Form 3160-5 (June 2015)

☐ Final Abandonment Notice

KP

#### **OCD** Received 7/14/2020 UNITED STATES

DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB NO. 1004-0137 xpires: January 31, 2018

Lease Serial No.

	NIVIOI 000304D
6.	If Indian, Allottee or Tribe Name

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an
abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN	TRIPLICATE - Other ins	tructions on page 2		7. If Unit or CA/Agree	ement, Name and/or No.	
Type of Well     Oil Well	ner			8. Well Name and No. HICCUP A 1		
Name of Operator     MUSTANG RESOURCES LLC		DEB LEMON nustangresurcesllc.com		9. API Well No. 30-045-30249-0	0-S1	
3a. Address 1660 LINCOLN ST. SUITE 14 DENVER, CO 80264		10. Field and Pool or I GALLEGOS FR	Exploratory Area UITLAND SAND			
4. Location of Well (Footage, Sec., T	., R., M., or Survey Description	)		11. County or Parish, State		
Sec 3 T26N R12W NWNW 11 36.521287 N Lat, 108.104922		SAN JUAN COL	JNTY, NM			
12. CHECK THE AI	PPROPRIATE BOX(ES)	TO INDICATE NATURE O	F NOTICE, 1	REPORT, OR OTH	HER DATA	
TYPE OF SUBMISSION		TYPE OF	ACTION			
Notice of Intent     ■	Acidize	Deepen	_	on (Start/Resume)	☐ Water Shut-Off	
_ a .	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclama	tion	☐ Well Integrity	
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	□ Recompl	ete	□ Other	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

☐ Plug Back

■ Plug and Abandon

Mustang Resources, LLC respectfully requests approval to plug and abandon the Hiccup A1. Please find attached pre- and post- wellbore diagrams, P&A procedure and cement calculations.

