

30-045-3437

ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



Kutz Federal SWD #1  
 XTO Energy  
 5380

**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

SWD-1097-A

- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]
- [A] Location - Spacing Unit - Simultaneous Dedication  
 NSL  NSP  SD
- Check One Only for [B] or [C]
- [B] Commingling - Storage - Measurement  
 DHC  CTB  PLC  PC  OLS  OLM
- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX  PMX  SWD  IPI  EOR  PPR
- [D] Other: Specify \_\_\_\_\_

- [2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or  Does Not Apply
- [A]  Working, Royalty or Overriding Royalty Interest Owners
- [B]  Offset Operators, Leaseholders or Surface Owner
- [C]  Application is One Which Requires Published Legal Notice
- [D]  Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E]  For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F]  Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate and complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Loren Fothergill  
 Print or Type Name

*Loren W Fothergill*  
 Signature

*Sr Prod Engineer*  
 Title

*1-14-09*  
*6-21-07*  
 Date

Loren.Fothergill@xtoenergy.com  
 e-mail Address



382 CR 3100, Aztec, New Mexico 87410  
Phone: (505) 333-3100 FAX: (505) 333-3285

January 14, 2009

State of New Mexico  
Oil Conservation Division  
Mr. William Jones  
1220 South Saint Francis Drive  
Santa Fe, New Mexico 87505

Re: Salt Water Disposal Application  
Kutz Federal SWD #1  
Section 6, Township 27 North, Range 10 West, NMPM  
San Juan County, New Mexico

Dear Mr. Jones:

XTO Energy Inc. is resubmitting the application for the referenced salt-water disposal well, due to the well not completed and injecting prior to the one year permit approval limit. Enclosed please find one original and one copy of the complete application. A copy has been furnished to the Aztec OCD Office and the Farmington BLM Office.

Should you require further documentation please call 505-333-3109 or e-mail Diane\_Jaramillo@xtoenergy.com and I will be happy to furnish any additional information.

Mr. Loren Fothergill is the engineer in charge should you need clarification of engineering data and is available at the number listed above.

Thank you for your prompt attention to this matter.

Yours truly,

Diane Jaramillo  
Supervisor, Accounting/Engineering Techs

Cc: Aztec OCD  
BLM - Farmington



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2700 Farmington Ave, K-1 Farmington, NM 87401  
Phone: (505) 324-1090 FAX: (505) 564-6700

**KUTZ FEDERAL SWD #1**

**~~PROPOSED~~ SALT WATER DISPOSAL WELL**

**Sec 6 T27N – R10W NMPM**

**SAN JUAN COUNTY, NEW MEXICO**

## TABLE OF EXHIBITS

EXHIBIT "A"	List of Wells Operated by XTO Energy, possible source of water
EXHIBIT "B"	Mesaverde Production (IV)
EXHIBIT "C"	All wells within ½ mile radius (V)
EXHIBIT "D"	All wells within 2 mile radius (V)
EXHIBIT "E"	All leases within ½ mile and 2 mile radius (V)
EXHIBIT "F"	Water analysis report possible source of water (VII)
EXHIBIT "G"	Wellbore diagram & information concerning P&A Wells (VI)
EXHIBIT "H"	Water analysis of Mesaverde formation
EXHIBIT "J"	Affidavit of Publication & Proof of Notification
	Copy of APD follows Exhibit "J"

**APPLICATION FOR AUTHORIZATION TO INJECT**

I. PURPOSE: \_\_\_\_\_ Secondary Recovery \_\_\_\_\_ Pressure Maintenance \_\_\_\_\_  Disposal \_\_\_\_\_ Storage  
Application qualifies for administrative approval? \_\_\_\_\_ Yes \_\_\_\_\_ No

II. OPERATOR: XTO Energy Inc.

ADDRESS: 2700 Farmington Avenue, Bldg K, Ste 1, Farmington, NM 87401

CONTACT PARTY: Loren Fothergill PHONE: 505-564-6703

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.  
Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? \_\_\_\_\_ Yes  No  
If yes, give the Division order number authorizing the project: \_\_\_\_\_

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

\*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

\*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

\*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Loren Fothergill TITLE: \_\_\_\_\_

SIGNATURE: Loren W Fothergill Loren W Fothergill DATE: 1-14-09  
6-25-07

E-MAIL ADDRESS: Loren\_Fothergill@xtoenergy.com

If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: \_\_\_\_\_

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8", 6.5#, J-55 Lining Material: Plastic

Type of Packer: Baker Model D

Packer Setting Depth: ± 3900'

Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

Additional Data

1. Is this a new well drilled for injection?  Yes  No

If no, for what purpose was the well originally drilled? \_\_\_\_\_

2. Name of the Injection Formation: Mesa Verde Point Lookout

3. Name of Field or Pool (if applicable): \_\_\_\_\_

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.  No

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: OVERLYING Fruitland Formation 1347'-1645'

Lower Fruitland Coal 1645'-1652', Pictured Cliffs Sandstone 1652'-1842'

UNDERLYING Gallup Sandstone 5212'-5958', Dakota Sandstone 6059'-6306'

XTO ENERGY, INC.  
KUTZ FEDERAL SWD #1  
2060' FNL & 1500' FWL  
SEC. 6, T. 27 N., R. 10 W.  
SAN JUAN COUNTY, NEW MEXICO

- I. Purpose is water disposal.
- II. Operator is: XTO Energy, Inc. (formerly Cross Timbers Operating Company)  
Operator phone number is: (505) 324-1090  
Operator address is: 2700 Farmington Ave., Bldg. K, Suite 1  
Farmington, NM 87401  
Contact is: Loren Fothergill, Engineer, Phone is (505) 324-1090.
- III. A. (1) Lease is 2,108.35 acres.  
Lease includes SENW of Section 6, T27N, R10W.  
Well is 1,445' from the closest lease line.  
Well name and number will be the Kutz Federal SWD #1.  
Well will be at 2,375' FNL and 1,445' FWL Sec. 6, T. 27 N., R. 10 W.  
A. (2) Surface casing (9-5/8", 36#, J-55, ST&C) will be set at  $\approx 600'$  in a 12-1/4" hole and cemented to the surface with  $\approx 270$  sacks (100% excess) type III cement. Top will be determined by visual observation. Cement will be mixed at  $\approx 14.2$  ppg and  $\approx 1.54$  cubic feet per sack with 1/4 #/sk cello and 2 % CaCl<sub>2</sub>.  
Production casing (7", 23#, J-55, ST&C) will be set at  $\approx 4,260'$  in a 8-3/4" hole with DV tool @ 3,000'. Cement 1<sup>st</sup> stage with 172 sx Type III or equivalent cement with bonding additive, LCM, dispersant, & fluid loss mixed at 14.2 ppg, 1.54 cu ft/sx, 8.00 gal/sx. Cement 2<sup>nd</sup> Stage with  $\pm 199$  sx of Type III or equivalent cement with 8% gel & LCM mixed at 11.9 ppg, 2.54 ft<sup>3</sup>/sk, 15.00 gal wtr/sx. Tail in with 100 sx Type III or equivalent cement with bonding additive, LCM, dispersant, & fluid loss mixed at 14.2 ppg, 1.54 cuft/sx, 8.00 gal/sx. Exact volume will be determined by open hole caliper log + 35 % excess.  
Casing will be hydraulically pressure tested before perforating.  
A. (3) Tubing will be 2-7/8" 6.5# internal plastic lined injection string. It will be set at  $\approx 3,900'$  (disposal interval will be  $\approx 4,000'$  to  $\approx 4,100'$ ).  
A. (4). If a permanent packer is used, then a Baker Model D packer or its equivalent will be set at  $\approx 3,900'$  (which will be  $\approx 85'$  above top perforation) with an anchor seal assembly stung into the packer. If a retrievable packer is used, then a Baker Lok-set packer or its equivalent with an on/off tool assembly will be set at  $\approx 3,900'$ .  
B. (1) Disposal zone will be Mesaverde sandstone. Fracture gradient is expected to be a normal  $\approx 0.65$  psi per foot.  
B. (2) Disposal interval will be  $\approx 4,000'$  to  $\approx 4,100'$  (well logs will determine exact interval after drilling). It will be perforated (0.40") with four shots per foot.  
B. (3) ~~Well has not yet been drilled.~~ It will be drilled for the exclusive purpose of water disposal from present and future XTO wells. (See Exhibit A list of current XTO wells.) Water analyses from the Dakota, Gallup, Blanco Mesaverde, Otero Chacra, Fruitland Coal, and Pictured Cliffs are attached, (Exhibit F)

See  
COMPLETION

XTO ENERGY, INC.  
 KUTZ FEDERAL SWD #1  
 2060' FNL & 1500' FWL  
 SEC. 6, T. 27 N., R. 10 W.  
 SAN JUAN COUNTY, NEW MEXICO

- B. (4) ~~Wellbore has not yet been perforated since it has not been drilled.~~ It will only be perforated from  $\approx 4,000'$  to  $\approx 4,100'$  (logs will determine exact interval after drilling).
- B. (5) Top of the Mesaverde sandstone (Cliff House) is at  $\approx 3,103'$  and top of the Point Lookout section is at  $\approx 3,973'$ . Oil and gas are produced elsewhere in the San Juan Basin from this formation. Closest Mesaverde field is the Blanco Mesaverde which is  $\approx 4.86$  miles North East. Bottom of the closest overlying productive formation (Pictured Cliffs) is at 1,722'. There will be minimum 2,251' interval between highest injection perforation and bottom of the Pictured Cliffs. Closest underlying potentially productive formation is the Gallup.

IV. This is not an expansion of an existing injection project.

V. Maps are attached showing all fourteen wells (4 P&A + 10 PGW) within a half mile radius (See Exhibit C) and within a two mile radius (See Exhibit D). According to the Office of the State Engineer, there are no water wells within the half mile radius. According to the Office of the State Engineer there are no water wells within the two mile radius of the proposed well. Details on the oil and gas wells within a half mile radius are below. Wellbore diagrams and data for plugged & abandoned wells (Exhibit "G") are attached.

<u>OPERATOR</u>	<u>WELL</u>	<u>LOCATION ((27N-10W)</u>	<u>ZONE</u>	<u>TD</u>	<u>STATUS</u>
XTO	Kutz J Federal #2	NWNE Sec. 6	Dakota	6580	PGW
XTO	M N Galt J#2	NWNW Sec. 6	Dakota	6439	PGW
XTO	M N Galt B #1R	NWSW Sec. 6	FC / PC	6611	PGW
XTO	M N Galt B #2R	NWNW Sec. 6	Pictured Cliffs	1860	PGW
XTO	M N Galt B #1Y	NESW Sec. 6	Dakota	6906	PGW
Burlington	Galt A #1R	SWNE Sec. 6	Pictured Cliffs	1922	PGW
XTO	M N Galt B #3	SENE Sec. 6	Fruitland Coal	1942	PGW
XTO	M N Galt J #3	SENE Sec. 6	Dakota/Gallup	6698	PGW
BP Amoco	Madeline N. Galt B #1	SESW Sec. 6	PC / FC	1904	P & A
Pan American Petro.	M N Galt J #1	SESW Sec. 6	Dakota	6500	P & A
El Paso Natl. Gas	Madeline N. Galt # A#1	SWSE Sec. 6	Pictured Cliffs	1795	P & A
BP Amoco	Madeline N. Galt B #2	NENE Sec 6	Pictured Cliffs	1886	P & A

<u>OPERATOR</u>	<u>WELL</u>	<u>LOCATION ((27N-11W)</u>	<u>ZONE</u>	<u>TD</u>	<u>STATUS</u>
XTO	E H Pipkin #10-E	SENE Sec. 1	Gallup	6255	PGW
XTO	E H Pipkin # 27	SENE Sec. 1	Fruitland Coal	1866	PGW

Maps showing all Mesaverde leases (fee or BLM) within a half mile and within 2 miles (see Exhibit E) are attached.

