HOBS OCD

Carlsbad Field Office OCD Hobbs

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Form 3160-3 AUG 1 6 2018 (March 2012)

UNITED STATES

RECEIVED PARTMENT OF THE INTERIOR

OMB No. 1004-0137 Expires October 31, 2014

BUREAU OF LAND MANA				NMNM113422 <	
		DECUTED		6. If Indian, Allotee	or Tribe Name
APPLICATION FOR PERMIT TO DI	RILL OR	REENTER			
ia. Type of work: ✓ DRILL REENTER				7 If Unit or CA Agre	ement, Name and No.
lb. Type of Well: Oil Well Gas Well Other	Sin	gle Zone Multip	le Zone	8. Lease Name and V DR-IRELAND FEDI	
2. Name of Operator MATADOR PRODUCTION COMPANY	3 28	737)		9. APP Well-No.	45123
5.00 (5.00)	Phone No.972)371-5.	(include area code)		10. Field and Pool, or E BONESPRING / At	Exploratory 2200 NTELOPE RIDGE; BS
4. Location of Well (Report location clearly and in accordance with any S	State requireme	ints.*)		11. Sec., T. R. M. or B	lk. and Survey or Area
At surface SESW / 513 FSL / 1900 FWL / LAT 32.2842513	3 / LONG -	103.409 <u>0541</u>		SEC 19 / T23S / R3	BSE / NMP
At proposed prod. zone NENW / 240 FNL / 1650 FWL / LAT 3	32.296703	6 / LONG -103:409	8653	>	
14. Distance in miles and direction from nearest town or post office*				12. County or Parish LEA	13. State NM
location to page set	16. No. of ac	eres in lease	17. Spacin 159.95	g Unit dedicated to this v	vell
to nearest well, drilling, completed, 30 feet	19: Proposed 10500 feet	Depth 7 15283 feet		BIA Bond No. on file MB001079	
		nate date work will star	t*	23. Estimated duration	1
3389 feet	12/01/2011	3/		25 days	
	24. Attac	hments .			
The following, completed in accordance with the requirements of Onshore	Oil and Gas (Order No.1, must be at	tached to the	s form:	
Well plat certified by a registered surveyor. A Drilling Plan.		4. Bond to cover the ltem 20 above).	ne operation	ns unless covered by an	existing bond on file (see
3. A Surface Use Plan (if the location is on National Forest System La SUPO must be filed with the appropriate Forest Service Office).	nds, the	Operator certific Such other site BLM.		ormation and/or plans as	may be required by the
25. Signature	2	(Printed/Typed)			Date
(Electronic Submission)	Lara	hompson / Ph: (50	05)254-11	15	03/09/2018
Title Assistant Project Manager					
Approved by (Signature) (Electronic Submission)	I	(Printed/Typed) _ayton / Ph: (575)2	34-5959		Date 07/13/2018
Title Assistant Field Manager Lands & Minerals	Office CARL	SBAD			
Application approval does not warrant or certify that the applicant holds I conduct operations thereon. Conditions of approval, if any, are attached.	egal or equit	able title to those right	ts in the sub	ject lease which would e	ntitle the applicant to
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crim States any false, fictitious or fraudulent statements or representations as to a			rillfully to m	ake to any department o	r agency of the United

(Continued on page 2)

GCP Rec 08/16/18

APPROVED WITH CONDITIONS
APPROVED WITH CONDITIONS
APPROVED WITH CONDITIONS

*(Instructions on page 2)

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INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2:48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts. ROUTINE USE: Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to-civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to allow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

(Continued on page 3) (Form 3160-3, page 2)

Approval Date: 07/13/2018

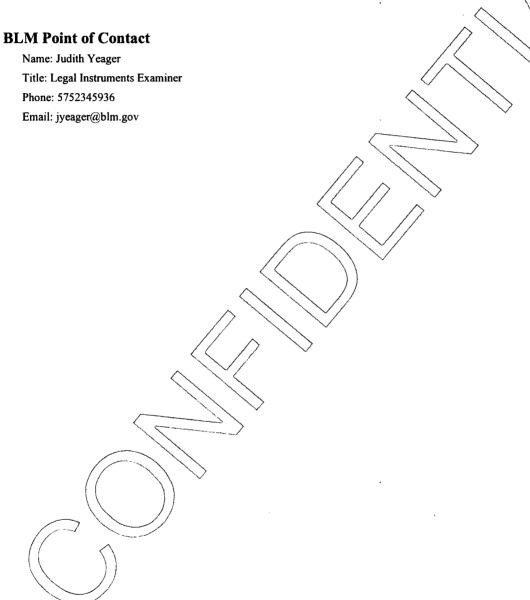
Additional Operator Remarks

Location of Well

1. SHL: SESW / 513 FSL / 1900 FWL / TWSP: 23S / RANGE: 35E / SECTION: 19 / LAT: 32.2842513 / LONG: -103.4090541 (TVD: 0 feet, MD: 0 feet)

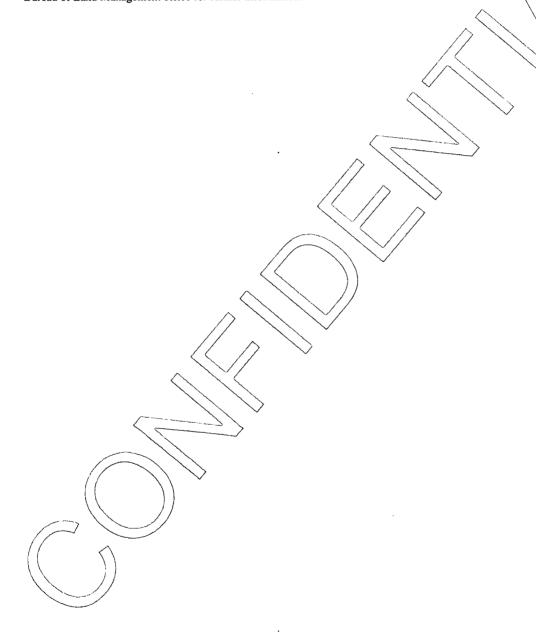
PPP: SESW / 330 FSL / 1650 FWL / TWSP: 23S / RANGE: 35E / SECTION: 19 / LAT: 32.2837481 / LONG: -103.4098635 (TVD: 10500 feet, MD: 10853 feet)

BHL: NENW / 240 FNL / 1650 FWL / TWSP: 23S / RANGE: 35E / SECTION: 19 / LAT: 32.2967036 / LONG: -103.4098653 (TVD: 10500 feet, MD: 15283 feet)



Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.



(Form 3160-3, page 4)



Email address:

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



Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: Lara Thompso	n	Signed on: 04/03/2018
Title: Assistant Project	Manager	•
Street Address: 5647	Jefferson Street NE	
City: Albuquerque	State: NM	Zip : 87109
Phone: (505)254-1115	i e	
Email address: Lara.7	hompson@swca.com	
Field Repres	sentative	
Representative Nar	ne:	
Street Address:		
City:	State:	Zip:
Phone:		



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

Application Data Report

APD ID: 10400027931 Submission Date: 03/09/2018

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: DR IRELAND FEDERAL Well Number: 122H

Well Type: OIL WELL Well Work Type: Drill

Highlighted datareflects the most resent datastes

Show Final Text

Section 1 - General

APD ID: 10400027931

Tie to previous NOS?

