		~ 0 ⁽	D;		
Form 3160 -3 (March 2012) UNITED STATES	P	HOBBS OF	.)18	FORM OMB 1 Expires (APPROVED No. 1004-0137 October 31, 2014
DEPARTMENT OF THE	INTERIOR	Jr.	NE	5. Lease Serial No. NMNM02965A	
(March 2012) UNITED STATES DEPARTMENT OF THE BUREAU OF LAND MAN APPLICATION FOR PERMIT TO la. Type of work: DRILL REENTI	DRILL OF	R REENDER	-	6. If Indian, Allotee	or Tribe Name
la. Type of work: DRILL REENT	ER			7 If Unit or CA Agr	eement, Name and No.
lb. Type of Well: Oil Well Gas Well Other	_	_	le Zone	8. Lease Name and MAGNOLIA 15 FE	
2. Name of Operator EOG RESOURCES INCORPORATED	(73)	77)		9. API Well No. 30-025	-44399
3a. Address 1111 Bagby Sky Lobby2 Houston TX 77002	3b. Phone No (713)651-7). (include area code) 7000		10. Field and Pool, or RED HILLS / WC-	Exploratory 025 S263327G UPPR
 Location of Well (Report location clearly and in accordance with an At surface NWNE / 390 FNL / 1903 FEL / LAT 32.04966 	• •			11. Sec., T. R. M. or E SEC 15 / T26S / R	Blk. and Survey or Area
At proposed prod. zone SWNE / 2409 FNL / 2596 FEL / LA	T 32.02958	99 / LONG -103.560	00177		
 Distance in miles and direction from nearest town or post office* 22.5 miles 				12. County or Parish LEA	13. State NM
 Distance from proposed* location to nearest 390 feet property or lease line, ft. (Also to nearest drig. unit line, if any) 	16. No. of a 2174.12	acres in lease	17. Spacir 240	ng Unit dedicated to this	well
 Distance from proposed location* to nearest well, drilling, completed, 28 feet 	19. Propose	d Depth	20. BLM/	BIA Bond No. on file	
applied for, on this lease, ft.		et / 19675 feet	FED: N		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3307 feet	22 Approxi 01/01/201	mate date work will star 18	t*	23. Estimated duration 25 days	on
	24. Atta				
The following, completed in accordance with the requirements of Onsho	re Oil and Gas	Order No.1, must be at	tached to th	nis form:	
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office). 	Lands, the	Item 20 above). 5. Operator certific 6. Such other site	ation		n existing bond on file (see s may be required by the
25. Signature	Name	BLM. (Printed/Typed)	·		Date
(Electronic Submission)		Wagner / Ph: (432)	686-3689)	08/02/2017
Regulatory Specialsit					
Approved by (Signature) (Electronic Submission)		(Printed/Typed) Layton / Ph: (575)2	34-5959		Date 01/19/2018
Title Supervisor Multiple Resources		LSBAD			
Application approval does not warrant or certify that the applicant hole conduct operations thereon. Conditions of approval, if any, are attached.	is legal or equ	itable title to those right	ts in the sul	bject lease which would	entitle the applicant to
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a c States any false, fictitious or fraudulent statements or representations as	rime for any p to any matter v	person knowingly and w within its jurisdiction.	villfully to r	make to any department	or agency of the United
(Continued on page 2)				*(lns	tructions on page 2)
		royntil	ONS	K	2

KZ 13018

South & deal

Approval Date: 01/19/2018

DRAVED

NULL

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: 01/19/2018

Additional Operator Remarks

Location of Well

SHL: NWNE / 390 FNL / 1903 FEL / TWSP: 26S / RANGE: 33E / SECTION: 15 / LAT: 32.0496602 / LONG: -103.557793 (TVD: 0 feet, MD: 0 feet)
PPP: SWSE / 1171 FSL / 2598 FEL / TWSP: 26S / RANGE: 33E / SECTION: 15 / LAT: 32.0394325 / LONG: -103.5600287 (TVD: 12200 feet, MD: 15400 feet)
PPP: NWNE / 330 FNL / 2599 FEL / TWSP: 26S / RANGE: 33E / SECTION: 15 / LAT: 32.0498278 / LONG: -103.5600403 (TVD: 12157 feet, MD: 12307 feet)
BHL: SWNE / 2409 FNL / 2596 FEL / TWSP: 26S / RANGE: 33E / SECTION: 22 / LAT: 32.0295899 / LONG: -103.5600177 (TVD: 12200 feet, MD: 19675 feet)

BLM Point of Contact

Name: Deborah Ham

Title: Legal Landlaw Examiner

Phone: 5752345965

Email: dham@blm.gov

Approval Date: 01/19/2018

(Form 3160-3, page 3)

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.

Approval Date: 01/19/2018

(Form 3160-3, page 4)

FMSS

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

Application Data Report

0,1/23/2018

APD ID: 10400013002

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MAGNOLIA 15 FED COM

Submission Date: 08/02/2017

Zip: 77002

Well Number: 706H Well Work Type: Drill Highlighted data reflects the most recent changes

Show Final Text

Well Type: OIL WELL

Section 1 - General

APD ID:	10400013002	Tie to previous NOS?	Submission Date: 08/02/2017
BLM Offic	e: CARLSBAD	User: Stan Wagner	Title: Regulatory Specialsit
Federal/In	dian APD: FED	Is the first lease penetra	ated for production Federal or Indian? FED
Lease nur	nber: NMNM02965A	Lease Acres: 2174.12	
Surface a	ccess agreement in place?	Allotted?	Reservation:
Agreemer	t in place? NO	Federal or Indian agree	ment:
Agreemen	t number:		
Agreemen	t name:		· · ·
Keep appl	ication confidential? NO		
Permitting	Agent? NO	APD Operator: EOG RE	SOURCES INCORPORATED
Operator I	etter of designation:		

Operator Info

Dı	perator	Organization	Name:	EOG	RESO	URCES	INCORP	ORATED
~	perator	organization	nume.	200	1 COO		110010	OIVILL

Operator Address: 1111 Bagby Sky Lobby2

Operator PO Box:

Operator City: Houston State: TX

Operator Phone: (713)651-7000

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO	Mater Development Plan na	ame:
Well in Master SUPO? NO	Master SUPO name:	
Well in Master Drilling Plan? NO	Master Drilling Plan name:	
Well Name: MAGNOLIA 15 FED COM	Well Number: 706H	Well API Number:
Field/Pool or Exploratory? Field and Pool	Field Name: RED HILLS	Pool Name: WC-025 S263327G UPPR WC