VI. Fourteen wells are within a half mile. Five wells penetrate the Mesaverde. Top of the Mesaverde is  $\approx 3,103'$ . Deepest well within a half mile was 6,906'. Closest well to penetrate the Mesaverde is the M N Galt J #3.

XTO ENERGY, INC.  
 KUTZ FEDERAL SWD #1  
 2060' FNL & 1500' FWL  
 SEC. 6, T. 27 N., R. 10 W.  
 SAN JUAN COUNTY, NEW MEXICO

- VII. 1. Average injection rate = 3,000 bwpd. Maximum = 5,000 bwpd.  
 2. System will be open (water will be trucked). Facilities will include skimmer tank, 300 bbl oil tank, 6 - 500 barrel settling tanks, 5- 500 barrel storage tanks, centrifugal charge pump, two filtering systems (housed) for injection pump suction, and a house for the injection pump may also be installed. A security fence will surround the facility.  
 3. Average injection pressure = 800 psi.

Water source will be present and future XTO wells in the San Juan Basin (See Exhibit A). Thirteen produced water analyses (Exhibit F) are attached. A summary follows.

Zone	Bicarbonate	Calcium	Chloride	Iron	Magnesium	pH	Sulfate	TDS
Blanco Mesaverde	124	3	3200	0	10	8.0	0	5435
Otero Chacra/Blanco Mesaverde	976	60	18000	0	12	7.1	0	31017
Blanco Mesaverde	265	177	25000	0	24	9.11	600	50736
Blanco Mesaverde	194	7	1000	0	8	8.0	0	1916
Basin Dakota	585	256	8000	3.8	0	7.3	22	13987
Dakota / Gallup	495	1184	15000	95.6	39	6.7	0	25283
Dakota / Gallup	585	256	8000	3.8	0	7.3	22	13987
Dakota	680	48	2788	0	19	7.97	398	6230
Pictured Cliffs	244	336	532	0	22	6.97	1600	4081
Gallup	1305	604	23341	25	165	6.79	0	41456
Fruitland Coal	1867	94	17490	20.56	88	6.87	7	33216
Fruitland Coal	820	944	40000	12.3	0	7.5	0	66915
Fruitland Coal	800	848	41000	10.2	0	7.8	0	68548

5. The Mesaverde has not been proven productive within 4.86 miles of the proposed well. (XTO will attempt to swab load water back after the acid job and then catch an Mesaverde water sample. If successful, then the analysis will be provided to the NMOCD). In general, Mesaverde water near recharge zones (basin fringe) has a specific conductance of <1,500  $\mu$ mhos. Stone et al in Hydrogeology and water resources of San Juan Basin, New Mexico state, "Generally, however, water from the Mesaverde is not suitable for drinking, especially in deeper parts of the basin." Summaries of analyses of Mesaverde produced water follow. The samples (see Exhibit H) are from XTO's Dawson Federal #1B at SWNW Sec. 6, T29N-R8W, Federal Gas Com #4, at NESW Sec 27, T27N-R10W.

XTO ENERGY, INC.  
 KUTZ FEDERAL SWD #1  
 2060' FNL & 1500' FWL  
 SEC. 6, T. 27 N., R. 10 W.  
 SAN JUAN COUNTY, NEW MEXICO

<u>Parameter</u>	<u>Dawson Federal 1B</u>	<u>Federal Gas Com. #4</u>
Bicarbonate	976	1342
Calcium	60	180
Chloride	18000	11800
Iron	0	0
Magnesium	12	27
pH	7.1	7.5
Sodium	11901	7103
Sulfate	0	65
Specific Gravity	1.015	1.015
Total Dissolved Solids	31017	21917

VIII. The Mesaverde sandstone is a very porous and permeable sandstone. It produces oil and gas elsewhere in the Basin. The gross estimated thickness is 1,156' thick in the wellbore. The Point Lookout gross thickness is 296'. Top is  $\approx$  3,103' and bottom is  $\approx$  4,259'. Estimated wellbore formation tops are:

Alluvium: 0'  
 Nacimiento Mudstone & Sandstone:  
 Ojo Alamo Sandstone: 437'  
 Kirtland Shale: 567'  
 Farmington Sandstone: '  
 Fruitland Formation: 1,068'  
 Lower Fruitland Coal: 1,535'  
 Pictured Cliffs Sandstone: 1,555'  
 Lewis Shale: 1,722'  
 Chacra Sandstone: 2,489'  
 Cliffhouse Sandstone: 3,103'  
 Menefee Formation: 3,230'  
 Point Lookout Sandstone: 3,973'  
 Mancos Shale: 4,259'  
 Total Depth: 4,260'

No existing underground drinking water sources are below the Mesaverde within a two mile radius. Underground sources of drinking water above the Mesaverde are generally alluvial and average 52' deep. The deepest bedrock aquifer is the Ojo Alamo sandstone, base of which is at 687'. There will be  $\approx$  3,250' vertical separation between the bottom of the lowest underground drinking water source and the top of the Mesaverde Point Lookout. In addition, five oil or gas wells within a half mile radius produce from two different oil or gas zones (Fruitland and Pictured Cliffs) above the Mesaverde.

IX. The well will be stimulated with  $\approx$  1,000 to  $\approx$  1,500 gallons of 15% HCL acid. If needed, a small cross linked gel water sand frac job will be done.

XTO ENERGY, INC.  
KUTZ FEDERAL SWD #1  
2060' FNL & 1500' FWL  
SEC. 6, T. 27 N., R. 10 W.  
SAN JUAN COUNTY, NEW MEXICO

- X. Array Induction/SFL/GR/SP will be ran from TD (4,260') to the bottom of the surface casing. Neutron/Lithodensity/Pe/GR/Cal will be ran from TD (4260') to 3,000'. Copies will then be provided to the NMOCD.

There are no water wells within two miles which penetrate or come within a vertical mile of penetrating the Mesaverde.

- XI. XTO is not aware of any geologic or engineering data which may indicate the Mesaverde is in hydrologic connection with any underground sources of water. There will be at least 3,250' of vertical separation between the Mesaverde Point Lookout and any underground sources of water.
- XII. Notice (this application) has been sent to Burlington Resources Oil & Gas Company, Inc. (Conoco/Phillips) operator of the M N Galt 1R, the only non XTO operated well within half mile of the proposed SWD. A legal ad (see Exhibit J) was published on June 18, 2007, in the Farmington Daily Times.

**XTO ENERGY INC.**  
**KUTZ FEDERAL SWD #1**  
**2375' FNL & 1445' FWL**

Section 6, Township 27 North, Range 10 West, NMPM  
San Juan County, New Mexico

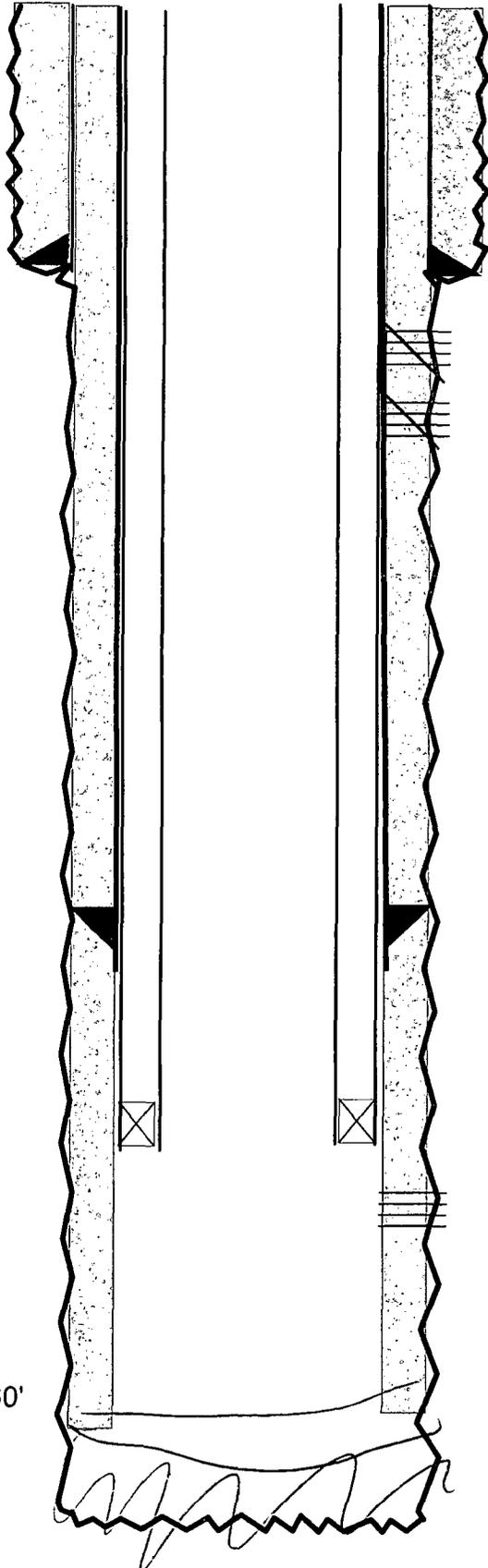
KB: 5804'  
GL : 5792'

12.25" HOLE

8.75" HOLE

DV ± 3,000'

TD ±4,260'



9.625". 23#, J-55 ST&C CSG @ 600'.  
CMTD W/270 SX TYPE III CMT TO SURF

REMEDIAL CMT SQZ 1,150' – 1,151'  
CIRC CMT TO SURF

REMEDIAL CMT SQZ 1,500' – 1,501'

7.0". 23.0# J-55 LT&C CSG @ 4260'.