☐ Change Plans

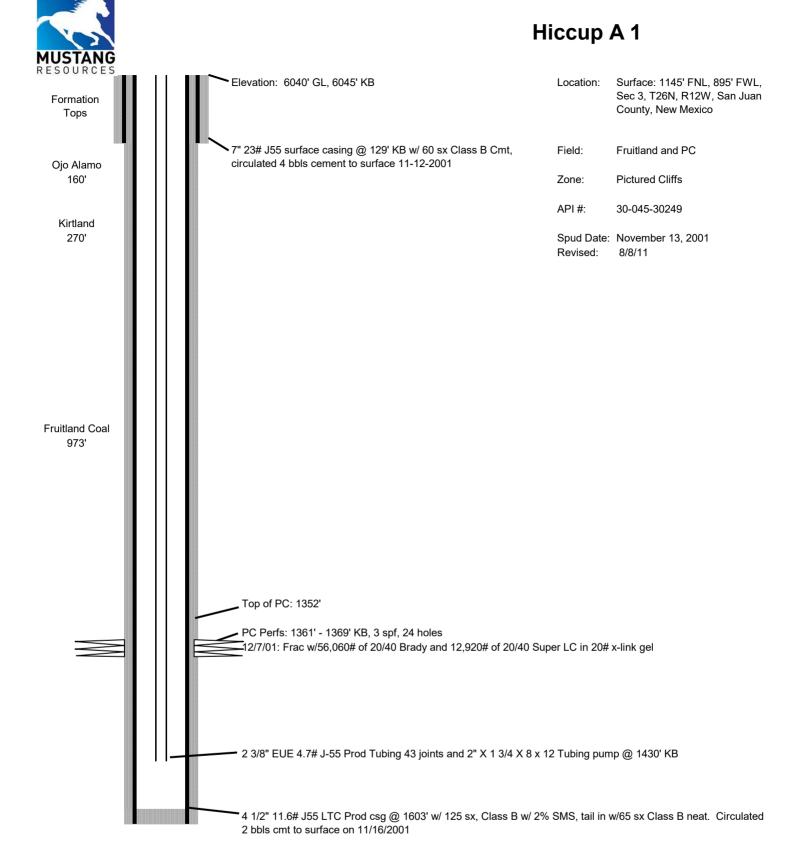
☐ Convert to Injection

Notify NMOCD 24hrs Prior to beginning operations

□ Temporarily Abandon

■ Water Disposal

14. I hereby certify that the	ne foregoing is true and correct.  Electronic Submission #507713 verifie For MUSTANG RESOURCES Committed to AFMSS for processing by ALBERT	LLČ, s	ent to the Farmington		
Name (Printed/Typed)	DEB LEMON	Title	REGULATORY MANAGER		
Signature	(Electronic Submission)	Date	03/19/2020		
	THIS SPACE FOR FEDERA	L OR	STATE OFFICE USE		
Approved By JOE KIL	LI <u>N</u> S	Title	NGINEER	Date 04/30/2020	
certify that the applicant hol	ny, are attached. Approval of this notice does not warrant or ds legal or equitable title to those rights in the subject lease licant to conduct operations thereon.	Office	Farmington		
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.					



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TD @ 1610' KB

7/20/11: 2 3/4" X 1 3/4" X 16' X 14' THEC Energy Pump 54 ea 3/4" rods 8 ea 2-4' subs



## Hiccup A 1

Elevation: 6040' GL, 6045' KB Surface: 1145' FNL, 895' FWL, Location: Sec 3, T26N, R12W, San Juan Formation County, New Mexico Tops Field: Fruitland and PC 7" 23# J55 surface casing @ 129' KB w/ 60 sx Class B Cmt, Zone: Pictured Cliffs Ojo Alamo circulated 4 bbls cement to surface 11-12-2001 API#: 30-045-30249 160' Spud Date: November 13, 2001 Revised: 3/6/20 Plug 3 : Kirtland Top 270', Ojo Alamo Top 160', and Surface Top Off, with 2 3/8" tbg @ 320', establish Kirtland circulation and place balanced plug mixing 24.3 sx (29.9 cf) cement plus 50% excess, pump until good 270' cement to surface, TOH with 2 3/8" tbg and top off casing to surface. Plug 2: Fruitland Coal Top 973', with 2 3/8" tbg @ 1023', establish circulation, place balanced plug 7.59 Fruitland Coal sx (8.73 cf) cement plus 50% excess, TOH to 320' and reverse hole clean. 973' Plug 1: Set CIBP at 1320', with 2 3/8" tbg @ 1315', establish circulation and place balanced plug mixing 7.59 sx (8.73 cf) cement plus 50% excess, TOH with 2 3/8" tbg to 1023' and reverse circulate hole clean. **CIBP** CIBP Set at 1320' Top of PC: 1352' PC Perfs: 1361' - 1369' KB, 3 spf, 24 holes -12/7/01: Frac w/56,060# of 20/40 Brady and 12,920# of 20/40 Super LC in 20# x-link gel 4 1/2" 11.6# J55 LTC Prod csg @ 1603' w/ 125 sx, Class B w/ 2% SMS, tail in w/65 sx Class B neat. Circulated 2 bbls cmt to surface on 11/16/2001

TD @ 1610' KB

**Company Name: Mustang Resources LLC** 

Well Name: Hiccup A 1 API Number: 30-045-30249

Location: Sec 3, T26N, R12W (F) 1145' FNL & 895' FWL

County: San Juan County, New Mexico

Note: Follow all NMOCD/NEPA Rules and Regulations.

7" 23# Casing Shoe 129'
4.5", 11.6# Production Casing 1603'
Pictured Cliff Perfs 1361-1369'

Note: Class G, 15.8 ppg Density and 1.15 ft3/sx yield for all cement activities.

