4212	7462	7462	SANDSTONE	NATURAL GAS, OIL	Y
14161773	WOLFCAMP	-4620	7870	7870	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL	N

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M Rating Depth: 23225

Equipment: Annular, Pipe Ram, Blind Ram

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP to the choke manifold. Anchors are not required by manufacturer. A variance is also requested for the use of a multibowl wellhead. Please see attached schematics.

Testing Procedure: BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the

Well Name: PINTA 28/29 B3FE FED COM Well Number: 1H

components installed will be functional and tested. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Choke Diagram Attachment:

Pinta_28_29_B3FE_Fed_Com_1H_5M_BOPE_Choke_Diagram_20230131133850.pdf Flex Line Specs API_16C_20240827100828.pdf

BOP Diagram Attachment:

Pinta_28_29_B3FE_Fed_Com_1H_5M_BOPE_Schematic_20230131133908.pdf Pinta_28_29_B3FE_Fed_Com_1H_5M_Mutli_Bowl_WH_20230131133908.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	26	20.0	NEW	API	N	0	350	0	350	3214	2864	350	J-55	94	BUTT	3.4	13.8	DRY	42.6 1	DRY	44.9 8
2	INTERMED IATE	17.5	13.375	NEW	API	N	0	1250	0	1250	3222	1964	1250	H-40	48	ST&C	1.18	2.66	DRY	5.37	DRY	9.02
3	INTERMED IATE	12.2 5	9.625	NEW	API	N	0	2100	0	2100	3713	1114	2100	J-55	36	LT&C	2.06	3.58	DRY	5.99	DRY	7.46
4	PRODUCTI ON	8.75	7.0	NEW	API	N	0	7123	0	7117	3713	-3903	7123	N-80	26	LT&C	1.46	1.95	DRY	2.8	DRY	3.26
5	LINER	6.12 5	4.5	NEW	API	N	6293	23225	6917	8277	-3703	-5063	16932	P- 110	13.5	LT&C	1.14	1.33	DRY	1.54	DRY	1.92

Casing Attachments

Well Name: PINTA 28/29 B3FE FED COM Well Number: 1H

Casing ID: 1

String

SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Pinta_28_29_B3FE_Fed_Com__1H_CsgAssumptions_20240827101053.pdf

Casing ID: 2

String

INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Pinta_28_29_B3FE_Fed_Com__1H_CsgAssumptions_20240827101004.pdf

Casing ID: 3

String

INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Pinta_28_29_B3FE_Fed_Com__1H_CsgAssumptions_20240827101020.pdf

Well Name: PINTA 28/29 B3FE FED COM Well Number: 1H

Casing Attachments

Casing ID: 4

String

PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Pinta_28_29_B3FE_Fed_Com__1H_CsgAssumptions_20240827101035.pdf

Casing ID: 5

String

LINER

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Pinta_28_29_B3FE_Fed_Com__1H_CsgAssumptions_20240827101044.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	261	380	2.12	12.5	810	100	Class C	Gel, Retarder, Defoamer, LCM, Extender
SURFACE	Tail		261	350	200	1.34	14.8	268	100	Class H	Retarder
INTERMEDIATE	Lead	1300	0	954	170	2.12	12.5	370	25	Class C	Salt, Gel, Extender, LCM
INTERMEDIATE	Tail		954	1300	100	1.34	14.8	134	25	Class C	Retarder
INTERMEDIATE	Lead		0	1044	640	2.12	12.5	1360	100	Class C	Salt, Gel, Extender, LCM

Well Name: PINTA 28/29 B3FE FED COM Well Number: 1H

String Type	Lead/Tail	Stage Tool Depth	Тор МD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail		1044	1250	200	1.34	14.8	268	100	Class C	Retarder
INTERMEDIATE	Lead	1300	1225	1533	50	2.12	12.5	110	25	Class C	Salt, Gel, Extender, LCM
INTERMEDIATE	Tail		1533	2100	200	1.34	14.8	268	25	Class C	Retarder
PRODUCTION	Lead	5500	1275	4887	310	2.12	12.5	560	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		4887	5500	100	1.34	14.8	134	25	Class C	Retarder, Fluid Loss, Defoamer
PRODUCTION	Lead	5500	5500	5807	50	2.12	12.5	110	25	Class C	Salt, Gel, Extender, LCM, Defoamer
PRODUCTION	Tail		5807	7123	400	1.18	15.6	472	25	Class H	Retarder, Fluid Loss, Defoamer
LINER	Lead		6923	2322 5	1040	1.85	13.5	1930	25	Class C	Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-Settling Agent

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Lost circulation material Sweeps Mud scavengers in surface hole

Describe the mud monitoring system utilized: Visual monitoring

Circulating Medium Table

Well Name: PINTA 28/29 B3FE FED COM Well Number: 1H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	ЬН	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	350	SPUD MUD	8.4	8.4							
350	1250	SALT SATURATED	10	10						6	
1250	2100	WATER-BASED MUD	8.6	9					1		
2100	7122	WATER-BASED MUD	8.6	10							
7122	2322 5	OIL-BASED MUD	9	11				1			

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

No logs are planned based on well control or offset log information. Offset Well: Pinta 29/27 B3KL Fed Com #1H

List of open and cased hole logs run in the well:

DIRECTIONAL SURVEY, MEASUREMENT WHILE DRILLING, MUD LOG/GEOLOGIC LITHOLOGY LOG, COMPENSATED NEUTRON LOG, GAMMA RAY LOG,

Coring operation description for the well:

None

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4734 Anticipated Surface Pressure: 2913

Anticipated Bottom Hole Temperature(F): 150

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

Pinta_28_29_B3FE_Fed_Com_1H_H2S_Plan_20230131134943.pdf

Well Name: PINTA 28/29 B3FE FED COM Well Number: 1H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Pinta_28_29_B3FE_Fed_Com__1H_MOC_Dir_Plot_20240827103048.pdf Pinta_28_29_B3FE_Fed_Com__1H_MOC_Dir_Plan_20240827103057.pdf

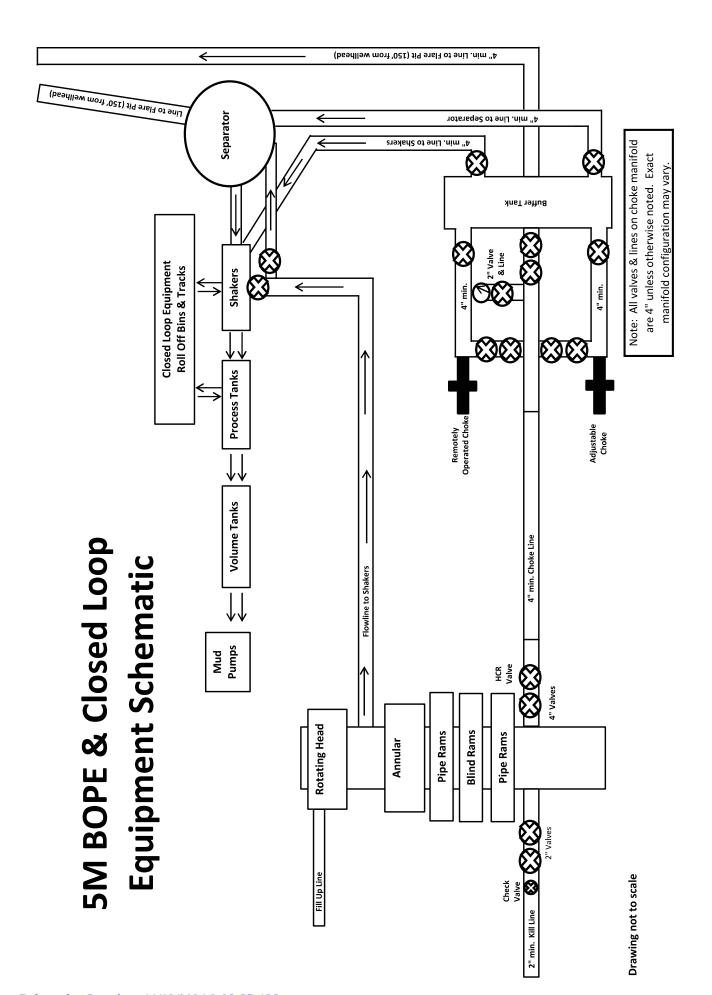
Other proposed operations facets description:

Other proposed operations facets attachment:

Pinta_28_29_B3FE_Fed_Com_1H_AddInfo_20240827103105.pdf
Pinta_28_29_B3FE_Fed_Com__1H_Drlg_Program_20240827103900.pdf

Other Variance attachment:

Pinta_28_29_B3FE_Fed_Com__1H_MOC_Break_Testing_Variance_20240501150951.pdf
Pinta_28_29_B3FE_Fed_Com__1H_MOC_Offline_Cementing_Variance_20240501150951.pdf





LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD

HYDROSTATIC TESTING REPORT

LTYY/QR-5.7.1-28

№: 230826015

Product Name	Cho	oke And Kill Hose	Standa	rd AF	PI Spec 16C 3 rd edition		
Product Specificatio	n 3″×1000	00psi×60ft(18.29m) Serial Nu	nber	7660144		
Inspection Equipmen	nt MTU	J-BS-1600-3200-E	Test med	ium	Water		
Inspection Departme	nt (Q.C. Department	Inspection	Date	2023.08.26		
		Rate of le	ngth change				
Standard requirements At working pressure, the rate of length change should not more than $\pm 2\%$							
Testing result	10000psi (69.0	MPa) ,Rate of leng	th change 0.7%				
		Hydrosta	atic testing				
Standard requiremen			initial pressure-holding d of not less than one ho		ess than three minutes		
Testing result	15000psi (103	.5MPa), 3 min for th	ne first time, 60 min for	the second time	e, no leakage		
raph of pressure test	ng:				A feet late		
	R21 115821 215821 215821 215821 21			5954 00 <i>0</i> 954 0016	:Sá 02/ISÁ 00/ISÁ 0		
Conclusion	The inspec	cted items meet stan	dard requirements of AF	I Spec 16C 3 rd	edition		



LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD

CERTIFICATE OF QUALITY

LTYY/QR-5.7.1-19B

№: LT2023-126-002

Customer Name	Austin Hose								
Product Name	Choke And Kill Hose								
Product Specification	3"×10000psi×60ft (18.29m)	Quantity	2PCS						
Serial Number	7660143~7660144	FSL	FSL3						
Temperature Range	-29℃~+121℃	Standard	API Spec 16C 3 rd edition						
Inspection Department	Q.C. Department	Inspection date	2023.08.26						

	Inspection	n Items			Inspection results			
	Appearance Cl	hecking	3		In accordance with API Spec 16C 3 rd edition			
	Size and Le	ngths			In accordance with API Spec 16C 3 rd edition			
Dimensions and Tolerances					In accordance with API Spec 16C 3 rd edition			
End Connections: 4-1	/16"×10000psi Int	tegral fla	nge for sour gas ser	vice	In accordance with API Spec 6A 21st edition			
End Connections: 4-1	/16"×10000psi Int	tegral fla	inge for sour gas ser	vice	In accordance with API Spec 17D 3rd edition			
	Hydrostatic T	Festing			In accordance with API Spec 16C 3 rd edition			
	product Ma	rking			In accordance with API Spec 16C 3 rd edition			
Inspection con	Inspection conclusion The inspected items n					ments of API Spec	16C 3 rd edition	
Remark	Remarks							
Approver	Approver Jian long Chan Auditor				nging Dong	Inspector	Zhansheng Wang	



LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD

CERTIFICATE OF CONFORMANCE

№:LT230826016

Product Name: Choke And Kill Hose

Product Specification: 3"×10000psi×60ft (18.29m)

Serial Number: 7660143~7660144

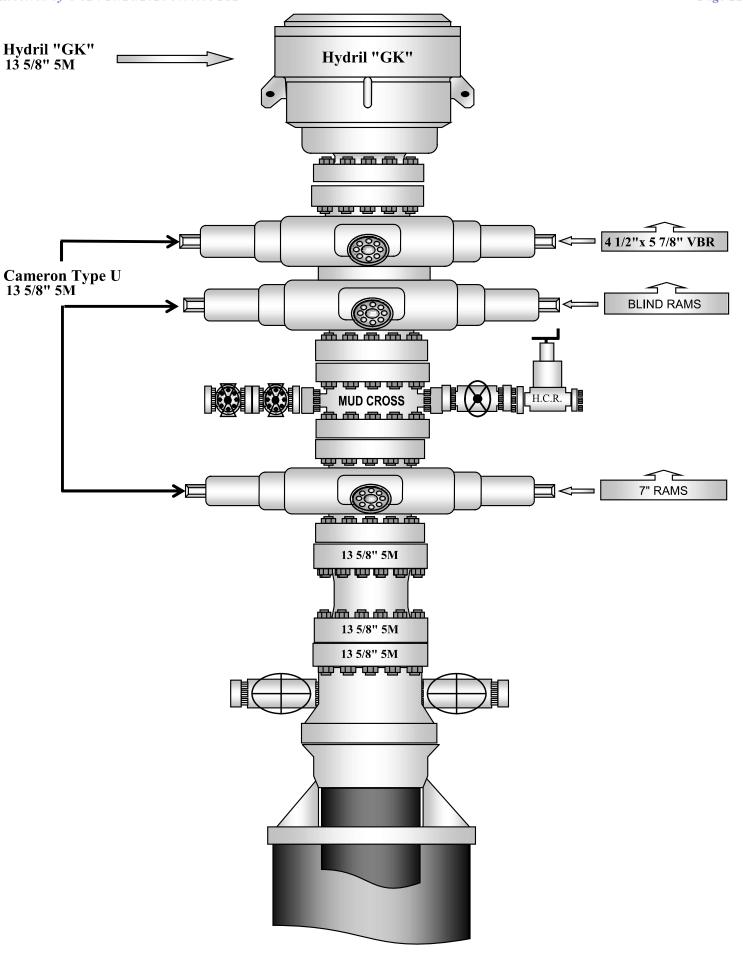
End Connections: 4-1/16"×10000psi Integral flange for sour gas service

The Choke And Kill Hose assembly was produced by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD. in Aug 2023, and inspected by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD. according to API Spec 16C 3rd edition on Aug 26, 2023. The overall condition is good. This is to certify that the Choke And Kill Hose complies with all current standards and specifications for API Spec 16C 3rd edition.