2 STG CMT

1<sup>st</sup> STAGE 172 SX TYPE III @ 14.2 PPG,  
1.54 CUFT/SX, 8.00 GAL/SX

2<sup>nd</sup> STAGE LEAD ±199 SX TYPE III, 8%  
GEL & LCM MX @ 11.9 PPG, 2.54 FT<sup>3</sup>/SK,  
15.00 GAL WTR/SX

TAIL100 SX Type III CMT W/LCM, @ 14.2  
PPG, 1.54 CUFT/SX, 8.00 GAL/SX

Packer location ≈3,915'

*4048 4104*  
PERF'S ~~4000-4100~~

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**RECEIVED**

FORM APPROVED  
OMB NO 1004-0137  
Expires July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

JUN 02 2008

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.  
Bureau of Land Management  
Farmington Field Office

SUBMIT IN TRIPLICATE - Other instructions on page 2

1 Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5 Lease Serial No NMSF-077384
2 Name of Operator XTO Energy Inc.		6 If Indian, Allottee or Tribe Name
3a Address 382 CR 3100 Aztec, NM 87410	3b Phone No (include area code) 505-333-3100	7 If Unit or CA Agreement, Name and/or No
4 Location of Well (Footage, Sec., T, R, M, or Survey Description) 2375' FNL & 1445' FWL SENW SEC 6 (F) -T27N-R10W		8 Well Name and No. KUTZ FEDERAL SWD # 1
		9 API Well No 30-045-34317
		10 Field and Pool, or Exploratory Area MESA VERDE
		11 County or Parish, State SAN JUAN NM

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

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

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 recomplate 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 shall 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 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

XTO Energy Inc. drilled 8-3/4" hole to 4300' (TD) on 05/25/2008. Set 7", 23#, J-55, LT&C csg @ 4290' on 05/26/2008 & cemented prod csg w/260 sx 50/50 Poz cement (13.5 ppg & 1.29 cuft/sx) f/b 210 sx Type G cement (14.5 ppg & 2.66 cuft/sx). Circ 20 bbls cement to surface. Finished cement job on 05/27/2008. Rig release @ 17:00 hrs, 05/27/2008.

\*\*Production casing will be tested upon completion.\*\* ✓

RCVD JUN 4 '08  
OIL CONS. DIV.  
DIST. 3

ACCEPTED FOR RECORD  
JUN 03 2008  
FARMINGTON FIELD OFFICE  
BY T. Sellers

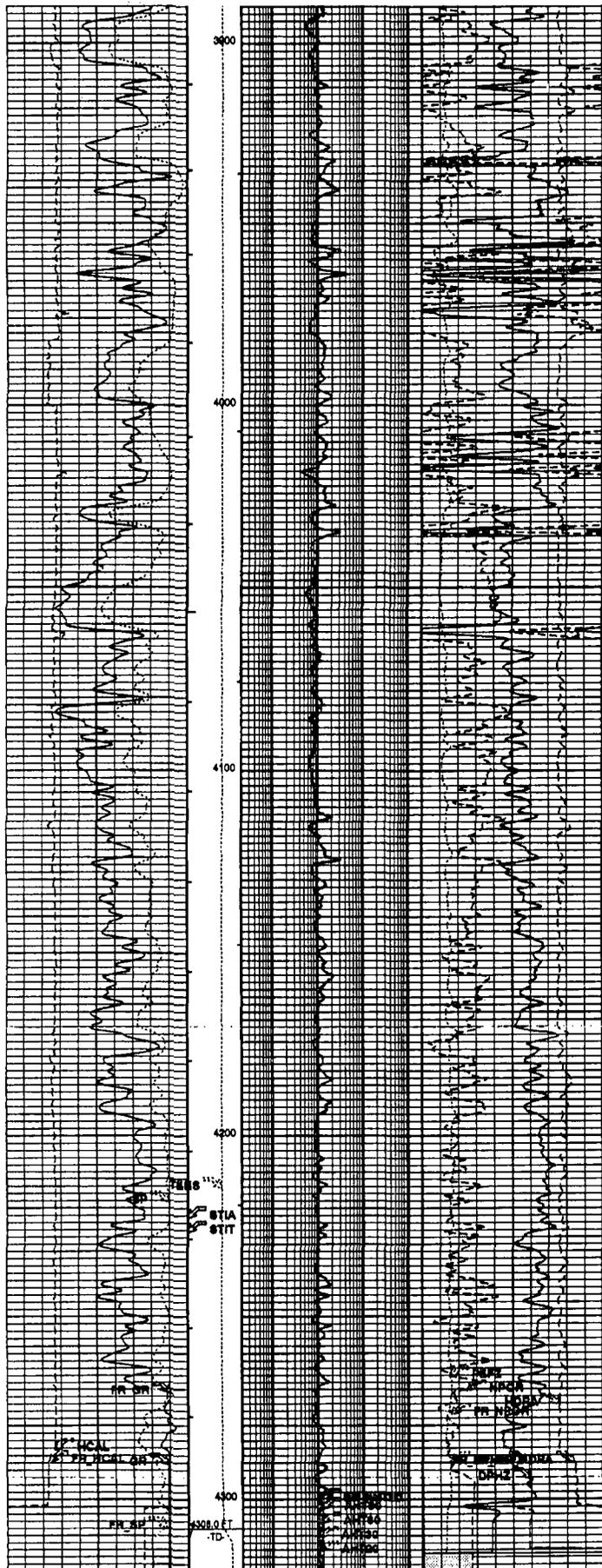
14 I hereby certify that the foregoing is true and correct Name (Printed/Typed) DOLENA JOHNSON	Title OFFICE CLERK
Signature <i>Dolena Johnson</i>	Date 05/30/2008

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
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	

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1712, makes 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.

NMOCD *B*



Gamma Ray (GR) (GAPI)	Tension (TENS) (TENS)	AIT-H 80 inch Investigation (AIT80) (OHMM)	Std. Res. Density Porosity (DPH2) (V/V)
0 200	0 200	0 2000	0.3 -0.1
MHT Caliper (MCA) (M)	Stick Stretch (STIT) (FT)	AIT-H 20 inch Investigation (AIT20) (OHMM)	Alpha Processed Neutron Porosity (NPOR) (V/V)
0 15	0 30	0 2000	0.3 -0.1
SP (BP) (MV)	AIT-H 80 inch Investigation (AIT80) (OHMM)	AIT-H 80 inch Investigation (AIT80) (OHMM)	From GAS From DPH2 to NPOR
0 40	0 2000	0 2000	
	AIT-H 80 inch Investigation (AIT80) (OHMM)	Std. Res. Formation Density Correction (FDR) Pv (Pv) (G/CS)	0.25
	0 2000	0 10	0.25

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0137  
Expires July 31, 2010

RECEIVED

NOV 26 2008

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 instructions on page 2

Bureau of Land Management  
Farmington Field Office

5. Lease Serial No. NMSF-077384

6. If Indian, Allottee or Tribe Name \_\_\_\_\_

7. If Unit or CA/Agreement, Name and/or No. \_\_\_\_\_

8. Well Name and No. KUTZ FEDERAL SWD # 1

9. API Well No. 30-045-34317

10. Field and Pool, or Exploratory Area BLANCO MESAVERDE

11. County or Parish, State SAN JUAN NM

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
XTO Energy Inc.

3a. Address 382 CR 3100 Aztec, NM 87410

3b. Phone No. (include area code) 505-333-3100

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
2375' FNL & 1445' FWL SEC 6F-T27N-R10W

12. CHECK 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 checked="" type="checkbox"/> Other <u>STEP-RATE</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	<u>TEST</u>
	<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 recomplete horizontally, give subsurface locations and measuring 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/BJA. Required subsequent reports shall 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 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

XTO Energy Inc. proposes to perform a step rate test, during the week of December 8th, on the Kutz Federal SWD #1 per the following:

MIRU Tefteller slickline unit. RIH with tandem 10K press bombs to 4,098'. MIRU pump truck. Run step rate test. 1st step 0.25 BPM. Hold each step for 15 minutes. Increase rate in 1/4 BPM increments up to 10 BPM or maximum pressure of 2,000 psig. Record ISIP, 5, 10 and 15 minutes SIP's. POH with Tefteller bottom hole pressure gauges 24 hours after step rate test. RDMD SL.

Please see also, the attached wellbore sketch showing configuration of the wellbore.

*Need NMOC approval as well*

RCVD DEC 2 '08  
OIL CONS. DIV.  
DIST. 3

CONDUCT BRADEN HEAD TEST PRIOR TO START OF WORK - MONITOR + RECORD PRESSURES ON ALL CASING STRINGS THROUGHOUT TEST - CONTACT NMOC AZTEC 24 HOURS PRIOR TO START OF WORK.

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed) LORRI D. BINGHAM Title REGULATORY COMPLIANCE TECH

Signature [Signature] Date 11/25/08

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by Original Signed: Stephen Mason Title \_\_\_\_\_ Date DEC 01 2008

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 \_\_\_\_\_

NMOC  
12/15



# WELLBORE HISTORY REPORT

## Kutz Federal SWD 01

Well Header	Location	County	State	Field Name	Lease	Block	N/S Dist (ft)	N/S	EW Dist (ft)	EW
30045343170000	T27N-R10W-S06	San Juan	New Mexico	Blanco Mesaverde	NMSF077384	F	7,792.0	FNL	4,740.8	FWL
Method Of Production: Not Completed XTO Well ID Number: 701160 Job Cat.: DRILLING Start Date: 5/17/2008 Run Date: _____ Set Depth (ft): _____ Run Date: _____ Set Depth (ft): _____ Rod Description: _____ Run Date: _____ Set Depth (ft): _____ Perforations: _____ Date: _____ Zone: _____ Top (ft): _____ Bm (ft): _____ 11/3/2008 MV 701160; Original Hole 4,048.0 4,104.0										
Well Config: Vertical - Original Hole, 11/25/2008 9:27:10 AM Schematic: Actual (ft)(M)(D)										
Casing Joints, 9 5/8, 8.921, 15, 812.9 Shoe, 9 5/8, 8.921, 828, 1.0  Casing, 7, 6.241, 15, 3.034.1  Stage Tool, 7, 6.241, 3.049, 3.0 Casing, 7, 6.241, 3.052, 872.0 Marker Joint, 7, 6.241, 3.924, 14.5  Acidize - Bullhead, 4.048-4.104, 11/5/2008  Casing, 7, 6.241, 3.939, 306.1 PBTD, 4.245 Float Collar, 7, 6.241, 4.245, 0.9  Casing, 7, 6.241, 4.246, 43.4 Float Shoe, 7, 4.289, 0.9  TD, 4.300	0  15  768  828  829  833  3,049  3,049  3,052  3,924  3,939  4,048  4,104  4,245  4,245  4,246  4,289  4,290  4,300									

