

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014

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.**

5. Lease Serial No.
NMSF-080008

6. If Indian, Allottee or Tribe Name

Navajo Indian Tribe

SUBMIT IN TRIPLICATE – Other instructions on page 2.

1. Type of Well

☐ Oil Well ☐ Gas Well ☒ Other Water Disposal Well

2. Name of Operator
Running Horse Production Company

3a. Address
P. O. Box 369
Ignacio, CO 81137

3b. Phone No. (include area code)
970-563-5152

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1750' FSL, 790' FEL, Section 8 T260N, R12W

7. If Unit of CA/Agreement, Name and No.

8. Well Name and No.

Frontier A #1
30-045-05919

10. Field and Pool or Exploratory Area
Gallegos Wash, Farmington, West

11. County or Parish, State
San Juan County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

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 recomple 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 recomple 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.)

Running Horse Production Company proposes to P&A the above well per the attached procedure.

In response to the BLM's 30 day demand letter please accept the following:

1) A NOIA, a plugging and abandonment procedure, a current wellbore sketch, and a proposed post P&A wellbore sketch.

2) Running Horse Production company proposed plugging the Tenneco Federal 1R during the summer or fall of 2016. Running Horse has a number of other wells that are candidates to be plugged and abandoned in 2016. As this candidate field is narrowed, this well will be included in our 2016 P&A campaign which I expect to be completed prior to December 1, 2016.

**BLM'S APPROVAL OR ACCEPTANCE OF THIS
ACTION DOES NOT RELIEVE THE LESSEE AND
OPERATOR FROM OBTAINING ANY OTHER
AUTHORIZATION REQUIRED FOR OPERATIONS
ON FEDERAL AND INDIAN LANDS**

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

OIL CONS. DIV DIST. 3

JUL 22 2016

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

R. Andrew Parker

Title Senior Production Engineer

Signature

Date

7/20/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

PE

Date

7/19/16

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

FFO

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.

(Instructions on page 2)

NMOCD

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PLUG AND ABANDONMENT PROCEDURE

April 26, 2016

Frontier A #1

Mesaverde Water Disposal Well

1750' FSL, 790' FEL, Section 8, T26N, R12W, San Juan County, NM

API #30-045-05919

Note: All cement volumes use 10% excess per 1000 foot of depth or 100% excess outside pipe and 50' excess inside pipe, whichever is greater. The stabilizing wellbore fluid will be 8.3 ppg, sufficient to balance all exposed formation pressures. All cement will be Class B, mixed at 15.8 ppg with a 1.18 cf/sx yield.

1. This project will use of an A-Plus steel waste tank to contain waste fluids circulated from the well and cement wash up.
2. Install and test location rig anchors. Comply with all COGCC, BLM, and Operator safety regulations. MOL and RU daylight pulling unit. Conduct safety meeting for all personnel on location. Record casing, tubing and bradenhead pressures. NU relief line and blow down well. Kill well with water as necessary and at least pump tubing capacity of water down the tubing. ND wellhead and NU BOP. Function test BOP.
3. Rods: Yes___, No X, Unknown____.
Tubing: Yes X, No ___, Unknown____, Size 2-3/8" Plastic Coated,
Length 3583'.
Packer: Yes X, No ___, Unknown____, Type _____.
If this well has rods or a packer, then modify the work sequence in step #2 as appropriate. Round trip 7.625" gauge ring or mill to 3662' or as deep as possible.