Submission Date: 03/09/2018

BLM Office: CARLSBAD

User: Lara Thompson

Title: Assistant Project Manager

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM113422

Lease Acres: 557.44

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? YES

APD Operator: MATADOR PRODUCTION COMPANY

Operator letter of designation:

Operator Info

Operator Organization Name: MATADOR PRODUCTION COMPANY

Operator Address: 5400 LBJ Freeway, Suite 1500

Zip: 75240

Operator PO Box:

Operator City: Dallas

State: TX

Operator Phone: (972)371-5200

Operator Internet Address: amonroe@matadorresources.com

Section 2 - Well Information

Well in Master Development Plan? NO

Mater Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: DR IRELAND FEDERAL

Well Number: 122H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: BONESPRING

Pod Marra ANTISLOPE Ridigis: ISS. Mõridi

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Well Name: DR IRELAND FEDERAL Well Number: 122H

Describe other minerals:

Is the proposed well in a Helium production area? N Use Existing Well Pad? NO New surface disturbance?

Type of Well Pad: MULTIPLE WELL Multiple Well Pad Name: DR Number: 4

Well Class: HORIZONTAL IRELAND FEDERAL
Number of Legs: 1

Well Work Type: Drill
Well Type: OIL WELL

Describe Well Type:

Well sub-Type: APPRAISAL

Describe sub-type:

Distance to town: Distance to nearest well: 30 FT Distance to lease line: 513 FT

Reservoir well spacing assigned acres Measurement: 159.95 Acres

Well plat: 1Mile Radius Map 20180306115912.docx

BO_DR_IRELAND_FED_COM_SLOT_2_SURFACE_PAD_SITE_S_20180306120606.pdf CD_DR_IRELAND_FED_COM_SLOT_2_SURFACE_PAD_PRO_S_20180306120607.pdf

DrlrelandFederal122H_Signed_PoolCode_20180628110343.pdf

Well work start Date: 12/01/2018 Duration: 25 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 Vertical Datum: NAVD88

Survey number:

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	αντ
SHL Leg #1	513	FSL	190 0	FWL	238	35E	19	Aliquot SESW	32.28425 13	- 103.4090 541	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 113422	338 9	0	0
KOP Leg #1	513	FSL	190 0	FWL	238	35E	19	Aliquot SESW	32.28425 13	- 103.4090 541	LEA	NEW MEXI CO	NEW MEXI CO	F		238 9	100 0	100 0

Well Name: DR IRELAND FEDERAL

Well Number: 122H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
PPP	330	FSL	165	FWL	238	35E	19		32.28374	l	LEA	l	NEW	F	NMNM	-	108	105
Leg #1			0					SESW	81	103.4098 635		MEXI CO	CO		113422	711 1	53	00
EXIT Leg #1	330	FNL	165 0	FWL	238	35E	19	Aliquot NENW	32.29645 62	- 103.4098 653	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 113422	- 711 1	151 93	105 00
BHL Leg #1	240	FNL	165 0	FWL	238	35E	19	Aliquot NENW	32.29670 36	- 103.4098 653	LEA	NEW MEXI CO		F	NMNM 113422	- 711 1	152 83	105 00



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



APD ID: 10400027931 Submission Date: 03/09/2018

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: DR IRELAND FEDERAL Well Number: 122H

Nell Number: 122H Show Final Text

Well Type: OIL WELL Well Work Type: Drill

Section 1 - Geologic Formations

Formation			True Vertical	Measured			Producing
ID	Formation Name	Elevation	Depth	Depth	Lithologies	Mineral Resources	Formation
1	RUSTLER	3389	1263	1263		USEABLE WATER	No
2	SALADO	1772	1617	1617		NONE	No
3	BASE OF SALT	-573	3962	3962		NONE	No
4	BELL CANYON	-2085	5474	5474		NATURAL GAS,OIL	No
5	BRUSHY CANYON	-4073	7462	7462		NATURAL GAS,OIL	No
6	BONE SPRING LIME	-5387	8776	8776		NATURAL GAS,OIL	· No
7	BONE SPRING 1ST	-6104	9493	9493		NATURAL GAS,OIL	No
8	BONE SPRING 2ND	-6626	10015	10015		NATURAL GAS,OIL	No
9	BONE SPRING 3RD	-7326	10715	10715		NATURAL GAS,OIL	Yes

Section 2 - Blowout Prevention

Pressure Rating (PSI): 2M Rating Depth: 15000

Equipment: See Exhibit E-1. A BOP consisting of 3 rams with 2 pipe rams, 1 blind ram and one annular preventer. The BOP will be utilized below surface casing to TD. See attachments for BOP and choke manifold diagrams. Also present will be an accumulator that meets the requirements of Onshore Order #2 for the pressure rating of the BOP stack. A rotating head will also be installed as needed. BOP will be inspected and operated as recommended in Onshore Order #2. A Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position. A third party company will test the BOPs.

Requesting Variance? YES

Variance request: The operator requests a variance to have the option of running a speed head for setting the intermediate strings. In the case of running a speed head with landing mandrel for 9-5/8" casing, a minimum of a 5M BOPE system will be installed after surface casing is set. Matador Resources requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached (see Exhibit E-2). The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used.

Testing Procedure: After setting surface casing and before drilling below the surface casing shoe, a minimum of a 2M BOPE system will be installed and tested to 250 psi low and 1000 psi high. After setting intermediate casing, a minimum of a 5M system will be installed and tested to 250 psi low and

.

Well Name: DR IRELAND FEDERAL

Well Number: 122H

3000 psi high with the annular being tested to 250 psi low and 2500 psi high.

Choke Diagram Attachment:

Choke_Manifold_20180306134713.pdf

BOP Diagram Attachment:

BOP_297_001_20180306134728.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	17.5	13.375	NEW	API	N	0	850	0	850			850	J-55	l .	_		1.12 5	BUOY	1.8	BUOY	1.8
2	INTERMED IATE	12.2 5	9.625	NEW	API	N	0	5400	0	5385			5400	J-55		OTHER - BTC	1.12 5	1.12 5	BUOY	1.8	BUOY	1.8
3	PRODUCTI ON	8.75	5.5	NEW	NON API	N	4400	15283	4388	10500			10883	P- 110		OTHER - BTC/TXP		1.12 5	BUOY	1.8	BUOY	1.8

Casing Attachments

Casing ID: 1

String Type: SURFACE

Inspection Document:

Spec Document:

TenarisHydril_TenarisXP_BTC_5.500_20_20180213122618.pdf

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLM_Casing_Design_Assumptions_3_string_20180306141748.pdf

Well Name: DR IRELAND FEDERAL Well Number: 122H

Casing Attachments

Casing ID: 2

String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLM_Casing_Design_Assumptions_3_string_20180213122944.pdf

Casing ID: 3

String Type: PRODUCTION

Inspection Document:

Spec Document:

TenarisHydril_TenarisXP_BTC_5.500_20_20180306141010.pdf

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLM_Casing_Design_Assumptions_3_string_20180213122951.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	850	210	1.82	12.8	382	100	Class C	Bentonite + 2% CaCL2 + 3% NaCl + LCM
SURFACE	Tail		0	850	720	1.38	14.8	994	100	Class C	5% NaCl + LCM
INTERMEDIATE	Lead		0	5400	1170	2.13	12.6	2492. 1	100	Class C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
INTERMEDIATE	Tail		0	5400	620	1.38	14.8	856	100	Class C	5% NaCl + LCM
PRODUCTION	Lead		4400	1528 3	660	2.35	11.5	1551	35	TXI	Fluid Loss + Dispersant + Retarder + LCM

Well Name: DR IRELAND FEDERAL Well Number: 122H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%		Cement type	Additives
PRODUCTION	Tail		4400	1528 3	1500	1.39	13.2	2085	35	TXI		Fluid Loss + Dispersant + Retarder + LCM

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: See Exhibit E-1. A BOP consisting of 3 rams with 2 pipe rams, 1 blind ram and one annular preventer. The BOP will be utilized below surface casing to TD. See attachments for BOP and choke manifold diagrams. Also present will be an accumulator that meets the requirements of Onshore Order #2 for the pressure rating of the BOP stack. A rotating head will also be installed as needed. BOP will be inspected and operated as recommended in Onshore Order #2. A Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position. A third party company will test the BOPs.