**EXHIBIT "B"**

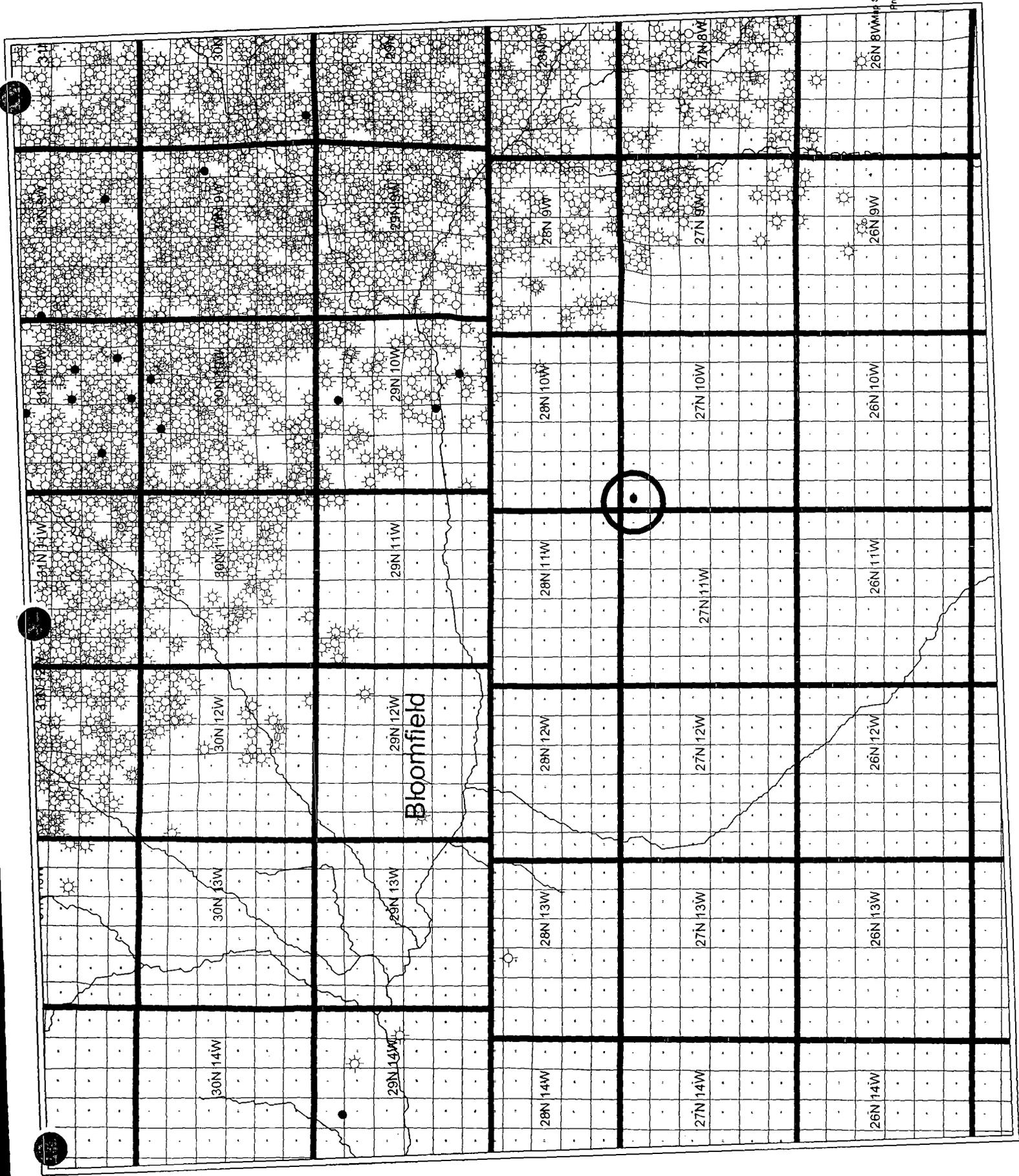
**MAP INDICATING MESA VERDE PRODUCTION**

**XTO ENERGY INC.**

**KUTZ FEDERAL SWD #1**

**NW/4 Sec. 6 T27N-R10W**

**SAN JUAN COUNTY, NEW MEXICO**



Bloomfield



**EXHIBIT "C"**

**MAP IDENTIFYING ALL WELLS**

**WITHIN 1/2 MILE OF**

**PROPOSED**

**XTO ENERGY INC.**

**KUTZ FEDERAL SWD #1**

**NW/4 Sec. 6 T27N-R10W**

**SAN JUAN COUNTY, NEW MEXICO**



**EXHIBIT "D"**

**MAP IDENTIFYING ALL WELLS**

**WITHIN 2 MILES OF**

**PROPOSED**

**XTO ENERGY INC.**

**KUTZ FEDERAL SWD #1**

**NW/4 Sec. 6 T27N-R10W**

**SAN JUAN COUNTY, NEW MEXICO**



**EXHIBIT "E"**

**MAP IDENTIFYING ALL LEASES WITHIN**

**1/2 MILE & 2 MILE RADIUS**

**XTO ENERGY INC.**

**KUTZ FEDERAL SWD #1**

**NW/4 Sec. 6 T27N-R10W**

**SAN JUAN COUNTY, NEW MEXICO**



**EXHIBIT "F"**

**WATER ANALYSIS REPORT**

**XTO ENERGY INC.**

**KUTZ FEDERAL SWD #1**

**NW/4 Sec. 6 T27N-R10W**

**SAN JUAN COUNTY, NEW MEXICO**

# HALLIBURTON

## Water Analysis Report

To: XTO Date: 5/17/2006  
Submitted by: Halliburton Energy Services Date Rec: 5/17/2006  
Attention: Loren Fothergill Report #: FLMM6504  
Well Name: Dryden 4A

MVRD

Specific Gravity	1.005	
pH	8.0	
Resistivity	1.43	@ 70° F
Iron (Fe)	0	Mg / L
Potassium (K)	0	Mg / L
Sodium (Na)	2097	Mg / L
Calcium (Ca)	3	Mg / L
Magnesium (Mg)	10	Mg / L
Chlorides (Cl)	3200	Mg / L
Sulfates (SO4)	0	Mg / L
Carbonates (CO3)	0	Mg / L
Bicarbonates (HCO3)	124	Mg / L
Total Dissolved Solids	5435	Mg / L

Respectfully: Holly Lopez  
Title: Lab Technician  
Location: Farmington, NM

NOTICE: This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its use.

# HALLIBURTON

## Water Analysis Report

To: XTO Date: 5/19/2006  
Submitted by: Halliburton Energy Services Date Rec: 5/17/2006  
Attention: Loren Fothergill Report #: FLMM6506  
Well Name: Dawson Federal 1B

*Chorro / MVRD*

Specific Gravity	1.015	
pH	7.1	
Resistivity	0.29	@ 70° F
Iron (Fe)	0	Mg / L
Potassium (K)	68	Mg / L
Sodium (Na)	11901	Mg / L
Calcium (Ca)	60	Mg / L
Magnesium (Mg)	12	Mg / L
Chlorides (Cl)	18000	Mg / L
Sulfates (SO <sub>4</sub> )	0	Mg / L
Carbonates (CO <sub>3</sub> )	0	Mg / L
Bicarbonates (HCO <sub>3</sub> )	976	Mg / L
Total Dissolved Solids	31017	Mg / L

Respectfully: Holly Lopez  
Title: Lab Technician  
Location: Farmington, NM

NOTICE: This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its use.

# HALLIBURTON

## Water Analysis Report

To: XTO Energy, Inc Date: 7/17/2004  
Submitted by: Halliburton Energy Services Date Rec: 7/17/2004  
Attention: Call Sheets Report #: FLMM4514  
Well Name: VCU #45B Formation: Location (7)

*MVRP*

Specific Gravity	1.030	
pH	9.11	
Resistivity	0.20	@ 70° F
Iron (Fe)	0	Mg / L
Potassium (K)	20000	Mg / L
Sodium (Na)	4600	Mg / L
Calcium (Ca)	177	Mg / L
Magnesium (Mg)	24	Mg / L
Chlorides (Cl)	25000	Mg / L
Sulfates (SO <sub>4</sub> )	600	Mg / L
Carbonates (CO <sub>3</sub> )	69.6	Mg / L
Bicarbonates (HCO <sub>3</sub> )	265	Mg / L
Total Dissolved Solids	50736	Mg / L

Respectfully: Deidra Benally

Title: Lab Technician

Location: Farmington, NM

NOTICE: This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its use.



# HALLIBURTON

## Water Analysis Report

To: XTO  
Submitted by: Halliburton Energy Services  
Attention: Loren Fothergill  
Well Name: Schw A 12

Date: 5/19/2006  
Date Rec: 5/17/2006  
Report #: FLMM6507

*MVRP*

Specific Gravity	1.005	
pH	8.0	
Resistivity	10.41	@ 70° F
Iron (Fe)	0	Mg / L
Potassium (K)	21	Mg / L
Sodium (Na)	686	Mg / L
Calcium (Ca)	7	Mg / L
Magnesium (Mg)	8	Mg / L
Chlorides (Cl)	1000	Mg / L
Sulfates (SO <sub>4</sub> )	0	Mg / L
Carbonates (CO <sub>3</sub> )	0	Mg / L
Bicarbonates (HCO <sub>3</sub> )	194	Mg / L
Total Dissolved Solids	1916	Mg / L

Respectfully: Holly Lopez  
Title: Lab Technician  
Location: Farmington, NM

**NOTICE:** This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its use.



# Bio Tech, Inc.

## Water Analysis Form

*DKIA / Gallup*

Operator : XTO

Date : 08/16/04

Lease : Galt Mine

County: San Juan

Wellid : B 1 Y

State : NM

Bio Tech Dist : OKC

Requested By : L. Westmoreland

### Lab Measurements

Oxygen 2.0 mg/L  
 Carbon Dioxide 250 mg/L  
 Bicarbonate 495 mg/L  
 Hydrogen Sulfide 0.0 mg/L  
 pH 6.7  
 Temperature 72 °F  
 Iron 95.60 mg/L  
 Oil in Water n/a mg/L

Specific Gravity 1.0110  
 Total Dissolved Solids ( TDS ) <sub>Calc.</sub> 25,283 mg/L  
 Barium 0 mg/L  
 Sulfate 0 mg/L  
 Chloride 15,000 mg/L  
 Total Hardness 3,120 mg/L  
 Calcium Hardness 2,960 mg/L

Cations (+)	mg/L	mEq/L
Barium ( Ba )	0	0.00
Calcium ( Ca )	1,184	59.20
Magnesium ( Mg )	39	3.20
Sodium ( Na ) <sub>Calc.</sub>	8,470	368.25
Iron ( Fe ) <sub>Total</sub>	95.60	3.43

Anions (-)	mg/L	mEq/L
Carbonate ( CO <sub>3</sub> )	0	0.00
Bicarbonate ( HCO <sub>3</sub> )	495	8.11
Chloride ( Cl )	15,000	422.54
Sulfate ( SO <sub>4</sub> )	0	0.00

### Probable Scale Composition

Compound	mEq/L	mg/L	Saturation mg/L	Scale Formation Potential @ 70°F
Barium Sulfate	0.00	0	2.40	Scale Formation Potential Exists
Calcium Carbonate	8.11	658	13.00	
Calcium Sulfate	0.00	0	2090	



# Bio Tech, Inc.

## Water Analysis Form

DKTA

Operator : XTO

Date : 07/01/04

Lease : Galt, MN

County : San Juan

Wellid : J #3

State : NM

Bio Tech Dist : OKC

Requested By : L. Christian

### Lab Measurements

Oxygen 1.3 mg/L  
 Carbon Dioxide 120 mg/L  
 Bicarbonate 585 mg/L  
 Hydrogen Sulfide 0.0 mg/L  
 pH 7.3  
 Temperature 72 °F  
 Iron 3.80 mg/L  
 Oil in Water n/a mg/L

Specific Gravity 1.0100  
 Total Dissolved Solids ( TDS ) <sub>Calc.</sub> 13,987 mg/L  
 Barium 0 mg/L  
 Sulfate 22 mg/L  
 Chloride 8,000 mg/L  
 Total Hardness 640 mg/L  
 Calcium Hardness 640 mg/L

