### State of New Mexico Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham Governor

Sarah Cottrell Propst Cabinet Secretary

**Todd E. Leahy, JD, PhD**Deputy Secretary

Adrienne Sandoval, Division Director Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-4 or 3160-5 form.

Operator Signature Date: 2/5/2020

Well information:

### 30-045-34565 HUERFANO UNIT #306

CROSS TIMBERS ENERGY, LLC

Application Type:		
	Drilling	g/Casing Change  Location Change
Underground i	njection contr	(For hydraulic fracturing operations review EPA ol Guidance #84; Submit Gas Capture Plan form prior to pletion operations)
Other:		
Conditions of Appre	oval:	
Notify NMC	OCD 24 Hours	prior to commencing activities
<ul> <li>In addition t</li> </ul>	o the BLM app	proved plugs ensure coverage:
1224'-1150'	to cover the	Ojo Alamo top at 1150'
1400'-1290'	to cover the	Kirtland top at 1365'
1868'-1768'	to cover the	Fruitland top at 1818'
2100'-2000'	to cover the	PC top at 2042'
2950'-2850'	to cover the	Chacra/HB top at 2900'
3674'-3574'	to cover the	MV/Cliff House top at 3624'
4660'-4560'	to cover the	Mancos top at 4610'
5646'-5546'	to cover the	Gallup top at 5596'
6442'-6392'	to cover the	Graneros/Dakota top at 6458'
* The Below grade	tank closure pla	an will need to be submitted on a C-144 pursuant to rule 19.15.17
Brandon Fan	oll Si	6/4/2020
NMOCD Approved	by Signature	Date

Form 3160-5 (June 2015)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 201

5. Lease Serial No. NMSF078518

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		7. If Unit or CA/Agre	ement, Name and/or No.			
1. Type of Well		8. Well Name and No.				
🗖 Oil Well 🛮 Gas Well 🔲 Oth	er			HUERFANO UNI	Г 306	
Name of Operator CROSS TIMBERS ENERGY I		9. API Well No. 30-045-34565-00-S1				
3a. Address #36 ROAD 350		3b. Phone No. (include area code)		10. Field and Pool or BASIN DAKOT	Exploratory Area	
FLORA VISTA, NM 87415		Ph: 827-334-7747		DASIN DAKOT	4	
4. Location of Well (Footage, Sec., T	, R., M., or Survey Description	)		11. County or Parish,	State	
Sec 4 T25N R9W NWSE 1980 36.428394 N Lat, 107.792057				SAN JUAN COUNTY, NM		
12. CHECK THE AF	PPROPRIATE BOX(ES)	TO INDICATE NATURE O	F NOTICE,	REPORT, OR OTH	HER DATA	
TYPE OF SUBMISSION		TYPE OF	ACTION			
	☐ Acidize	□ Deepen	☐ Product	ion (Start/Resume)	■ Water Shut-Off	
➤ Notice of Intent	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclam	ation	■ Well Integrity	
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomp	olete	☐ Other	
☐ Final Abandonment Notice	☐ Change Plans	■ Plug and Abandon		arily Abandon	_	
_	☐ Convert to Injection	☐ Plug Back	□ Water I	-		
13. Describe Proposed or Completed Ope	eration: Clearly state all pertine	nt details, including estimated starting	g date of any p	roposed work and appro	ximate duration thereof.	

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.

Cross Timbers Energy, LLC intends to P&A the Huerfano Unit 306. Procedure below

1. MIRU.

KP

- 2. POOH w/ tubing.
- 3. Run a casing scraper to 6,380?
- 4. Set CIBP @ 6,380?
- 5. Spot 17 sx Class B Cement on top of plug. (est?d TOC @ 6,230). WOC. Tag TOC.
- 6. RU and run CBL.
- Circulate hole with mud laden fluid.

- 8. Spot balanced cement plug from 5,401? ? 5,551? with 17 sx Class B cement. WOC. Tag TOC. 9. Spot balanced cement plug from 3,481? ? 3,631? with 17 sx Class B cement. WOC. Tag TOC. 10. Spot balanced cement plug from 2,800? ? 2,950? with 17 sx Class B cement. WOC. Tag TOC.