Jiaulong Chen

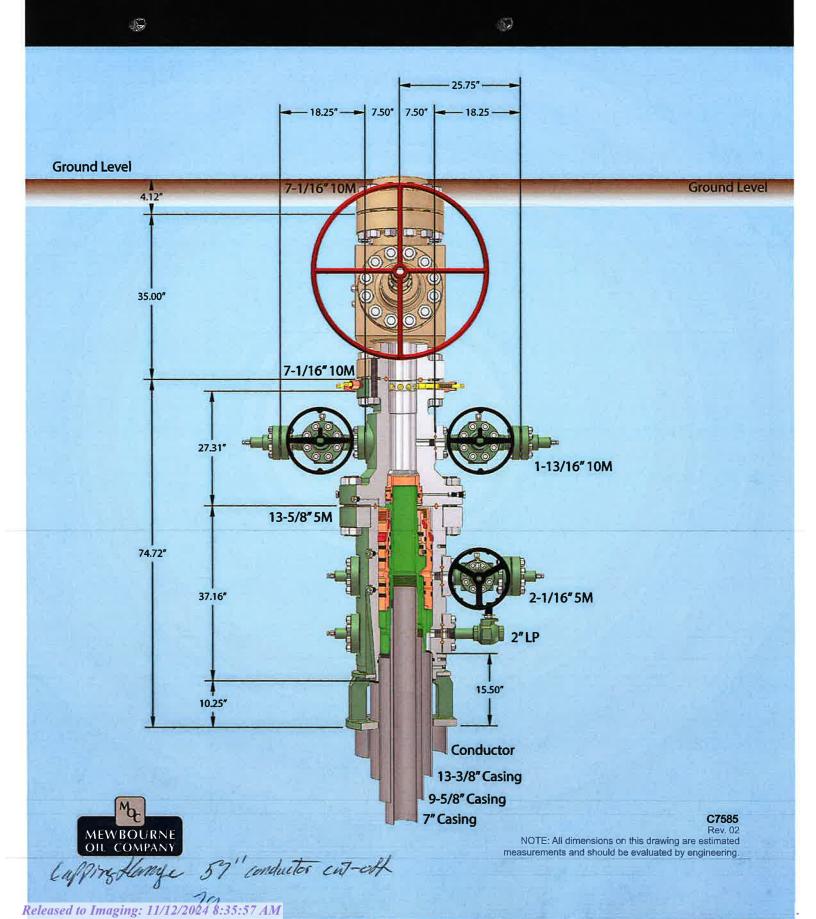
QC Manager:

Date: Aug 26, 2023





13-5/8" MN-DS Wellhead System



SHL: 1970' FNL 355' FWL (Sec 29) BHL: 2100' FNL 100' FEL (Sec 27)

		Casing Prog	ram Design A			BLM Minimum Safety Factors	1.125	1.0	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet
String	Hole Size	Тор МД	Top TVD	Bot MD	Bot TVD	Csg. Size	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
Surface	26'	0'	0'	350'	350'	20" 94# J55 BTC	3.40	13.80	42.61	44.98
Int 1	17.5'	0'	0'	1250'	1250'	13.375" 48# H40 STC	1.18	2.66	5.37	9.02
Int 2	12.25'	0'	0'	2100'	2100'	9.625" 36# J55 LTC	2.06	3.58	5.99	7.46
Production	8.75'	0'	0'	7123'	7117'	7" 26# N-80 LTC	1.46	1.95	2.80	3.26
Liner	6.125'	6923'	6917'	23225'	8277'	4.5" 13.5# P110 LTC	1.14	1.33	1.54	1.92

Cement Program

Casing		# Sacks	Wt. lb/gal	Yield ft ³ /sack	тос/вос	Volume ft ³	% Excess	Slurry Description			
20,000 in	LEAD	380	12.5	2.12	0' - 261'	810	100%	Class C: Salt, Gel, Extender, LCM			
20.000 III	TAIL	200	14.8	1.34	261' - 350'	268	100%	Class C: Retarder			
13,375 in	LEAD	640	12.5	2.12	0' - 1044'	1360	100%	Class C: Salt, Gel, Extender, LCM			
13.373 III	TAIL	200	14.8	1.34	1044' - 1250'	268	100%	Class C: Retarder			
1st Stg 9.625 in	LEAD	50	12.5	2.12	1300' - 1533'	110	25%	Class C: Salt, Gel, Extender, LCM			
18t Stg 9.025 III	TAIL	200	14.8	1.34	1533' - 2100'	268	2376	Class C: Retarder			
	9 5/8" DV Tool @ 1300'										
2nd Stg 9.625 in	LEAD	170	12.5	2.12	0' - 954'	370	25%	Class C: Salt, Gel, Extender, LCM			
2110 Stg 9.025 III	TAIL	100	14.8	1.34	954' - 1300'	134	2370	Class C: Retarder			
1st Stg 7 in	LEAD	50	12.5	2.12	5500' - 5807'	110	25%	Class C: Salt, Gel, Extender, LCM, Defoamer			
ist Stg / III	TAIL	400	15.6	1.18	5807' - 7122.7'	472	23%	Class H: Retarder, Fluid Loss, Defoamer			
					7" DV	Tool @ 5500'					
2nd Stg 7 in	LEAD	310	12.5	2.12	1275' - 4787'	660	25%	Class C: Salt, Gel, Extender, LCM, Defoamer			
Ziiu Stg / III	TAIL	100	14.8	1.34	4787' - 5500'	134	2370	Class C: Retarder, Fluid Loss, Defoamer			
4.5 in	LEAD	1040	13.5	1.85	6922.7' - 23225.2'	1930	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-			

Design A - Mud Program

Depth	Mud Wt	Mud Type
0' - 350'	8.4	Fresh Water
350' - 1250'	10	Brine
1250' - 2100'	9	Cut-Brine
2100' - 7122.7'	10	Cut-Brine
7122.7' - 23225.2'	11	OBM

Geology

Geology					
Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler			Yeso		
Castile			Delaware (Lamar)	2185'	Oil/Natural Gas
Salt Top			Bell Canyon		
Salt Base			Cherry Canyon		
Yates	203'	Oil/Natural Gas	Manzanita Marker		
Seven Rivers	517'	Oil/Natural Gas	Basal Brushy Canyon	3704'	Oil/Natural Gas
Queen	1260'	Oil/Natural Gas	Bone Spring	3966'	Oil/Natural Gas
Capitan	1325'	Usable Water	1st Bone Spring	5513'	Oil/Natural Gas
Grayburg			2nd Bone Spring	6208'	Oil/Natural Gas
San Andres			3rd Bone Spring	7462'	Oil/Natural Gas
Glorieta			Wolfcamp	7870'	Oil/Natural Gas

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above easing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, easing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is an open annulus used to satisfy R-111-Q? If yes, see cement design.	
Is an engineered weak point used to satisfy R-111-Q?	
If yes, at what depth is the weak point planned?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If ves, are there three strings cemented to surface?	

Mewbourne Oil Company, Pinta 28/29 B3FE Fed Com #1H Sec 29, T20S, R27E SHL: 1970' FNL 355' FWL (Sec 29)

BHL: 2100' FNL 100' FEL (Sec 29)

		Casing Prog	gram Design B			BLM Minimum Safety	1.125	1.0	1.6 Dry	1.6 Dry
		Cusing 110g	,ram Design D			Factors		1.0	1.8 Wet	1.8 Wet
String	Hole Size	Top MD	Top TVD	Bot MD	Bot TVD	Csg. Size	SF Collapse	SF Burst	SF Jt Tension	SF Body
String	Hole Size	TOP MID	TOPIVD	DOI MID	DOL I VD	Csg. Size	Sr Conapse	Sr Durst	Sr ot rension	Tension
Surface	26'	0'	0'	350'	350'	20" 94# J55 BTC	3.40	13.80	42.61	44.98
Int 1	17.5'	0'	0'	1250'	1250'	13.375" 48# H40 STC	1.18	2.66	5.37	9.02
Int 2	12.25'	0'	0'	2100'	2100'	9.625" 36# J55 LTC	2.06	3.58	5.99	7.46
Production	8.75'	0'	0'	8023'	7691'	7" 26# HCP110 LTC	1.87	2.38	3.32	3.98
Liner	6.125'	7123'	7117'	23225'	8277'	4.5" 13.5# P110 LTC	1.16	1.35	1.55	1.94

Design B - Cement Program

Design B - Cement I										
Casing		# Sacks	Wt. lb/gal	Yield cu.ft/sack	TOC	Slurry Description				
20.000 in	LEAD	380	12.5	2.12	0' - 261'	810	100%	Class C: Salt, Gel, Extender, LCM		
20.000 III	TAIL	200	14.8	1.34	261' - 350'	268	100%	Class C: Retarder		
13.375 in	LEAD	640	12.5	2.12	0' - 1044'	1360	100%	Class C: Salt, Gel, Extender, LCM		
13.5/5 III	TAIL	200	14.8	1.34	1044' - 1250'	268	100%	Class C: Retarder		
1st Stg 9.625 in	LEAD	50	12.5	2.12	1300' - 1533'	110	25%	Class C: Salt, Gel, Extender, LCM		
18t 5tg 9.025 iii	TAIL	200	14.8	1.34	1533' - 2100'	268	25%	Class C: Retarder		
					9 5/8" I	OV Tool @ 1300'				
2nd Stg 9.625 in	LEAD	170	12.5	2.12	0' - 954'	370	25%	Class C: Salt, Gel, Extender, LCM		
2110 Stg 9.025 III	TAIL	100	14.8	1.34	954' - 1300'	134	25%	Class C: Retarder		
1st Stg 7 in	LEAD	50	12.5	2.12	5500' - 5977'	110	25%	Class C: Salt, Gel, Extender, LCM, Defoamer		
ist Stg / III	TAIL	400	15.6	1.18	5977' - 8023'	472	23%	Class H: Retarder, Fluid Loss, Defoamer		
					7" DV	Tool @ 5500'				
2nd Stg 7 in	LEAD	310	12.5	2.12	1275' - 4787'	660	25%	Class C: Salt, Gel, Extender, LCM, Defoamer		
2nu stg / m	TAIL	100	14.8	1.34	4787' - 5500'	134	25%	Class C: Retarder, Fluid Loss, Defoamer		

Design B - Mud Program

Depth	Mud Wt	Mud Type
0' - 350'	8.4	Fresh Water
350' - 1250'	10	Brine
1250' - 2100'	9	Fresh Water
2100' - 8023'	10	Cut-Brine
8023' - 23225.2'	11	OBM

Geology

Geology					
Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler			Yeso		
Castile			Delaware (Lamar)	2185'	Oil/Natural Gas
Salt Top			Bell Canyon		
Salt Base			Cherry Canyon		
Yates	203'	Oil/Natural Gas	Manzanita Marker		
Seven Rivers	517'	Oil/Natural Gas	Basal Brushy Canyon	3704'	Oil/Natural Gas
Queen	1260'	Oil/Natural Gas	Bone Spring	3966'	Oil/Natural Gas
Capitan	1325'	Usable Water	1st Bone Spring	5513'	Oil/Natural Gas
Grayburg			2nd Bone Spring	6208'	Oil/Natural Gas
San Andres			3rd Bone Spring	7462'	Oil/Natural Gas
Glorieta			Wolfcamp	7870'	Oil/Natural Gas

	Y or N
Is easing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	Y
If yes, does production easing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is an open annulus used to satisfy R-111-Q? If yes, see cement design.	
Is an engineered weak point used to satisfy R-111-Q?	
If yes, at what depth is the weak point planned?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

SHL: 1970' FNL 355' FWL (Sec 29) BHL: 2100' FNL 100' FEL (Sec 27)

	Casing Program Design A						1.125	1.0	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet
String	Hole Size	Top MD	Top TVD	Bot MD	Bot TVD	Csg. Size	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
Surface	26'	0'	0'	350'	350'	20" 94# J55 BTC	3.40	13.80	42.61	44.98
Int 1	17.5'	0'	0'	1250'	1250'	13.375" 48# H40 STC	1.18	2.66	5.37	9.02
Int 2	12.25'	0'	0'	2100'	2100'	9.625" 36# J55 LTC	2.06	3.58	5.99	7.46
Production	8.75'	0'	0'	7123'	7117'	7" 26# N-80 LTC	1.46	1.95	2.80	3.26
Liner	6.125'	6923'	6917'	23225'	8277'	4.5" 13.5# P110 LTC	1.14	1.33	1.54	1.92