Cations (+)	mg/L	mEq/L
Barium ( Ba )	0	0.00
Calcium ( Ca )	256	12.80
Magnesium ( Mg )	0	0.00
Sodium ( Na ) <sub>Calc</sub>	5,120	222.60
Iron ( Fe ) <sub>Total</sub>	3.80	0.14

Anions (-)	mg/L	mEq/L
Carbonate ( CO <sub>3</sub> )	0	0.00
Bicarbonate ( HCO <sub>3</sub> )	585	9.59
Chloride ( Cl )	8,000	225.35
Sulfate ( SO <sub>4</sub> )	22	0.46

### Probable Scale Composition

Compound	mEq/L	mg/L	Saturation mg/L	Scale Formation Potential @ 70°F
Barium Sulfate	0.00	0	2.40	Scale Formation Potential Exists
Calcium Carbonate	9.59	777	13.00	
Calcium Sulfate	0.46	31	2090	

**BJ SERVICES COMPANY**

**WATER ANALYSIS #FW01W855**

**FARMINGTON LAB**

*DKTA*

**GENERAL INFORMATION**

OPERATOR: CROSS TIMBERS	DEPTH:
WELL: KUTZ FED. J-2	DATE SAMPLED: 06/05/00
FIELD:	DATE RECEIVED: 06/05/00
SUBMITTED BY: LOREN FOTHERGILL	COUNTY: SAN JUAN STATE: NM
WORKED BY : D. SHEPHERD	FORMATION: DAKOTA
PHONE NUMBER:	

**SAMPLE DESCRIPTION**

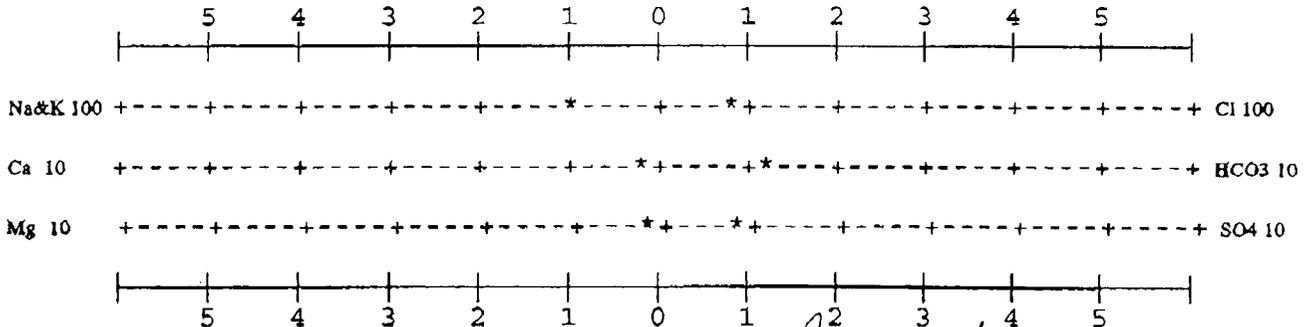
sample for analysis

**PHYSICAL AND CHEMICAL DETERMINATIONS**

SPECIFIC GRAVITY:	1.004	@ 77°F	PH:	7.97
RESISTIVITY (MEASURED ):	0.900	ohms @ 78°F		
IRON (FE++) :	0	ppm	SULFATE:	398 ppm
CALCIUM:	48	ppm	TOTAL HARDNESS	199 ppm
MAGNESIUM:	19	ppm	BICARBONATE:	680 ppm
CHLORIDE:	2,788	ppm	SODIUM CHLORIDE (Calc)	4,587 ppm
SODIUM+POTASS:	2,163	ppm	TOT. DISSOLVED SOLIDS:	6,230 ppm
H2S: no trace			POTASSIUM (PPM):	29

**REMARKS**

**STIFF TYPE PLOT (IN MEQ/L)**



ANALYST

*D. Shepherd*  
D. SHEPHERD





Analytical Laboratory Report for:  
XTO Energy



BJ Unichem  
Chemical Services

UNICHEM Representative: Tony Snow

## Production Water Analysis

REC'D / SAN JUAN

Listed below please find water analysis report from: Pan-Am-Fed GC, B-2

*Fouillard Coal*

JUL 11 2002

Lab Test No: 2002124116      Sample Date: 06/19/2002  
Specific Gravity: 1.023  
TDS: 33216  
pH: 6.87

Cations:	mg/L	as:
Calcium	94	(Ca <sup>++</sup> )
Magnesium	88	(Mg <sup>++</sup> )
Sodium	13509	(Na <sup>+</sup> )
Iron	20.56	(Fe <sup>++</sup> )
Barium	84.50	(Ba <sup>++</sup> )
Strontium	57.42	(Sr <sup>++</sup> )
Manganese	0.22	(Mn <sup>++</sup> )
Anions:	mg/L	as:
Bicarbonate	1867	(HCO <sub>3</sub> <sup>-</sup> )
Sulfate	7	(SO <sub>4</sub> <sup>=</sup> )
Chloride	17490	(Cl)
Gases:		
Carbon Dioxide	255	(CO <sub>2</sub> )
Hydrogen Sulfide	0	(H <sub>2</sub> S)



# Bio Tech, Inc.

## Water Analysis Form

*F.R. COAL*

Operator : XTO

Date : 08/23/04

Lease : Bolack

County : San Juan

Wellid : 4-1

State : NM

Bio Tech Dist : OKC

Requested By : L. Westmoreland

### Lab Measurements

Oxygen 1.4 mg/L  
 Carbon Dioxide 140 mg/L  
 Bicarbonate 820 mg/L  
 Hydrogen Sulfide 0.0 mg/L  
 pH 7.5  
 Temperature 72 °F  
 Iron 12.30 mg/L  
 Oil in Water n/a mg/L

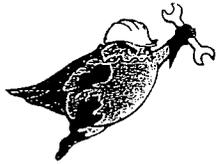
Specific Gravity 1.0410  
 Total Dissolved Solids ( TDS ) 66,915 mg/L  
 Barium 0 mg/L  
 Sulfate 0 mg/L  
 Chloride 40,000 mg/L  
 Total Hardness 2,360 mg/L  
 Calcium Hardness 2,360 mg/L

Cations (+)	mg/L	mEq/L
Barium ( Ba )	0	0.00
Calcium ( Ca )	944	47.20
Magnesium ( Mg )	0	0.00
Sodium ( Na ) <sub>Calc.</sub>	25,139	1093.00
Iron ( Fe ) <sub>Total</sub>	12.30	0.44

Anions (-)	mg/L	mEq/L
Carbonate ( CO <sub>3</sub> )	0	0.00
Bicarbonate ( HCO <sub>3</sub> )	820	13.44
Chloride ( Cl )	40,000	1126.76
Sulfate ( SO <sub>4</sub> )	0	0.00

### Probable Scale Composition

Compound	mEq/L	mg/L	Saturation mg/L	Scale Formation Potential @ 70°F
Barium Sulfate	0.00	0	2.40	Scale Formation Potential Exists
Calcium Carbonate	13.44	1,089	13.00	
Calcium Sulfate	0.00	0	2090	



# Bio Tech, Inc.

## Water Analysis Form

FR CAL

Operator : XTO

Date : 08/23/04

Lease : Bolack

County : San Juan

Wellid : 4-2

State : NM

Bio Tech Dist : OKC

Requested By : L. Westmoreland

### Lab Measurements

Oxygen 1.5 mg/L  
 Carbon Dioxide 100 mg/L  
 Bicarbonate 800 mg/L  
 Hydrogen Sulfide 0.0 mg/L  
 pH 7.8  
 Temperature 72 °F  
 Iron 10.20 mg/L  
 Oil in Water n/a mg/L

Specific Gravity 1.0440  
 Total Dissolved Solids ( TDS ) 68,548 mg/L  
 Barium 0 mg/L  
 Sulfate 0 mg/L  
 Chloride 41,000 mg/L  
 Total Hardness 2,120 mg/L  
 Calcium Hardness 2,120 mg/L

Cations (+)	mg/L	mEq/L
Barium ( Ba )	0	0.00
Calcium ( Ca )	848	42.40
Magnesium ( Mg )	0	0.00
Sodium ( Na ) <sub>Calc</sub>	25,890	1125.64
Iron ( Fe ) <sub>Total</sub>	10.20	0.37

Anions (-)	mg/L	mEq/L
Carbonate ( CO <sub>3</sub> )	0	0.00
Bicarbonate ( HCO <sub>3</sub> )	800	13.11
Chloride ( Cl )	41,000	1154.93
Sulfate ( SO <sub>4</sub> )	0	0.00

### Probable Scale Composition

Compound	mEq/L	mg/L	Saturation mg/L	Scale Formation Potential @ 70°F
Barium Sulfate	0.00	0	2.40	Scale Formation Potential Exists
Calcium Carbonate	13.11	1,063	13.00	
Calcium Sulfate	0.00	0	2090	

**EXHIBIT "G"**

**WELLBORE DIAGRAM OF  
ALL PLUGGED & ABANDONED WELLS  
WITHIN 1/2 MILE  
XTO ENERGY INC.  
KUTZ FEDERAL SWD #1  
NW/4 Sec. 6 T27N-R10W  
SAN JUAN COUNTY, NEW MEXICO**

**MADLINE N GALT B-1**

Sec 6 T27N-R10W  
990' FSL & 1752' FWL  
Plugged 5/30/1995

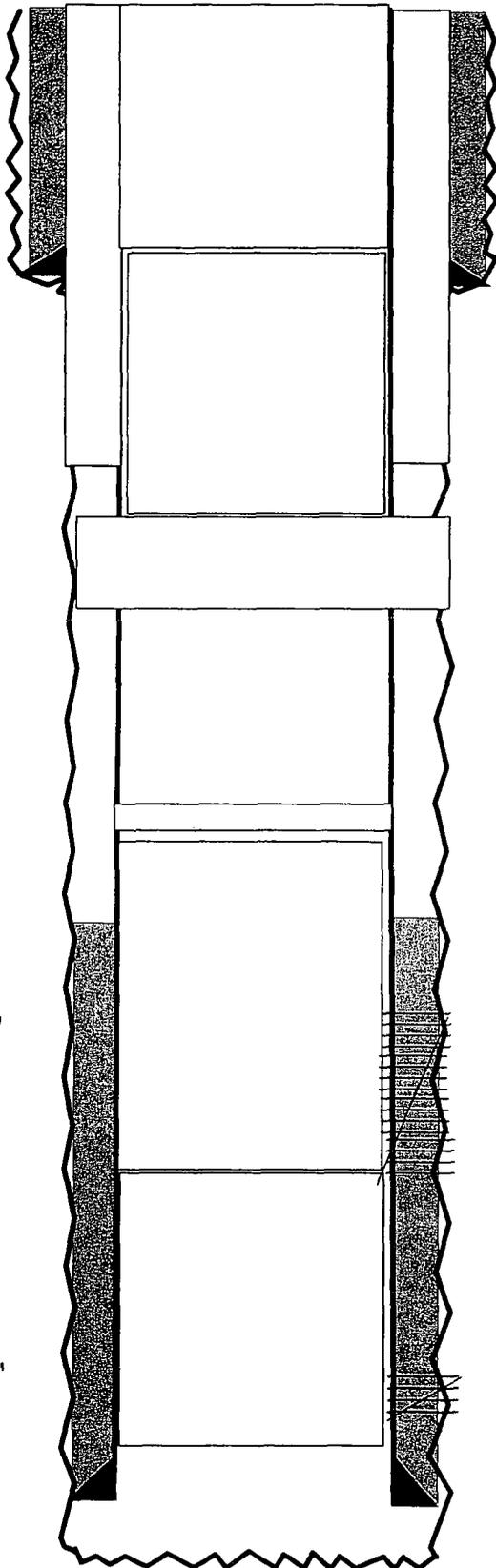
KB: 5,972'  
GL: 5,963' (est)