Describe the mud monitoring system utilized: The Mud Monitoring System is an electronic Pason system satisfying requirements of Onshore Order 1. Mud Logging Program: 2 man unit from 5400 – TD.

Circulating Medium Table

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	850	SPUD MUD	8.3	8.3							
0	5385	SALT SATURATED	10	10							
4388	1050 0	OTHER : FW/ Cut Brine	9	9							

Well Name: DR IRELAND FEDERAL

Well Number: 122H

Section 6 - Test, Logging, Coring

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

See page 3 of Drilling Plan attached in Other Facets, Section 8.

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

CBL.GR.MUDLOG

Coring operation description for the well:

No DSTs or cores are planned at this time.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5000

Anticipated Surface Pressure: 2690

Anticipated Bottom Hole Temperature(F): 140

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Matador Hydrogen Sulfide Drilling Leslie 024 20180214143236.docx

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Dr._Ireland_Fed_Com__122H___Well_Plan_v1_20180306145057.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

3_string_Speed_Head_20180306145153.pdf

Close Loop System_20180306145153.docx

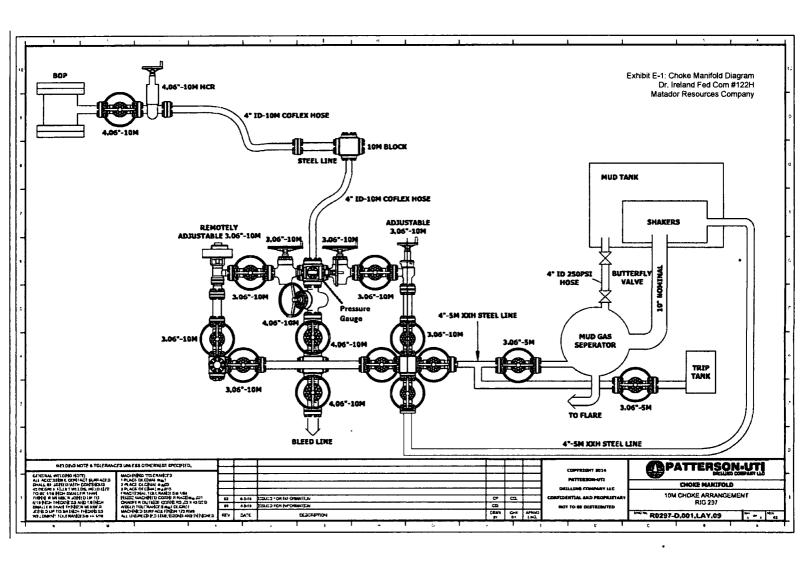
Dr._Ireland_Fed_Com__122H_Geoprog_V1_20180306145154.xlsx

Dr._ireland_Fed_Com__122H_MTDR_Drlg_Plan_20180306145155.docx

297Co_Flex_Certs__Dr._Ireland_Fed_Com__122H_20180306145253.pdf

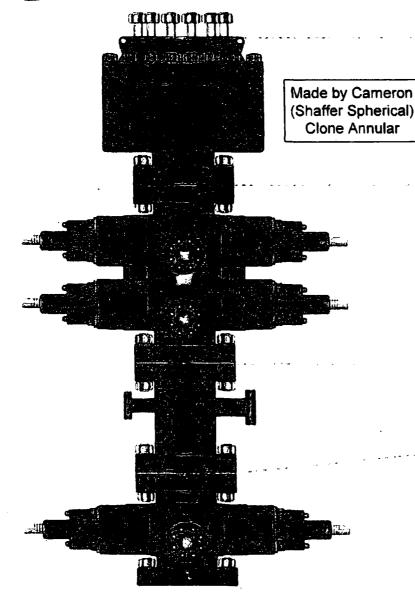
Other Variance attachment:

.



PATTERSON-UTI Well Control





PATTERSON-UTI # PS2-628

STYLE: New Shaffer Spherical

BORE 13 5/8" PRESSURE 5,000

HEIGHT: 48 ½" WEIGHT: 13,800 lbs

PATTERSON-UTI # PC2-128

STYLE: New Cameron Type U

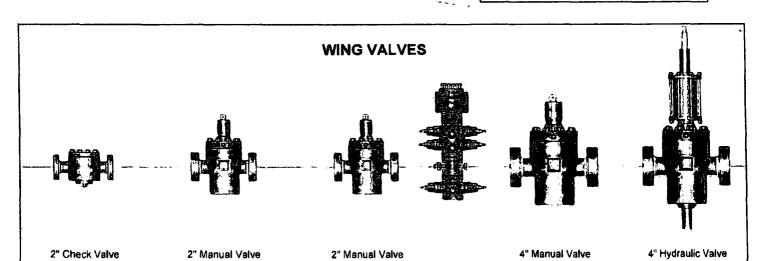
BORE 13 5/8" PRESSURE 10,000

RAMS: TOP 5" Pipe BTM Blinds

HEIGHT: 66 5/8" WEIGHT: 24,000 lbs

Length 40" Outlets 4" 10M

DSA 4" 10M x 2" 10M



For the latest performance data, always visit our website: www.tenaris.com

February 02 2017



Size: 5.500 in. **Wall**: 0.361 in.

Weight: 20.00 lbs/ft Grade: P110-IC

Min. Wall Thickness: 87.5 %

Connection: TenarisXP® BTC Casing/Tubing: CAS

Coupling Option: REGULAR

		GEOMET	ry		
Nominal OD	5.500 in.	Nominal Weight	20.00 lbs/ft	Standard Drift Diameter	4.653 in.
Nominal ID	4.778 in.	Wall Thickness	0.361 in.	Special Drift Diameter	N/A
Plain End Weight	19.83 lbs/ft				
		PERFORM	ANCE		
Body Yield Strength	641 x 1000 lbs	Internal Yield	12630 psi	SMYS	110000 psi
Collapse	12100 psi				
	TE	NARISXP® BTC CO GEOMET		АТА	
Connection OD	6.100 in.	Coupling Length	9.450 in.	Connection ID	4.766 in.
Critical Section	5.828 sq. in.	Threads per in.	5.00	Make-Up Loss	4.204 in.
,		PERFORM	ANCE		
Tension Efficiency	100 %	Joint Yield Strength	641 x 1000 lbs	Internal Pressure Capacity $(\underline{1})$	12630 psi
Structural Compression	100 %	Structural Compression	641 x 1000	Structural Bending ⁽²⁾	92 °/100 ft
Efficiency		Strength	103		
Efficiency External Pressure Capacity	12100 psi	Strength	103		
External Pressure	·	Strength STIMATED MAKE-U		3)	
External Pressure	·			3) Maximum	13770 ft-lb
External Pressure Capacity	E 11270 ft-lbs	STIMATED MAKE-U	IP TORQUES ⁽ 12520 ft-lbs	Maximum	13770 ft-lb
External Pressure Capacity	E 11270 ft-lbs	STIMATED MAKE-U	IP TORQUES ⁽ 12520 ft-lbs	Maximum	13770 ft-lb

⁽¹⁾ Internal Pressure Capacity related to structural resistance only. Internal pressure leak resistance as per

section 10.3 API 5C3 / ISO 10400 - 2007.

- (2) Structural rating, pure bending to yield (i.e no other loads applied)
- (3) Torque values calculated for API Modified thread compounds with Friction Factor=1. For other thread compounds please contact us at <u>licensees@oilfield.tenaris.com</u>. Torque values may be further reviewed. For additional information, please contact us at contact-tenarishydril@tenaris.com

For the latest performance data, always visit our website: www.tenaris.com

February 02 2017



Size: 5.500 in. Wall: 0.361 in.