<u>Step</u>	<u>Description</u>
1	***Obtain all Sundry Notice approvals to P&A Well (NMOCD, BLM, Tribal Agencies)
2	Prior to work, check lease roads, test rig anchors, arrange for fresh water on location
3	Notify NMOCD/BLM and Tribal Agency 48 hours before commencing rig operations
4	MIRU workover rig with 2M Class II BOPE.
5	Pull Rod string (54 3/4" rods and 8 2-4' 3/4" subs)
6	ND WH and NU BOP, kill well if necessary with fresh water
7	TOH 2 3/8" tubing and tubing pump (43 jts tubing)
8	TIH good 2 3/8" tubing with 4.5" CIBP and set at 1320' KB
9	Pull up hole with tubing to 1315', fill casing with water and establish circulation
10	Pressure test casing to 600 psi (if passes, then don't need to tag cement tops for each job)
11	Plug 1: Cement on top of CIBP, Place balanced plug mixing 7.59 sx (8.73 cf) cement plus 50% excess.
12	TOH with 2 3/8" tbg to 1023' and reverse circulate hole clean.
13	Plug 2: Fruitland Coal Top 973', Place balanced plug 7.59 sx (8.73 cf) cement plus 50% excess,
14	TOH to 320' and reverse hole clean.
15	<b>Plug 3:</b> Kirtland Top 270', Ojo Alamo Top 160', and Surface Top Off, Place balanced plug mixing 24.3 sx (29.9 cf) cement plus 50% excess, pump until good cement to surface
16	TOH with 2 3/8" tbg and top off casing to surface with cement
17	Weld Permanent marker to BLM Specs.
18	RD Rig and Release

## Hiccup A 1

**Proposed Casing Squeeze and Plugging Calculations** 

# Proposed P&A Well Calculations OH/Casing/Tubing Details 4-1/2", 11.6# Capacity 0.0873 ft3/ft 2-3/8", 4.7# Capacity 0.0217 ft3/ft 0.0155 bbl/ft 0.0039 bbl/ft ID 4.00 Inches drift 1.995 Inches Landed @ 1430 feet KB

#### NOTE: Each Cement Job required to place cement as follows

- 1. OD of pipe 50' below and 50' above Formation Top with 100% excess
- 2. ID of pipe 50' below and 50' above Formation Top with 50% excess
- 3. ALL cement will be Class G, Density 15.8 ppg and Yield 1.15 cf/sx

# Plug 1: Cap top of CIBP Formation Top NA f CIBP @ 1320 Cement Top 1220 Open Hole Capacity (NA-cemented to Surface)

100	feet plus	50% excess
	Inside	Pipe Capacity
ft3	8.73	100' Inside Casing
ft3	4.365	50% excess
ft3	13.095	Total ft3 Inside Pipe
ft3	14	Rounded up
bbls	2.59	Total BBLS
SXS	12.17	Total Sxs Cement

#### **Total Sxs Cement 12.17**

Plug 1: Set CIBP at 1320', with 2 3/8" tbg @ 1315', establish circulation and place balanced plug mixing 7.59 sx (8.73 cf) cement plus 50% excess, TOH with 2 3/8" tbg to 1023' and reverse circulate hole clean.

Plug 2:	Fruitland Coal	F	973 f	t	
	Bttm Balanced Plug @	1023	Cement Top	923	
	Open Hole Capa	city (NA-ce	emented to Su	ırface)	

100	feet plus 50% excess							
	Inside	Pipe Capacity						
ft3	8.73	100' Inside Casing						
ft3	4.365	50% excess						
ft3	13.095	Total ft3 Inside Pipe						
ft3	14	Rounded up						
bbls	2.59	Total BBLS						
SXS	12.17	Total Sxs Cement						

#### **Total Sxs Cement 12.17**

Plug 2: Fruitland Coal Top 973', with 2 3/8" tbg @ 1023', establish circulation, place balanced plug 7.59 sx (8.73 cf) cement plus 50% excess, TOH to 320' and reverse hole clean.