Cement Program

Casing		# Sacks	Wt. lb/gal	Yield ft ³ /sack	тос/вос	Volume ft ³	% Excess	Slurry Description	
20.000 in	LEAD	380	12.5	2.12	0' - 261'	810	100%	Class C: Salt, Gel, Extender, LCM	
20.000 III	TAIL	200	14.8	1.34	261' - 350'	268	100%	Class C: Retarder	
13.375 in	LEAD	640	12.5	2.12	0' - 1044'	1360	100%	Class C: Salt, Gel, Extender, LCM	
15.575 III	TAIL	200	14.8	1.34	1044' - 1250'	268	10076	Class C: Retarder	
1st Stg 9.625 in	LEAD	50	12.5	2.12	1300' - 1533'	110	25%	Class C: Salt, Gel, Extender, LCM	
18t 5tg 9.025 III	TAIL	200	14.8	1.34	1533' - 2100'	268	2376	Class C: Retarder	
	9 5/8" DV Tool @ 1300'								
2nd Stg 9.625 in	LEAD	170	12.5	2.12	0' - 954'	370	25%	Class C: Salt, Gel, Extender, LCM	
2110 Stg 9.025 III	TAIL	100	14.8	1.34	954' - 1300'	134	2370	Class C: Retarder	
1st Stg 7 in	LEAD	50	12.5	2.12	5500' - 5807'	110	25%	Class C: Salt, Gel, Extender, LCM, Defoamer	
ist stg / iii	TAIL	400	15.6	1.18	5807' - 7122.7'	472	2370	Class H: Retarder, Fluid Loss, Defoamer	
					7" DV	Tool @ 5500'			
2nd Stg 7 in	LEAD	310	12.5	2.12	1275' - 4787'	660	25%	Class C: Salt, Gel, Extender, LCM, Defoamer	
Znu Stg / III	TAIL	100	14.8	1.34	4787' - 5500'	134	2370	Class C: Retarder, Fluid Loss, Defoamer	
4.5 in	LEAD	1040	13.5	1.85	6922.7' - 23225.2'	1930	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-	

Design A - Mud Program

Depth	Mud Wt	Mud Type
0' - 350'	8.4	Fresh Water
350' - 1250'	10	Brine
1250' - 2100'	9	Cut-Brine
2100' - 7122.7'	10	Cut-Brine
7122.7' - 23225.2'	11	OBM

Geology

Geology					
Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler			Yeso		
Castile			Delaware (Lamar)	2185'	Oil/Natural Gas
Salt Top			Bell Canyon		
Salt Base			Cherry Canyon		
Yates	203'	Oil/Natural Gas	Manzanita Marker		
Seven Rivers	517'	Oil/Natural Gas	Basal Brushy Canyon	3704'	Oil/Natural Gas
Queen	1260'	Oil/Natural Gas	Bone Spring	3966'	Oil/Natural Gas
Capitan	1325'	Usable Water	1st Bone Spring	5513'	Oil/Natural Gas
Grayburg			2nd Bone Spring	6208'	Oil/Natural Gas
San Andres			3rd Bone Spring	7462'	Oil/Natural Gas
Glorieta			Wolfcamp	7870'	Oil/Natural Gas

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is easing API approved? If no, attach easing specification sheet.	Y
is vasing At Paproved. It not, make using speciments in sec. Is premium or uncommon easing planned? If yes attach easing specification sheet.	N
Boes the above easing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	V
win the pipe of kept at a minimum 1/3 fluid fined to avoid approaching the conapse pressure rating or the casing:	Y
Is well located within Capitan Reef?	Y
If yes, does production easing cement tie back a minimum of 50' above the Reef?	Ŷ
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is an open annulus used to satisfy R-111-Q? If yes, see cement design.	
Is an engineered weak point used to satisfy R-111-O?	
If yes, at what depth is the weak point planned?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

SHL: 1970' FNL 355' FWL (Sec 29) BHL: 2100' FNL 100' FEL (Sec 27)

		Casing Prog	gram Design B			BLM Minimum Safety	1.125	1.0	1.6 Dry	1.6 Dry
		Cusing 110g	,ram Design D			Factors		1.0	1.8 Wet	1.8 Wet
String	Hole Size	Top MD	Top TVD	Bot MD	Bot TVD	Csg. Size	SF Collapse	SF Burst	SF Jt Tension	SF Body
String	Hole Size	T UP MID	TOPIVD	DOI MID	DOL I VD	Csg. Size	Sr Conapse	Sr Durst	Sr ot rension	Tension
Surface	26'	0'	0'	350'	350'	20" 94# J55 BTC	3.40	13.80	42.61	44.98
Int 1	17.5'	0'	0'	1250'	1250'	13.375" 48# H40 STC	1.18	2.66	5.37	9.02
Int 2	12.25'	0'	0'	2100'	2100'	9.625" 36# J55 LTC	2.06	3.58	5.99	7.46
Production	8.75'	0'	0'	8023'	7691'	7" 26# HCP110 LTC	1.87	2.38	3.32	3.98
Liner	6.125'	7123'	7117'	23225'	8277'	4.5" 13.5# P110 LTC	1.16	1.35	1.55	1.94

Design B - Cement Program

Casing		# Sacks	Wt. lb/gal	Yield cu.ft/sack	тос	Slurry Description				
20,000 in	LEAD	380	12.5	2.12	0' - 261'	810	100%	Class C: Salt, Gel, Extender, LCM		
20.000 in	TAIL	200	14.8	1.34	261' - 350'	268	100%	Class C: Retarder		
13.375 in	LEAD	640	12.5	2.12	0' - 1044'	1360	100%	Class C: Salt, Gel, Extender, LCM		
15.575 111	TAIL	200	14.8	1.34	1044' - 1250'	268	100%	Class C: Retarder		
1st Stg 9.625 in	LEAD	50	12.5	2.12	1300' - 1533'	110	25%	Class C: Salt, Gel, Extender, LCM		
18t 5tg 9.025 iii	TAIL	200	14.8	1.34	1533' - 2100'	268	2370	Class C: Retarder		
					9 5/8'' Г	OV Tool @ 1300'				
2nd Stg 9.625 in	LEAD	170	12.5	2.12	0' - 954'	370	25%	Class C: Salt, Gel, Extender, LCM		
2110 Stg 9.025 III	TAIL	100	14.8	1.34	954' - 1300'	134	2376	Class C: Retarder		
1st Stg 7 in	LEAD	50	12.5	2.12	5500' - 5977'	110	25%	Class C: Salt, Gel, Extender, LCM, Defoamer		
ist stg / m	TAIL	400	15.6	1.18	5977' - 8023'	472	23%	Class H: Retarder, Fluid Loss, Defoamer		
7" DV Tool @ 5500'										
2nd Stg 7 in	LEAD	310	12.5	2.12	1275' - 4787'	660	25%	Class C: Salt, Gel, Extender, LCM, Defoamer		
2liu Sig / lii	TAIL	100	14.8	1.34	4787' - 5500'	134	2376	Class C: Retarder, Fluid Loss, Defoamer		

Design B - Mud Program

Depth	Mud Wt	Mud Type
0' - 350'	8.4	Fresh Water
350' - 1250'	10	Brine
1250' - 2100'	9	Fresh Water
2100' - 8023'	10	Cut-Brine
8023' - 23225.2'	11	OBM

Geology

Geology					
Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler			Yeso		
Castile			Delaware (Lamar)	2185'	Oil/Natural Gas
Salt Top			Bell Canyon		
Salt Base			Cherry Canyon		
Yates	203'	Oil/Natural Gas	Manzanita Marker		
Seven Rivers	517'	Oil/Natural Gas	Basal Brushy Canyon	3704'	Oil/Natural Gas
Queen	1260'	Oil/Natural Gas	Bone Spring	3966'	Oil/Natural Gas
Capitan	1325'	Usable Water	1st Bone Spring	5513'	Oil/Natural Gas
Grayburg			2nd Bone Spring	6208'	Oil/Natural Gas
San Andres			3rd Bone Spring	7462'	Oil/Natural Gas
Glorieta			Wolfcamp	7870'	Oil/Natural Gas

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is an open annulus used to satisfy R-111-Q? If yes, see cement design.	
Is an engineered weak point used to satisfy R-111-Q?	
If yes, at what depth is the weak point planned?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings comented to surface?	

SHL: 1970' FNL 355' FWL (Sec 29) BHL: 2100' FNL 100' FEL (Sec 27)

Casing Program Design A					BLM Minimum Safety Factors	1.125	1.0	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet	
String	Hole Size	Top MD	Top TVD	Bot MD	Bot TVD	Csg. Size	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
Surface	26'	0'	0'	350'	350'	20" 94# J55 BTC	3.40	13.80	42.61	44.98
Int 1	17.5'	0'	0'	1250'	1250'	13.375" 48# H40 STC	1.18	2.66	5.37	9.02
Int 2	12.25'	0'	0'	2100'	2100'	9.625" 36# J55 LTC	2.06	3.58	5.99	7.46
Production	8.75'	0'	0'	7123'	7117'	7" 26# N-80 LTC	1.46	1.95	2.80	3.26
Liner	6.125'	6923'	6917'	23225'	8277'	4.5" 13.5# P110 LTC	1.14	1.33	1.54	1.92

Cement Program

Casing		# Sacks	Wt. lb/gal	Yield ft ³ /sack	тос/вос	Volume ft ³	% Excess	Slurry Description
20.000 in	LEAD	380	12.5	2.12	0' - 261'	810	100%	Class C: Salt, Gel, Extender, LCM
20.000 III	TAIL	200	14.8	1.34	261' - 350'	268	100%	Class C: Retarder
13,375 in	LEAD	640	12.5	2.12	0' - 1044'	1360	100%	Class C: Salt, Gel, Extender, LCM
15.575 111	TAIL	200	14.8	1.34	1044' - 1250'	268	100%	Class C: Retarder
1st Stg 9.625 in	LEAD	50	12.5	2.12	1300' - 1533'	110	25%	Class C: Salt, Gel, Extender, LCM
18t Stg 9.025 III	TAIL	200	14.8	1.34	1533' - 2100'	268	2376	Class C: Retarder
					9 5/8" D	V Tool @ 1300'		
2nd Stg 9.625 in	LEAD	170	12.5	2.12	0' - 954'	370	25%	Class C: Salt, Gel, Extender, LCM
2110 Stg 9.025 III	TAIL	100	14.8	1.34	954' - 1300'	134	2370	Class C: Retarder
1st Stg 7 in	LEAD	50	12.5	2.12	5500' - 5807'	110	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
ist stg / iii	TAIL	400	15.6	1.18	5807' - 7122.7'	472	2370	Class H: Retarder, Fluid Loss, Defoamer
					7" DV	Tool @ 5500'		
2nd Stg 7 in	LEAD	310	12.5	2.12	1275' - 4787'	660	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
Ziiu Stg / III	TAIL	100	14.8	1.34	4787' - 5500'	134	2370	Class C: Retarder, Fluid Loss, Defoamer
4.5 in	LEAD	1040	13.5	1.85	6922.7' - 23225.2'	1930	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-

Design A - Mud Program

Depth	Mud Wt	Mud Type
0' - 350'	8.4	Fresh Water
350' - 1250'	10	Brine
1250' - 2100'	9	Cut-Brine
2100' - 7122.7'	10	Cut-Brine
7122.7' - 23225.2'	11	OBM

Geology

Geology					
Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler			Yeso		
Castile			Delaware (Lamar)	2185'	Oil/Natural Gas
Salt Top			Bell Canyon		
Salt Base			Cherry Canyon		
Yates	203'	Oil/Natural Gas	Manzanita Marker		
Seven Rivers	517'	Oil/Natural Gas	Basal Brushy Canyon	3704'	Oil/Natural Gas
Queen	1260'	Oil/Natural Gas	Bone Spring	3966'	Oil/Natural Gas
Capitan	1325'	Usable Water	1st Bone Spring	5513'	Oil/Natural Gas
Grayburg			2nd Bone Spring	6208'	Oil/Natural Gas
San Andres			3rd Bone Spring	7462'	Oil/Natural Gas
Glorieta			Wolfcamp	7870'	Oil/Natural Gas

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above easing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, easing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is an open annulus used to satisfy R-111-Q? If yes, see cement design.	
Is an engineered weak point used to satisfy R-111-Q?	
If yes, at what depth is the weak point planned?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

SHL: 1970' FNL 355' FWL (Sec 29) BHL: 2100' FNL 100' FEL (Sec 27)

	Casing Program Design B						inimum Safety 1.125		1.6 Dry	1.6 Dry
			_			Factors			1.8 Wet	1.8 Wet SF Body
String	Hole Size	Top MD	Top TVD	Bot MD	Bot TVD	Csg. Size	SF Collapse	SF Burst	SF Jt Tension	Tension
Surface	26'	0'	0'	350'	350'	20" 94# J55 BTC	3.40	13.80	42.61	44.98
Int 1	17.5'	0'	0'	1250'	1250'	13.375" 48# H40 STC	1.18	2.66	5.37	9.02
Int 2	12.25'	0'	0'	2100'	2100'	9.625" 36# J55 LTC	2.06	3.58	5.99	7.46
Production	8.75'	0'	0'	8023'	7691'	7" 26# HCP110 LTC	1.87	2.38	3.32	3.98
Liner	6.125'	7123'	7117'	23225'	8277'	4.5" 13.5# P110 LTC	1.16	1.35	1.55	1.94

Design B - Cement Program

Design B - Cement Frogram										
Casing		# Sacks	Wt. lb/gal	Yield cu.ft/sack	тос	Slurry Description				
20.000 in	LEAD	380	12.5	2.12	0' - 261'	810	100%	Class C: Salt, Gel, Extender, LCM		
20.000 III	TAIL	200	14.8	1.34	261' - 350'	268	100%	Class C: Retarder		
13.375 in	LEAD	640	12.5	2.12	0' - 1044'	1360	100%	Class C: Salt, Gel, Extender, LCM		
13.373 111	TAIL	200	14.8	1.34	1044' - 1250'	268	100%	Class C: Retarder		
1st Stg 9.625 in	LEAD	50	12.5	2.12	1300' - 1533'	110	25%	Class C: Salt, Gel, Extender, LCM		
18t 5tg 9.025 III	TAIL	200	14.8	1.34	1533' - 2100'	268	2370	Class C: Retarder		
					9 5/8" I	OV Tool @ 1300'				
2nd Stg 9.625 in	LEAD	170	12.5	2.12	0' - 954'	370	25%	Class C: Salt, Gel, Extender, LCM		
2110 Stg 9.025 III	TAIL	100	14.8	1.34	954' - 1300'	134	25%	Class C: Retarder		
1st Stg 7 in	LEAD	50	12.5	2.12	5500' - 5977'	110	25%	Class C: Salt, Gel, Extender, LCM, Defoamer		
1st Stg / in	TAIL	400	15.6	1.18	5977' - 8023'	472	25%	Class H: Retarder, Fluid Loss, Defoamer		
7" DV Tool @ 5500'										
2nd Stg 7 in	LEAD	310	12.5	2.12	1275' - 4787'	660	25%	Class C: Salt, Gel, Extender, LCM, Defoamer		
2nd Stg / in TAIL	TAIL	100	14.8	1.34	4787' - 5500'	134	23%	Class C: Retarder, Fluid Loss, Defoamer		