14. I hereby certify that t	he foregoing is true and correct. Electronic Submission #502188 verifie For CROSS TIMBERS ENERG' Committed to AFMSS for processing by ALBERT	LĹC, :	sent to the Farmington	i)	
Name (Printed/Typed)	SAMANNTHA AVARELLO	Title	REGULATORY TECHNICIAN		
			00/07/0000		
Signature	(Electronic Submission)	Date	02/05/2020		
	THIS SPACE FOR FEDERA	L OR	STATE OFFICE USE		
_Approved By_(BLM Ap	pp <u>ro</u> ve <u>r Not Spe</u> cif <u>ie</u> d)	Title			Date 04/24/2020
certify that the applicant ho	ny, are attached. Approval of this notice does not warrant or lds legal or equitable title to those rights in the subject lease blicant 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.

### Additional data for EC transaction #502188 that would not fit on the form

#### 32. Additional remarks, continued

- 11. Spot balanced cement plug from 1,950? ? 2,100? with 17 sx Class B cement. WOC. Tag TOC. 12. Spot balanced cement plug from 1,074? ? 1,574? with 57 sx Class B cement. WOC. Tag TOC. 13. Spot balanced cement plug from 420? to surface with 48 sx cement. Ensure cement at surface on all strings of casing.

  14. Cut off wellhead below surface casing flange. Install P&A marker.

Attachments BGT closure plan Reclamation plan Current/Proposed WBD

# 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: Huerfano 306

### **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.

Cross Timbers Energy, LLC

<b>Vell: Huerfano Unit</b>			_	3 LIIE				
					ictured Cliffs	4/10/2019		
.oc: 1980'FSL & 1955'   County: San Juan	FEL		T25N-R9W-S					
	1# 30-045-34565	1	Size, in V		Grade	Hole Size	Depth	Cmt - SX
	KB: 6647'	Surf. Csg:	8-5/8"	24#	J-55	12-1/4"	370	262 sx Class C to surf.
	GL: 6635'					7.11.25.25.27		
	UD: July 01, 2008	Prod. Csg:	5-1/2"	15.5#	J-55	7-7/8"	6950	1040 sx
	etion: August 25, 2008 PBTD: 6903'	Liner:						
MTD: 6956'	BID: 6903.	PMP UNIT: N/A	JS: N/A FAP	=N/A				
	STRANSON TONS TONS TONS	PMP UNIT: N/A				-		
		Float Collar:	ft		TOC:	surface		
		Shoe:	ft		DV TOOL:		ft	
			ft		CIBP		ft	
		EOT	6824 ft		PKR:		ft	
Surface Casing			04/10/14 SI	ITP 0 psig. SI	CP 0 psig. RWTP @ 8:00	a.m. 4/10/14. F	Ppg @ 4 x 8	7" SPM. RDMO Hurricane Rig #17. FR fo
		tbg rpr. St well tst						
8-5/8" @								
370 ft			05/07/15 SI	ITP 0 psig. SI	CP 10 psig. PU & ld 2" x	1-1/4" x 12' x 16	6' RHAC HVI	R EPS pmp w/1" x 1' stnr nip. TIH w/pmp,
nt 275 to surf.		SRG, 1" x 1' LS, 7/8	" stb, 21K shear tl,	I, 6 1-1/4" stbs	w/5 - 7/8" subs, 3 HF 1-1/4"	stbs w/3 - 7/8" s	ubs, 62 - 3/4"	rods, 60 - 3/4" rods w/5 Ultra Flow guides