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

Operator Name: EOG RESOURCES INCORPORATED **Well Name:** MAGNOLIA 15 FED COM

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: Number: 706H/707H/708H MAGNOLIA 15 FED COM Well Class: HORIZONTAL Number of Legs: 1 Well Work Type: Drill Well Type: OIL WELL Describe Well Type: Weil sub-Type: INFILL Describe sub-type: Distance to town: 22.5 Miles Distance to nearest well: 28 FT Distance to lease line: 390 FT Reservoir well spacing assigned acres Measurement: 240 Acres Magnolia_15_Fed_Com_706H_signed_C_102_08-02-2017.pdf Well plat: Well work start Date: 01/01/2018 Duration: 25 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Survey number:

Vertical Datum: NAVD88

	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
SHL Leg #1	390	FNL	190 3	FEL	26S	33E	15	Aliquot NWNE	32.04966 02	- 103.5577 9 <u>3</u>	LEA	NEW MEXI CO	NEW MEXI CO		NMNM 02965A	330 7	0	0
KOP Leg #1	53	FNL	255 7	FEL	26S	33E	15	Aliquot NWNE	32.05059 58	- 103.5598 99	LEA	NEW MEXI CO	146.44	1	NMNM 02965A	- 839 5	117 38	117 02
PPP Leg #1	330	FNL	259 9	FEL	26S	33E	15	Aliquot NWNE	32.04982 78	- 103.5600 403	LEA		NEW MEXI CO		NMNM 02965A	- 885 0	123 07	121 57

Well Number: 706H

FMSS

¹U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

APD ID: 10400013002

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MAGNOLIA 15 FED COM

Well Type: OIL WELL

Submission Date: 08/02/2017

Highlighted data reflects the most recent changes

01/23/2018

Drilling Plan Data Report

Well Number: 706H

Show Final Text

Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	PERMIAN	3307	0	0	<u> </u>	NONE	No
2	RUSTLER	2477	830	830	ANHYDRITE	NONE	No
3	TOP SALT	2147	1160	1160	SALT	NONE	No
4	BASE OF SALT	-1478	4785	4785	SALT	NONE	No
5	LAMAR	-1733	5040	5040 ·	LIMESTONE	NONE	No
6	BELL CANYON	-1763	5070	5070	SANDSTONE	NATURAL GAS,OIL	No
7	CHERRY CANYON	-2793	6100	6100	SANDSTONE	NATURAL GAS,OIL	No
8	BRUSHY CANYON	-4383	7690	7690	SANDSTONE	NATURAL GAS,OIL	No
9	BONE SPRING LIME	-5953	9260	9260	LIMESTONE	NONE	No
10	FIRST BONE SPRING SAND	-6878	10185	10185	SANDSTONE	NATURAL GAS,OIL	No
11	BONE SPRING 2ND	-7383	10690	10690	SANDSTONE	NATURAL GAS,OIL	No
12	BONE SPRING 3RD	-8458	11765	11765	SANDSTONE	NATURAL GAS,OIL	No
13	WOLFCAMP	-8928	12235	12235	SHALE	NATURAL GAS,OIL	Yes

Section 2 - Blowout Prevention

Well Name: MAGNOLIA 15 FED COM

Well Number: 706H

Pressure Rating (PSI): 10M

Rating Depth: 12200

Equipment: The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (10,000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with Onshore Oil and Gas order No. 2.

Requesting Variance? YES

Variance request: Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line). Variance is requested to wave the centralizer requirements for the 7-5/8" FJ casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation. Variance is also requested to wave any centralizer requirements for the 5-1/2" FJ casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement maximize cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement to maximize cement bond and zonal isolation.

Testing Procedure: Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 5000/ 250 psig. The surface casing will be tested to 1500 psi for 30 minutes. Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 5000/ 250 psig. The intermediate casing will be tested to 2000 psi for 30 minutes. 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. A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

Choke Diagram Attachment:

Magnolia_15_FC_706H_10_M_Choke_Manifold_08-01-2017.pdf

Magnolia_15_FC_706H_Co_Flex_Hose_Certification_08-01-2017.PDF

Magnolia_15_FC_706H_Co_Flex_Hose_Chart_08-01-2017.pdf

BOP Diagram Attachment:

Magnolia_15_FC_706H_10_M_BOP_Diagram_08-01-2017.pdf

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	14.7 5	10.75	NEW	API	N	0	855	0	855	3307	2452	855	J-55	40.5	STC	1.12 5	1.25	BUOY	1.6	BUOY	1.6 [.]
	INTERMED IATE	9.87 5	7.625	NEW	API	Y	0	1000	0	1000	3307	2307	1000	HCP -110	29.7	LTC	1.12 5	1.25	BUOY	1.6	BUOY	1.6
	INTERMED IATE	9.87 5	7.625	NEW	API	N	1000	3000	1000	3000	2307	307	2000	OTH ER		OTHER - SLIJ II	1.12 5	1.25	BUOY	1.6	BUOY	1.6
	PRODUCTI ON	6.75	5.5	NEW	API	Y	0	10800	0	10800	3307	-7493	10800	OTH ER		OTHER - DWC/C-IS MS	1.12 5	1.25	BUOY	1.6	BUOY	1.6

Section 3 - Casing

Well Name: MAGNOLIA 15 FED COM

Well Number: 706H

	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	Coltapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	-	INTERMED IATE	8.75	7.625	NEW	API	N	3000	11300	3000	11300	307	-7993		HCP -110		OTHER - Flushmax III		1.25	BUOY	1.6	BUOY	1.6
		PRODUCTI ON	6.75	5.5	NEW	API	N	10800	19675	10800	12200	-7493	-8893		OTH ER		OTHER - VAM SFC	1.12 5	1.25	BUOY	1.6	BUOY	1.6

Casing Attachments

Casing ID: 1 String Type: SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Magnolia_15_FC_706H_BLM_Plan_08-01-2017.pdf

Casing ID: 2

String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Magnolia_15_FC_706H_7.625in_29.70_P_110_FlushMax_III_08-01-2017.pdf See_previously_attached_Drill_Plan_08-01-2017.pdf Magnolia_15_FC_706H_7.625in_29.7_P110EC_VAM_SLIJ_II_08-01-2017.pdf

Casing Design Assumptions and Worksheet(s):

See_previously_attached_Drill_Plan_08-01-2017.pdf

Well Name: MAGNOLIA 15 FED COM

Well Number: 706H

Casing Attachments

Casing ID: 3 String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

See_previously_attached_Drill_Plan_20171005075843.pdf

Casing ID: 4 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Magnolia_15_FC_706H_5.5in_20.00_VST_P110EC_VAM_SFC_08-01-2017.pdf Magnolia_15_FC_706H_5.5in_20.00_VST_P110EC_DWC_C_IS_MS_08-01-2017.pdf See_previously_attached_Drill_Plan_08-01-2017.pdf