Ojo Alamo  
763' - 1,549'

Fruitland  
1,549' - 1,826'

Pictured Cliffs  
1,826' - 1,899'

TD 1,904'  
PBTD 1,899'



50' CMT plug on top

150' to surface cement

CMT retainer @ 686'

CMT 813 - 913'

CMT retainer @ 1603'

SQ perfs 1656' - 1822', 98 cuft cmt

Recompleted to FC  
Perfs. 1656' - 1660', 1676' - 1700', 1752' -  
1760', 1804' - 1822'

PC Perf's 1868' - 1873'

M.N. GALT B #1  
 LOCATION 6-27N-10W  
 SINGLE FRUITLAND COAL  
 ORIGINAL COMPLETION 2/50  
 LAST FILE UPDATE 5/92 BY CSW

070 FARMINGTON, NM

*NAC-Surface*  
*OS 763*  
*Kittland 899*  
*Fruitland 1549*

BOT OF 9.625 IN OD CSA 92  
 36 LB/FT

FT-4SPF PERF 1656-1660  
 1676-1700

1752-1760

1804-1822

PBTD AT 1828 FT.  
 PC-2SPF PERF 1830-1860  
 PC PERF 1830-1860  
 SQUEEZED 1992

TOTAL DEPTH 1904 FT.

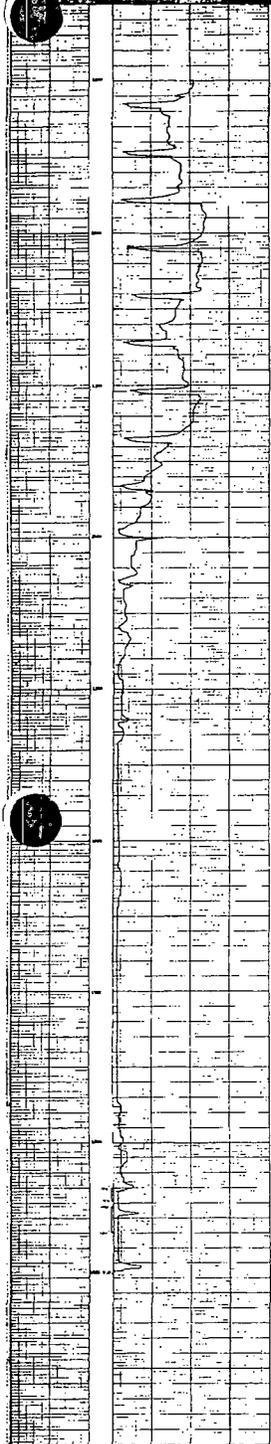
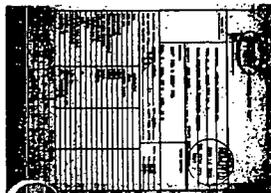
SN @ 1761

BOT OF 1.25 IN OD TBG AT 1794

BOT OF 5.5 IN OD CSA 1832  
 15.5 LB/FT

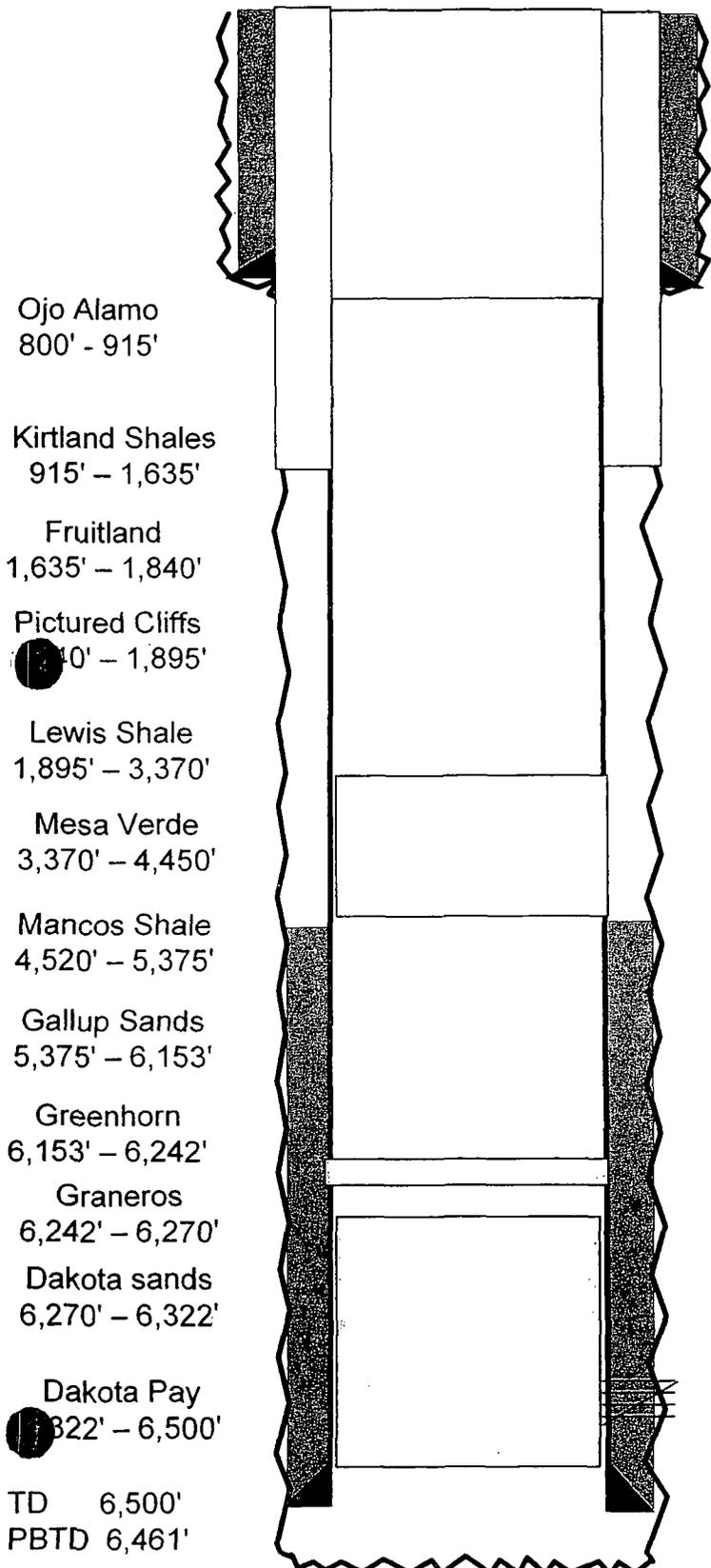
BOT OF 3.5 IN OD CSA 1904  
 9.3 LB/FT, J-55 CASING

FILENAME:  
 04506911



**M N GALT "J"**  
 Sec 6 T27N-R10W  
 790' FSL & 1750' FWL  
 Plugged 11/17/68

KB: 5,981'  
 GL: 5,969'



Spot 10 sks 65' to surface

SQ 50 sks down 4 1/2' - 8 5/8" annulus

Spot 20 sks 1,000' - 800' in 4 1/2" casing

Cement retainer set at 2711', SQ 150 sks into Mesa Verde formation, left 60 sks type C cmt in 4 1/2" casing

CMT retainer set @ 6,207'

Squeezed notch at 6,343' with 40 sks type C CMT left 10 sks in 4 1/2" casing

Hydraulic jet cut  
 6,342'

**MADLINE N GALT 1-A**

Sec 6 T27N-R10W  
1650' FNL & 1650' FEL  
Plugged 2/2/1960

KB: 5,820'  
GL: 5,802' (est)

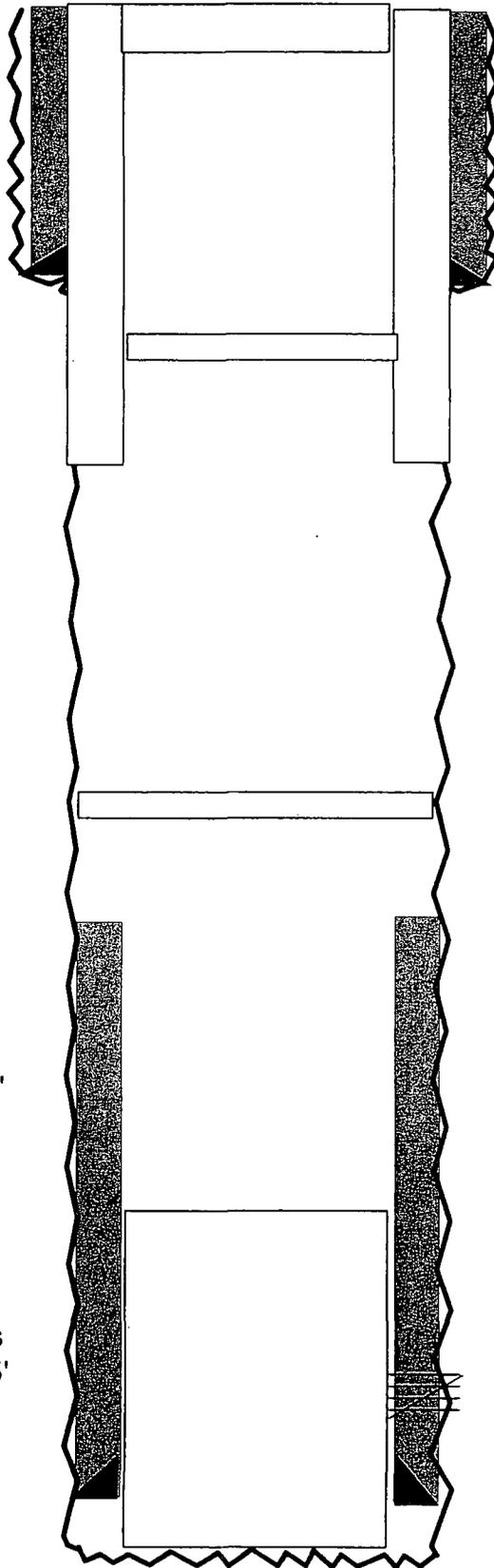
Ojo Alamo  
830' - 1,035'

Farmington  
1,035' - 1,480'

Fruitland  
1,480' - 1,714'

Pictured Cliffs  
1,714' - 1,795'

TD 1,795'  
PBSD 1,785'