		per rod, 38 - 3/4"	rods, 101 - 7/8" r	rods, 2 - 7/8"r	rod subs 4' & 8" & 1-1/4" ) 5" Tst OK Relsd press I.S.	c 22' PR w/10' In	nr. Insti Envi	ro Pax SB & T-302 rotator. Seat pmp. st OK. HWO. RWTP @ 1:00
		p.m. 5/7/15. Ppg @	4 x 87" SPM. RDM	MO Lobo Well	Service Rig #102. FR for the	g rpr.	y poig 10	
			08/19/15 RD	DMO Lobo We	Il Service Rig #102. FR for F	Rod Repair.		
			CAP-ST DOMEST					
		Formati		Com	ments/Tops		Perf	forations/ Remarks
		1 DAK	OTA		6492			6492-6714
		3						
		5						2007 2007
		6						
	11	8						· · · · · · · · · · · · · · · · · · ·
roduction		9						
asing 5-1/2" @		10						
5-1/2" @ 6950 ft	11	12						
Cmt w/ 1600 sx		13						
	1000 E W 1000	14					7-2	
67 sx excess to surf								
		15 16						
		16						
		as of 7/21/201		06 its '2-'	3/8"@6773 7' SN-678	6'. 1 its '2-'	3/8"@32 8	" '5-1/2'8'2-3/8" TAC @ 6820'
		as of 7/21/201	bg detail: 20	06 jts '2-	3/8"@6773.7',SN:678	6', 1 jts '2-	3/8"@32.8	", '5-1/2'&'2-3/8" TAC @ 6820',
		as of 7/21/201	bg detail: 20	06 jts '2-	3/8"@6773.7",SN:678	'6', 1 jts '2-	3/8"@32.8	", '5-1/2'&'2-3/8" TAC @ 6820',
		as of 7/21/201	bg detail: 20	06 jts '2-	3/8"@6773.7',SN:676	l6', 1 jts '2-	3/8"@32.8	i", '5-1/2'&'2-3/8" TAC @ 6820',
		as of 7/21/201 T NC: 6823', EO	bg detail: 20	06 jts '2-	3/8"@6773.7',\$N:678	i6', 1 jts '2-	3/8"@32.8	i", '5-1/2'&'2-3/8" TAC @ 6820',
		as of 7/21/201	bg detail: 20	06 jts '2-	3/8"@6773.7',SN:678	16', 1 jts '2-	3/8"@32.8	", '5-1/2'&'2-3/8" TAC @ 6820',
		as of 7/21/201 T NC: 6823', EO	bg detail: 20	706 jts '2-	3/8"@6773.7",SN:678	i6', 1 jts '2-(	3/8"@32.8	", '5-1/2'&'2-3/8" TAC @ 6820',
		as of 7/21/201 T NC: 6823', EO EOT =6824' as of ?	<b>'bg detail:</b> 20 T: 6824'	706 jts '2-	3/8"@6773.7",SN:678	i6', 1 jts '2-	3/8"@32.8	", '5-1/2'&'2-3/8" TAC @ 6820',
		as of 7/21/201 T NC: 6823', EO EOT =6824' as of ?	bg detail: 20	06 jts '2-'	3/8"@6773.7",SN:678	i6', 1 jts '2-	3/8"@32.8	", '5-1/2'&'2-3/8" TAC @ 6820',
		as of 7/21/201 T NC: 6823', EO EOT =6824' as of ?	<b>'bg detail:</b> 20 T: 6824'	06 jts '2-	3/8"@6773.7",SN:678	i6', 1 jts '2-	3/8"@32.8	", '5-1/2'&'2-3/8" TAC @ 6820',
		as of 7/21/201 T NC: 6823', EO EOT =6824' as of ?	<b>'bg detail:</b> 20 T: 6824'	'06 jts '2-'	3/8"@6773.7',SN:678	6', 1 jts '2-	3/8"@32.8	", '5-1/2'&'2-3/8" TAC @ 6820',
		as of 7/21/201 T NC: 6823', EO EOT =6824' as of ?	<b>'bg detail:</b> 20 T: 6824'	06 jts '2-	3/8"@6773.7',SN:676	36', 1 jts '2-	3/8"@32.8	i", '5-1/2'&'2-3/8" TAC @ 6820',
	PBTD: 6903'	as of 7/21/201 T NC: 6823', EO EOT =6824' as of ?	<b>'bg detail:</b> 20 T: 6824'	706 jts '2-	3/8"@6773.7',\$N:678	36', 1 jts '2-	3/8"@32.8	i", '5-1/2'&'2-3/8" TAC @ 6820',