Casing Design Assumptions and Worksheet(s):

See previously attached Drill_Plan_08-01-2017.pdf

Casing ID: 5 String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

See_previously_attached_Drill_Plan_20171005075911.pdf

Well Name: MAGNOLIA 15 FED COM

Well Number: 706H

Casing Attachments

Casing ID: 6 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

See_previously_attached_Drill_Plan_20171005075929.pdf

•									1		·
Section	4 - Ce	emen	t								
String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead		0	0	0	0 ·	: 0	0	0	0	0
	.					L	I	•			· .
INTERMEDIATE	Lead		0	0	0	0	0	0	0	0	0
· ·	J			1	I	.	L	I	L	J	H
INTERMEDIATE	Lead		0	0	0	0	0	0	0	0	0
. ·		I			1	L	I		I	1	
SURFACE	Lead		0	855	325	1.73	13.5	562	25	Class C	Class C + 4.0% Bentonite + 0.6% CD- 32 + 0.5% CaCl2 + 0.25 lb/sk Cello-Flake (TOC @ Surface)
SURFACE	Tail		855	855	200	1.34	14.8	268	25	Class C	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
INTERMEDIATE	Lead		0	1130 0	2250	1.38	14.8	3105	25	Class C	Class C + 5% Gypsum + 3% CaCl2 pumped via bradenhead (TOC@surface)

Page 5 of 8

Operator Name: EOG RESOURCES INCORPORATED Well Name: MAGNOLIA 15 FED COM

Well Number: 706H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail		1130 0	1130 0	550	1.2	14.4	660	25	Class H	50:50 Class H:Poz + 0.25% CPT20A + 0.40% CPT49 + 0.20% CPT35 + 0.80% CPT16A + 0.25% CPT503P pumped conventionally
PRODUCTION	Lead		1080 0	1967 5	850	1.26	14.1	1071	25	Class H	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C- 17 (TOC @ 10800')

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: (A) A Kelly cock will be kept in the drill string at all times. (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times. (C) H2S monitoring and detection equipment will be utilized from surface casing point to TD. **Describe the mud monitoring system utilized:** An electronic pit volume totalizer (PVT) will be utilized on the circulating system to monitor pit volume, flow rate, pump pressure and stroke rate.

-	Circ	ulating Medi	um Ta	able							
Top Depth	Bottom Depth	Mud Type	Min Weight (Ibs/gal)	Max Weight (Ibs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	Hd	Viscosity (CP)	Satinity (ppm)	Filtration (cc)	Additional Characteristics
855	1130 0	SALT SATURATED	8.8	10		•					
1130 0	1220 0	OIL-BASED MUD	10	14							The highest mud weight needed to balance formation is expected to be 11.5 ppg. In order to maintain hole stability, mud weights up to

Page 6 of 8

Well Number: 706H

Well	Name:	MAGNOLIA	15 FED	COM

Top Depth	Bottom Depth	Mud Type	Min Weight (Ibs/gal)	Max Weight (Ibs/gal)	Density (Ibs/cu ft)	Gel Strength (lbs/100 sqft)	Ha	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics 14.0 ppg may be utilized.
0	855	WATER-BASED MUD	8.6	8.8			-				

Section 6 - Test, Logging, Coring

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

Open-hole logs are not planned for this well.

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

Coring operation description for the well: None

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 8881

Anticipated Surface Pressure: 6197

Anticipated Bottom Hole Temperature(F): 181

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:

Magnolia_15_FC_706H_H2S_Plan_Summary_08-01-2017.pdf

Well Name: MAGNOLIA 15 FED COM

Well Number: 706H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Magnolia_15_Fed_Com_706H_Planning_Report_08-01-2017.pdf Magnolia_15_Fed_Com_706H_Wall_Plot_08-01-2017.pdf

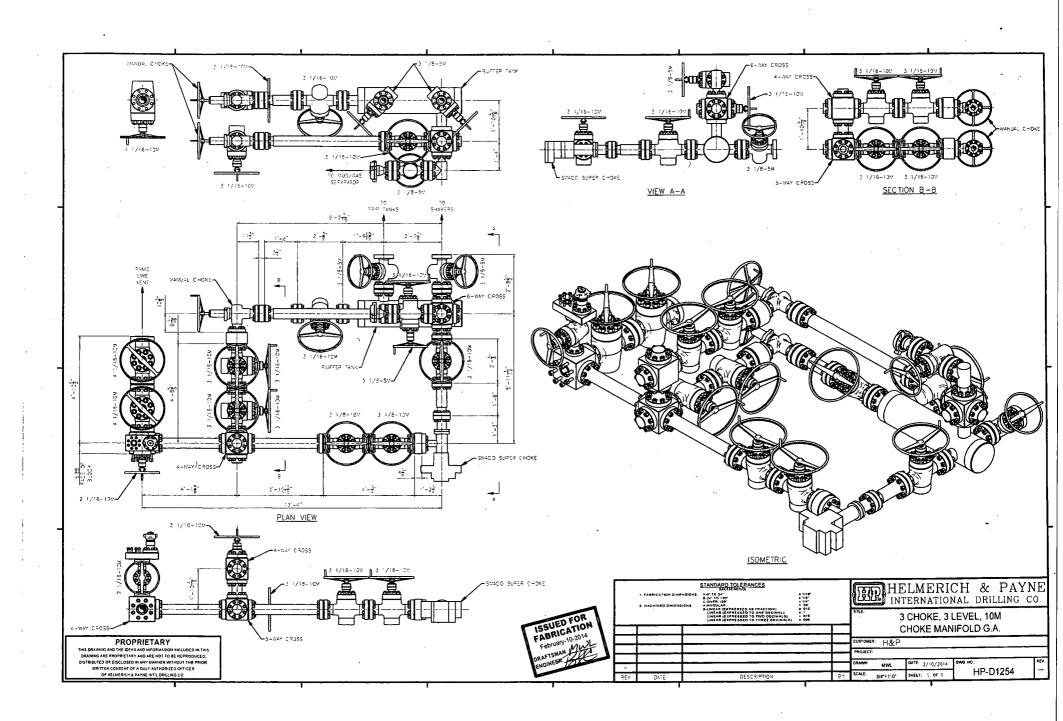
Other proposed operations facets description:

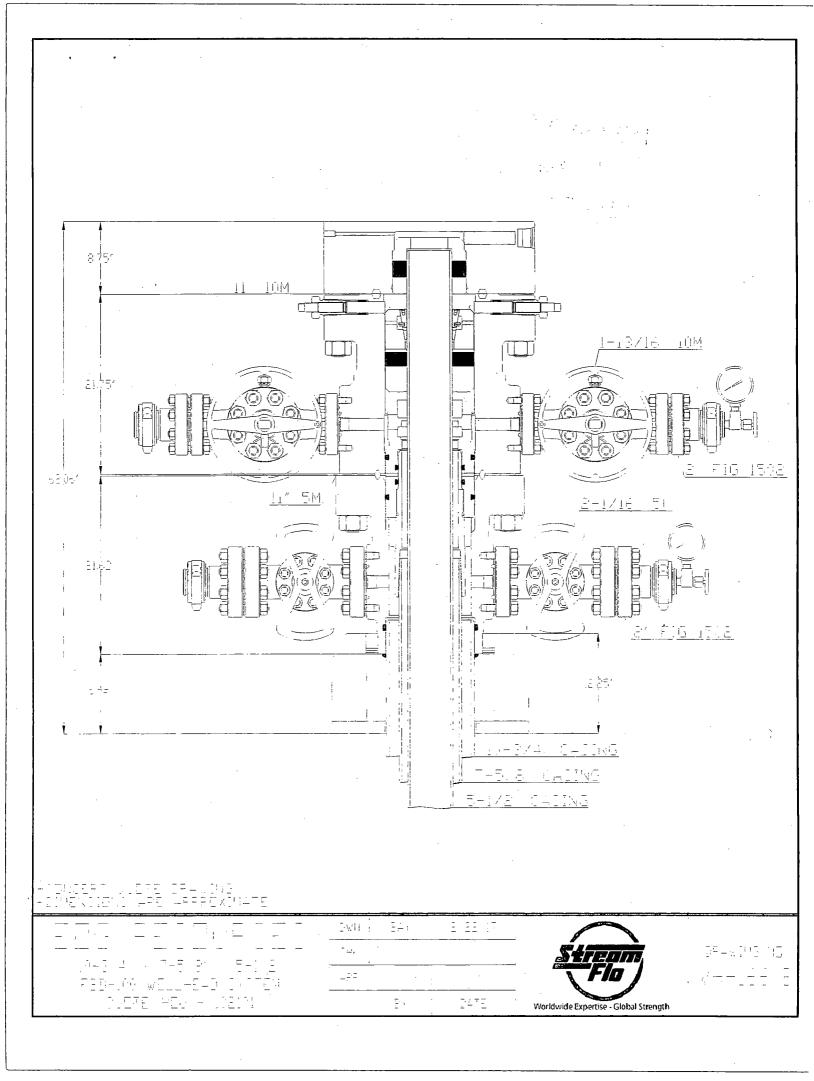
Other proposed operations facets attachment:

Magnolia_15_FC_706H_Rig_Layout_08-01-2017.pdf Magnolia_15_FC_706H_Wellbore_08-01-2017.pdf Magnolia_15_FC_706H_Wellhead_Cap_08-01-2017.pdf Magnolia_15_Fed_Com_706H_gas_capture_08-02-2017.pdf

Magnolia_15_FC_706H_deficiency_response_20171005080518.pdf

Other Variance attachment:





Manufacturer: Midwest Hose & Specialty

Serial Number: SN#90067

Length: 35'

Size: OD = 8" ID = 4"

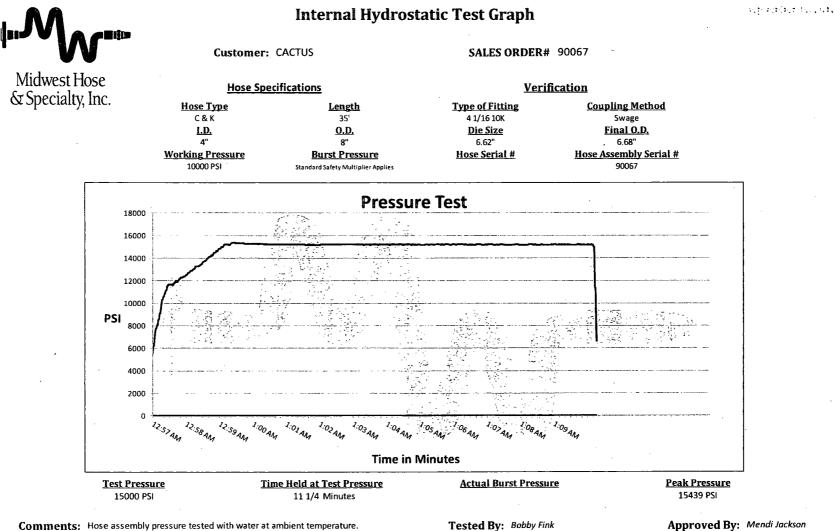
Ends: Flanges Size: 4-1/16"

WP Rating: 10,000 psi Anchors required by manfacturer: No

MIDWEST

HOSE AND SPECIALTY INC.

IN	TERNAL	HYDROST	ATIC TEST	REPOR	Т	
Customer:				P.O. Numb	er:	
CACTUS				RIG #123	1	
				Asset # N	110761	
		HOSE SPECI	ICATIONS			
Туре: С	HOKE LIN	E		Length:	35'	
I.D.	- 4"	INCHES	O.D.	8"	INC	CHES
WORKING PF	RESSURE	TEST PRESSUR	Ë	BURST PRES	SURE	
10,000	PSI	15,000	PSI			PSI
		COUP	LINGS			
	1/16 10K F	LANGE				
Type of Co S	wpling: WEDGED		MANUFACTU MIDWEST HOS		LTY	
	_	PROC	EDURE			
	inso assembl	v pressure tested w	ith water at ambie	nt temperatura		
		TEST PRESSURE		SURST PRESSU		
	1	MIN.			0	PSI
COMMENT	-		•			
	SN#90067					
		ered with stainl				
		fire resistant v				
	nsulation r	ated for 1500 de	grees complet		eyes	
Date: 6	/6/2011	Tested By: BOBBY FINK		Approved: MENDI	ACKS	ON