Design B - Mud Program

Depth	Mud Wt	Mud Type						
0' - 350'	8.4	Fresh Water						
350' - 1250'	10	Brine						
1250' - 2100'	9	Fresh Water						
2100' - 8023'	10	Cut-Brine						
8023' - 23225.2'	11	OBM						

Geology

Geology					
Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler			Yeso		
Castile			Delaware (Lamar)	2185'	Oil/Natural Gas
Salt Top			Bell Canyon		
Salt Base			Cherry Canyon		
Yates	203'	Oil/Natural Gas	Manzanita Marker		
Seven Rivers	517'	Oil/Natural Gas	Basal Brushy Canyon	3704'	Oil/Natural Gas
Queen	1260'	Oil/Natural Gas	Bone Spring	3966'	Oil/Natural Gas
Capitan	1325'	Usable Water	1st Bone Spring	5513'	Oil/Natural Gas
Grayburg			2nd Bone Spring	6208'	Oil/Natural Gas
San Andres			3rd Bone Spring	7462'	Oil/Natural Gas
Glorieta			Wolfcamp	7870'	Oil/Natural Gas

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is an open annulus used to satisfy R-111-Q? If yes, see cement design.	
Is an engineered weak point used to satisfy R-111-Q?	
If yes, at what depth is the weak point planned?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	1

SHL: 1970' FNL 355' FWL (Sec 29) BHL: 2100' FNL 100' FEL (Sec 27)

Casing Program Design A						BLM Minimum Safety Factors	1.125	1.0	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet
String	Hole Size	Top MD	Top TVD	Bot MD	Bot TVD	Csg. Size	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
Surface	26'	0'	0'	350'	350'	20" 94# J55 BTC	3.40	13.80	42.61	44.98
Int 1	17.5'	0'	0'	1250'	1250'	13.375" 48# H40 STC	1.18	2.66	5.37	9.02
Int 2	12.25'	0'	0'	2100'	2100'	9.625" 36# J55 LTC	2.06	3.58	5.99	7.46
Production	8.75'	0'	0'	7123'	7117'	7" 26# N-80 LTC	1.46	1.95	2.80	3.26
Liner	6.125'	6923'	6917'	23225'	8277'	4.5" 13.5# P110 LTC	1.14	1.33	1.54	1.92

Cement Program

Casing		# Sacks	Wt. lb/gal	Yield ft ³ /sack	тос/вос	Volume ft ³	% Excess	Slurry Description
20,000 in	LEAD	380	12.5	2.12	0' - 261'	810	100%	Class C: Salt, Gel, Extender, LCM
20.000 III	TAIL	200	14.8	1.34	261' - 350'	268	100%	Class C: Retarder
13,375 in	LEAD	640	12.5	2.12	0' - 1044'	1360	100%	Class C: Salt, Gel, Extender, LCM
13.373 III	TAIL	200	14.8	1.34	1044' - 1250'	268	100%	Class C: Retarder
1st Stg 9.625 in	LEAD	50	12.5	2.12	1300' - 1533'	110	25%	Class C: Salt, Gel, Extender, LCM
18t Stg 9.025 III	TAIL	200	14.8	1.34	1533' - 2100'	268	2376	Class C: Retarder
					9 5/8" D	V Tool @ 1300'		
2nd Stg 9.625 in	LEAD	170	12.5	2.12	0' - 954'	370	25%	Class C: Salt, Gel, Extender, LCM
2110 Stg 9.025 III	TAIL	100	14.8	1.34	954' - 1300'	134	2370	Class C: Retarder
1st Stg 7 in	LEAD	50	12.5	2.12	5500' - 5807'	110	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
ist Stg / III	TAIL	400	15.6	1.18	5807' - 7122.7'	472	23%	Class H: Retarder, Fluid Loss, Defoamer
					7" DV	Tool @ 5500'		
2nd Stg 7 in	LEAD	310	12.5	2.12	1275' - 4787'	660	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
Ziiu Stg / III	TAIL	100	14.8	1.34	4787' - 5500'	134	2370	Class C: Retarder, Fluid Loss, Defoamer
4.5 in	LEAD	1040	13.5	1.85	6922.7' - 23225.2'	1930	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-

Design A - Mud Program

Depth	Mud Wt	Mud Type
0' - 350'	8.4	Fresh Water
350' - 1250'	10	Brine
1250' - 2100'	9	Cut-Brine
2100' - 7122.7'	10	Cut-Brine
7122.7' - 23225.2'	11	OBM

Geology

Geology					
Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
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Glorieta			Wolfcamp	7870'	Oil/Natural Gas

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is easing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is an open annulus used to satisfy R-111-Q? If yes, see cement design.	
Is an engineered weak point used to satisfy R-111-Q?	
If yes, at what depth is the weak point planned?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If ves, are there trings cemented to surface?	- 1

SHL: 1970' FNL 355' FWL (Sec 29) BHL: 2100' FNL 100' FEL (Sec 27)

		Casing Prog	ram Design B			BLM Minimum Safety		1.0	1.6 Dry	1.6 Dry
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String	Hole Size	1 op MD	TOPIVD	DOT MID			SI Conapse	Sr Durst	Sr Jt Tension	Tension
Surface	26'	0'	0'	350'	350'	20" 94# J55 BTC	3.40	13.80	42.61	44.98
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Design B - Cement Program

Casing		# Sacks	Wt. lb/gal	Yield cu.ft/sack	тос	Slurry Description			
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13.375 in	LEAD	640	12.5	2.12	0' - 1044'	1360	100%	Class C: Salt, Gel, Extender, LCM	
13.3/5 III	TAIL	200	14.8	1.34	1044' - 1250'	268	100%	Class C: Retarder	
1st Stg 9.625 in	LEAD	50	12.5	2.12	1300' - 1533'	110	25%	Class C: Salt, Gel, Extender, LCM	
18t 5tg 9.025 iii	TAIL	200	14.8	1.34	1533' - 2100'	268	2370	Class C: Retarder	
					9 5/8" I	OV Tool @ 1300'			
2nd Stg 9.625 in	LEAD	170	12.5	2.12	0' - 954'	370	25%	Class C: Salt, Gel, Extender, LCM	
2110 Stg 9.025 III	TAIL	100	14.8	1.34	954' - 1300'	134	25%	Class C: Retarder	
1st Stg 7 in	LEAD	50	12.5	2.12	5500' - 5977'	110	25%	Class C: Salt, Gel, Extender, LCM, Defoamer	
ist stg / m	TAIL	400	15.6	1.18	5977' - 8023'	472	23%	Class H: Retarder, Fluid Loss, Defoamer	
	7" DV Tool @ 5500'								
2nd Stg 7 in	LEAD	310	12.5	2.12	1275' - 4787'	660	25%	Class C: Salt, Gel, Extender, LCM, Defoamer	
Ziiu Stg / III	TAIL	100	14.8	1.34	4787' - 5500'	134	23%	Class C: Retarder, Fluid Loss, Defoamer	

Design B - Mud Program

Depth	Mud Wt	Mud Type
0' - 350'	8.4	Fresh Water
350' - 1250'	10	Brine
1250' - 2100'	9	Fresh Water
2100' - 8023'	10	Cut-Brine
8023' - 23225.2'	11	OBM

Geology

Geology					
Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler			Yeso		
Castile			Delaware (Lamar)	2185'	Oil/Natural Gas
Salt Top			Bell Canyon		
Salt Base			Cherry Canyon		
Yates	203'	Oil/Natural Gas	Manzanita Marker		
Seven Rivers	517'	Oil/Natural Gas	Basal Brushy Canyon	3704'	Oil/Natural Gas
Queen	1260'	Oil/Natural Gas	Bone Spring	3966'	Oil/Natural Gas
Capitan	1325'	Usable Water	1st Bone Spring	5513'	Oil/Natural Gas
Grayburg			2nd Bone Spring	6208'	Oil/Natural Gas
San Andres			3rd Bone Spring	7462'	Oil/Natural Gas
Glorieta			Wolfcamp	7870'	Oil/Natural Gas

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is an open annulus used to satisfy R-111-Q? If yes, see cement design.	
Is an engineered weak point used to satisfy R-111-Q?	
If yes, at what depth is the weak point planned?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

SHL: 1970' FNL 355' FWL (Sec 29) BHL: 2100' FNL 100' FEL (Sec 27)

	Casing Program Design A					BLM Minimum Safety Factors	1.125	1.0	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet
String	Hole Size	Тор МД	Top TVD	Bot MD	Bot TVD	Csg. Size	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
Surface	26'	0'	0'	350'	350'	20" 94# J55 BTC	3.40	13.80	42.61	44.98
Int 1	17.5'	0'	0'	1250'	1250'	13.375" 48# H40 STC	1.18	2.66	5.37	9.02
Int 2	12.25'	0'	0'	2100'	2100'	9.625" 36# J55 LTC	2.06	3.58	5.99	7.46
Production	8.75'	0'	0'	7123'	7117'	7" 26# N-80 LTC	1.46	1.95	2.80	3.26
Liner	6.125'	6923'	6917'	23225'	8277'	4.5" 13.5# P110 LTC	1.14	1.33	1.54	1.92

Cement Program

Gi		# 61	33/4 11./1	xx, xx, e,3, ,	TOC/BOC	xx x = e.3	0/ E	Cl D
Casing		# Sacks	Wt. lb/gal	Yield ft ³ /sack	TOC/BOC	Volume ft ³	% Excess	Slurry Description
20.000 in	LEAD	380	12.5	2.12	0' - 261'	810	100%	Class C: Salt, Gel, Extender, LCM
20.000 III	TAIL	200	14.8	1.34	261' - 350'	268	10076	Class C: Retarder
13.375 in	LEAD	640	12.5	2.12	0' - 1044'	1360	100%	Class C: Salt, Gel, Extender, LCM
13.573 III	TAIL	200	14.8	1.34	1044' - 1250'	268	10076	Class C: Retarder
1st Stg 9.625 in	LEAD	50	12.5	2.12	1300' - 1533'	110	25%	Class C: Salt, Gel, Extender, LCM
18t 5tg 9.025 iii	TAIL	200	14.8	1.34	1533' - 2100'	268	2570	Class C: Retarder
					9 5/8" D	V Tool @ 1300'		
2nd Stg 9.625 in	LEAD	170	12.5	2.12	0' - 954'	370	25%	Class C: Salt, Gel, Extender, LCM
2110 Stg 9.025 III	TAIL	100	14.8	1.34	954' - 1300'	134	2370	Class C: Retarder
1st Stg 7 in	LEAD	50	12.5	2.12	5500' - 5807'	110	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
ist stg / iii	TAIL	400	15.6	1.18	5807' - 7122.7'	472	2370	Class H: Retarder, Fluid Loss, Defoamer
					7" DV	Tool @ 5500'		
2nd Stg 7 in	LEAD	310	12.5	2.12	1275' - 4787'	660	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
Ziiu Stg / III	TAIL	100	14.8	1.34	4787' - 5500'	134	4370	Class C: Retarder, Fluid Loss, Defoamer
4.5 in	LEAD	1040	13.5	1.85	6922.7' - 23225.2'	1930	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-

Design A - Mud Program

Depth	Mud Wt	Mud Type
0' - 350'	8.4	Fresh Water
350' - 1250'	10	Brine
1250' - 2100'	9	Cut-Brine
2100' - 7122.7'	10	Cut-Brine
7122.7' - 23225.2'	11	OBM

Geology

Geology					
Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler			Yeso		
Castile			Delaware (Lamar)	2185'	Oil/Natural Gas
Salt Top			Bell Canyon		
Salt Base			Cherry Canyon		
Yates	203'	Oil/Natural Gas	Manzanita Marker		
Seven Rivers	517'	Oil/Natural Gas	Basal Brushy Canyon	3704'	Oil/Natural Gas
Queen	1260'	Oil/Natural Gas	Bone Spring	3966'	Oil/Natural Gas
Capitan	1325'	Usable Water	1st Bone Spring	5513'	Oil/Natural Gas
Grayburg			2nd Bone Spring	6208'	Oil/Natural Gas
San Andres			3rd Bone Spring	7462'	Oil/Natural Gas
Glorieta			Wolfcamp	7870'	Oil/Natural Gas

	Y or N
Is easing new? If used, attach certification as required in Onshore Order #1	Y
Is easing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	N
Is 2 nd string set 100' to 600' below the base of salt?	
Is an open annulus used to satisfy R-111-Q? If yes, see cement design.	
Is an engineered weak point used to satisfy R-111-Q?	
If yes, at what depth is the weak point planned?	
	•
Is well located in high Cave/Karst?	<u>Y</u>
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

SHL: 1970' FNL 355' FWL (Sec 29) BHL: 2100' FNL 100' FEL (Sec 27)

		Casing Prog	ram Design B			BLM Minimum Safety Factors	1.125	1.0	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet
String	Hole Size	Top MD	Top TVD	Bot MD	Bot TVD	Csg. Size	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
Surface	26'	0'	0'	350'	350'	20" 94# J55 BTC	3.40	13.80	42.61	44.98
Int 1	17.5'	0'	0'	1250'	1250'	13.375" 48# H40 STC	1.18	2.66	5.37	9.02
Int 2	12.25'	0'	0'	2100'	2100'	9.625" 36# J55 LTC	2.06	3.58	5.99	7.46
Production	8.75'	0'	0'	8023'	7691'	7" 26# HCP110 LTC	1.87	2.38	3.32	3.98
Liner	6.125'	7123'	7117'	23225'	8277'	4.5" 13.5# P110 LTC	1.16	1.35	1.55	1.94