### Cross Timbers Energy, LLC

						Blanco South Pictured Cliffs 4/10/2019				
Loc: 1980'FSL & 195 County: San Juan	5' FEL				T25N-R9	N-S4 ew Mexico				
	API# 30-0					Wgt, lb/ft	Grade	Hole Size	Depth	Cmt - SX
	KB: 6	647'		Surf. Csg:	8-5/8"	24#	J-55	12-1/4"	370	262 sx Class C to surf.
	GL: 6 SPUD: July			Book 1 Com	F 4 (0)	45.54	1.55	7.7/01	2050	1010
		y 01, 2008 ugust 25, 2008		Prod. Csg: Liner:	5-1/2"	15.5#	J-55	7-7/8"	6950	1040 sx
MTD: 6956'	7.0	PBTD: 6903	3'	CURRENT STATU	JS: N/A F/	AP =N/A				
				PMP UNIT: N/A						
		3838383838383					Plug 7: 48 SX Class	B Cement F	/ 0' - 420	,
								imiento: 92'		
Surface Casing										
8-5/8" @										
<b>370</b> ft										
cmt 275 to surf.										
Editiff										
		accententiate.								
	333	83838383838				Plu	ıg 6: 57 SX Class B			<u>74'</u>
								Alamo: 1174		
								tland: 1340' itland: 1524'		
							1000			
		80000000000				Dli	ıq 5: 17 SX Class B	Comont E/ 1	1050' - 21	00'
		3636363636363				<u>F10</u>	Top of Picture			00
Production Casing		89888888888				Plu	ug 4: 17 SX Class B	Cement F/ 2 acra: 2900'	<u> 2800' - 29</u>	<u>50'</u>
5-1/2" @		000000000000000000000000000000000000000					100 01 011	acra. 2500		
6950 ft Cmt w/ 1600 sx										
w/ 67 sx excess to surf										
		000000000000000000000000000000000000000				Plu	ıg 3: 17 SX Class B	Cement F/ 3	3481' - 36	31'
								Verde: 3581		
		A-A-A-A-A-A-A-A-A-A-A-A-A-A-A-A-A-A-A-			-					
					_	pi.	ıg 2: 17 SX Class B	Coment E/	M01' - FF	51'
						<u> </u>		Cement F/ :	,+v1 ° 35	<u> </u>
	:::::	606060606060								
	0.00	35353535353535			_	P.	un 1: 17 CV Class D	Coment F/2	2201 601	20'
						PI	ug 1: 17 SX Class B CIBP	@ 6380'	230 - 03	<u> </u>
			_				Top of Da	kota: 6569'		
							Dakota Perf	s: 6492 - 671	<u>4'</u>	
			<b>.</b> .	Formatio	on				Per	forations/ Remarks
			=	1 DAKO	JIA	<u> </u>		l		6492-6714
	-	<del>_</del>				· ·				
-	PBTD: 6									
	MTD: 69	956'								

### **CROSS TIMBERS ENERGY LLC**

## San Juan Basin Below Grade Tank Closure Plan

Lease Name: Huerfano Unit 306

API No.: 30-045-34565

Description: Unit Letter J, Section 04, Township 25N, Range 09W, San Juan County

In accordance with Rule 19.15.17.13 NMAC the following information describes the closure requirements of below-grade tanks on CROSS TIMBERS ENERGY LLC (CROSS TIMBERS) locations. This is CROSS TIMBERS's standard procedure for all below-grade tanks. A separate plan will be submitted for any below-grade tank which does not conform to this plan.