Weight: 20.00 lbs/ft Grade: P110-IC

Min. Wall Thickness: 87.5 %

Connection: TenarisXP® BTC

Casing/Tubing: CAS

Coupling Option: REGULAR

		GEOME	ΓRY		
Nominal OD	5.500 in.	Nominal Weight	20.00 lbs/ft	Standard Drift Diameter	4.653 in.
Nominal ID	4.778 in.	Wall Thickness	0.361 in.	Special Drift Diameter	N/A
Plain End Weight	19.83 lbs/ft				
		PERFORM	ANCE		
Body Yield Strength	641 x 1000 lbs	Internal Yield	12630 psi	SMYS	110000 psi
Collapse	12100 psi				
		LADICYDO DIO CO	NINIE CTT CTT	A.T.A	
	TEI	NARISXP® BTC CO GEOMET		AIA	
Connection OD	6.100 in.	Coupling Length	9.450 in.	Connection ID	4.766 in.
	3.100 III.	Coupling Length	9.730 III.	Connection 1D	7.700 III.
Critical Section Area	5.828 sq. in.	Threads per in.	5.00	Make-Up Loss	4.204 in.
	·	PERFORM	ANCE		
Tension Efficiency	100 %	Joint Yield Strength	641 x 1000 lbs	Internal Pressure Capacity $(\frac{1}{2})$	12630 psi
Structural		Structural	£44 1000	Structural	
Compression	100 %	Compression	641 x 1000	Bending(2)	92 %100 ft
Efficiency		Strength	כטו	Dending\#/	
External Pressure	12100 psi				
Capacity	12100 ha	<u> </u>			
	Ε	STIMATED MAKE-L	P TORQUES	3)	
Minimum	11270 ft-lbs	Optimum	12520 ft-lbs	Maximum	13770 ft-lt
		OPERATIONAL LIN	AIT TORQUES	5	
Operating Torque	21500 ft-lbs	Yield Torque	23900 ft-lbs		
		BLANKING DIN	IENSIONS		
		Blanking Din	nencione		

⁽¹⁾ Internal Pressure Capacity related to structural resistance only. Internal pressure leak resistance as per

section 10.3 API 5C3 / ISO 10400 - 2007.

- (2) Structural rating, pure bending to yield (i.e no other loads applied)
- (3) Torque values calculated for API Modified thread compounds with Friction Factor=1. For other thread compounds please contact us at <u>licensees@oilfield.tenaris.com</u>. Torque values may be further reviewed. For additional information, please contact us at contact-tenarishydril@tenaris.com

Casing Design Criteria and Load Case Assumptions

Surface Casing

Collapse: DFc=1.125

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.43 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.52 psi/ft).

Burst: DF6=1.125

Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud
gradient in which the casing will be run (0.43 psi/ft), which is a more conservative backup force than pore
pressure.

Tensile: DFt=1.8

 Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.3 ppg).

Intermediate #2 Casing

Collapse: DFc=1.125

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: DFb=1.125

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud
 gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore
 pressure.
- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 50 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.47 psi/ft). External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft) which is a more conservative backup force than pore pressure.

Tensile: DF_t=1.8

 Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (10.0 ppg).

Production Casing

Collapse: DFc=1.125

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.47 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud
 gradient in which the casing will be run above that (0.47 psi/ft) and an internal force equal to mud gradient
 of displacement fluid (0.43 psi/ft).

Burst: DF_b=1.125

- Pressure Test: 8000 psi casing test with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.
- Injection Down Casing: 9500 psi surface injection pressure plus an internal pressure gradient of 0.65 psi/ft with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.

Tensile: DF_t=1.8

• Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (9.0 ppg).

Casing Design Criteria and Load Case Assumptions

Surface Casing

Collapse: DFc=1.125

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.43 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.52 psi/ft).

Burst: DF6=1.125

Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud
gradient in which the casing will be run (0.43 psi/ft), which is a more conservative backup force than pore
pressure.

Tensile: DFt=1.8

• Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.3 ppg).

Intermediate #2 Casing

Collapse: DFc=1.125

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: DFb=1.125

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud
 gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore
 pressure.
- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst
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 with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that
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- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at
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 will be equal to the mud gradient in which the casing will be run (0.52 psi/ft) which is a more conservative
 backup force than pore pressure.

Tensile: DFt=1.8

 Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (10.0 ppg).

Production Casing

Collapse: DFc=1.125

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.47 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.47 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Casing Design Criteria and Load Case Assumptions

Surface Casing

Collapse: DFc=1.125

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.43 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.52 psi/ft).

Burst: DFb=1.125

Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud
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Tensile: DFt=1.8

 Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.3 ppg).

Intermediate #2 Casing

Collapse: DFc=1.125

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: DFb=1.125

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud
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- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst
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- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at
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Tensile: DFt=1.8

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Production Casing

Collapse: DFc=1.125

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.47 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud
 gradient in which the casing will be run above that (0.47 psi/ft) and an internal force equal to mud gradient
 of displacement fluid (0.43 psi/ft).

Burst: DF_b=1.125

- Pressure Test: 8000 psi casing test with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.
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 with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a
 more conservative backup force than pore pressure.

Tensile: DF_t=1.8

• Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (9.0 ppg).

Closed-Loop System

Operating and Maintenance Plan:

During drilling operations, third party service companies will utilize solids control equipment to remove cuttings from the drilling fluids and collect it in haul-off bins. Equipment will be closely monitored at all times while drilling by the derrick man and the service company employees.

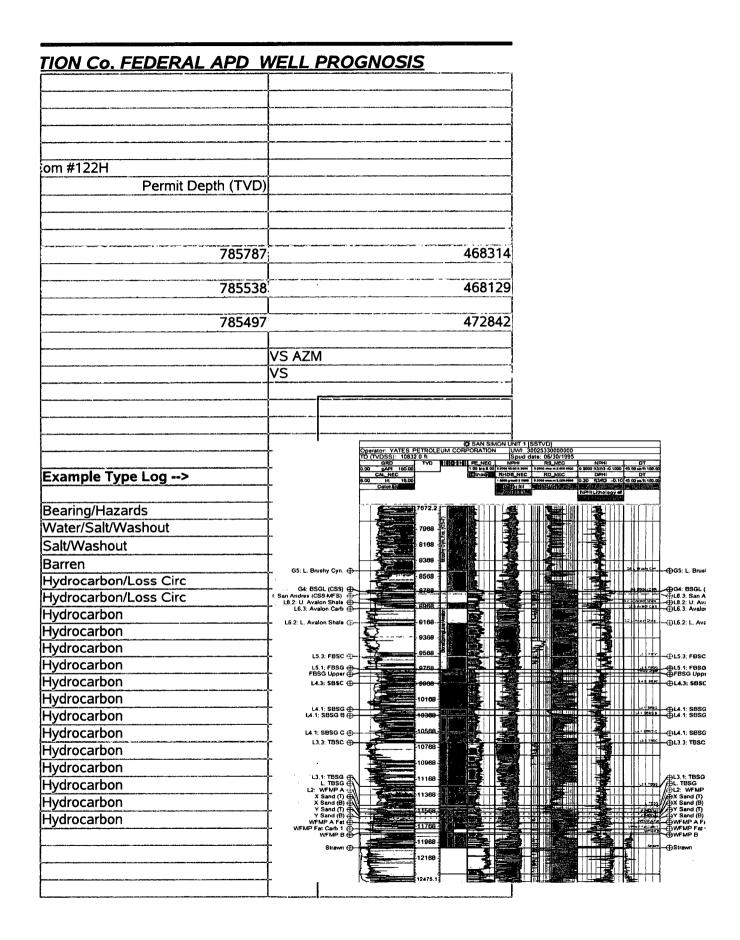
Closure Plan:

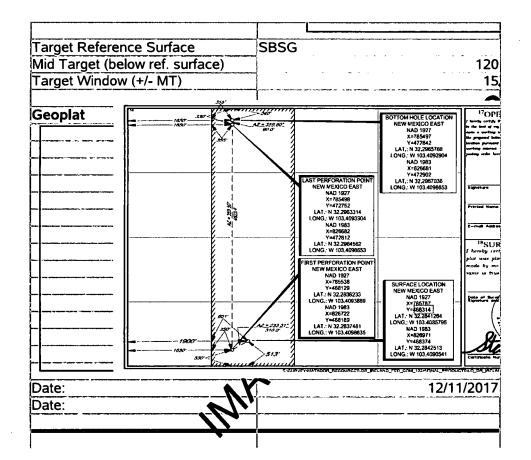
During drilling operations, third party service companies will haul off drill solids and fluids to an approved disposal facility. At the end of the well, all closed loop equipment will be removed from the location.

