Form 3160-5 (March 2012)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED

OCT 0 6 20

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

SUNDRY	' NC	TICES	AND	REP	OR	TS O	N W	ELLS	
		_		-	-			Earm	ir

6. If Indian. Allottee or Tribe Name

5. Lease Serial No. NMSF-080008

Do not use this form for propos abandoned well. Use Form 3160	sals to drill or to re-enter an Field -3 (APD) for such proposals.d Man	Office Navajo Indian Tribe								
SUBMIT IN TRIPLICATE –	7. If Unit of CA/Agreement, Name and/or No.									
1. Type of Well										
Oil Well Gas Well Othe	8. Well Name and No. Frontier A #1									
2. Name of Operator Running Horse Production Company		9, API Well No. #30-045-05919								
3a. Address PO Box 369 14933 Hwy 172 Ignacio, CO 81137	3b. Phone No. (include area code) 970-563-5152	(de) 10. Field and Pool or Exploratory Area Gallegos Wash, Farmington, West								
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description of Well (Footage, Sec., T.,R.,M., or Survey Description)	ription)	11. County or Parish, State								
1750' FSL, 790' FEL, Section 8 T260N, R12W		San Juan County, NM								
12. CHECK THE APPROPRIA	TE BOX(ES) TO INDICATE NATURE OF NOT	ICE, REPORT OR OTHER DATA								
TYPE OF SUBMISSION	TYPE OF AC	TYPE OF ACTION								
Notice of Intent ☐ Acidize ☐ Alter Casing ☐ Casing Repair ☐ Classing Repair ☐ Classing Repair	Fracture Treat Rec	Production (Start/Resume) Water Shut-Off Reclamation Well Integrity Recomplete Other								
Final Abandonment Notice Convert to Inje		nporarily Abandonter Disposal								
	operation results in a multiple completion or recom s must be filed only after all requirements, including									
14. I hereby certify that the foregoing is true and correct. Name ((Printed/Typed)									
Cindy Lewis	Title Senior Petroleum	Title Senior Petroleum Engineer								
Signature Cody Line	Date 9/27/1	Date 9/27/16								
THIS SPACE FOR FEDERAL OR STATE OFFICE USE										
Approved by	Tall	n								
Conditions of approval, if any, are attached. Approval of this notice that the applicant holds legal or equitable title to those rights in the entitle the applicant to conduct operations thereon.		Date								

(Instructions on page 2)

fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

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,

A-PLUS WELL SERVICE, INC.

P.O. BOX 1979

Farmington, New Mexico 87499 505-325-2627 *fax: 505-325-1211

Running Horse Production Company Frontier A #1

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1750' FSL and 790' FEL, Section 8, T-26-N, R-12-W San Juan County, NM Lease Number: NMSF-080008 API #30-045-05919

Plug and Abandonment Report Notified NMOCD and BLM on 8/17/16

Plug and Abandonment Summary:

- Plug #1 with 24 sxs (28.32 cf) Class B cement from 3986' to 3775' to cover the 7.625 shoe and Mancos top.
- Plug #2 with 36 sxs (42.48 cf) Class B cement from 3670' to 3510' to cover the Point Lookout perfs.
- Plug #3 with 36 sxs (42.48 cf) Class B cement from 2074' to 1916' to cover the Mesaverde top.
- Plug #4 with squeeze holes at 1509' spot 48 sxs (56.64 cf) Class B cement from 1559' to 1346' to cover the Chacra top. Tag TOC at 1368'.
- Plug #5 with squeeze holes at 1195' spot 93 sxs (109.74 cf) Class B cement from 1195' to 150' displace with 2.5 bbls to 822' POH with tubing load casing with 3.5 bbls squeeze cement with 9 bbls squeeze 37 sxs left 56 sxs inside to cover the Pictured Cliffs top. Tag TOC at 1010'.
- Plug #6 with CR at 880' spot 71 sxs (83.78 cf) Class B cement from 924' to 774' squeeze 37 sxs outside, 10 sxs below CR, leaving 23 sxs on top of CR to cover the Fruitland top.
- Plug #7 with 99 sxs (116.82 cf) Class B cement circulate good cement out 7-5/8" casing to cover the surface casing shoe.
- Plug #8 with 32 sxs Class B cement top off casings and install P&A Marker with coordinates 36° 30' 1" N / 108° 7' 43" W.