TOH and LD plastic coated tubing and packer at 3583'.
4. **Plug #1 (7.625" shoe, and Mancos top, 3972' – 3872'):** Mix 17 sxs cement and spot a balanced plug inside the casing to cover the 7" casing shoe and Mancos top. TOH.
5. **Plug #2 (Point Lookout perforations , 3662' – 3562'):** TIH and set 7.625" cement retainer at 3662'. Pressure test tubing to 1000#. Load casing with water and circulate well clean. ***Pressure test 7.625" casing to 800 PSI. If casing does not test, then spot or tag subsequent plugs as appropriate.*** Mix 34 sxs Class B cement and spot a plug to isolate the Point Lookout perforations and cover the top. TOH.
6. **Plug #3 (Mesaverde top, 2025' – 1925'):** Perforate 3 squeeze holes at 1509'. Establish injection rate into squeeze holes if casing tested. Set 7.625" cement retainer at 1975'. Sting into CR and establish injection rate into squeeze holes. Mix and pump 71 sxs Class B cement, squeeze 37 sxs outside casing and leave 34 sxs inside casing to cover the Mesaverde top. TOH with tubing.
7. **Plug #4 (Chacra top, 1509' – 1409'):** Perforate 3 squeeze holes at 1509'. Establish injection rate into squeeze holes if casing tested. Set 7.625" cement retainer at 1459'. Sting into CR and establish injection rate into squeeze holes. Mix and pump 71 sxs Class B cement, squeeze 37 sxs outside casing and leave 34 sxs inside casing to cover the Chacra top. TOH with tubing.

8. **Plug #5 (Pictured Cliffs top, 1238' – 1138'):** Perforate 3 squeeze holes at 1238'. Establish injection rate into squeeze holes if casing tested. Set 7.625" cement retainer at 1188'. Sting into CR and establish injection rate into squeeze holes. Mix and pump 71 sxs Class B cement, squeeze 37 sxs outside casing and leave 34 sxs inside casing to cover the PC top. TOH with tubing.
9. **Plug #6 (Fruitland top, 970' – 870'):** Perforate 3 squeeze holes at 970'. Establish injection rate into squeeze holes if casing tested. Set 7.625" cement retainer at 920'. Sting into CR and establish injection rate into squeeze holes. Mix and pump 71 sxs Class B cement, squeeze 37 sxs outside casing and leave 34 sxs inside casing to cover the Fruitland top. PUH.
10. **Plug #7 (10.75" Surface casing, 335' - Surface):** Attempt to pressure test the bradenhead annulus to 300 PSI; note the volume to load. If the BH annulus holds pressure, then establish circulation out casing valve with water. Mix approximately 80 sxs cement and spot a balanced plug from 335' to surface, circulate good cement out casing valve. TOH and LD tubing. Shut well in and WOC. If the BH annulus does not test, then perforate at the appropriate depth and attempt to circulate cement to surface filling the casing from 335' and the annulus from the squeeze holes to surface. Shut in well and WOC.
11. ND BOP and cut off wellhead below surface casing flange. Install P&A marker with cement to comply with regulations. Record GPS coordinate for P&A marker on tower report. Photograph P&A marker in place. Cut off anchors and clean up location. Restore location per BLM stipulations.

Frontier A #1

Proposed P&A

Mesaverde Water Disposal Well

1750' FSL, 790' FEL, Section 8, T-26-N, R-12-W, San Juan County, NM

API #30-045-05919

Today's Date: 4/26/16

Spud: 8/9/57

Elevation: 5989' GI

Gallup Completion: 8/18/57

Injection Completion: 11/6/97

Kirtland @ 285'

Fruitland @ 920'

Pictured Cliffs @ 1188'

Chacra @ 1459'

Mesaverde @ 1975'