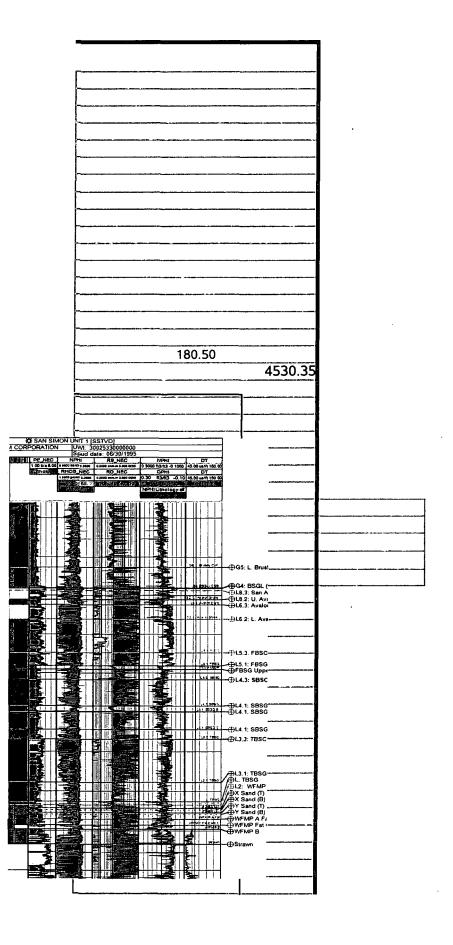
	MATAD	OR PRODUC
General		
	Operator	MRC
	Lease	Dr. Ireland
	Well Name	Dr. Ireland Fed C
	PTD (MT + ΔTVD from SHL - BHL)	15030
	Formation at TD	SBSG
	Formation at 1D	3636
Location		
	SHL	X/Y
		Lat/Long
	PP/FTP	X/Y
		Lat/Long
	BHL	X/Y
		Lat/Long
		and the state of t
Rìg/KB		29
Elevation - GL	3389	
Elevation - KB	3418	**************************************
Prognosis		
Formation Name	SSTVD*	TVD
Z (Rustler)		1263
Top Salt: Z (Salado)	4	1617
Base Salt: Z (G30:CS14-CSB)		
Z(G26: Bell Canyon)	1	
Z (G7: Brushy Cyn.)	4	
Z(G4: BSGL (CS9))	1	And the second s
Z(L5.3: FBSC)		9493
Z (L5.1: FBSG)	3	9849
Z (L4.3: SBSC)	-6597.12	10015
Z (L4.1: SBSG)	-6962.63	10380
Z (L3.3: TBSC)	-7297.29	10715
Z (L3.1: TBSG)		11390
Z (L2: WFMP A)	d	11644
Z (X Sand (T))	-8234.52	11652
Z (X Sand (B))		11692
Z (Y Sand (T))		11743
Z (Y Sand (B))	-8343.14	11761
Z (WFMP A Fat)	-8392.67 * values derived from Petre	11810
Preliminary Targeting	values derived from Petre	Juliaces
Formation Name	SBSG	

.

Top Target	1048	15
Mid Target (@ 0 VS)	1050	00
Bottom Target	1051	5
Reservoir Characteristics		
	Rock Type	Sand
	Gross Thickness	30
	Est. res. Temp	
	Est. res. pressure	
Well Design		
1st intermediate casing	400	00
2nd intermediate casing	60-70 degrees	
Evaluation		
Mud logs	Yes	
MWD logs	Yes	
Prepared by:	Dan Brugioni	
Approved by:		
t to the second		







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V		
RATOR CERTIFICATION		
investings and loting, and that this argumentum either a bread or inclosed maintain abord in the land architical is due tourism or has a right to drill this unit of this is a contract with an interest of such a majoral or]
to a substitute positing agreement or a computatory give entered by the discount.		_
Date	Colores - Colore	-
		-
VEYOR CERTIFICATION by that the well location shown on this ed from field notes of actual surveys		
or under my supervision, and that the to the best of my belief.		ļ
BENOW/BOLT		<u> </u>
(19842)		-
30.2		-
W. Tloyd	description of the second section in the second section is a second section of the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section is a second section in the second section is a section in the second section is a second section in the second section is a section in the section in the section is a section in the section in the section is a section in the section in the section is a section in the section in the section is a section in the section in the section in the section is a section in the section in the section in the section is a section in the section in the section in the section is a section in the section in the section in the section is a section in the section in the section in the section is a section in the section in the section in the section in the section is a section in the section in the section in the section is a section in the s	
FCO_COM_122H,DWG 9/19/2017 4 33 19 PM common		
ver. 1		

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Drilling Operations Plan Dr. Ireland Fed Com #122H Matador Resources Company

Sec. 19, 23S, 35E Lea County, NM

Surface Location:

513' FSL & 1900' FWL, Sec. 19

Bottom Hole Location:

240' FNL & 1650' FWL, Sec. 19

Elevation Above Sea Level: 3384'

Geologic Name of Surface Formation:

Second Bone Spring

Type of Well: Horizontal well, No Pilot Hole, Drilled with conventional rotary tools

Proposed Drilling Depth:

15,283' MD / 10,500' TVD

Estimated Tops of Geological Markers w/ Mineral Bearing Formation:

	Est	
Formation Name	Тор	Bearing
Rustler	1263	Water
Salado	1617	Barren
Base of Salt	3962	Barren
Bell Canyon	5474	Hydrocarbo n
Brushy Canyon	7462	Hydrocarbo n
Bone Spring Lime	8776	Hydrocarbo
		. n
First Bone Spring Carb	9493	Hydrocarbo n
First Bone Spring Sand	9849	Hydrocarbo n
Second Bone Spring Carb	10015	Hydrocarbo n
Second Bone Spring Sand	10380	Hydrocarbo n
Third Bone Spring Carb	10715	Hydrocarbo n

OSE Ground Water Estimated Depth:

280'

Casing Program

Name	Hole Size	Casing Size	Wt/Grad e	Thread Collar	Setting Depth	Top Cement
			54.5# J-			
Surface	17-1/2"	13-3/8" (new)	55	BTC	850	Surface
Intermediat						
e	12-1/4"	9-5/8" (new)	40# J-55	BTC	5400	Surface
			20# P-			
Production	8-3/4"	5-1/2" (new)	110	BTC/TXP	15283	4400

Drilling Operations Plan Dr. Ireland Fed Com #122H Matador Resources Company Sec. 19, 23S, 35E

Lea County, NM

Matador Resources requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached (see Exhibit E-2). The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used.