Spot 20 sks plug at surface

Spot 15 sks plug on stub @ 520'

Shot & pulled 520' casing,  
spot 15 sks plug on stub  
@ 520'

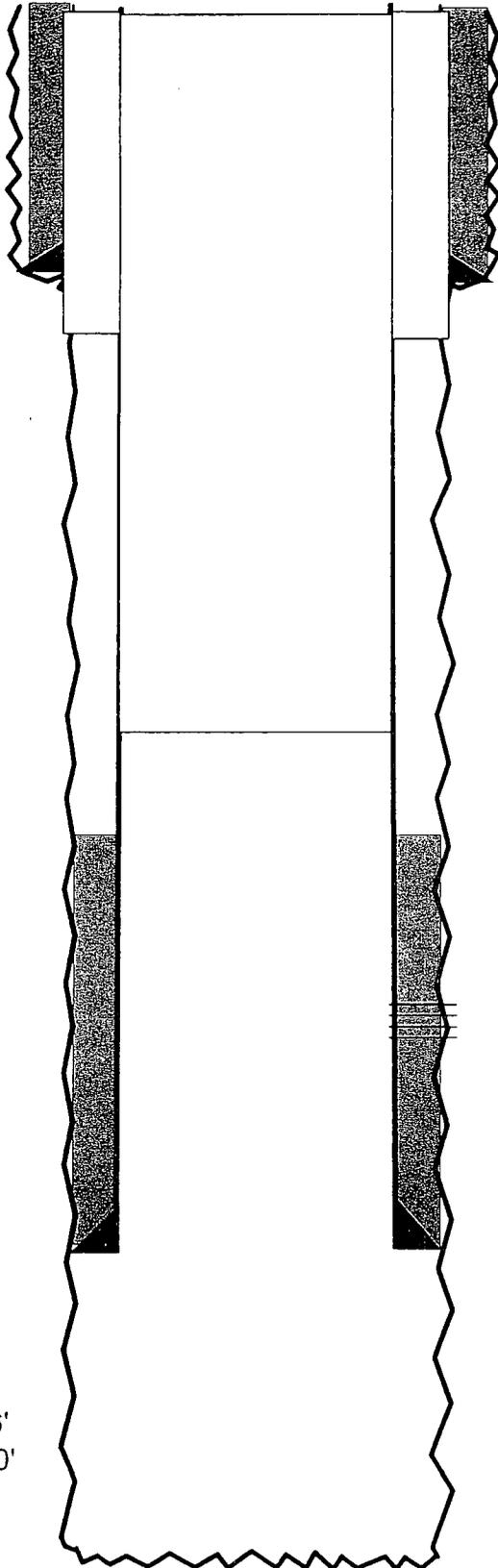
CMT 25 sks from 1,723 to TD

Perf's 1775' - 1780'

**MADLINE N. GALT B #2**

Sec 6 T27N-R10W  
790' FNL & 1700' FWL  
Plugged 6/16/1993

KB: 5,783'  
GL : 5,768'



Ojo Alamo  
630' - 740'

Fruitland  
1,420' - 1,678'

Pictured Cliffs  
1,678' - 1,710'

TD 1,886'  
BT D 1,830'

TIH & shoot 4holes @ 50'. Pump 20 sks CL B CMT, circ good CMT to surf

SQ perfs @ 350' & shoot hole @ 50'. Mix & pump 65 sks CL B CMT, SQ perfs @ 300#, CMT at surf, CSG full of CMT, bleed off SQ press,

Trip in hole w/ cmt ret, set @ 1,624'. Mix & pump 25 sks CI B CMT, drop wiper plug pump 33 sks CI B CMT, SQZ perfs W/25 sks land wiper plug on RET with 33 sks CL B CMT on top of RET

PC 2JSPF PERF  
1,680' - 1,758'

# WILSON SERVICE COMPANY

FORM 432-2

## TEMPERATURE SURVEY

COMPANY Amoco Production  
 WELL #2 LEASE M. N. Salt II  
 COUNTY San Juan STATE New Mexico  
 SEC 4 TWP 27N RGE 10W

APPROX. TOP CEMENT 400'

Survey Begins at 1200' Ft. Ends at 1500' Ft.  
 Approx. Fill-Up                      Max. Temp.                       
 Log Measured From KB Run No. 1

Casing Size	Casing Depth	Diam of Hole	Depth
<u>2 7/8"</u> from <u>                    </u>	to <u>                    </u>	from <u>                    </u>	to <u>                    </u>
from <u>                    </u>	to <u>                    </u>	from <u>                    </u>	to <u>                    </u>

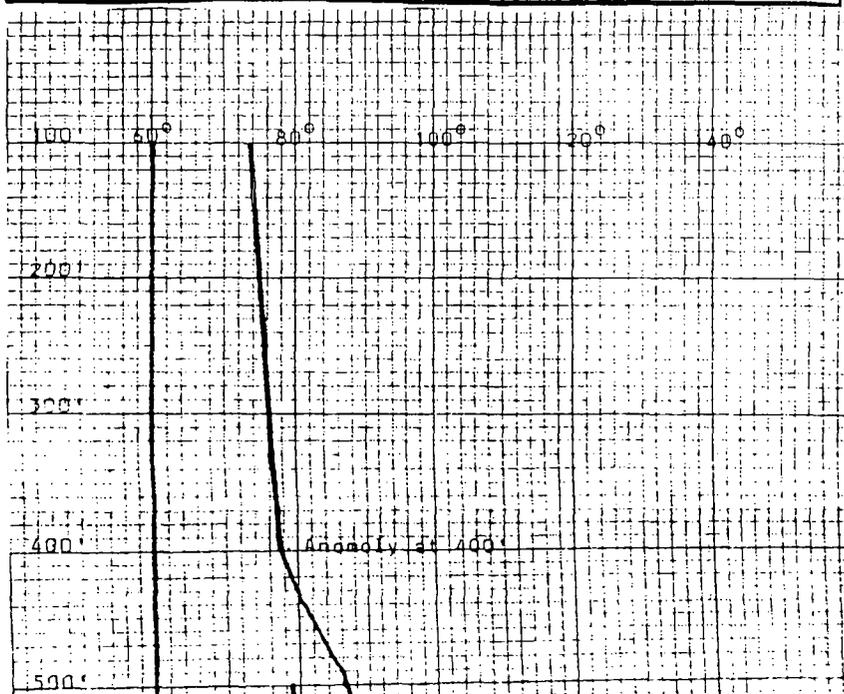
Date of Cementing 10/26/85 Time 8:00 am  
 Date of Survey 10/14/85 Time 8:00 am  
 Amount of Cement 375 lbs.