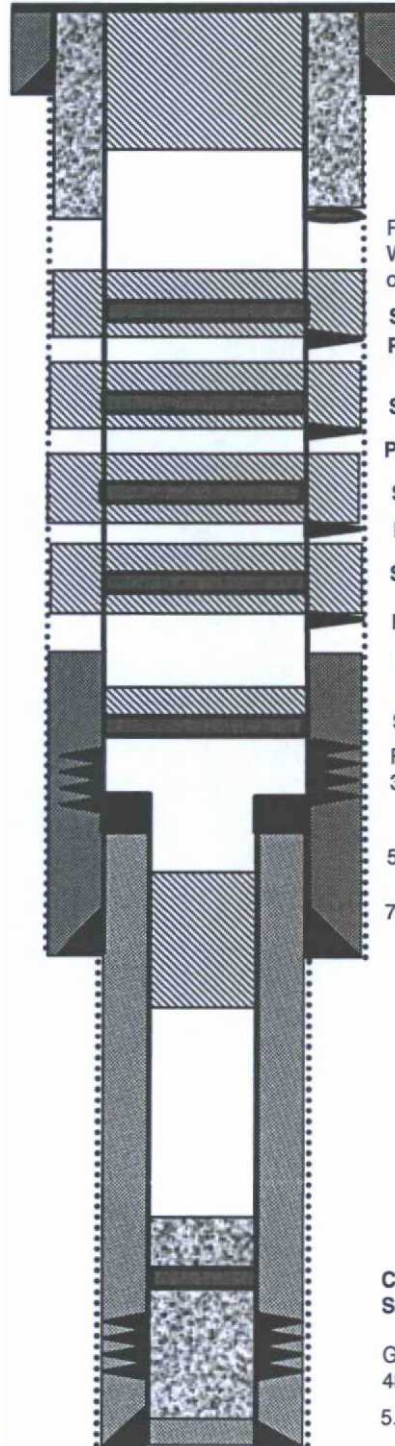
Mancos @ 3922'

Gallup @ 4760'

12.25" hole

9-78" Hole

6.75" Hole



10.75", 32.75# Casing set @ 173'
Cement with 150 sxs, circulate to surface

Plug #7: 335' - 0'
Class B cement, 80 sxs

Perforate @ 560', squeeze
With 225 sxs and circulate
out bradenhead. ('96)

Plug #6: 970' - 870'
Class B cement, 71 sxs
34 outside and 37 inside

Set CR @ 920'
Perforate @ 970'

Plug #5: 1238' - 1138'
Class B cement, 71 sxs
34 outside and 37 inside

Set CR @ 1188'
Perforate @ 1238'

Plug #4: 1509' - 1409'
Class B cement, 71 sxs
34 inside and 37 outside

Set CR @ 1459'
Perforate @ 1509'

Plug #3: 2025' - 1925'
Class B cement, 71 sxs
34 inside and 37 outside

Set CR @ 1975'
Perforate @ 2025'

TOC @ 2480' (CET 96)

Plug #2: 3662' - 3562'
Class B cement, 34 sxs

Set CR @ 3662'

Point Lookout Perforations:
3712' - 3856'

5.5" Liner Top at 3807'

Plug #1: 3972' - 3872'
Class B cement, 17 sxs

7.625" 26.4 casing set at 3940'
Cement with 250 sxs

Cement Retainer @ 4825'
Squeeze with 136 sxs below and 4 bbls above ('96)

Gallup Perforations:
4897' - 5025'