Design B - Cement Program

Casing		# Sacks	Wt. lb/gal	Yield cu.ft/sack	тос	Slurry Description				
20,000 in	LEAD	380	12.5	2.12	0' - 261'	810	100%	Class C: Salt, Gel, Extender, LCM		
20.000 in	TAIL	200	14.8	1.34	261' - 350'	268	100%	Class C: Retarder		
13.375 in	LEAD	640	12.5	2.12	0' - 1044'	1360	100%	Class C: Salt, Gel, Extender, LCM		
13.3/5 III	TAIL	200	14.8	1.34	1044' - 1250'	268	100%	Class C: Retarder		
1st Stg 9.625 in	LEAD	50	12.5	2.12	1300' - 1533'	110	25%	Class C: Salt, Gel, Extender, LCM		
18t 5tg 9.025 iii	TAIL	200	14.8	1.34	1533' - 2100'	268	2370	Class C: Retarder		
					9 5/8" I	OV Tool @ 1300'				
2nd Stg 9.625 in	LEAD	170	12.5	2.12	0' - 954'	370	25%	Class C: Salt, Gel, Extender, LCM		
2110 Stg 9.025 III	TAIL	100	14.8	1.34	954' - 1300'	134	25%	Class C: Retarder		
1st Stg 7 in	LEAD	50	12.5	2.12	5500' - 5977'	110	25%	Class C: Salt, Gel, Extender, LCM, Defoamer		
ist stg / m	TAIL	400	15.6	1.18	5977' - 8023'	472	23%	Class H: Retarder, Fluid Loss, Defoamer		
	7" DV Tool @ 5500'									
2nd Stg 7 in	LEAD	310	12.5	2.12	1275' - 4787'	660	25%	Class C: Salt, Gel, Extender, LCM, Defoamer		
Ziiu Stg / III	TAIL	100	14.8	1.34	4787' - 5500'	134	23%	Class C: Retarder, Fluid Loss, Defoamer		

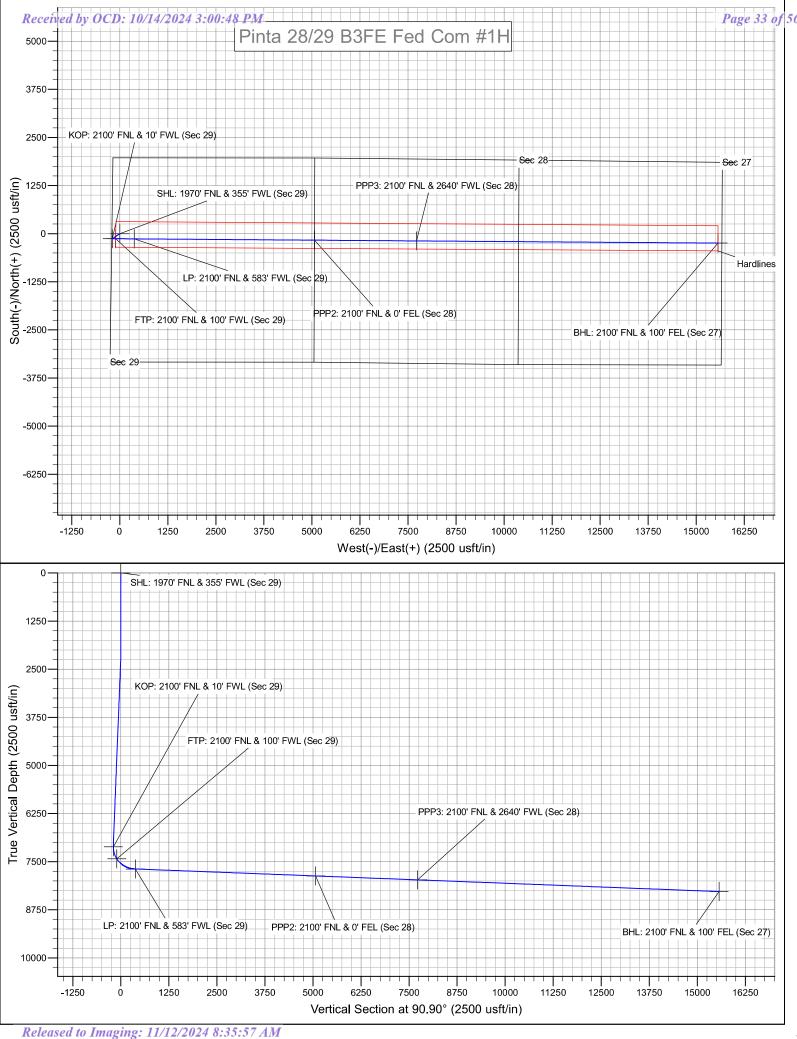
Design B - Mud Program

Depth	Mud Wt	Mud Type
0' - 350'	8.4	Fresh Water
350' - 1250'	10	Brine
1250' - 2100'	9	Fresh Water
2100' - 8023'	10	Cut-Brine
8023' - 23225.2'	11	OBM

Geology

Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler			Yeso		
Castile			Delaware (Lamar)	2185'	Oil/Natural Gas
Salt Top			Bell Canyon		
Salt Base			Cherry Canyon		
Yates	203'	Oil/Natural Gas	Manzanita Marker		
Seven Rivers	517'	Oil/Natural Gas	Basal Brushy Canyon	3704'	Oil/Natural Gas
Queen	1260'	Oil/Natural Gas	Bone Spring	3966'	Oil/Natural Gas
Capitan	1325'	Usable Water	1st Bone Spring	5513'	Oil/Natural Gas
Grayburg			2nd Bone Spring	6208'	Oil/Natural Gas
San Andres			3rd Bone Spring	7462'	Oil/Natural Gas
Glorieta			Wolfcamp	7870'	Oil/Natural Gas

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is an open annulus used to satisfy R-111-Q? If yes, see cement design.	
Is an engineered weak point used to satisfy R-111-Q?	
If yes, at what depth is the weak point planned?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	
	N
If yes, are there three strings cemented to surface?	



Mewbourne Oil Company

Eddy County, New Mexico NAD 83 Pinta 28/29 B3FE Fed Com #1H Sec 29, T20S, R27E

SHL: 1970' FNL & 355' FWL (Sec 29) BHL: 2100' FNL & 100' FEL (Sec 27)

Plan: Design #1

Standard Planning Report

28 February, 2024

Planning Report

Database: Hobbs

Company: Mewbourne Oil Company

Project: Eddy County, New Mexico NAD 83
Site: Eddy County, New Mexico NAD 83
Site: Pinta 28/29 B3FE Fed Com #1H

Well: Sec 29, T20S, R27E

Wellbore: BHL: 2100' FNL & 100' FEL (Sec 27)

Design: Design #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Site Pinta 28/29 B3FE Fed Com #1H Well @ 3242.0usft (Original Well)

Well @ 3242.0usft (Original Well)
Well @ 3242.0usft (Original Well)

Grid

Minimum Curvature

Project Eddy County, New Mexico NAD 83

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: New Mexico Eastern Zone

System Datum:

Ground Level

Site Pinta 28/29 B3FE Fed Com #1H

 Site Position:
 Northing:
 562,556.00 usft
 Latitude:
 32.5465234

 From:
 Map
 Easting:
 548,116.30 usft
 Longitude:
 -104.3108473

Position Uncertainty: 0.0 usft Slot Radius: 13-3/16

Well Sec 29, T20S, R27E

 Well Position
 +N/-S
 0.0 usft
 Northing:
 562,556.00 usft
 Latitude:
 32.5465234

 +E/-W
 0.0 usft
 Easting:
 548,116.30 usft
 Longitude:
 -104.3108473

Position Uncertainty 0.0 usft Wellhead Elevation: 3,242.0 usft Ground Level: 3,214.0 usft

Grid Convergence: 0.01 °

Wellbore BHL: 2100' FNL & 100' FEL (Sec 27)

 Magnetics
 Model Name
 Sample Date
 Declination
 Dip Angle (°)
 Field Strength (nT)

 IGRF2010
 12/31/2014
 7.51
 60.27
 48,351.56303381

Design #1

Audit Notes:

Version: PROTOTYPE Tie On Depth: 0.0

 Vertical Section:
 Depth From (TVD) (usft)
 +N/-S (usft)
 +E/-W (usft)
 Direction (°)

 0.0
 0.0
 0.0
 90.90

Plan Survey Tool Program Date 2/21/2024

Depth From Depth To

(usft) (usft) Survey (Wellbore) Tool Name Remarks

1 0.0 23,225.2 Design #1 (BHL: 2100' FNL & 100

Plan Sections Vertical Build Measured Dogleg Turn +N/-S Depth Inclination Azimuth Depth +E/-W Rate Rate Rate TFO (usft) (°) (°) (usft) (usft) (usft) (°/100usft) (°/100usft) (°/100usft) Target (°) 0.0 0.00 0.00 0.0 0.0 0.0 0.00 0.00 0.00 0.00 2,125,0 0.00 0.00 2,125.0 0.0 0.0 0.00 0.00 0.00 0.00 2,264.2 -2.8 2.00 2.00 236.57 2 78 236 57 2.264 1 -19 0.00 6,983.5 2.78 236.57 6,977.9 -128.1 -194.1 0.00 0.00 0.00 0.00 7,122.7 0.00 0.00 7,117.0 -130.0 -196.9 2.00 -2.00 0.00 180.00 KOP: 2100' FNL & 10' 8,001.3 87.79 90.42 7,690.0 -134.0 354.4 9.99 9.99 0.00 90.42 23,225.2 87.79 90.42 8,277.0 -244.6 15,566.6 0.00 0.00 0.00 0.00 BHL: 2100' FNL & 100

Planning Report

Hobbs Database: Company:

Project:

Site:

Mewbourne Oil Company

Eddy County, New Mexico NAD 83

Pinta 28/29 B3FE Fed Com #1H

Well: Sec 29, T20S, R27E BHL: 2100' FNL & 100' FEL (Sec 27) Wellbore:

Design: Design #1 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Site Pinta 28/29 B3FE Fed Com #1H Well @ 3242.0usft (Original Well) Well @ 3242.0usft (Original Well)

Minimum Curvature

ned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL: 1970	' FNL & 355' FWL	(Sec 29)							
100.0		0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0		0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0		0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0		0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0		0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0		0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0		0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0		0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0		0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0		0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0		0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0		0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0		0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
			,						
2,000,0		0,00	2,000.0	0.0	0.0	0.0	0.00	0.00	0,00
2,100.0	0.00	0,00	2,100.0	0.0	0.0	0.0	0.00	0.00	0,00
2,125.0		0,00	2,125.0	0.0	0.0	0.0	0.00	0.00	0,00
2,200.0	1,50	236,57	2,200.0	-0.5	-0.8	-0.8	2.00	2,00	0.00
2,264,2	2,78	236,57	2,264.1	-1.9	-2.8	-2.8	2,00	2,00	0.00
2,300.0	2.78	236.57	2,299.9	- 2.8	-4.3	- 4.2	0.00	0.00	0.00
2,400.0		236.57	2,399.8	-5.5	-8.3	- 8.2	0.00	0.00	0.00
2,500.0		236.57	2,499.7	-8.2	-12.4	- 12.2	0.00	0.00	0.00
2,600.0		236.57	2,599.5	-10.8	-16.4	-16.3	0.00	0.00	0.00
2,700.0		236.57	2,699.4	-13.5	-20.5	-20.3	0.00	0.00	0.00
2,800.0		236.57	2,799.3	-16.2	-24.5	-24.3	0.00	0.00	0.00
2,900.0		236.57	2,899.2	-18.9	-28.6	-28.3	0.00	0.00	0.00
3,000.0		236.57	2,999.1	-21.6	-32.6	-32.3	0.00	0.00	0.00
3,100.0		236.57	3,099.0	-24.2	-36.7	-36.3	0.00	0.00	0.00
3,200.0	2.78	236.57	3,198.8	-26.9	-40.7	-40.3	0.00	0.00	0.00
3,300.0	2.78	236.57	3,298.7	-29.6	-44.8	-44.3	0.00	0.00	0.00
3,400.0		236.57	3,398.6	-32.3	-48.9	-48.3	0.00	0.00	0.00
3,500.0		236.57	3,498.5	-34.9	-52.9	-52.3	0.00	0.00	0.00
3,600.0		236.57	3,598.4	-37.6	-57.0	-56.4	0.00	0.00	0.00
3,700.0		236.57	3,698.3	-40.3	-61.0	-60.4	0.00	0.00	0.00
3,800.0		236.57	3,798.1	-43.0	-65.1	-64.4	0.00	0.00	0.00
3,900.0		236.57	3,898.0	-45.6	-69.1	-68.4	0.00	0.00	0.00
4,000.0		236.57	3,997.9	-48.3	-73.2	-72.4	0.00	0.00	0.00
4,100.0		236.57	4,097.8	-51.0	-77.2	-76.4	0.00	0.00	0.00
4,200.0	2.78	236.57	4,197.7	-53.7	-81.3	-80.4	0.00	0.00	0.00
4,300.0	2.78	236.57	4,297.5	-56.3	-85.3	-84.4	0.00	0.00	0.00
4,400.0		236.57	4,397.4	-59.0	-89.4	-88.4	0.00	0.00	0.00
4,500.0		236.57	4,497.3	-61.7	-93.4	-92.5	0.00	0.00	0.00
4,600.0		236.57	4,597.2	-64.4	-93.4 -97.5	-96.5	0.00	0.00	0.00
4,700.0		236.57	4,697.1	-67.0	-101.5	-100.5	0.00	0.00	0.00
•									
4,800.0		236.57	4,797.0	-69.7	-105.6	-104.5	0.00	0.00	0.00
4,900.0		236.57	4,896.8	-72.4	-109.6	-108.5	0.00	0.00	0.00
5,000.0	2.78	236.57	4,996.7	-75.1	-113.7	-112.5	0.00	0.00	0.00