Proposed Mud System:

Name	Hole Size	Mud Weight	Visc	Fluid Loss	Type Mud
Surface	17-1/2"	8.30	28	NC	FW Spud Mud
Intermediat e	12-1/4"	10.00	30-32	NC	Brine Water
Production	8-3/4"	9.00	30-32	NC	FW/Cut Brine

All necessary mud products for weight addition and fluid loss control will be on location at all times. Mud program subject to change due to hole conditions.

The Mud Monitoring System is an electronic Pason system satisfying requirements of Onshore Order 1.

Testing, Logging & Coring Program:

- Mud Logging Program: 2 man unit from 5400 TD
- Electric Logging Program: No electric logs are planned at this time. GR will be collected through the MWD tools from Inter. Csg to TD
- No DSTs or cores are planned at this time
- CBL w/ CCL from as far as gravity will let it fall to TOC

Potential Hazards:

No abnormal pressures or temperatures are expected. In accordance with Onshore Order 6, Matador does not anticipate that there will be enough H_2S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an " H_2S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H_2S safety package on all wells, attached is an " H_2S Drilling Operations Plan". Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used

Estimated BHP: 5000 Estimated BHT: 140°

Construction and Drilling:

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 25 days. If production casing is run an additional 30 days will be required to complete and construct surface facilities

Drilling Operations Plan Dr. Ireland Fed Com #122H Matador Resources Company Sec. 19, 23S, 35E

Lea County, NM

Minimum Safety Factors:

Burst: 1.125

Collapse: 1.125

Tension 1.8

Cementing Program

Name	Туре	Sacks	Yield	Weight	Blend	
					Class C + Bentonite + 2% CaCL2 + 3%	
Surface	Lead	210	1.82	12.8	NaCl + LCM	
	Tail	720	1.38	14.8	Class C + 5% NaCl + LCM	
TOC =	TOC = 0' 100% Excess		Centralizers per Onshore Order 2.III.B.1f			
Intermediat					Class C + Bentonite + 1% CaCL2 + 8%	
e	Lead	1170	2.13	12.6	NaCl + LCM	
	Tail	620	1.38	14.8	Class C + 5% NaCl + LCM	
		2 on btm jt, 1 on 2nd jt, 1 every 4th jt to				
TOC =	C = 0' 100% Excess		TOC = 0'		SS	surface
					TXI + Fluid Loss + Dispersant + Retarder +	
Production	Lead	660	2.35	11.5	LCM	
					TXI + Fluid Loss + Dispersant + Retarder +	
	Tail	1500	1.39	13.2	LCM	
		2 on btm jt, 1 on 2nd jt, 1 every other jt to				
$\boxed{ 10C = 44}$	TOC = 4400' 35% Excess		SS	top of tail cement (500' above TOC)		

Pressure Control Equipment:

See Exhibit E-1. A BOP consisting of 3 rams with 2 pipe rams, 1 blind ram and one annular preventer. The BOP will be utilized below surface casing to TD. See attachments for BOP and choke manifold diagrams. Also present will be an accumulator that meets the requirements of Onshore Order #2 for the pressure rating of the BOP stack. A rotating head will also be installed as needed. BOP will be inspected and operated as recommended in Onshore Order #2. A Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position. A third party company will test the BOPs.

After setting surface casing and before drilling below the surface casing shoe, a minimum of a 2M BOPE system will be installed and tested to 250 psi low and 2000 psi high with the annular being tested to 250 psi low and 1000 psi high. After setting intermediate casing, a minimum of a 5M system will be installed and tested to 250 psi low and 5000 psi high with the annular being tested to 250 psi low and 2500 psi high.

The operator requests a variance to have the option of running a speed head for setting the intermediate strings. In the case of running a speed head with landing mandrel for 9-5/8" casing, a minimum of a 5M BOPE system will be installed after surface casing is set. BOP test pressures will be 250 psi low and 5000 psi high with the annular being tested to 250 psi low and 2500 psi high before drilling below surface shoe. A diagram of the speed head is attached.

Drilling Operations Plan Dr. Ireland Fed Com #122H Matador Resources Company Sec. 19, 23S, 35E Lea County, NM Exhibit E-2: Co-Flex Certifications Dr. Ireland Fed Com #122H Matador Resources Company

Internal Hydrostatic Test Graph

December 8, 2014

Midwest Hose & Specialty, Inc.

Customer: Patterson

Pick Ticket #: 284918

Hose Specification	<u>ens</u>
se Type	L

Ck 10'

I.D. 9.D.
3"

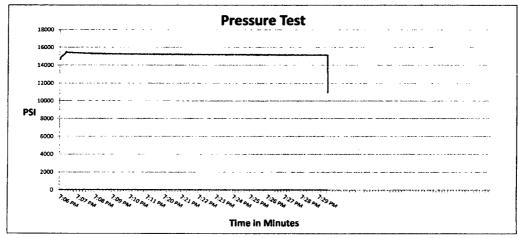
Working Pressure
1000 PSI Standard Strem Multiplier Apr

<u>Verification</u>

Type of Fitting
4-1/16 10K
Die Size
5.37"
Hose Serial #

Final O.D. 5.37" Hose Assembly Serial # 284918-2

Coupling Method



Test Pressure 15000 PSI Time Held at Test Pressure 15 2/4 Minutes Actual Burst Pressure

Peak Pressure 15732 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: Tyler Hill

Approved By: Ryan Adams



General Infor	mation	Hose Specifi	cations
Customer	PATTERSON B&E	Hose Assembly Type	Choke & Kill
MWH Sales Representative	AMY WHITE	Certification	API 7K
Date Assembled	12/8/2014	Hose Grade	MUD
Location Assembled	ОКС	Hose Working Pressure	10000
Sales Order #	236404	Hose Lot # and Date Code	10490-01/13
Customer Purchase Order #	260471	Hose I.D. (Inches)	3"
Assembly Serial # (Pick Ticket #)	287918-2	Hose O.D. (Inches)	5.30"
Hose Assembly Length	10'	Armor (yes/no)	YES
	Fit	tings	
End A		End B	
Stem (Part and Revision #)	R3.0X64WB	Stem (Part and Revision #)	R3.0X64WB
Stem (Heat #)	91996	Stem (Heat #)	91996
Ferrule (Part and Revision #)	RF3.0	Ferrule (Part and Revision #)	RF3.0
Ferrule (Heat #)	37DA5631	Ferrule (Heat #)	37DA5631
Connection (Part #)	4 1/16 10K	Connection (Part #)	4 1/16 10K
Connection (Heat #)		Connection (Heat #)	
Dies Used	5.3	7 Dies Used	5.3
	Hydrostatic Te	est Requirements	
Test Pressure (psi)	15,000	Hose assembly was tested	with ambient water
restriessure (psi)		temperature.	



Customer: PATTERSON	B&E	Customer P.O.# 260471	
Sales Order # 236404		Date Assembled: 12/8/2014	
	Spe	cifications	
Harris Assembly Trans	Choke & Kill		
Hose Assembly Type:			
Assembly Serial #	287918-2	Hose Lot # and Date Code	10490-01/13

We hereby certify that the above material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards.

Supplier:

Midwest Hose & Specialty, Inc.

3312 S I-35 Service Rd

Oklahoma City, OK 73129

Comments:

Approved By	Date
Ban Alama	12/9/2014

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Exhibit E-2: Co-Flex Certifications Dr. Ireland Fed Com #122H Matador Resources Company

Midwest Hose & Specialty, Inc.