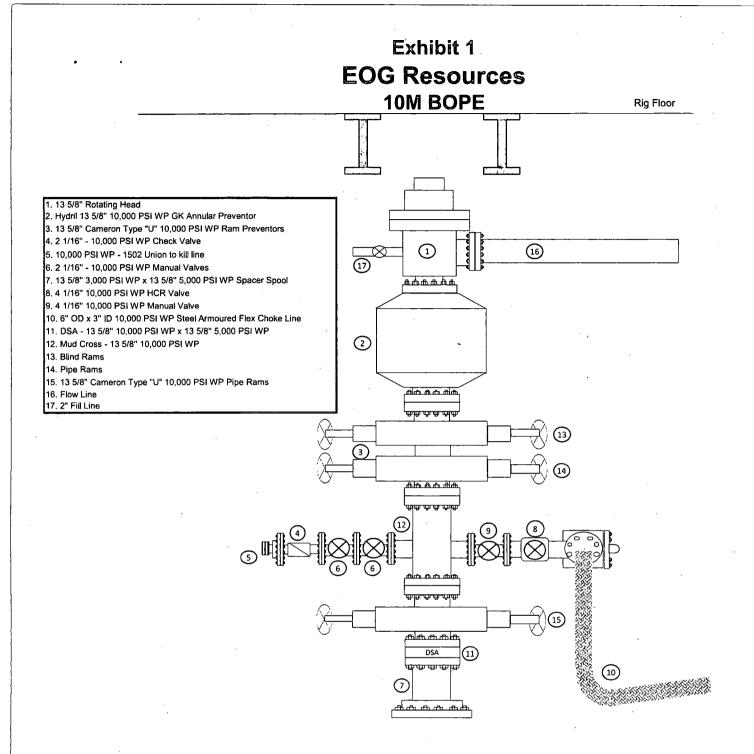


Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: Bobby Fink

Soft Z

Mendi Jackson



Issued on: 24 Jan. 2017

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Connection Data Sheet

OD	Weight	Wall Th.	Grade	API Drift	Connection
7 5/8 in.	29.70 lb/ft	0.375 in.	VM 110 HC	6.750 in.	VAM® SLIJ-II
۱ 	PIPE PROPERVI	20		CONNECTION PRO	

N. B. L. C.		
Nominal OD	7.625 in.	
Nominal ID	6.875 in.	
Nominal Cross Section Area	8.541 sqin.	
Grade Type	High Collapse	Ν
Min. Yield Strength	110 ksi	
Max. Yield Strength	140 ksi	r
Min. Ultimate Tensile Strength	125 ksi	C
1		

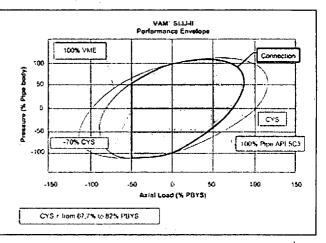
CONNECTION	PROPERNIES
Connection Type	Premium integral semi-flush
Connection OD (nom)	7.711 in.
Connection ID (nom)	6.820 in.
Make-up,Loss	4.822 in.
Critical Cross Section	5.912 sqin.
Tension Efficiency	69.2 % of pipe
Compression Efficiency	48.5 % of pipe
Internal Pressure Efficiency	100 % of pipe
External Pressure Efficiency	100 % of pipe

CONNECTION PERFORMANCES					
Tensile Yield Strength	651 klb				
Compression Resistance	455 klb				
Internal Yield Pressure	9470 psi				
Uniaxial Collapse Pressure	7890 psi				
Max. Bending Capacity	TDB				
Max Bending with Sealability	20 °/100 ft				

FIELD TORQUE V	ALUES
Min. Make-up torque	11300 ft.lb
Opti. Make-up torque	12600 ft.lb
Max. Make-up torque	13900 ft.lb

VAM® SLIJ-II is a semi-flush integral premium connection for all casing applications. It combines a near flush design with high performances in tension, compression and gas sealability.

VAM® SLIJ-II has been validated according to the most stringent tests protocols, and has an excellent performance history in the world's most prolific HPHT wells.



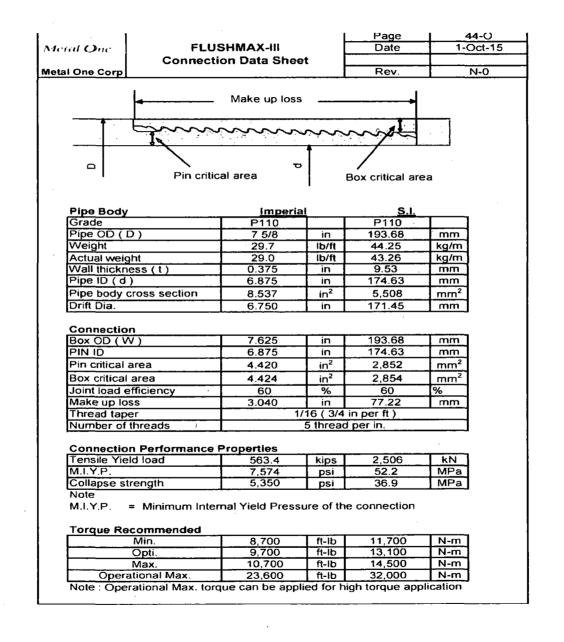
Do you need help on this product? - Remember no one knows VAM[®] like VAM canada@vamfieldservice.com usa@vamfieldservice.com mexico@vamfieldservice.com brazil@vamfieldservice.com brazil@vamfieldservice.com australia@vamfieldservice.com

Over 140 VAM® Specialists available worldwide 24/7 for Rig Site Assistance

Other Connection Data Sheets are available at www.vamservices.com

vallourec

Vallourec Group



1. GEOLOGIC NAME OF SURFACE FORMATION: Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	830'
Top of Salt	1,160'
Base of Salt / Top Anhydrite	4,785'
Base Anhydrite	5,040'
Lamar	5,040'
Bell Canyon	5,070'
Cherry Canyon	6,100'
Brushy Canyon	7,690'
Bone Spring Lime	9,260'
1 st Bone Spring Sand	10,185'
2 nd Bone Spring Shale	10,370'
2 nd Bone Spring Sand	10,690'
3 rd Bone Spring Carb	11,205'
3 rd Bone Spring Sand	11,765'
Wolfcamp	12,235'
TD	12,200'

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	0-400'	Fresh Water
Cherry Canyon	6,100'	Oil
Brushy Canyon	7,690'	Oil
1 st Bone Spring Sand	10,185'	Oil
2 nd Bone Spring Shale	10,370'	Oil
2 nd Bone Spring Sand	10,690'	Oil
3 rd Bone Spring Carb	11,205'	Oil
3 rd Bone Spring Sand	11,765'	Oil
Wolfcamp	12,235'	Oil

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 10.75" casing at 855' and circulating cement back to surface.