5.5" 15.5# Casing set @ 5106'
Cement with 300 sxs, circulated to surface

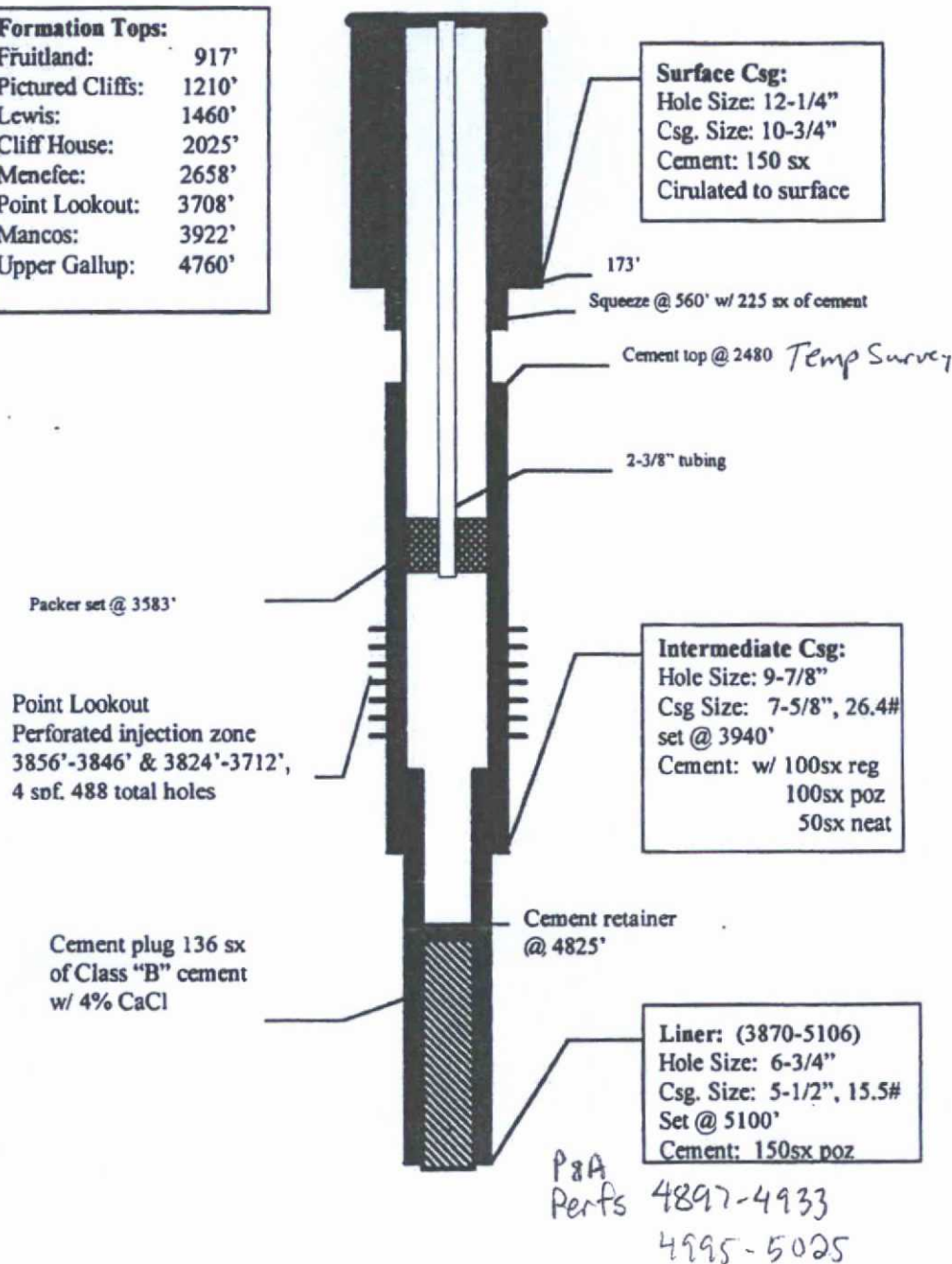
TD 5100'
PBTD 4567'

WALSH ENGINEERING & PRODUCTION CORP.

Frontier A #1
1750' FSL & 790' FEL
Sec 8 T26N R12W

Disposal Status

Formation Tops:	
Fruitland:	917'
Pictured Cliffs:	1210'
Lewis:	1460'
Cliff House:	2025'
Menefee:	2658'
Point Lookout:	3708'
Mancos:	3922'
Upper Gallup:	4760'



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: Frontier A #1

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.
3. The following modifications to your plugging program are to be made:
 - a) Set a Plug #3 (2074-1974) ft. inside/outside to cover the Mesaverde top. BLM picks top of Cliff House at 2024 ft.
 - b) Bring the top of Plug #6 to 824 ft. inside/outside to cover the Fruitland top. BLM picks top of Fruitland at 874 ft. Adjust cement volume accordingly.

Operator must run a CBL to surface to identify TOC. Submit the electronic copy of the log for verification to the following addresses: jwsavage@blm.gov Brandon.Powell@state.nm.us

You are also required to place cement excesses per 4.2 and 4.4 of the attached General Requirements.

Office Hours: 7:45 a.m. to 4:30 p.m.