### General Plan

- 1. CROSS TIMBERS will obtain approval of this closure plan prior to commencing closure of the below grade tank at this location pursuant to 19.15.17.13.C (1) NMAC
- 2. CROSS TIMBERS will notify the surface owner by certified mail, return receipt requested, that Cross Timbers plans closure operations at least 72 hours, but no more than one week, prior to any closure operation. If the BLM is the surface owner, an email notification will suffice in place of certified mail. Notice will include:
  - a. Well Name
  - b. API#
  - c. Well Location
- 3. CROSS TIMBERS will notify the NMOCD Aztec Office by email that Cross Timbers plans closure operations at least 72 hours, but no more than one week, prior to any closure operation. Notice will include:
  - a. Well Name
  - b. API#
  - c. Well Location
- 4. Within 60 days of cessation of operations, CROSS TIMBERS will remove liquids and sludge from below-grade tanks prior to implementing a closure method and will dispose of the liquids and sludge in a division-approved facility. Approved facilities and waste streams include:
  - a. Soils, tank bottoms, produced sand, pit sludge and other exempt wastes impacted by petroleum hydrocarbons will be disposed of at:

    IEI: Permit # NM01-0010B
  - b. Produced Water will be disposed of at: Basin Disposal: Permit # NM01-005

- 5. Within six (6) months of cessation of operations, CROSS TIMBERS will remove the below-grade tank and dispose of it in a division-approved facility or recycle, reuse, or reclaim it in a manner that the appropriate division district office approves. If there is any equipment associated with a below-grade tank, then Cross Timbers shall remove the equipment, unless the equipment is required for some other purpose.
- 6. CROSS TIMBERS will collect a closure sample of the soil beneath the location of the below grade tank that is being closed. The closure sample will consist of a five-point composite sample to include any obvious stained or wet soils, or other evidence of contamination. The closure sample will be analyzed for all constituents listed in Table I below, including DRO+GRO, Chlorides, TPH, benzene and BTEX.

TADIEI								
TABLE I								
Depth Below bottom of pit to groundwater less than 10,000 mg/l TDS	Constituent	Method	Limit					
	Chloride	EPA 300.0	600 mg/kg					
	TPH	Method 418.1	100 mg/kg					
	BTEX	Method 8021B or 8260B	50 mg/kg					
≤ 50 Feet	Benzene	Method 8021B or 8260B	10 mg/kg					
	Chloride	EPA 300.0	10,000 mg/kg					
	TPH	Method 418.1	2,500 mg/kg					
	GRO + DRO	Method 8015	1,000 mg/kg					
	BTEX	Method 8021B or 8260B	50 mg/kg					
51 feet - 100 feet	Benzene	Method 8021B or 8260B	10 mg/kg					
	Chloride	EPA 300.0	20,000 mg/kg					
	ТРН	EPA 418.1	2,500 mg/kg					
	GRO + DRO	Method 8015	1,000 mg/kg					
	BTEX	Method 8021B or 8260B	50 mg/kg					
> 100 feet	Benzene	Method 8021B or 8260B	10 mg/kg					

- 7. CROSS TIMBERS will meet the limits for <50' to groundwater detailed in Table I.
  - a. In accordance with Rule 19.15.17.13.C(3)(b) if contaminant concentrations exceed the proposed limit and groundwater is found to be deeper than 50', CROSS TIMBERS may elect to submit additional groundwater information to the Division and request a higher closure limit. CROSS TIMBERS will submit the additional groundwater data via email documenting the depth to groundwater at