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
14.75"	0 - 855'	10.75"	40.5#	J55	STC	1.125	1.25	1.60
9.875"	0 – 1,000'	7.625"	,29.7#	HCP- 110	LTC	1.125	1.25	1.60
9.875"	1,000' – 3,000'	7.625"	29.7#	P-110EC	SLIJ II	1.125	1.25	1.60
8.75"	3,000' - 11,300'	7.625"	29.7#	HCP- 110	FlushMax III	1.125	1.25	1.60
6.75"	0' - 10,800'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.60
6.75"	10,800'-19,675'	5.5"	20#	P-110EC	VAM SFC	1.125	1.25	1.60

4. CASING PROGRAM - NEW

Variance is requested to wave the centralizer requirements for the 7-5/8" FJ casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to wave any centralizer requirements for the 5-1/2" FJ casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

Depth	No. Sacks	Wt. ppg	Yld Ft³/ft	Mix Water Gal/sk	Slurry Description
10-3/4" 855'	325	13.5	1.73	9.13	Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	200	14.8	1.34	6.34	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
7-5/8" 11,300'	250	14.8	1.38	6.48	Class C + 5% Gypsum + 3% CaCl2 pumped via Bradenhead (TOC @ Surface)
	2000	14.8	1.38	6.48	Class C + 5% Gypsum + 3% CaCl2 pumped via Bradenhead
	550	14.4	1.20	4.81	50:50 Class H:Poz + 0.25% CPT20A + 0.40% CPT49 + 0.20% CPT35 + 0.80% CPT16A + 0.25% CPT503P pumped Conventionally
5-1/2" 19,675'	850	14.1	1.26	5.80	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 10,800')

Cementing Program:

Note: Cement volumes based on bit size plus at least 25% excess in the open hole plus 10% excess in the cased-hole overlap section.

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line).

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (10,000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2.

Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 10,000/250 psig and the annular preventer to 5,000/250 psig. The surface casing will be tested to 1500 psi for 30 minutes.

Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 10,000/250 psig and the annular preventer to 5000/250 psig. The intermediate casing will be tested to 2000 psi for 30 minutes.

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.

A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

During this procedure we plan to use a Closed-Loop System and haul contents to the required disposal.

The applicable depths and properties of the drilling fluid systems are as follows.

Depth	Туре	Weight (ppg)	Viscosity	Water Loss
0 - 855'	Fresh - Gel	8.6-8.8	28-34	N/c
855' - 11,300'	Brine	8.8-10.0	28-34	N/c
11,300' – 19,675'	Oil Base	10.0-14.0	58-68	3 - 6
Lateral				

The highest mud weight needed to balance formation is expected to be 11.5 ppg. In order to maintain hole stability, mud weights up to 14.0 ppg may be utilized.

An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- (C) H₂S monitoring and detection equipment will be utilized from surface casing point to TD.

8. LOGGING, TESTING AND CORING PROGRAM:

Open-hole logs are not planned for this well.

GR-CCL Will be run in cased hole during completions phase of operations.

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:

The estimated bottom-hole temperature (BHT) at TD is 181 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 7295 psig (based on 11.5 ppg MW). No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. Severe loss circulation is expected from 7,300' to Intermediate casing point.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately one month. If the well is productive, an additional 60-90 days will be required for completion and testing before a decision is made to install permanent facilities.

(A) EOG Resources requests the option to contract a Surface Rig to drill, set surface casing, and cement on the subject well. After WOC 8 hours or 500 psi compressive strength (whichever is greater), the Durface Rig will move off so the wellhead can be installed. A welder will cut the casing to the proper height and weld on the wellhead (both "A" and "B" sections). The weld will be tested to 1000 psi. All valves will be closed and a wellhead cap will be installed (diagram attached). If the timing between rigs is such that EOG Resources would not be

able to preset the surface, the Primary Rig will MIRU and drill the well in its entirety per the APD.

11. WELLHEAD:

A multi-bowl wellhead system will be utilized.

After running the 10-3/4" surface casing, a 13-5/8" BOP/BOPE system with a minimum working pressure of 10,000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 10,000 psi pressure test. This pressure test will be repeated at least every 30 days, as per Onshore Order No. 2

The minimum working pressure of the BOP and related BOPE required for drilling below the surface casing shoe shall be 10,000 psi.

The multi-bowl wellhead will be installed by vendor's representative(s). A copy of the installation instructions for the Stream Flo FBD100 Multi-Bowl WH system has been sent to the NM BLM office in Carlsbad, NM.

The wellhead will be installed by a third party welder while being monitored by WH vendor's representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi.

Both the surface and intermediate casing strings will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.



United States Department of the Interior

BUREAU OF LAND MANAGEMENT CARLSBAD FIELD OFFICE 620 E. GREENE ST. CARLSBAD, NM 88220



In Reply To: 3160 (Office Code) [NMNM02965A]

10/04/2017

Attn: STAN WAGNER EOG RESOURCES INCORPORATED 1111 BAGBY SKY LOBBY2 HOUSTON, TX 77002

Re: Receipt and Acceptability of Application for Permit to Drill (APD)

FEDERAL - NMNM02965A

Well Name / Number: Legal Description: County, State: Date APD Received: MAGNOLIA 15 FED COM / 706H T26S, R33E, SEC 15, NWNE LEA, NM 08/02/2017

Dear Operator:

The BLM received your Application for Permit to Drill (APD), for the referenced well, on 08/02/2017. The BLM reviewed the APD package pursuant to part III.D of Onshore Oil and Gas Order No.1 and it is:

1. Incomplete/Deficient (*The BLM cannot process the APD until you submit the identified items within 45 calendar days of the date of this notice or the BLM will return your APD.*)

	Well Plat		
- 🗸	Drilling Plan		
	Surface Use Plan of Operations (SUPO)		
	Certification of Private Surface Owner Access Agreement		
	Bonding		
	Onsite (The BLM has scheduled the onsite to be on (1)		
	This requirement is exempt of the 45-day timeframe to submit deficiencies. This requirement will be satisfied on the date of the onsit		
	Other		

[Please See Addendum for further clarification of deficiencies]

2. Missing Necessary Information (*The BLM can start, but cannot complete the analysis until you submit the identified items. This is an early notice and the BLM will restate this in a 30-day deferral letter, if you have not submitted the information at that time. You will have two (2) years from the date of the deferral to submit this information or the BLM will deny your APD.*)

[Please See Addendum for further clarification of deficiencies]

NOTE: The BLM will return your APD package to you, unless you correct all deficiencies identified above (item 1) within 45 calendar days.

• The BLM will not refund an APD processing fee or apply it to another APD for any returned APD.

Extension Requests:

- If you know you will not be able to meet the 45-day timeframe for reasons beyond your control, you must submit a written request through email/standard mail for extension prior to the 45th calendar day from this notice. 11/18/2017.
- The BLM will consider the extension request if you can demonstrate your diligence (providing reasons and examples of why the delay is occurring beyond your control) in attempting to correct the deficiencies and can provide a date by which you will correct the deficiencies. If the BLM determines that the request does not warrant an extension, the BLM will return the APD as incomplete after the 45 calendar days have elapsed.
 - The BLM will determine whether to grant an extension beyond the required 45 calendar days and will document this request in the well file. If you fail to submit deficiencies by the date defined in the extension request, the BLM will return the APD.