Hobbs Database: Company:

Project:

Site:

Mewbourne Oil Company

Eddy County, New Mexico NAD 83

Pinta 28/29 B3FE Fed Com #1H

Well: Sec 29, T20S, R27E BHL: 2100' FNL & 100' FEL (Sec 27) Wellbore:

Design: Design #1 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Site Pinta 28/29 B3FE Fed Com #1H Well @ 3242.0usft (Original Well) Well @ 3242.0usft (Original Well)

anned Survey									
·									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,100.0	2.78	236,57	5,096.6	- 77.7	-117.7	-116.5	0.00	0,00	0.00
5,200.0	2.78	236,57	5,196.5	- 80.4	-121.8	- 120.5	0.00	0.00	0.00
5,300.0	2.78	236,57	5,296.4	-83.1	-125.9	-124.5	0.00	0.00	0.00
5,400.0	2.78	236,57	5,396.2	-85.8	-129.9	-128.5	0.00	0.00	0.00
5,500.0	2.78	236.57	5,496.1	-88.4	-134.0	-132.6	0.00	0.00	0.00
5,600.0	2.78	236.57	5,596.0	-91.1	-138.0	-136.6	0.00	0.00	0.00
5,700.0	2.78	236.57	5,695.9	-93.8	-142.1	-140.6	0.00	0.00	0.00
5,800.0	2.78	236.57	5,795.8	-96.5	-146.1	-144.6	0.00	0.00	0.00
5,900.0	2.78	236,57	5,895.7	-99.1	-150.2	-148.6	0.00	0.00	0.00
6,000.0	2.78	236.57	5,995.5	-101.8	-154.2	-152.6	0.00	0.00	0.00
6,100.0	2.78	236.57	6,095.4	-104.5	-158.3	-156.6	0.00	0.00	0.00
6,200.0	2.78	236,57	6,195.3	-107.2	-162.3	-160.6	0.00	0.00	0.00
6,300.0	2.78	236.57	6,295.2	-109.8	-166.4	-164.6	0.00	0.00	0.00
6,400.0	2.78	236.57	6,395.1	-112.5	-170.4	-168.6	0.00	0.00	0.00
6,500.0	2.78	236.57	6,494.9	-115.2	-174.5	-172.7	0.00	0.00	0.00
6,600.0	2.78	236.57	6,594.8	-117.9	-178.5	-176.7	0.00	0.00	0.00
6,700.0	2.78	236.57	6,694.7	-120.6	-182.6	-180.7	0.00	0.00	0.00
6,800,0	2.78	236,57	6,794,6	-123.2	-186,6	-184.7	0.00	0.00	0.00
6,900,0	2.78	236.57	6,894.5	-125.9	-190.7	-188.7	0.00	0,00	0.00
6,983.5	2.78	236,57	6,977.9	-128.1	-194.1	-192.0	0.00	0.00	0.00
7,000,0	2.45	236.57	6,994.4	-128.6	-194.7	-192.7	2.00	-2.00	0.00
7,100.0	0.45	236.57	7,094.3	-130.0	-196.8	-194.8	2.00	-2.00	0.00
7,122.7	0.00	0.00	7,117.0	-130.0	-196.9	-194.8	2.00	-2.00	0.00
	FNL & 10' FWL (7,117.0	100.0	100.0	104.0	2.00	2.00	0.00
7,150.0	2.73	90.42	7,144.3	- 130.0	-196.2	- 194.2	9.99	9.99	0.00
7,200.0	7.73	90.42	7,194.1	-130.0	-191.7	-189.6	9.99	9.99	0.00
7,250,0	12.72	90.42	7,243.3	-130.1	-182.8	-180.8	9.99	9.99	0.00
7,300.0	17.72	90.42	7,291.5	- 130.2	-169.7	- 167.6	9.99	9.99	0.00
7,350.0	22.71	90.42	7,338.4	-130.3	-152.4	-150.4	9,99	9.99	0.00
7,400.0	27.71	90.42	7,383.6	-130.5	-131.1	-129.1	9.99	9.99	0.00
7,448.3	32.54	90.42	7,425.4	-130.7	-106.9	-104.8	9.99	9.99	0.00
	NL & 100' FWL		.,						
7,450.0	32.71	90.42	7,426.8	-130.7	-106.0	-103.9	9.99	9.99	0.00
7,500.0	37.70	90.42	7,467.7	-130.9	- 77.2	-75.1	9.99	9.99	0.00
7,550.0	42.70	90.42	7,505.9	-131.1	-44.9	- 42.9	9.99	9.99	0.00
7,550.0 7,600.0	42.70 47.69	90.42	7,505.9 7,541.1	-131.1 -131.4	-44.9 -9.5	-42.9 -7.4	9.99	9.99	0.00
7,650.0	52.69	90.42	7,573.1	-131.4	28.9	31.0	9.99	9.99	0.00
7,700.0	57.69	90.42	7,601.6	-131.9	70.0	72.0	9.99	9.99	0.00
7,750.0	62.68	90.42	7,626.5	-132.3	113.3	115.4	9.99	9.99	0.00
7,800.0	67.68	90.42	7,647.5	-132.6	158.7	160.8	9.99	9.99	0.00
7,850.0 7,900.0	72.67 77.67	90.42 90.42	7,664.4 7,677.2	-132.9 133.3	205.7 254.1	207.8 256.1	9.99 9.99	9.99 9.99	0.00
7,900.0 7,950.0	77.67 82.66	90.42 90.42	7,677.2 7,685.7	-133.3 -133.6	254.1 303.3	256.1 305.4	9.99 9.99	9.99 9.99	0.00 0.00
7,950.0 8,001.3	82.66 87.79	90.42	7,685.7 7,690.0	-133.6 -134.0	303.3 354.4	305.4 356.5	9.99	9.99 9.99	0.00
8,023.1	87.79	90.42	7,690.8	-134.2	376.2	378.2	0.00	0.00	0.00
	NL & 583' FWL (S	•	7 222 5	40.17	150.5	.== .	2.25	2.25	2.22
8,100.0	87.79	90.42	7,693.8	-134.7	453.0	455.1	0.00	0.00	0.00
8,200.0	87.79	90.42	7,697.7	-135.5	553.0	555.0 654.0	0.00	0.00	0.00
8,300.0	87.79 87.70	90.42	7,701.5	-136.2	652.9	654.9 754.0	0.00	0.00	0.00
8,400.0	87.79	90.42	7,705.4	-136.9	752.8	754.9	0.00	0.00	0.00
8,500.0	87.79	90.42	7,709.2	-137.6	852.7	854.8	0.00	0.00	0.00
8,600.0	87.79	90.42	7,713.1	-138.4	952.6	954.7	0.00	0.00	0.00
8,700.0	87.79	90.42	7,716.9	-139.1	1,052.6	1,054.6	0.00	0.00	0.00

Database: Hobbs

Company: Mewbourne Oil Company
Project: Eddy County, New Mexico NAD 83
Site: Pinta 28/29 B3FE Fed Com #1H

 Well:
 Sec 29, T20S, R27E

 Wellbore:
 BHL: 2100' FNL & 100' FEL (Sec 27)

Design: Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Site Pinta 28/29 B3FE Fed Com #1H Well @ 3242.0usft (Original Well) Well @ 3242.0usft (Original Well)

Grid

lanned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,800.0 8,900.0	87.79 87.79	90.42 90.42	7,720.8 7,724.7	-139.8 -140.5	1,152.5 1,252.4	1,154.5 1,254.5	0.00 0.00	0.00 0.00	0.00 0.00
9,000.0	87.79	90.42	7,728.5	-141.3	1,352.3	1,354.4	0.00	0.00	0.00
9,100.0	87.79	90.42	7,732.4	-142.0	1,452.3	1,454.3	0,00	0.00	0.00
9,200.0	87.79	90.42	7,736.2	-142.7	1,552.2	1,554.2	0.00	0.00	0.00
9,300.0	87.79	90.42	7,740.1	-143.4	1,652.1	1,654.2	0.00	0.00	0.00
9,400.0	87.79	90.42	7,743.9	-144.2	1,752.0	1,754.1	0.00	0.00	0.00
9,500.0	87.79	90.42	7,747.8	-144.9	1,851.9	1,854.0	0.00	0.00	0.00
9,600.0	87.79	90.42	7,751.6	-145.6	1,951.9	1,953.9	0.00	0.00	0.00
9,700.0	87.79	90.42	7,755.5	-146.3	2,051.8	2,053.8	0.00	0.00	0.00
9,800.0	87.79	90.42	7,759.4	-147.1	2,151.7	2,153.8	0.00	0.00	0.00
9,900.0	87.79	90.42	7,763.2	-147.8	2,251.6	2,253.7	0.00	0.00	0.00
10,000.0	87.79	90.42	7,767.1	-148.5	2,351.6	2,353.6	0.00	0.00	0.00
10,100.0	87.79	90.42	7,770.9	-149.3	2,351.6	2,353.6	0.00	0.00	0.00
10,100.0	87.79	90.42	7,770.9	-150.0	2,451.5	2,453.5	0.00	0.00	0.00
,									
10,300.0	87.79	90.42	7,778.6	-150.7	2,651.3	2,653.4	0.00	0.00	0.00
10,400.0	87.79	90.42	7,782.5	-151.4	2,751.3	2,753.3	0.00	0.00	0.00
10,500,0	87.79	90.42	7,786.3	-152.2	2,851,2	2,853.2	0.00	0.00	0.00
10,600.0	87.79	90,42	7,790,2	-152.9	2,951,1	2,953.1	0.00	0,00	0.00
10,700.0	87.79	90.42	7,794.1	-153.6	3,051,0	3,053,1	0.00	0.00	0.00
10,800,0	87,79	90.42	7,797.9	-154.3	3,150,9	3,153.0	0.00	0.00	0.00
10,900.0	87.79	90,42	7,801,8	-155.1	3,250.9	3,252,9	0.00	0.00	0.00
11,000.0	87.79	90.42	7,805.6	-155.8	3,350.8	3,352.8	0.00	0.00	0.00
11,100.0	87.79	90.42	7,809.5	-156.5	3,450.7	3,452.8	0.00	0.00	0.00
11,200.0	87.79	90.42	7,813.3	-157.2	3,550.6	3,552.7	0.00	0.00	0.00
11,300.0	87.79	90.42	7,817.2	-158.0	3,650.6	3,652.6	0.00	0.00	0.00
11,400.0	87.79	90.42	7,821.0	-158.7	3,750.5	3,752.5	0.00	0.00	0.00
11,500.0	87.79	90,42	7,824.9	-159.4	3,850.4	3,852.4	0.00	0.00	0.00
11,600.0	87.79	90.42	7,828.8	-160.2	3,950,3	3,952.4	0.00	0.00	0.00
11,700.0	87.79	90,42	7,832.6	-160.9	4,050.3	4,052,3	0.00	0,00	0.00
11,800.0	87.79	90.42	7,836.5	-161.6	4,150.2	4,152.2	0.00	0.00	0.00
11,900.0	87.79	90.42	7,840.3	-162.3	4,250.1	4,252.1	0.00	0.00	0.00
12,000.0	87.79	90.42	7,844.2	-163.1	4,350.0	4,352.0	0.00	0.00	0.00
12,100.0	87.79	90.42	7,848.0	-163.8	4,449.9	4,452.0	0.00	0.00	0.00
12,200.0	87.79	90.42	7,851.9	-164.5	4,549.9	4,551.9	0.00	0.00	0.00
12,300.0	87.79	90.42	7,855.7	-165.2	4,649.8	4,651.8	0.00	0.00	0.00
12,400.0	87.79	90.42	7,859.6	-166.0	4,749.7	4,751.7	0.00	0.00	0.00
12,500,0	87.79	90.42	7,863.5	-166.7	4,849.6	4,851,7	0.00	0.00	0.00
12,600,0	87.79	90,42	7,867,3	-167.4	4,949,6	4,951,6	0.00	0.00	0,00
12,700,0		90.42	7,871.2	-168.1	5,049.5	5,051,5	0.00	0.00	0.00
12,715,7		90.42	7,871.8	-168.3	5,065.2	5,067.2	0.00	0.00	0.00
,)' FNL & 0' FEL (S		. ,57 113	, 55,5	-,00012	2,00.12	0,00	5,55	0,00
12,800.0	87.79	90.42	7,875.0	-168.9	5,149.4	5,151.4	0.00	0.00	0.00
,									
12,900.0	87.79	90.42	7,878.9	- 169.6	5,249.3	5,251.3	0.00	0.00	0.00
13,000.0	87.79	90.42	7,882.7	- 170.3	5,349.3	5,351.3	0.00	0.00	0.00
13,100.0	87.79	90.42	7,886.6	- 171.0	5,449.2	5,451.2	0.00	0.00	0.00
13,200.0	87.79	90.42	7,890.5	- 171.8	5,549.1	5,551.1	0.00	0.00	0.00
13,300.0	87.79	90.42	7,894.3	- 172.5	5,649.0	5,651.0	0.00	0.00	0.00
13,400.0	87.79	90.42	7,898.2	-173.2	5,748.9	5,751.0	0.00	0.00	0.00
13,400.0						5,751.0			
13,500.0	87.79 87.70	90.42	7,902.0	-174,0 174.7	5,848.9		0.00	0.00	0.00
, .	87.79	90,42	7,905.9	-174.7	5,948.8	5,950.8	0.00	0.00	0,00
13,700.0 13,800.0	87.79 87.79	90,42	7,909.7	-175.4	6,048.7	6,050,7	0.00	0.00	0,00
		90,42	7,913,6	-176.1	6,148,6	6,150,6	0,00	0.00	0.00

Database: Hobbs

Company: Mewbourne Oil Company
Project: Eddy County, New Mexico NAD 83

 Site:
 Pinta 28/29 B3FE Fed Com #1H

 Well:
 Sec 29, T20S, R27E

Wellbore: BHL: 2100' FNL & 100' FEL (Sec 27)