Plugging Work Details:

- 8/19/16 Rode rig and equipment to location. Spot in and RU. Check well pressures: tubing and bradenhead 0 PSI, casing 15 PSI. Pump 26 bbls of water down tubing, establish rate of 4 bpm at 1200 PSI. ND the wellhead (Note: Bolts and nuts rusted up). Pump 26 bbls down the tubing to flush and clear. Strip on BOP, very light water flow over tubing. Attempt to release the packer, work packer down 20'. Light water flow up casing and tubing. Begin to pull packer dragging and pulling to 48,000# and back to 20,000#. Pulled back to original starting point, packer stuck again. Pulled to 35,000# and set on the slips. SDFD.
- Travel to location. Open up well; no pressures, flowing ½" stream of water out 2-3/8" tubing. Work packer unable to release, torque up then give torque back, unable to move tubing. Pump 20 bbls water down tubing, casing would start flowing ½" stream, work packer. No progress, decide to use power swivel. Work packer while waiting on power swivel. RU power swivel start turning swivel and tubing to right and working up and down. Packer released, freed up, LD 4 jnt with swivel. RD swivel. PU tongs LD and tally 112 jnts 2-3/8" EUE plastic lined tubing, total tally 3572', SN and 7-5/8" loc-set packer. Swap out floats. Stop job and wait out rain storm to pass. Prep and tally 126 jnts 2-3/8" A-Plus workstring, EOT 3986'. Pump 30 bbls ahead. Spot plug #1 with calculated TOC at 3775'. SI well. SDFD.

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Running Horse Production Company Frontier A #1

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Plugging Work Details (continued):

- 8/23/16 Travel to location. Open up well; no pressures. TIH and tag TOC at 3826'. RU A-Plus wireline. RIH with 7-5/8" CIBP and set at 3670'. POH. PU 1-4' plugging sub, TIH with 58 stands, tag 7-5/8" CIBP at 3670'. Circulate well clean. Attempt to pressure test 7-5/8" casing, ring gasket leaking. RU A-Plus wireline. Ran CBL from 3670' to surface, with estimated TOC at 2024'. Send in for review. Use tubing hanger to pressure test 7-5/8" to 800 PSI, OK. TIH to 3670'. Spot plug #2 with calculated TOC at 3510'. Note: Ray Espinoza, BLM approved plug. Wait on BLM orders. SI well. SDFD.
- 8/24/16 Travel to location. Open up well; no pressures. Pressure test bradenhead to 300 PSI, OK. Received order from BLM and NMOCD. Spot plug #3 with calculated TOC at 1916'. RU A-Plus wireline. Perforate 3 HSC squeeze holes at 1509'. Attempt to establish rate into squeeze holes pump 6 bbls pressured up to 1000 PSI, no bled off 3 times. Note: Bill Diers, BLM requiring inside plug and WOC. Spot plug #4 with calculated TOC at 1346'. SI well and WOC. TIH and tag TOC at 1368'. Perforate 3 HSC squeeze holes at 1195'. Establish rate of 2 bpm at 0 PSI. Spot plug #5 with calculated TOC at 1050'. SI well and WOC overnight. SDFD.
- 8/25/16 Travel to location. Open up well; no pressures. TIH and tag plug #5 at 1010'. RU A-Plus wireline. Perforate 3 HSC squeeze holes at 924'. Establish rate of 1.5 bpm at 300 PSI. PU 7-5/8" DHS CR and set at 880'. Sting out/ sting into CR and establish rate of 1 bpm at 400 PSI. Spot plug #6 with calculated TOC at 774'. LD setting tool. Spot plug #7 with TOC at surface. LD all tubing. ND BOP. Dig out wellhead. Cut off wellhead. Found cement down 18' in 7-5/8" and down 16' in annulus. Spot plug #8 top off casings and install P&A Marker with coordinates 36° 30' 1" N / 108° 7' 43" W. RD and MOL.

Leroy Lee, Navajo Nation EPA representative, was on location. Ray Espinoza, BLM representative, was on location. Bill Diers, BLM representative, was on location.

Frontier A #1

Plugged Wellbore Diagram

Mesaverde Water Disposal Well

Spud: 8/9/57

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

Gallup Completion: 8/18/57 Injection Completion: 11/6/97

Plugged: 8/25/16 Elevation: 5989' GI

12.25" hole

Kirtland @ 285'

Fruitland @ 920'

Pictured Cliffs @ 1188'

Chacra @ 1459'

Mesaverde @ 1975'

9-78" Hole

Mancos @ 3922'

Gallup @ 4760'

6.75" Hole



Plug #8: 18' - 0'

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

> Plug #7: 345' - 18' Class B cement, 99 sxs

> Class B cement, 32 sxs

Perforate @ 560', squeeze With 225 sxs and circulate

out bradenhead. (1996)

Set CR @ 880' Perforate @ 924' Plug #6: 924' - 774' Class B cement, 71 sxs 37 outside and 33 inside

Plug #5: 1195' - 1010' Class B cement, 93 sxs 37 outside and 56 inside

Perforate @ 1195'

Plug #4: 1559' - 1368' Class B cement ,48 sxs

Perforate @ 1509'

Plug #3: 2074' - 1916'

TOC @ 2024' (CBL 2016)

Class B cement,36 sxs

TOC @ 2480' (CET 1996)

Plug #2: 3670' - 3510' Class B cement, 36 sxs

Set CR @ 3670'

Point Lookout Perforations: 3712' – 3856'

5.5" Liner Top at 3807'

Plug #1: 3986' - 3826' Class B cement, 24 sxs

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

Cement Retainer @ 4825' (1996 work) Squeeze with 136 sxs below and 4 bbls above

Gallup Perforations: 4897' - 5025'

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

TD 5100' PBTD 4567'