		Kirtland			2	<mark>270</mark>
		Ojo Alamo			1	<mark> 60</mark>
Plug 3:		Surface		Formation Top		0 ft
	В	ettm Balanced Plug @	320	<b>Cement Top</b>	0	
		Open Hole Capa	emented to Su	ırface)		

320	320 feet plus 50% excess							
	Inside	Pipe Capacity						
ft3	27.936	320' Balanced Plug						
ft3	13.968	50% excess						
ft3	ft3 41.904 Total ft3 Inside Pipe							
ft3	42	Rounded up						
bbls	7.76	Total BBLS						
SXS	36.52	Total Sxs Cement						

#### Total Sxs Cement 36.52

Plug 3: Kirtland Top 270', Ojo Alamo Top 160', and Surface Top Off, with 2 3/8" tbg @ 320', establish circulation and place balanced plug mixing 24.3 sx (29.9 cf) cement plus 50% excess, pump until good cement to surface, TOH with 2 3/8" tbg and top off casing to surface, weld Permanent marker to BLM Specs.

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT FARMINGTON DISTRICT OFFICE

6251 COLLEGE BLVD. FARMINGTON, NEW MEXICO 87402

Attachment to notice of Intention to Abandon:

Re: Permanent Abandonment

Well: Hiccup A1

### **CONDITIONS OF APPROVAL**

- 1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."
- 2. Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 564-7750.

# GENERAL REQUIREMENTS FOR PERMANENT ABANDONMENT OF WELLS ON FEDERAL AND INDIAN LEASES FARMINGTON FIELD OFFICE

- 1.0 The approved plugging plans may contain variances from the following <u>minimum general</u> requirements.
  - 1.1 Modification of the approved plugging procedure is allowed only with the prior approval of the Authorized Officer, Farmington Field Office.
  - 1.2 Requirements may be added to address specific well conditions.
- 2.0 Materials used must be accurately measured. (densometer/scales)
- 3.0 A tank or lined pit must be used for containment of any fluids from the wellbore during plugging operations and all pits are to be fenced with woven wire. These pits will be fenced on three sides and once the rig leaves location, the fourth side will be fenced.
  - 3.1 Pits are not to be used for disposal of any hydrocarbons. If hydrocarbons are present in the pit, the fluids must be removed prior to filling in.
- 4.0 All cement plugs are to be placed through a work string. Cement may be bull-headed down the casing with prior approval. Cement caps on top of bridge plugs or cement retainers may be placed by dump bailer.
  - 4.1 The cement shall be as specified in the approved plugging plan.
  - 4.2 All cement plugs placed inside casing shall have sufficient volume to fill a minimum of 100' of the casing, or annular void(s) between casings, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.
  - 4.3 Surface plugs may be no less than 50' in length.
  - 4.4 All cement plugs placed to fill annular void(s) between casing and the formation shall be of sufficient volume to fill a minimum of 100' of the annular space plus 100% excess, calculated using the bit size, or 100' of annular capacity, determined from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.
  - 4.5 All cement plugs placed to fill an open hole shall be of sufficient volume to fill a minimum of 100' of hole, as calculated from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug. In the absence of a caliper log, an excess of 100% shall be required.
  - 4.6 A cement bond log or other accepted cement evaluation tool is required to be run if one had not been previously ran or cement did not circulate to surface during the original casing cementing job or subsequent cementing jobs.