Design: Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Site Pinta 28/29 B3FE Fed Com #1H Well @ 3242.0usft (Original Well) Well @ 3242.0usft (Original Well)

Grid

nned Survey									
Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth (usft)	Inclination (°)	Azimuth (°)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Section (usft)	Rate (°/100usft)	Rate (°/100usft)	Rate (°/100usft)
13,900.0	87.79	90,42	7,917.4	-176.9	6,248,6	6,250,6	0.00	0.00	0.00
14,000.0	87.79	90.42	7,921.3	-177.6	6,348.5	6,350.5	0.00	0.00	0.00
14,100.0	87.79	90.42	7,925.2	-178.3	6,448.4	6,450.4	0.00	0.00	0.00
14,200.0	87.79	90.42	7,929.0	-179.0	6,548.3	6,550.3	0.00	0.00	0.00
14,300.0	87.79	90.42	7,932.9	-179.8	6,648.3	6,650.3	0.00	0.00	0.00
14,300.0	01.19	90,42	1,932.9	-179.0	0,040.3	6,630.3	0.00	0,00	0,00
14,400.0	87.79	90.42	7,936.7	-180.5	6,748.2	6,750.2	0.00	0.00	0.00
14,500.0	87.79	90.42	7,940.6	-181.2	6,848.1	6,850.1	0.00	0.00	0.00
14,600,0	87.79	90.42	7,944.4	-181.9	6,948.0	6,950.0	0.00	0.00	0.00
14,700.0	87.79	90.42	7,948.3	-182.7	7,047.9	7,049.9	0.00	0.00	0.00
14,800.0	87.79	90.42	7,952.1	-183.4	7,147.9	7,149.9	0.00	0.00	0.00
14,900.0	87.79	90.42	7,956.0	-184.1	7,247.8	7,249.8	0.00	0.00	0.00
15,000.0	87.79	90.42	7,959.9	-184.8	7,347.7	7,349.7	0.00	0.00	0.00
15,100.0	87.79	90.42	7,963.7	-185.6	7,447.6	7,449.6	0.00	0.00	0.00
15,200,0	87.79	90,42	7,967.6	-186.3	7,547.6	7,549.6	0.00	0.00	0.00
15,300.0	87.79	90.42	7,971.4	-187.0	7,647.5	7,649.5	0.00	0.00	0.00
15,373.6	87.79	90.42	7,974.3	-187.6	7,721.1	7,723.1	0.00	0.00	0.00
PPP3: 2100'	FNL & 2640' FW	/L (Sec 28)							
15,400.0	87.79	90.42	7,975.3	-187.8	7,747.4	7,749.4	0.00	0.00	0.00
15,500.0	87.79	90.42	7,979.1	- 188.5	7,847.3	7,849.3	0.00	0.00	0.00
15,600.0	87.79	90.42	7,983.0	-189.2	7,947.3	7,949.2	0.00	0.00	0.00
15,700.0	87.79	90.42	7,986.8	-189.9	8,047.2	8,049.2	0.00	0.00	0.00
10,700.0		00.4Z	7,000.0	-100.0	0,047.2	0,040.2	0.00	0.00	0.00
15,800.0	87.79	90.42	7,990.7	- 190.7	8,147.1	8,149.1	0.00	0.00	0.00
15,900.0	87.79	90.42	7,994.6	- 191.4	8,247.0	8,249.0	0.00	0.00	0.00
16,000.0	87.79	90.42	7,998.4	- 192.1	8,346.9	8,348.9	0.00	0.00	0.00
16,100.0	87.79	90.42	8,002.3	- 192.8	8,446.9	8,448.9	0.00	0.00	0.00
16,200.0	87.79	90.42	8,006.1	-193.6	8,546.8	8,548.8	0.00	0.00	0.00
16,300.0	87 <u>.</u> 79	90.42	8,010.0	- 194.3	8,646.7	8,648.7	0.00	0.00	0.00
16,400.0	87.79	90.42	8,013.8	- 195.0	8,746.6	8,748.6	0.00	0.00	0.00
16,500.0	87.79	90.42	8,017.7	- 195.7	8,846.6	8,848.5	0.00	0.00	0.00
16,600.0	87 <u>.</u> 79	90.42	8,021.5	- 196.5	8,946.5	8,948.5	0.00	0.00	0.00
16,700.0	87.79	90.42	8,025.4	- 197.2	9,046.4	9,048.4	0.00	0.00	0.00
16,800.0	87.79	90.42	8,029.3	-197.9	9,146.3	9,148.3	0.00	0.00	0.00
16,900.0	87.79	90.42	8,033.1	-198.7	9,246.3	9,248.2	0.00	0.00	0.00
17,000.0	87.79	90.42	8,037.0	-199.4	9,346.2	9,348.2	0.00	0.00	0.00
17,100.0	87.79	90.42	8,040.8	-200.1	9,446.1	9,448.1	0.00	0.00	0.00
17,200.0	87.79	90.42	8,044.7	-200.8	9,546.0	9,548.0	0.00	0.00	0.00
17,300.0	87.79	90.42	8,048.5	-201.6	9,645.9	9,647.9	0.00	0.00	0.00
17,400.0	87.79	90.42	8,052.4	-202.3	9,745.9	9,747.8	0.00	0.00	0.00
17,500.0	87.79	90.42	8,056.2	-203.0	9,845.8	9,847.8	0.00	0.00	0.00
17,600.0	87.79	90.42	8,060.1	-203.7	9,945.7	9,947.7	0.00	0.00	0.00
17,700.0	87.79	90.42	8,064.0	- 204.5	10,045.6	10,047.6	0.00	0.00	0.00
17,800.0	87.79	90.42	8,067.8	-205.2	10,145.6	10,147.5	0.00	0.00	0.00
17,800.0	87.79	90.42	8,071.7	-205.9	10,145.5	10,147.5	0.00	0.00	0.00
18,000.0	87.79	90.42	8,075.5		10,245.5	10,247.5	0.00	0.00	0.00
				-206.6					
18,100.0	87.79	90.42	8,079.4	-207.4	10,445.3	10,447.3	0.00	0.00	0.00
18,200.0	87.79	90.42	8,083.2	-208.1	10,545.2	10,547.2	0.00	0.00	0.00
18,300.0	87.79	90.42	8,087.1	- 208.8	10,645.2	10,647.1	0.00	0.00	0.00
18,400.0	87.79	90.42	8,091.0	-209.5	10,745.1	10,747.1	0.00	0.00	0.00
18,500.0	87.79	90.42	8,094.8	-210.3	10,845.0	10,747.1	0.00	0.00	0.00
18,600.0	87.79	90.42					0.00	0.00	
			8,098.7 8,103.5	-211.0	10,944.9	10,946.9			0.00
18,700.0	87.79	90.42	8,102.5	-211.7	11,044.9	11,046.8	0.00	0.00	0.00
18,800.0	87.79	90,42	8,106.4	-212.5	11,144.8	11,146,8	0.00	0.00	0.00
18,900.0	87.79	90.42	8,110.2	-213.2	11,244.7	11,246.7	0.00	0.00	0.00
	5,,,0	00,12	8,114.1	-213.9	11,344.6	11,346.6	0.00	0.00	0.00

Database: Hobbs

Company: Mewbourne Oil Company

Project: Eddy County, New Mexico NAD 83
Site: Pinta 28/29 B3FE Fed Com #1H

Well: Sec 29, T20S, R27E

Wellbore: BHL: 2100' FNL & 100' FEL (Sec 27)

Design: Design #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Site Pinta 28/29 B3FE Fed Com #1H Well @ 3242.0usft (Original Well) Well @ 3242.0usft (Original Well)

Grid

d Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
19,100.0	87.79	90.42	8,117.9	-214.6	11,444.6	11,446,5	0.00	0.00	0.00
19,200.0	87.79	90,42	8,121.8	-215.4	11,544.5	11,546.4	0.00	0.00	0.00
19,300.0	87.79	90.42	8,125.7	-216.1	11,644.4	11,646.4	0.00	0.00	0.00
19,400.0	87.79	90.42	8,129.5	-216.8	11,744.3	11,746.3	0.00	0.00	0.00
19,500.0	87.79	90.42	8,133.4	-217.5	11,844.2	11,846.2	0.00	0.00	0.00
19,600.0	87.79	90.42	8,137.2	-218.3	11,944.2	11,946.1	0.00	0.00	0.00
19,700.0	87 <u>.</u> 79	90.42	8,141.1	-219.0	12,044.1	12,046.0	0.00	0.00	0.00
19,800.0	87.79	90.42	8,144.9	-219.7	12,144.0	12,146.0	0.00	0.00	0.00
19,900.0	87.79	90,42	8,148.8	-220.4	12,243.9	12,245.9	0.00	0.00	0.00
20,000.0	87.79	90.42	8,152.6	-221.2	12,343.9	12,345.8	0.00	0.00	0.00
20,100.0	87.79	90.42	8,156.5	-221.9	12,443.8	12,445.7	0.00	0.00	0.00
20,200.0	87.79	90.42	8,160.4	-222.6	12,543.7	12,545.7	0.00	0.00	0.00
20,300.0	87.79	90.42	8,164.2	-223.4	12,643.6	12,645.6	0.00	0.00	0.00
20,400.0	87.79	90.42	8,168.1	-224.1	12,743.6	12,745.5	0.00	0.00	0.00
20,500.0	87.79	90.42	8,171.9	-224.8	12,843.5	12,845.4	0.00	0.00	0.00
20,600.0	87.79	90.42	8,175.8	-225.5	12,943.4	12,945.3	0.00	0.00	0.00
20,700.0	87.79	90.42	8,179.6	-226.3	13,043.3	13,045.3	0.00	0.00	0.00
20,800,0	87.79	90,42	8,183,5	-227.0	13,143,2	13,145,2	0,00	0,00	0.00
20,900.0	87.79	90,42	8,187.3	-227.7	13,243.2	13,245,1	0.00	0.00	0.00
21,000.0	87.79	90,42	8,191,2	-228.4	13,343,1	13,345.0	0.00	0.00	0.00
21,100.0	87.79	90,42	8,195.1	-229.2	13,443.0	13,445.0	0.00	0.00	0.00
21,200.0	87.79	90,42	8,198.9	-229.9	13,542.9	13,544.9	0.00	0,00	0.00
21,300.0	87.79	90.42	8,202.8	-230.6	13,642.9	13,644.8	0.00	0.00	0.00
21,400.0	87.79	90.42	8,206.6	-231.3	13,742.8	13,744.7	0.00	0.00	0.00
21,500.0	87.79	90.42	8,210.5	-232.1	13,842.7	13,844.6	0.00	0.00	0.00
21,600.0	87.79	90.42	8,214.3	-232.8	13,942.6	13,944.6	0.00	0.00	0.00
21,700.0	87.79	90.42	8,218.2	-233.5	14,042.6	14,044.5	0.00	0.00	0.00
21,800,0	87.79	90,42	8,222.0	-234.2	14,142.5	14,144.4	0,00	0.00	0.00
21,900.0	87.79	90.42	8,225.9	-235.0	14,242.4	14,244.3	0.00	0.00	0.00
22,000.0	87.79	90,42	8,229,8	-235.7	14,342.3	14,344.3	0.00	0.00	0.00
22,100,0	87.79	90,42	8,233.6	-236.4	14,442.2	14,444.2	0.00	0.00	0.00
22,200.0	87.79	90,42	8,237,5	-237.2	14,542.2	14,544.1	0,00	0,00	0.00
22,300.0	87.79	90.42	8,241.3	-237.9	14,642.1	14,644.0	0.00	0.00	0.00
22,400.0	87.79	90.42	8,245.2	-238.6	14,742.0	14,743.9	0.00	0.00	0.00
22,500.0	87.79	90.42	8,249.0	-239.3	14,841.9	14,843.9	0.00	0.00	0.00
22,600.0	87.79	90.42	8,252.9	-240.1	14,941.9	14,943.8	0.00	0.00	0.00
22,700.0	87.79	90.42	8,256.7	-240.8	15,041.8	15,043.7	0.00	0.00	0.00
22,800.0	87.79	90.42	8,260.6	-241.5	15,141.7	15,143.6	0.00	0.00	0.00
22,900.0	87.79	90,42	8,264.5	-242.2	15,241.6	15,243.6	0.00	0.00	0.00
23,000.0	87.79	90.42	8,268.3	-243.0	15,341.6	15,343.5	0.00	0.00	0.00
23,100.0	87.79	90.42	8,272.2	-243.7	15,441.5	15,443.4	0.00	0.00	0.00
23,200.0	87.79	90.42	8,276.0	-244.4	15,541.4	15,543,3	0.00	0.00	0.00
23,225.2	87.79	90.42	8,277.0	-244.6	15,566.6	15,568.5	0.00	0.00	0.00
BHI · 2100' F	NL & 100' FEL (Sec 27)							

Database: Hobbs

Company: Mewbourne Oil Company

Project: Eddy County, New Mexico NAD 83
Site: Eddy County, New Mexico NAD 83
Site: Pinta 28/29 B3FE Fed Com #1H

Well: Sec 29, T20S, R27E

Wellbore: BHL: 2100' FNL & 100' FEL (Sec 27)

Design: Design #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Site Pinta 28/29 B3FE Fed Com #1H

Well @ 3242.0usft (Original Well) Well @ 3242.0usft (Original Well)