Internal Hydrostatic Test Graph

December 9, 2014

Customer: Patterson

Pick Ticket #: 284918

Hose Specifications

Hose Type
Ck
LD.
3"
Working Pressure
Bu

Length
20'
O.D.
4.77*

Burst Pressure

dard Safety Multiplier Applie

Verification

Type of Fitting
4-1/16 10K
Die Size
5.37"
Hose Serial #
10490

Final O.D. 5.40" Hose Assembly Serial # 284918-1

Coupling Method

Time in Minutes

Test Pressure

Time Held at Test Pressure

· Actual Burst Pressure

Peak Pressure

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: Tyler Hill

Approved By: Ryan Ada



General Infor	nation	Hose Specifi	cations
Customer	PATTERSON B&E	Hose Assembly Type	Choke & Kill
MWH Sales Representative	AMY WHITE	Certification	API 7K
Date Assembled	12/8/2014	Hose Grade	MUD
Location Assembled	ОКС	Hose Working Pressure	10000
Sales Order#	236404	Hose Lot # and Date Code	10490-01/13
Customer Purchase Order #	260471	Hose I.D. (Inches)	3"
Assembly Serial # (Pick Ticket #)	287918-1	Hose O.D. (Inches)	5.30"
Hose Assembly Length	20'	Armor (yes/no)	YES
	ŗ	ittings	
End A		End B	
Stem (Part and Revision #)	R3.0X64WB	Stem (Part and Revision #)	R3.0X64WB
Stem (Heat #)	A141420	Stem (Heat#)	A141420
Ferrule (Part and Revision #)	RF3.0	Ferrule (Part and Revision #)	RF3.0
Ferrule (Heat #)	37DA5631	Ferrule (Heat #)	37DA5631
Connection (Part #)	4 1/16 10K	Connection (Part #)	4 1/16 10K
Connection (Heat #)	V3579	Connection (Heat #)	V3579
Dies Used	9	5.37 Dies Used	5.3
	Hydrostatic	Test Requirements	
Test Pressure (psi)	15,000	Hose assembly was tested	with ambient water
** *	15 1/2	temperature.	



		Certificati	e of Conformity	
Customer:	PATTERSON	B&E	Customer P.O.# 260471	
Sales Order#	236404		Date Assembled: 12/8/2014	, , , , , , , , , , , , , , , , , , , ,
		Spe	cifications	
Hose Asser	nbly Type:	Choke & Kill		
Assembly	y Serial #	287918-1	Hose Lot # and Date Code	10490-01/13
Hose Working	Pressure (psi)	10000	Test Pressure (psi)	15000

We hereby certify that the above material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards.

Supplier:

Midwest Hose & Specialty, Inc.

3312 S I-35 Service Rd

Oklahoma City, OK 73129

Comments:

Approved By	Date
Fam Alama	12/9/2014

Exhibit E-2: Co-Flex Certifications Dr. Ireland Fed Com #122H Matador Resources Company

Midwest Hose & Specialty, Inc.

Internal Hydrostatic Test Graph

December 9, 2014

Customer: Patterson

Pick Ticket #: 284918

Hose Specifications

Hose Type
Mud
LD.
3"
Working Pressure
10000 PSI

Length
70'
O.D.
4,79"
Burst Pressure

Verification

Type of Fitting 4 1/16 10k Die Size 5.37" Hose Serial # Coupling Method
Swage
Final O.D.
5.37°
Hose Assembly Serial #
284918-3

Pressure Test

18000
14000
14000
17050
1007%

PSI
8000
4000
2000

Time in Minutes

Test Pressure

Time Held at Test Pressure

Actual Burst Pressure

Peak Pressure 15410 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: Tyler Hill

Approved By: Ryan Agams



General Infor	mation	Hose Specifi	cations
Customer	PATTERSON B&E	Hose Assembly Type	Choke & Kill
MWH Sales Representative	AMY WHITE	Certification	API 7K
Date Assembled	12/8/2014	Hose Grade	MUD
Location Assembled	ОКС	Hose Working Pressure	10000
Sales Order #	236404	Hose Lot # and Date Code	10490-01/13
Customer Purchase Order #	260471	Hose I.D. (Inches)	3"
Assembly Serial # (Pick Ticket #)	287918-3	Hose O.D. (Inches)	5.23"
Hose Assembly Length	70'	Armor (yes/no)	YES
	Fitt	ings	
End A		End B	
Stem (Part and Revision #)	R3.0X64WB	Stem (Part and Revision #)	R3.0X64WB
Stem (Heot#)	A141420	Stem (Heat#)	A141420
Ferrule (Part and Revision #)	RF3.0	Ferrule (Part and Revision #)	RF3.0
Ferrule (Heat #)	37DA5631	Ferrule (Heat #)	37DA5631
Connection (Part #)	4 1/16 10K	Connection (Part #)	4 1/16 10K
Connection (Heat#)		Connection (Heat #)	
Dies Used	5.37	Dies Used	5.3
	Hydrostatic Tes	t Requirements	
Test Pressure (psi)	15,000	Hose assembly was tested	with ambient water
Test Pressure Hold Time (minutes)	16 3/4	temperature.	



		pecially, file.	
	Certificat	e of Conformity	
Customer: PATTERSON	B&E	Customer P.O.# 260471	
Sales Order # 236404		Date Assembled: 12/8/2014	
	Spe	cifications	
Hose Assembly Type:	Choke & Kill		
Assembly Serial #	287918-3	Hose Lot # and Date Code	10490-01/13
Hose Working Pressure (psi)	10000	Test Pressure (psi)	15000
We hereby certify that the abo to the requirements of the purc Supplier:		ed for the referenced purchase order rrent industry standards.	to be true according
Midwest Hose & Specialty, Inc.			
3312 S I-35 Service Rd			
Oklahoma City, OK 73129 Comments:			· · · · · · · · · · · · · · · · · · ·
Approved	Ву	Date	
		12/9/201	4
gan se	Plans		•

CONTRACTOR AND ASSESSED ASSESSED.



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



APD ID: 10400027931

Submission Date: 03/09/2018

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: DR IRELAND FEDERAL

Well Number: 122H

Well Type: OIL WELL

Well Work Type: Drill

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

EP_DR_IRELAND_FED_COM_ROAD_EASEMENT_34_S_20180214143930.PDF

EP DR IRELAND FED COM ROAD EASEMENT 33 S 20180214143929.PDF

EP_DR_IRELAND_FED_COM_ROAD_EASEMENT_36_S_20180214143932.PDF

EP_DR_IRELAND_FED_COM_ROAD_EASEMENT_24_S_20180214143927.PDF

EP_DR_IRELAND_FED_COM_ROAD_EASEMENT_25_S_20180214143928.PDF

EP DR IRELAND FED COM ROAD EASEMENT 19 S 20180214155448.PDF

EP DR IRELAND FED COM ROAD EASEMENT 35 S 20180214143930.PDF

Existing Road Purpose: ACCESS, FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? YES

Existing Road Improvement Description: Caliche cap

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Project_Area_APD_Layout_20180226_20180226113622.jpg

New road type: LOCAL

Length: 523

Feet

Width (ft.): 30

Max slope (%): 0

Max grade (%): 1

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 14

Well Name: DR IRELAND FEDERAL Well Number: 122H

New road access erosion control: Crowned and ditched

New road access plan or profile prepared? NO

New road access plan attachment:

Access road engineering design? NO

Access road engineering design attachment:

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: Caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: Grader
Access other construction information:

Access miscellaneous information:

Number of access turnouts:

Access turnout map:

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: No drainages present

Road Drainage Control Structures (DCS) description: Ditches on either side of road

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Additional Attachment(s):

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

map_of_existing_wells_section_19_for_slot_2_20180306150959.JPG

Existing Wells description:

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description:

Well Name: DR IRELAND FEDERAL

Well Number: 122H

Production Facilities map:

Location_Layout_Rig_Diagram_20180306152854.pdf 44924p01 Facility Layout S2 20180308 20180309091612.jpg

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: DUST CONTROL,

Water source type: RECYCLED

INTERMEDIATE/PRODUCTION CASING, STIMULATION, SURFACE

CASING

Describe type:

Source longitude:

Source latitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Source land ownership: PRIVATE

Water source transport method: TRUCKING

Source transportation land ownership: PRIVATE

Water source volume (barrels): 180000 Source volume (acre-feet): 23.200758

Source volume (gal): 7560000

Water source and transportation map:

Dr. Ireland Water Information 20180213161731.jpg

Water source comments:

New water well? NO

New Water Well Info

Well latitude:

Well Longitude:

Well datum:

Well target aquifer:

Est. depth to top of aquifer(ft):

Est thickness of aquifer:

Aquifer comments:

Aquifer documentation:

Well depth (ft):

Well casing type:

Well casing outside diameter (in.):

Well casing inside diameter (in.):

New water well casing?