- 5.0 All cement plugs spotted across, or above, any exposed zone(s), when; the wellbore is not full of fluid or the fluid level will not remain static, and in the case of lost circulation or partial returns during cement placement, shall be tested by tagging with the work string.
  - 5.1 The top of any cement plug verified by tagging must be at or above the depth specified in the approved plan, without regard to any excess.
  - 5.2 Testing will not be required for any cement plug that is mechanically contained by use of a bridge plug and/or cement retainer, if casing integrity has been established.
  - 5.3 Any cement plug which is the only isolating medium, for a fresh water interval or a zone containing a prospectively valuable deposit of minerals, shall be tested by tagging.
  - 5.4 If perforations are required below the surface casing shoe, a 30 minute minimum wait time will be required to determine if gas and/or water flows are present. If flow is present, the well will be shut-in for a minimum of one hour and the pressure recorded. Short or long term venting may be necessary to evacuate trapped gas. If only a water flow occurs with no associated gas, shut well in and record the pressures. Contact the Engineer as it may be necessary to change the cement weight and additives.
- 6.0 Before setting any cement plugs the hole needs to be rolled. All wells are to be controlled by means of a fluid that is to be of a weight and consistency necessary to stabilize the wellbore. This fluid shall be left in place as filler between all plugs.
  - 6.1 Drilling mud may be used as the wellbore fluid in open hole plugging operations.
  - 6.2 The wellbore fluid used in cased holes shall be of sufficient weight to balance known pore pressures in all exposed formations.
- 7.0 A blowout preventer and related equipment (BOPE) shall be installed and tested prior to working in a wellbore with any exposed zone(s); (1) that are over pressured, (2) where the pressures are unknown, or (3) known to contain  $H_2S$ .
- 8.0 Within 30 days after plugging work is completed, file a Sundry Notice, Subsequent Report of Abandonment (Form 3160-5), five copies, with the Field Manager, Bureau of Land Management, 6251 College Blvd., Suite A, Farmington, NM 87402. The report should show the manner in which the plugging work was carried out, the extent, by depth(s), of cement plugs placed, and the size and location, by depth(s), of casing left in the well. Show date well was plugged.
- 9.0 All permanently abandoned wells are to be marked with a permanent monument as specified in 43 CFR 3162.6(d). Unless otherwise approved.
- 10.0 If this well is located in a Specially Designated Area (SDA), compliance with the appropriate seasonal closure requirements will be necessary.

All of the above are minimum requirements. Failure to comply with the above conditions of approval may result in an assessment for noncompliance and/or a Shut-in Order being issued pursuant to 43 CFR 3163.1. You are further advised that any instructions, orders or decisions issued by the Bureau of Land Management are subject to administrative review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4 and 43 CFR 4.700.

## BLM FLUID MINERALS Geologic Report

**Date Completed:** 4/20/20

Well No.	Hiccup A # 1			Location	1145′	FNL	&	895′	FWL
Lease No.	NMSF080384B			Sec. 3	T26N		R12W		
Operator	Mustang Resources		County	San Juan State		New Mexico			
Total Depth	1369' PBTD 1369'		Formation	on Pictured Cliffs					
Elevation (GL) 6040'			Elevation (KI	B) 6052' (est.	)				

<b>Geologic Formations</b>	Est. Top	Est. Bottom	Log Top	Log Bottom	Remarks
San Jose Fm					Surface/Fresh water sands
Nacimiento Fm			Surface	160′	
Ojo Alamo Ss			160′	270′	Aquifer (fresh water)
Kirtland Shale			270′	973′	
Fruitland Fm			973'	1352'	Coal/Gas/Possible water
Pictured Cliffs Ss			1352'		Gas
Lewis Shale					
Chacra					Probable water or dry
Cliff House Ss (main)					Water/Possible gas
Menefee Fm					Coal/Ss/Water/Possible O&G
Point Lookout Ss					Probable water/Possible O&G
Mancos Shale					Source rock
Gallup					O&G/Water
Dakota					O&G/Water

#### Remarks:

P & A

- Please ensure that the tops of the Pictured Cliffs and Fruitland formations as well as the entire Ojo Alamo aquifer, identified in this report, are isolated by proper placement of cement plugs. This will protect the freshwater sands in this well bore.

#### Reference Well:

1) Merrion & Bayless Hickman # 5 1500' FNL, 790' FWL Sec 3, T26N, R12W GL= 6037' Fm. Tops

**Prepared by:** Walter Gage