Grid

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL: 1970' FNL & 355' F - plan hits target cente - Point	0.00 er	0.00	0.0	0.0	0.0	562,556.00	548,116.30	32 5465234	-104.3108473
KOP: 2100' FNL & 10' F\ - plan hits target cente - Point	0,00 er	0,00	7,117.0	-130.0	-196.9	562,426,00	547,919.40	32,5461646	-104.3119730
FTP: 2100' FNL & 100' F - plan misses target c - Point	0.00 enter by 0.1u	0.00 sft at 7448.3	7,425.4 Susft MD (74	-130.7 25.4 TVD, -13	-106.9 0.7 N , -106.9	562,425.30 E)	548,009.42	32,5461626	-104.3116808
LP: 2100' FNL & 583' FV - plan hits target cente - Point	0.00 er	0.00	7,690.8	-134.2	376.2	562,421.84	548,492.47	32.5461528	-104.3101132
PPP2: 2100' FNL & 0' Ft - plan hits target cente - Point	0.00 er	0.00	7,871.8	- 168.3	5,065.2	562,387.75	553,181.47	32.5460553	- 104.2948960
PPP3: 2100' FNL & 264(- plan hits target cente - Point	0.00 er	0.00	7,974.3	- 187 <u>.</u> 6	7,721.1	562,368.44	555,837.36	32.5459993	- 104.2862768
BHL: 2100' FNL & 100' F - plan hits target cente - Point	0.00 er	0.00	8,277.0	- 244.6	15,566.6	562,311.40	563,682.90	32,5458305	-104,2608157

Mewbourne Oil Company, Pinta 28/29 B3FE Fed Com #1H Sec 29, T20S, R27E

SHL: 1970' FNL 355' FWL (Sec 29) BHL: 2100' FNL 100' FEL (Sec 27)

Operator Name:	Property Name:	Well Number
Mewbourne Oil Company	Pinta 28/29 B3FE Fed Com	#1H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
E	29	20	27	-	2100'	FNL	10'	FWL	Eddy
		Latitude				Long	itude		NAD
32.5461646	5				-104.31197	730			83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Е	29	20	27	-	2100'	FNL	100'	FWL	Eddy
		Latitude				Long	itude		NAD
32.5461626	5				-104.31168	308			83

Last Take Point (LTP)

ment remit	CIIII (EII	,							
UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Н	27	20	27	_	2100'	FNL	100'	FEL	Eddy
		Latitude				Long	itude		NAD
32.5458321					-104.26081	54			83

Is this well the defining well for the Horizontal Is this well an infill well?	Spacing Unit? Y	
If infill is yes please provide API if available, C Spacing Unit.	perator Name and well number for Defining well for Horizontal	
API #		
Operator Name:	Property Name:	Well Number

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: MEWBOURNE OIL COMPANY PINTA 28/29 B3FE FED COM 1H WELL NAME & NO.:

> APD ID: 10400090502

LOCATION: Section 29, T.20 S., R.27 E. NMP.

COUNTY: Eddy County, New Mexico

COA

H ₂ S	0	No	• Yes			
Potash /	None	O Secretary	O R-111-Q	☐ Open Annulus		
WIPP				□ WIPP		
Cave / Karst	O Low	O Medium	• High	Critical		
Wellhead	Conventional	Multibowl	O Both	Diverter		
Cementing	☐ Primary Squeeze	☐ Cont. Squeeze	☐ EchoMeter	DV Tool		
Special Req	☐ Capitan Reef	☐ Water Disposal	✓ COM	☐ Unit		
Waste Prev.	Self-Certification	O Waste Min. Plan	• APD Submitted 1	prior to 06/10/2024		
Additional	▼ Flex Hose	☐ Casing Clearance	☐ Pilot Hole	Break Testing		
Language	☐ Four-String	Offline Cementing	☐ Fluid-Filled			

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H₂S) Drilling Plan shall be activated **AT SPUD**. As a result, the Hydrogen Sulfide area must meet 43 CFR 3176 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING DESIGN

Note: Only the alternate casing design was approved at this time.

Casing Design B

- 1. The 20 inch surface casing shall be set at approximately 350 ft. and cemented to the surface. Rustler is at surface; BLM accepts Tansill/Yates as competent bed for surface casing set point for this well. If Salt is encountered, set the casing at least 25 ft. above the salt.
 - 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 psi 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 psi compressive strength, whichever is
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The 13-3/8 inch 1st intermediate casing shall be set in a competent bed at approximately 1,250 ft. The minimum required fill of cement behind the 13-3/8 inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to Cave/Karst.
 - ❖ 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.

Note: the 2nd intermediate casing set depth was adjusted per BLM geologist's recommendation. "The operator proposes to set the intermediate casing to a depth of 2,100'. BLM accepts 2050' the base of Capitan Reef formation minus 150'; BLM accepts the APD well casing set depth and rock type."

- 3. The 9-5/8 inch 2nd intermediate casing shall be set in a competent bed at approximately 2,050 ft. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:
 - Option 1 (Single Stage): Cement should tie-back at least 200 feet into the previous casing. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.
 - **Option 2 (Two-Stage):** The operator has proposed to utilize a DV tool. Operator may adjust depth of DV tool if needed, adjust cement volumes accordingly. 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 should tie-back at least 200 feet into the previous casing. If cement does not circulate see B.1.a, c-d above. Wait

on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.

4. Operator has proposed to set 7" (26# HCP-110) production casing at approximately **8,023 ft.** (7,691 ft. TVD). The minimum required fill of cement behind the 7 inch production casing is:

Option 1 (Single Stage): Cement should tie-back at least **200 feet** into the previous casing. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, and Capitan Reef.

Option 2 (Two-Stage): The operator has proposed to utilize a DV tool. Operator may adjust depth of DV tool if needed, adjust cement volumes accordingly. 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 should tie-back at least 200 feet into the previous casing, whichever is greater. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, and Capitan Reef.
- 5. The minimum required fill of cement behind the 4-1/2 inch production liner is:
 - Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification.

Offline Cementing

Operator has been **(Approved)** to pump the proposed cement program offline in the **Surface and intermediate(s) intervals**. Offline cementing should commence within 24 hours of landing the casing for the interval. Notify the BLM 4hrs prior to the commencement of any offline cementing procedure at **Eddy County:** 575-361-2822.

C. 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. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. 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. Before drilling the surface casing shoe out, the BOP/BOPE shall be pressure-tested in accordance with title 43 CFR 3172 and API Standard 53.

- 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 the title 43 CFR 3172.6(b)(9) must be followed.

BOPE Break Testing Variance

- BOPE Break Testing is ONLY permitted for intervals utilizing a 5M BOPE or less. (Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP.)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-361-2822 Eddy County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per 43 CFR 3172.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

• The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New

Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.

- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

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)

Contact Eddy County Petroleum Engineering Inspection Staff:

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220; **BLM_NM_CFO_DrillingNotifications@BLM.GOV**; (575) 361-2822.

- 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
 - i. Notify the BLM when moving in and removing the Spudder Rig.
 - ii. 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.
 - iii. BOP/BOPE test to be conducted per **43 CFR 3172** 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 doghouse or stairway area.
- 3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

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.
- 2. Wait on cement (WOC) for Potash Areas: 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 of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: 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 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity 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-Q 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 43 CFR 3172.
- 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:
 - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - ii. 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.
 - iii. Manufacturer representative shall install the test plug for the initial BOP test.
 - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
 - v. 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.

- **5.** The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - i. 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 cement), 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).
 - ii. 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 cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (Only applies to single stage cement jobs, prior to the cement setting up.)
 - iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - iv. 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.
 - v. The results of the test shall be reported to the appropriate BLM office.
 - vi. 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.
 - vii. 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 if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

viii. 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 43 CFR 3172.

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 crewintensive operations.

SA 09/13/2024

Hydrogen Sulfide Drilling Operations Plan Mewbourne Oil Company

1. General Requirements

Rule 118 does not apply to this well because MOC has researched this area and no high concentrations of H2S were found. MOC will have on location and working all H2S safety equipment before the Delaware formation for purposes of safety and insurance requirements.

2. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will have received training from a qualified instructor in the following areas prior to entering the drilling pad area of the well:

- 1. The hazards and characteristics of hydrogen sulfide gas.
- 2. The proper use of personal protective equipment and life support systems.
- 3. The proper use of hydrogen sulfide detectors, alarms, warning systems, briefing areas, evacuation procedures.
- 4. The proper techniques for first aid and rescue operations.

Additionally, supervisory personnel will be trained in the following areas:

- The effects of hydrogen sulfide on metal components. If high tensile tubular systems are utilized, supervisory personnel will be trained in their special maintenance requirements.
- 2 Corrective action and shut in procedures, blowout prevention, and well control procedures while drilling a well.
- The contents of the Hydrogen Sulfide Drilling Operations Plan.

There will be an initial training session prior to encountering a know hydrogen sulfide source. The initial training session shall include a review of the site specific Hydrogen Sulfide Drilling Operations Plan.

3. Hydrogen Sulfide Safety Equipment and Systems

All hydrogen sulfide safety equipment and systems will be installed, tested, and operational prior to drilling below the 9 5/8" intermediate casing.

1. Well Control Equipment

- A. Choke manifold with minimum of one adjustable choke/remote choke.
- B. Blowout preventers equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- C. Auxiliary equipment including annular type blowout preventer.
- 2. <u>Protective Equipment for Essential Personnel</u>

Thirty minute self contained work unit located in the dog house and at briefing areas.

Additionally: If H2S is encountered in concentrations less than 10 ppm, fans will be placed in work areas to prevent the accumulation of hazardous amounts of poisonous gas. If higher concentrations of H2S are detected the well will be shut in and a rotating head, mud/gas separator, remote choke and flare line with igniter will be installed.

3. <u>Hydrogen Sulfide Protection and Monitoring Equipment</u>

Two portable hydrogen sulfide monitors positioned on location for optimum coverage and detection. The units shall have audible sirens to notify personnel when hydrogen sulfide levels exceed 20 PPM.

4. Visual Warning Systems

- A. Wind direction indicators as indicated on the wellsite diagram.
- B. Caution signs shall be posted on roads providing access to location. Signs shall be painted a high visibility color with lettering of sufficient size to be readable at reasonable distances from potentially contaminated areas.

4. Mud Program

The mud program has been designed to minimize the amount of hydrogen sulfide entrained in the mud system. Proper mud weight, safe drilling practices, and the use of hydrogen sulfide scavengers will minimize hazards while drilling the well.

5. Metallurgy

All tubular systems, wellheads, blowout preventers, drilling spools, kill lines, choke manifolds, and valves shall be suitable for service in a hydrogen sulfide environment when chemically treated.

6. Communications

State & County Officials phone numbers are posted on rig floor and supervisors trailer. Communications in company vehicles and toolpushers are either two way radios or cellular phones.

7. Well Testing

Drill stem testing is not an anticipated requirement for evaluation of this well. If a drill stem test is required, it will be conducted with a minimum number of personnel in the immediate vicinity. The test will be conducted during daylight hours only.

8. Emergency Phone Numbers

Eddy County Sheriff's Office	911 or 575-887-7551
Ambulance Service	911 or 575-885-2111
Carlsbad Fire Dept	911 or 575-885-2111
Loco Hills Volunteer Fire Dept.	911 or 575-677-3266
Closest Medical Facility - Columbia Medical Center	of Carlsbad 575-492-5000

Mewbourne Oil Company	Hobbs District Office Fax 2 nd Fax	575-393-5905 575-397-6252 575-393-7259
District Manager	Robin Terrell	575-390-4816
Drilling Superintendent	Frosty Lathan	575-390-4103
	Bradley Bishop	575-390-6838
Drilling Foreman	Wesley Noseff	575-441-0729

Operator Name: MEWBOURNE OIL COMPANY

Well Name: PINTA 28/29 B3FE FED COM Well Number: 1H

Disposal location description: City of Carlsbad Water Treatment facility

Waste type: GARBAGE

Waste content description: Garbage & trash

Amount of waste: 1500 pounds

Waste disposal frequency: One Time Only

Safe containment description: Enclosed trash trailer

Safe containment attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: PRIVATE

FACILITY

Disposal type description:

Disposal location description: Waste Management facility in Carlsbad.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) Reserve pit width (ft.)

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? N

Description of cuttings location

Cuttings area length (ft.) Cuttings area width (ft.)

Cuttings area depth (ft.) Cuttings area volume (cu. yd.)

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Operator Name: MEWBOURNE OIL COMPANY

Well Name: PINTA 28/29 B3FE FED COM Well Number: 1H

Section 8 - Ancillary

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities

Comments:

Section 9 - Well Site

Well Site Layout Diagram:

Pinta28_29B3FEFedCom_1H_wellsitelayout_20240823105450.pdf

Comments: NONE

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance Multiple Well Pad Name: Pinta 28/29 CD, FE, KL,

Multiple Well Pad Number: 3

Recontouring

Drainage/Erosion control construction: None

Drainage/Erosion control reclamation: None

Well pad proposed disturbance Well pad interim reclamation (acres): Well pad long term disturbance

(acres): 4.04 1.07 (acres): 2.97

Road proposed disturbance (acres): Road interim reclamation (acres): 0 Road long term disturbance (acres): 0

0.33

Powerline proposed disturbance Powerline interim reclamation (acres): Powerline long term disturbance

(acres): 0 (acres): 0

Pipeline proposed disturbance Pipeline interim reclamation (acres): 0 Pipeline long term disturbance

(acres): 0

Other proposed disturbance (acres): 0 Other interim reclamation (acres): 0 Other long term disturbance (acres): 0

Total proposed disturbance: 4.37 Total interim reclamation: 1.07 Total long term disturbance: 2.97

Disturbance Comments: In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils. Contaminated soil will not be stockpiled, but properly treated and handled prior to topsoil salvaging.

Reconstruction method: The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.

Topsoil redistribution: Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used.

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 392535

CONDITIONS

Operator:	OGRID:
MEWBOURNE OIL CO	14744
P.O. Box 5270 Hobbs, NM 88241	Action Number: 392535
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	11/12/2024
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	11/12/2024
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	11/12/2024
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing.	11/12/2024
ward.rikala	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	11/12/2024
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	11/12/2024
ward.rikala	Prior to production of this well a change to the well name/number is required to comply with the OCD well naming convention.	11/12/2024