- the location. CROSS TIMBERS will wait for approval of the groundwater data by the NMOCD, prior to completing closure activities at the site.
- b. If a higher closure limit is submitted and approved by the Division, CROSS TIMBERS will submit a copy of the request, the groundwater information and the received approval in their closure report.
- 8. If any contaminant concentration is higher than the parameters listed in Table I of 19.15.17.13 NMAC, the division may require additional delineation upon review of the results and Cross Timbers must receive approval before proceeding with closure. If all contaminant concentrations are less than or equal to the parameters listed in Table I of 19.15.17.13 NMAC, then Cross Timbers can proceed to backfill the pit, pad, or excavation with non-waste containing, uncontaminated, earthen material.
- 9. After closure has occurred, CROSS TIMBERS will reclaim the former BGT area, if it is no longer being used for extraction of oil and gas, by substantially restoring the impacted surface area to the condition that existed prior to oil and gas operations. CROSS TIMBERS will construct the soil cover to the site's existing grade and prevent ponding of water and erosion of the cover materials. The soil cover shall consist of the background thickness of topsoil, or one foot of suitable materials to establish vegetation at the site, whichever is greater. All areas will be reclaimed as early as practicable, and as close to their original condition or land use as possible. They shall be maintained in a way as to control dust and minimize erosion.
- 10. CROSS TIMBERS will complete reclamation of all disturbed areas no longer in use when the ground disturbance activities at the site have been completed. The reseeding shall take place during the first favorable growing season after closure. Reclamation activities will be considered completed when a uniform vegetative cover has been established that reflects a life-form ratio of plus or minus fifty percent (50%) of predisturbance levels, and a total percent plant cover of at least seventy percent (70%) of pre-disturbance levels, excluding noxious weeds.
  - \*Re-vegetation and reclamation obligations imposed by other applicable federal, state or tribal agencies on lands managed by those agencies shall supersede the above requirements, provided they provide equal or better protection of fresh water, human health and the environment.
- 11. CROSS TIMBERS will notify the Aztec Office of the NMOCD by email when reclamation and closure activities are completed.
- 12. Within 60 days of closure, CROSS TIMBERS will submit a closure report to the Aztec office of the NMOCD, filed on Form C-144. The report will include the following:
  - a. Proof of closure notice to NMOCD and surface owner
  - b. Confirmation sampling analytical results
  - c. Soil backfill and cover installation information
  - d. Photo documentation of site reclamation

# BLM FLUID MINERALS Geologic Report

Date Completed: 12/11/19

Well No.	Huerfano Unit # 3	Location	1980'	FSL	&	1955'	FEL	
Lease No.	NMSF078518		Sec. 4	T25N				R9W
Operator	Cross Timbers Er	nergy LLC	County	San Ju	an	State	New Me	xico
Total Depth	6956'	PBTD 6903'	Formation	Basin Da	kota			
Elevation (GL)	6635'		Elevation (KI	3) 6647' (es	t.)			

Geologic Formations	Est. Top	Est. Bottom	Log Top	Log Bottom	Remarks
San Jose Fm					Surface/Fresh water sands
Nacimiento Fm			Surface	1174'	Fresh water sands
Ojo Alamo Ss			1174'	1340'	Aquifer (fresh water)
Kirtland Shale			1340′	1524'	
Fruitland Fm			1524'	2050'	Coal/Gas/Possible water
Pictured Cliffs Ss			2050'	2174'	Gas
Lewis Shale			2174'	2900'	
Chacra (Upper)			2900'	3624'	Probable water or dry
Cliff House Ss			3624'	3660'	Water/Possible gas
Menefee Fm			3660'	4468'	Coal/Ss/Water/Possible O&G
Point Lookout Ss			4468'	4610'	Probable water/Possible O&G
Mancos Shale			4610'	6482'	
Gallup			Not Found		O&G/Water
Greenhorn			6401'	6462'	
Graneros Shale			6462'	6482'	
Dakota Ss			6482'		O&G/Water

Remarks:

P & A

- Log analysis of reference well #2 (attached worksheet) indicates the Ojo Alamo and Nacimiento Formations contain fresh water ( $\leq 5,000$  ppm TDS).
- BLM geologist's pick for the top of the Dakota formation varies from operator's pick in this well.
- Please ensure that the tops of the Menefee, 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 fresh water sands in this well bore.

No Gallup formation was found at the submitted depth. The plug may be placed as proposed, however.

Reference Well:

1) Cross Timbers Energy Fm. Tops Same

2) Hilcorp Energy Co. Huerfano Unit # 172 1720' FNL, 1090' FWL Sec 9, T25N, R9W GL 6689', KB 6702' Water Analysis

Prepared by: Walter Gage

### **P&A Site Reclamation**

Huerfano Unit 306

Remove all surface equipment and buried flowlines.

Gravel will buried in the recontoured cut.

Recontour well pad to blend with surrounding contour.

Rip, disk and seed all disturbed areas.