Used casing source:

Drilling method:

Drill material:

Grout material:

Grout depth:

Casing length (ft.):

Casing top depth (ft.):

Well Name: DR IRELAND FEDERAL

Well Number: 122H

Well Production type:

Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Construction Materials description: Caliche from BLM approved source.

Construction Materials source location attachment:

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drill cuttings, mud, salts, and other chemicals

Amount of waste: 2000

barrels

Waste disposal frequency: Daily

Safe containment description: Steel tanks

Safe containmant attachment:

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

FACILITY

Disposal type description:

Disposal location description: Halfway, NM

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

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? NO

Description of cuttings location

Well Name: DR IRELAND FEDERAL Well Number: 122H

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

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

Location Layout Rig Diagram 20180306153019.pdf 44924p01_Facility_Layout_S2_20180308_20180309091540.jpg

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: DR IRELAND FEDERAL

Multiple Well Pad Number: 4

Recontouring attachment:

Drainage/Erosion control construction: Crowned and ditched Drainage/Erosion control reclamation: Harrowed on the contour

Well pad proposed disturbance

Well pad interim reclamation (acres):

Well pad long term disturbance

(acres): 5.72

1.58

(acres): 4.14

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

Road long term disturbance (acres): 0

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

(acres): 0

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

Other long term disturbance (acres): 0

Total proposed disturbance: 5.72

Total interim reclamation: 1.58

Total long term disturbance: 4.14

Disturbance Comments:

Reconstruction method: Interim reclamation will be completed within 6 months of completing the last well on the pad.

Well Name: DR IRELAND FEDERAL

Well Number: 122H

Disturbed areas will be contoured to match pre-construction grades. Once the last well is plugged, then the rest of the pad will be similarly reclaimed within 6 months of plugging.

Topsoil redistribution: Soil and brush will be evenly spread over disturbed areas and harrowed on the contour. Disturbed areas will be seeded in accordance with the surface owner's requirements.

Soil treatment: None planned.

Existing Vegetation at the well pad:

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road:

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline:

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances:

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed type:

Seed source:

Seed name:

Source name:

Source address:

Source phone:

Seed cultivar:

Seed use location:

Well Name: DR IRELAND FEDERAL

Well Number: 122H

PLS pounds per acre:

Proposed seeding season:

Seed Summary

Seed Type Pounds/Acre

Total pounds/Acre:

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name:

Last Name:

Phone:

Email:

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: To BLM standards

Weed treatment plan attachment:

Monitoring plan description: To BLM standards

Monitoring plan attachment:

Success standards: To BLM satisfaction

Pit closure description: No pit

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

Well Name: DR IRELAND FEDERAL	Well Number: 122H
NPS Local Office:	
State Local Office:	
Military Local Office:	
USFWS Local Office:	
Other Local Office:	
USFS Region:	
USFS Forest/Grassland:	USFS Ranger District:
Disturbance type: EXISTING ACCESS ROAD	
Describe:	
Surface Owner: PRIVATE OWNERSHIP,STAT	E GOVERNMENT
Other surface owner description:	
BIA Local Office:	
BOR Local Office:	
COE Local Office:	
DOD Local Office:	
NPS Local Office:	
State Local Office: CARLSBAD, NM	
Military Local Office:	•
USFWS Local Office: Other Local Office:	
USFS Region:	
USFS Forest/Grassland:	USFS Ranger District:
Disturbance type: NEW ACCESS ROAD	
Describe:	

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

Operator Name: MATADOR PRODUCTION COMPANY Well Name: DR IRELAND FEDERAL Well Number: 122H **BOR Local Office: COE Local Office: DOD Local Office: NPS Local Office:** State Local Office: **Military Local Office: USFWS Local Office:** Other Local Office: **USFS** Region: **USFS Forest/Grassland: USFS Ranger District: Section 12 - Other Information** Right of Way needed? NO Use APD as ROW? ROW Type(s): **ROW Applications SUPO Additional Information:**

Use a previously conducted onsite? YES

Previous Onsite information: Onsite conducted for four slots and water tank with Vance Wolf on 10/5/2017.

Other SUPO Attachment

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BUREAU OF LAND MANAGEMENT



Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Produced Water Disposal (PWD) Location:

Would you like to utilize Lined Pit PWD options? NO

PWD surface owner:

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Decribe precipitated solids disposal:

Precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Injection well mineral owner:

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:	
PWD surface owner:	PWD disturbance (acres):
Unlined pit PWD on or off channel:	
Unlined pit PWD discharge volume (bbl/day):	
Unlined pit specifications:	
Precipitated solids disposal:	
Decribe precipitated solids disposal:	
Precipitated solids disposal permit:	
Unlined pit precipitated solids disposal schedule:	
Unlined pit precipitated solids disposal schedule attachment:	
Unlined pit reclamation description:	
Unlined pit reclamation attachment:	
Unlined pit Monitor description:	
Unlined pit Monitor attachment:	
Do you propose to put the produced water to beneficial use?	
Beneficial use user confirmation:	
Estimated depth of the shallowest aquifer (feet):	
Does the produced water have an annual average Total Dissol that of the existing water to be protected?	ved Solids (TDS) concentration equal to or less than
TDS lab results:	
Geologic and hydrologic evidence:	
State authorization:	
Unlined Produced Water Pit Estimated percolation:	
Unlined pit: do you have a reclamation bond for the pit?	
Is the reclamation bond a rider under the BLM bond?	
Unlined pit bond number:	
Unlined pit bond amount:	
Additional bond information attachment:	
Section 4 - Injection	
Would you like to utilize Injection PWD options? NO	
Produced Water Disposal (PWD) Location:	
PWD surface owner:	PWD disturbance (acres):
Injection PWD discharge volume (bbl/day):	

Injection well type:	
Injection well number:	Injection well name:
Assigned injection well API number?	Injection well API number:
Injection well new surface disturbance (acres):	
Minerals protection information:	
Mineral protection attachment:	
Underground Injection Control (UIC) Permit?	
UIC Permit attachment:	
Section 5 - Surface Discharge	•
Would you like to utilize Surface Discharge PWD options? NO	
Produced Water Disposal (PWD) Location:	
PWD surface owner:	PWD disturbance (acres):
Surface discharge PWD discharge volume (bbl/day):	
Surface Discharge NPDES Permit?	
Surface Discharge NPDES Permit attachment:	
Surface Discharge site facilities information:	
Surface discharge site facilities map:	
Section 6 - Other	
Would you like to utilize Other PWD options? NO	
Produced Water Disposal (PWD) Location:	
PWD surface owner:	PWD disturbance (acres):
Other PWD discharge volume (bbl/day):	
Other PWD type description:	
Other PWD type attachment:	
Have other regulatory requirements been met?	
Other regulatory requirements attachment:	
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U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

Bond Info Data Report 07/19/2018

Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB001079

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