APDs remaining Incomplete:

- If the APD is still not complete, the BLM will notify you and allow 10 additional business days to submit a written request to the BLM for an extension. The request must describe how you will address all outstanding deficiencies and the timeframe you request to complete the deficiencies.
 - The BLM will consider the extension request if you can prove your diligence (providing reasons and examples of why the delay is occurring) in attempting to correct the deficiencies and you can provide a date by which you will correct the deficiencies. If the BLM determines that the request does not warrant an additional extension, the BLM will return the APD as incomplete.

If you have any questions, please contact Deborah Ham at (575) 234-5965.

Sincerely,

Cody Layton Assistant Field Manager

cc: Official File

Clarifications

ADDENDUM - Deficient

Engineering Comments

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The states

- Casing design information is inadequate and/or incomplete Submit a Production casing grade in the casing program.

Corrected in Africasi

Submit correct casing program because casing program in APD do not match drilling plan casing program.

Submit correct hole sizes because hole sizes in APD do not match drilling plan casing program. Submit the correct depth for the each casing depth of the cement in the APD.

- Bottom hole pressures and hazards inadequate and/or incomplete ABHP in section 7 is not sufficient for the Max MW in section 5. Submit BHP and SHP.

5. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- (C) H₂S monitoring and detection equipment will be utilized from surface casing point to TD.

8. LOGGING, TESTING AND CORING PROGRAM:

Open-hole logs are not planned for this well.

GR-CCL Will be run in cased hole during completions phase of operations.

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:

The estimated bottom-hole temperature (BHT) at TD is 181 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 8881 psig (based on 14.0 ppg MW). No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. Severe loss circulation is expected from 7,300' to Intermediate casing point.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

1

The drilling operation should be finished in approximately one month. If the well is productive, an additional 60-90 days will be required for completion and testing before a decision is made to install permanent facilities.

(A) EOG Resources requests the option to contract a Surface Rig to drill, set surface casing, and cement on the subject well. After WOC 8 hours or 500 psi compressive strength (whichever is greater), the Surface Rig will move off so the wellhead can be installed. A welder will cut the casing to the proper height and weld on the wellhead (both "A" and "B" sections). The weld will be tested to 1000 psi. All valves will be closed and a wellhead cap will be installed (diagram attached). If the timing between rigs is such that EOG Resources would not be able to preset the surface, the Primary Rig will MIRU and drill the well in its entirety per the APD.

FMSS

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT SUPO Data Report

01/23/2018

APD ID: 10400013002 Operator Name: EOG RESOURCES INCORPORATED Well Name: MAGNOLIA 15 FED COM Well Type: OIL WELL

Submission Date: 08/02/2017

Row(s) Exist? NO

Well Number: 706H Well Work Type: Drill Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

MAGNOLIA15FEDCOM706H_vicinity_08-01-2017.pdf

Existing Road Purpose: ACCESS, FLUID TRANSPORT

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

MAGNOLIA15FEDCOM706H_padsite_08-01-2017.pdf MAGNOLIA15FEDCOM706H_wellsite_08-01-2017.pdf Magnolia_15_Fed_Com_infrastructure_08-01-2017.pdf New road type: RESOURCE

Length: 221

Feet

Width (ft.): 24

Max slope (%): 2

Max grade (%): 20

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 24

New road access erosion control: Newly constructed or reconstructed roads will be constructed as outlined in the BLM "Gold Book" and to meet the standards of the anticipated traffic flow and all anticipated weather requirements as needed. Construction will include ditching, draining, crowning and capping or sloping and dipping the roadbed as necessary to provide a well-constructed and safe road. We plan to grade and water twice a year. **New road access plan or profile prepared?** NO

Well Name: MAGNOLIA 15 FED COM

Well Number: 706H

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: 6" of Compacted Caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: An adequate amount of topsoil/root,zone will be stripped by dozer from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram / survey plat. **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 drainage crossings

Road Drainage Control Structures (DCS) description: N/A

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:

MAGNOLIA15FEDCOM706H_radius_08-01-2017.pdf

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: Magnolia 15 Fed Com central tank battery is located in the NW/4 of section 15 **Production Facilities map:**

Well Name: MAGNOLIA 15 FED COM

Well Number: 706H

Magnolia_15_Fed_Com_infrastructure_08-01-2017.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: OTHER

Describe type:

Source latitude:

Source datum:

Water source permit type: WATER RIGHT

Source land ownership: FEDERAL

Water source transport method: PIPELINE, TRUCKING

Source transportation land ownership: FEDERAL

Water source volume (barrels): 0

Source volume (gal): 0

Water source and transportation map:

Magnolia 15 Fed Com water source_and_caliche_map_08-01-2017.pdf

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:	۰.	
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 Production type:	Completion Method	d:
Water well additional information:		

Water source type: RECYCLED

Source volume (acre-feet): 0

Source longitude:

Well Name: MAGNOLIA 15 FED COM

Well Number: 706H

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Construction Materials description: Caliche will be supplied from pits shown on the attached caliche source map. Caliche utilized for the drilling pad will be obtained either from an existing approved mineral pit, or by benching into a hill, which will allow the pad to be level with existing caliche from the cut, or extracted by "Flipping" the well location. A mineral material permit will be obtained from BLM prior to excavating any caliche on Federal Lands. Amount will vary for each pad. The procedure for "Flipping" a well location is as follows: * -An adequate amount of topsoil/root zone (usually top 6 inches of soil) will be stripped from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram/survey plat. -An area will be used within the proposed well site dimensions to excavate caliche. Subsoil will be removed and stockpiled within the surveyed well pad dimensions. -Once caliche/surfacing mineral is found, the mineral material will be excavated and stock piled within the approved drilling pad dimensions. -Then, subsoil will be pushed back in the excavated hole and caliche will be spread accordingly across the entire well pad and road (if available). -Neither caliche, nor subsoil will be stock piled outside of the well pad dimensions. Topsoil will be stockpiled along the edge of the pad as depicted in the Well Site Layout or survey plat. * In the event that no caliche is found onsite, caliche will be hauled in from a BLM approved caliche pit or other established mineral pit. A BLM mineral material permit will be acquired prior to obtaining any mineral material permit will be acquired prior to obtaining any mineral material from BLM pits or federal land.

Construction Materials source location attachment:

Magnolia_15_Fed_Com_water_source_and_caliche_map_08-01-2017.pdf

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drill fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility. Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly. Human waste and grey water will be properly contained of and disposed of properly. After drilling and completion operations; trash, chemicals, salts, frac sand, and other waste material will be removed and disposed of properly at a state approved disposal facility. **Amount of waste:** 0 barrels

Waste disposal frequency : Daily

Safe containment description: Steel Tanks

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Trucked to NMOCD approved disposal facility

Reserve Pit

Reserve pit width (ft.)

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

Reserve pit length (ft.)

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

Well Name: MAGNOLIA 15 FED COM

Well Number: 706H

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? YES

Description of cuttings location Closed Loop System. Drill cuttings will be disposed of into steel tanks and taken to an NMOCD approved disposal facility. Cuttings area length (ft.)

Cuttings area depth (ft.)

Cuttings area width (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:

Magnolia_15_FC_706H_Rig_Layout_08-01-2017.pdf MAGNOLIA15FEDCOM706H padsite 08-01-2017.pdf MAGNOLIA15FEDCOM706H_wellsite_08-01-2017.pdf Comments: Exhibit 2A-Wellsite & Exhibit 2B-Padsite Rig Layout Exhibit 4

Well Name: MAGNOLIA 15 FED COM

Well Number: 706H

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: MAGNOLIA 15 FED COM

Multiple Well Pad Number: 706H/707H/708H

Recontouring attachment:

MAGNOLIA15FEDCOM706H_reclamation_08-01-2017.pdf

Drainage/Erosion control construction: Proper erosion control methods will be used on the area to control erosion, runoff, and siltation of the surrounding area.

Drainage/Erosion control reclamation: The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion is controlled.

Wellpad long term disturbance (acres): 3.05326	Wellpad short term disturbance (acres): 4.499541							
Access road long term disturbance (acres): 0.121763	Access road short term disturbance (acres): 0.121763							
Pipeline long term disturbance (acres): 2.9015152	Pipeline short term disturbance (acres): 4.835859							
Other long term disturbance (acres): 0	Other short term disturbance (acres): 0							
Total long term disturbance: 6.076538	Total short term disturbance: 9.457163							

Reconstruction method: In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads. Areas planned for interim reclamation will 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 and fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites. **Soil treatment:** Re-seed according to BLM standards. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion is controlled.

Existing Vegetation at the well pad: Grass, forbs, and small woody vegetation, such as mesquite will be excavated as the topsoil is removed. Large woody vegetation will be stripped and stored separately and respreads evenly on the site following topsoil respreading. Topsoil depth is defined as the top layer of soil that contains 80% of the roots. 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 and along the perimeter of the access road to control run-on and run-off, 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 subsóils.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation. **Existing Vegetation Community at the road attachment:**

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Well Name: MAGNOLIA 15 FED COM

Well Number: 706H

Existing Vegetation Community at the pipeline: All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation. **Existing Vegetation Community at the pipeline attachment:**

Existing Vegetation Community at other disturbances: All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation. **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 name:

Source name:

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre:

Seed Summary Seed Type Pounds/Acre

Seed source:

Source address:

Proposed seeding season:

Total pounds/Acre:

Seed reclamation attachment:

Well Name: MAGNOLIA 15 FED COM

Well Number: 706H

Operator Contact/Responsible Official Contact Info

First Name: Stan

Phone: (432)686-3689

Last Name: Wagner

Email: stan_wagner@eogresources.com

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, erosion is controlled, and free of noxious weeds. Weeds will be treated if found. Weed treatment plan attachment:

Monitoring plan description: Reclamation will be completed within 6 months of well plugging. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, erosion is controlled, and free of noxious weeds.

Monitoring plan attachment:

Success standards: N/A

Pit closure description: NA

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

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:

Well Name: MAGNOLIA 15 FED COM

Well Number: 706H

USFS Forest/Grassland:

USFS Ranger District:

Fee Owner Address: P.O. Box 135 Orla, TX 79770

Fee Owner: Oliver Kiehne

Phone: (575)399-9281

Email:

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: surface use agreement

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Disturbance type: PIPELINE

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

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:

Well Name: MAGNOLIA 15 FED COM

Well Number: 706H

Fee Owner Address:

Email:

Fee Owner: Oliver Kiehne

Phone: (575)399-9281

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: EOG has a surface use agreement w/ Mr. Kiehne

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Section 12 - Other Information

Right of Way needed? NO

Use APD as ROW?

ROW Type(s):

ROW Applications

SUPO Additional Information: An onsite meeting was conducted 5/23/17. Poly lines are planned to transport water for operations. Will truck if necessary. See attached SUPO Plan. **Use a previously conducted onsite?** NO

Previous Onsite information:

Other SUPO Attachment

MAGNOLIA15FEDCOM706H_location_08-01-2017.pdf SUPO_Magnolia_15_Fed_Com_706H_08-02-2017.pdf **AFMSS**

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

PWD Data Report

01/23/2018

Section 1 - General

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

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO **Produced Water Disposal (PWD) Location:** 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: Precipitated solids disposal: Decribe 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:

PWD disturbance (acres):

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

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 Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

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:

Injection PWD discharge volume (bbl/day): Injection well mineral owner:

PWD disturbance (acres):

PWD disturbance (acres):

Injection well type:

Injection well number:

Assigned 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:

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: Other PWD discharge volume (bbl/day): Other PWD type description: Other PWD type attachment: Have other regulatory requirements been met? Other regulatory requirements attachment: Injection well name:

Injection well API number:

PWD disturbance (acres):

PWD disturbance (acres):

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

Bond Info Data Report 01/23/2018

Bond Information

Federal/Indian APD: FED

BLM Bond number: NM2308

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:

Well Name: MAGNOLIA 15 FED COM

Well Number: 706H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	QM	TVD
PPP	117	FSL	259	FEL	26S	33E	15	Aliquot	32.03943	-	LEA		NEW	F	FEE	-	154	122
Leg	1		8					SWSE	25	103.5600			MEXI		· •	889	00	00
#1										287		co	co			3		
EXIT	230	FNL	259	FEL	26S	33E	22	Aliquot	32.02986	-	LEA	NEW	NEW	F	NMNM	- ·	195	122
Leg	9		6					SWNE	48	103.5600		1	MEXI		02965A	889	75	00
#1										18		co	co			3		
BHL	240	FNL	259	FEL	26S	33E	22	Aliquot	32.02958	-	LEA	NEW	NEW	F	NMNM	-	196	122
Leg	9		6					SWNE	99	103.5600			MEXI		02965A	889	75	00
#1										177		со	co			3	ĺ	

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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: Stan Wagner

Title: Regulatory Specialsit

Street Address: 5509 Champions Drive

City: Midland

State: TX

State: TX

Phone: (432)686-3689

Email address: Stan_Wagner@eogresources.com

Field Representative

Representative Name: James Barwis

Street Address: 5509 Champions Drive

City: Midland

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Zip: 79706

Zip: 79702

Detrator Certification Data Report

Signed on: 08/02/2017

01/23/2018

Phone: (432)425-1204

Email address: james_barwis@eogresources.com