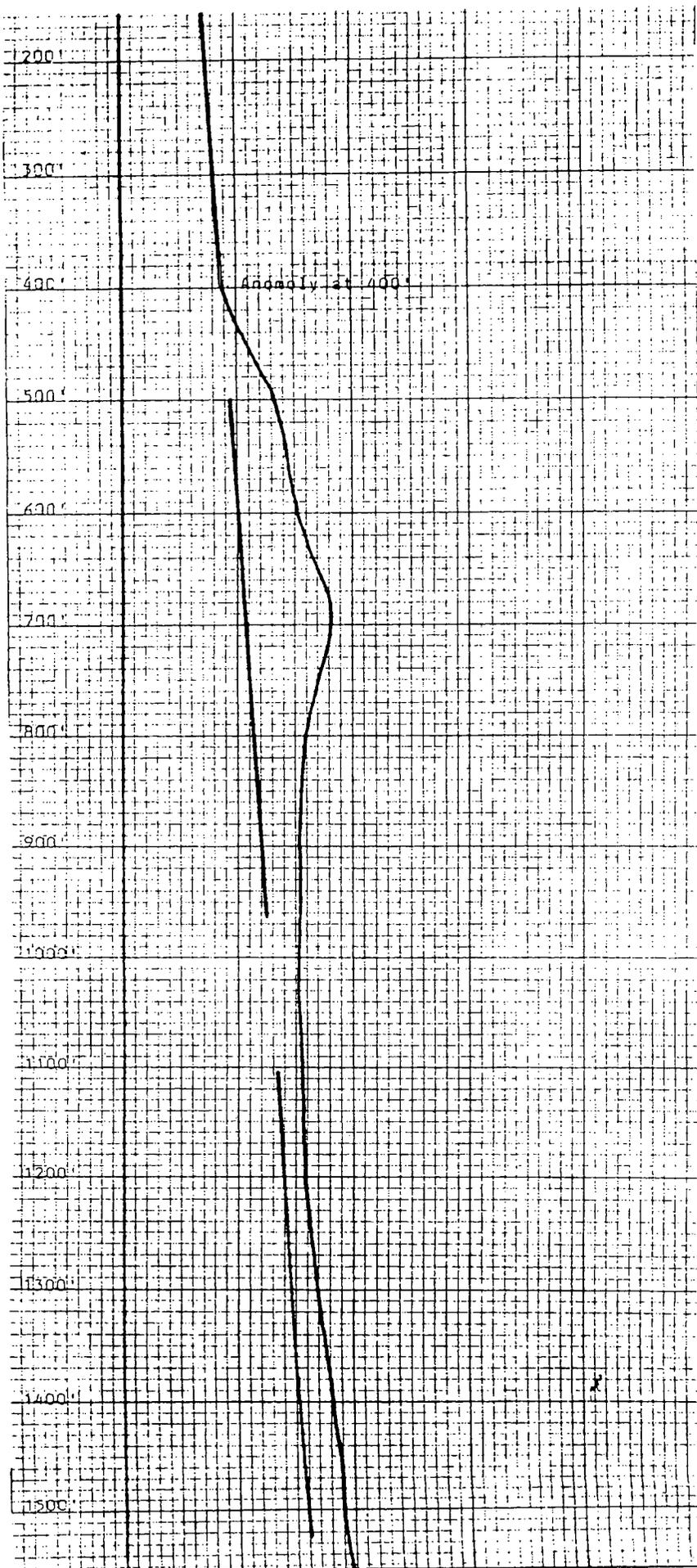
Recorded by Ebert Witnessed by                     

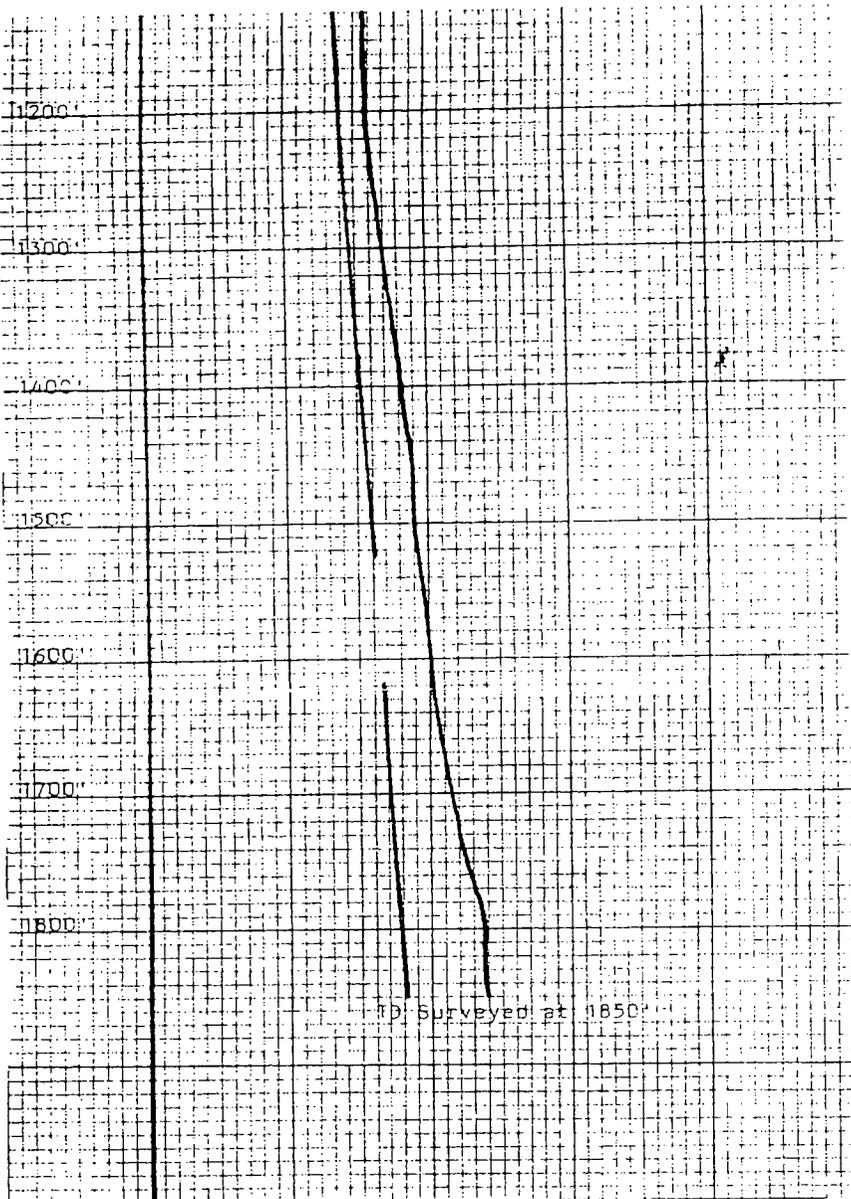
### REMARKS OR OTHER DATA

50 1850'

### TEMPERATURE IN DEGREES FAHRENHEIT

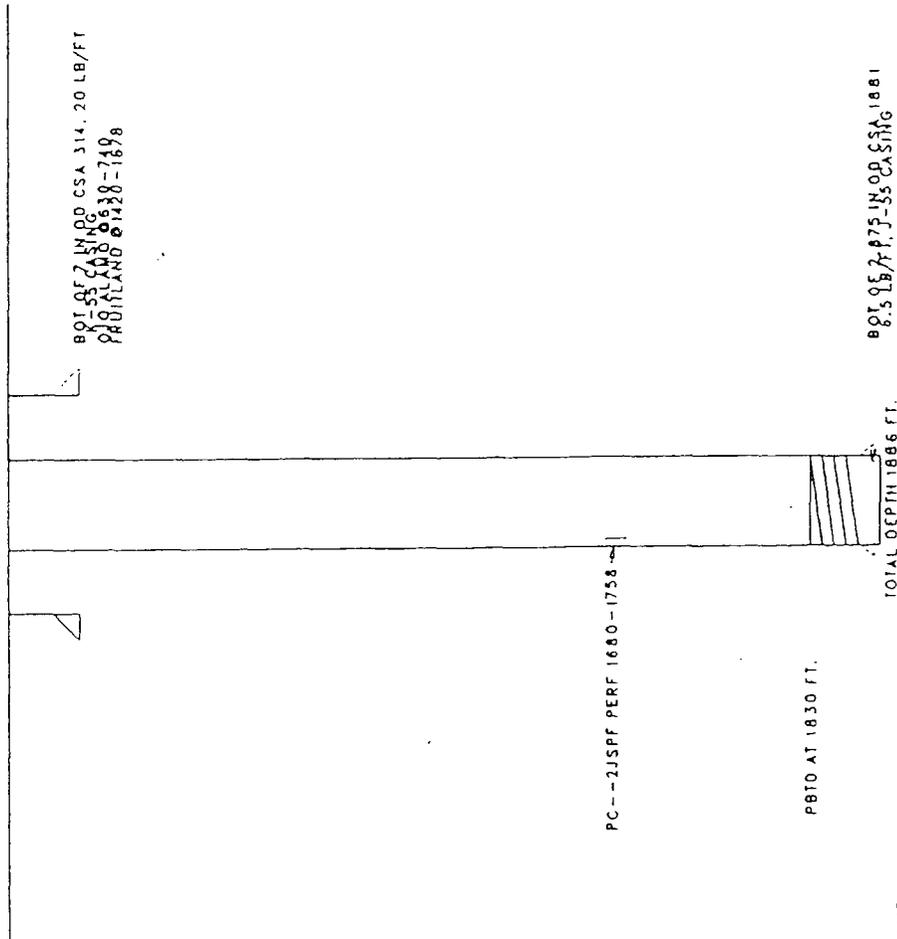






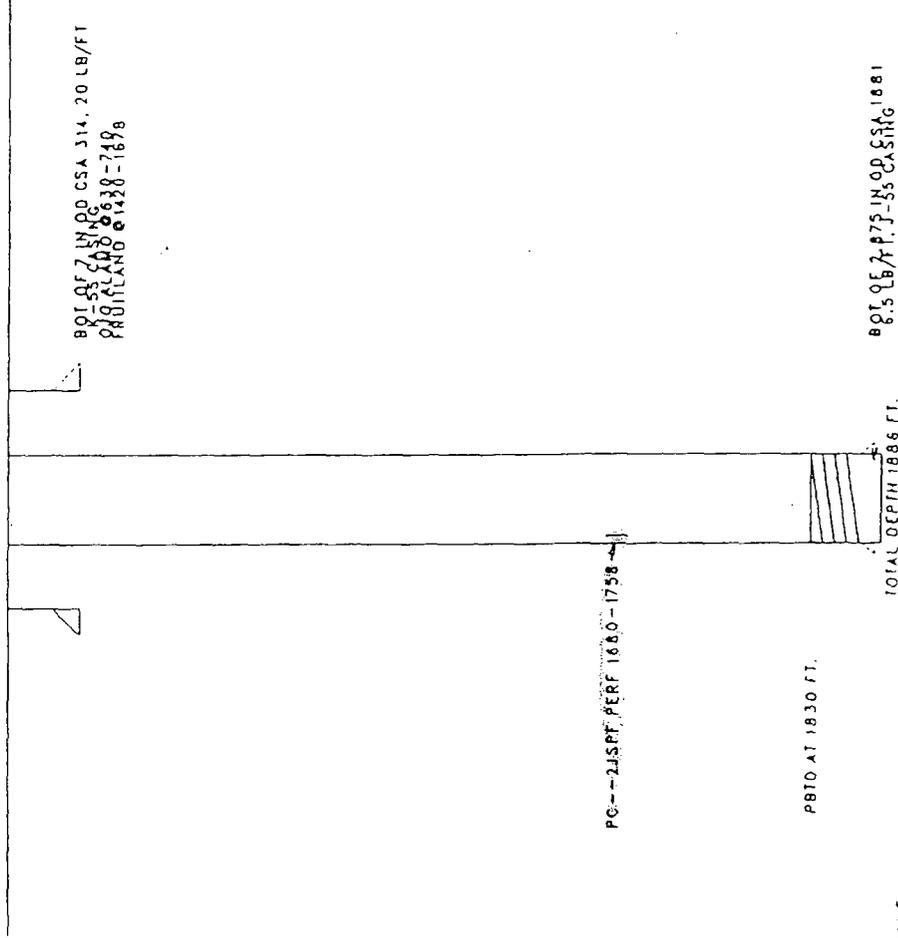
TD Surveyed at 11850

M N GALT B #2  
LOCATION, 06 27N 10W  
SINCE PC  
ORIGINAL COMPLETION 11/85  
LAST FILE UPDATE 1/92 BY CSW



FILENAME:  
3090

M N GALT B #2  
LOCATION, 06 27N 10W  
SINCE PC  
ORIGINAL COMPLETION 11/85  
LAST FILE UPDATE 1/92 BY CSW



PC--245RF, PERF 1680-1758

P810 AT 1830 FT.

TOTAL DEPTH 1886 FT.

BOT. OF 7 IN. OD CSA 314, 20 LB/FT  
8.5 LB/FT, J-55 CASING 1681

WELLNAME:  
3090

**EXHIBIT "H"**

**WATER ANALYSIS OF MESA VERDE FORMATION**

**XTO ENERGY INC.**

**KUTZ FEDERAL SWD #1**

**NW/4 Sec. 6 T27N-R10W**

**SAN JUAN COUNTY, NEW MEXICO**

# HALLIBURTON

## Water Analysis Report

To: XTO Date: 5/19/2006  
Submitted by: Halliburton Energy Services Date Rec: 5/17/2006  
Attention: Loren Fothergill Report #: FLMM6506  
Well Name: Dawson Federal 1B

Specific Gravity	1.015	
pH	7.1	
Resistivity	0.29	@ 70° F
Iron (Fe)	0	Mg / L
Potassium (K)	68	Mg / L
Sodium (Na)	11901	Mg / L
Calcium (Ca)	60	Mg / L
Magnesium (Mg)	12	Mg / L
Chlorides (Cl)	18000	Mg / L
Sulfates (SO4)	0	Mg / L
Carbonates (CO3)	0	Mg / L
Bicarbonates (HCO3)	976	Mg / L
Total Dissolved Solids	31017	Mg / L

Respectfully: Holly Lopez  
Title: Lab Technician  
Location: Farmington, NM

NOTICE: This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its use.

# HALLIBURTON

## Water Analysis Report

To: XTO Date: 12/27/2005  
Submitted by: Halliburton Energy Services Date Rec: 12/26/2005  
Attention: Jimmy Costalez Report #: FLMM5B76  
Well Name: Federal Gas Com #4 Formation: Mesa Verde

Specific Gravity	1.015	
pH	7.5	
Resistivity	0.33	@ 70° F
Iron (Fe)	0	Mg / L
Potassium (K)	1400	Mg / L
Sodium (Na)	7103	Mg / L
Calcium (Ca)	180	Mg / L
Magnesium (Mg)	27	Mg / L
Chlorides (Cl)	11800	Mg / L
Sulfates (SO4)	65	Mg / L
Carbonates (CO3)	0	Mg / L
Bicarbonates (HCO3)	1342	Mg / L
Total Dissolved Solids	21917	Mg / L

Respectfully: Holly Lopez  
Title: Lab Technician  
Location: Farmington, NM

NOTICE: This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its use.

**EXHIBIT "J"**

**AFFIDAVIT OF PUBLICATION**

**XTO ENERGY INC.**

**KUTZ FEDERAL SWD #1**

**NW/4 Sec. 6 T27N-R10W**

**SAN JUAN COUNTY, NEW MEXICO**

**AFFIDAVIT OF PUBLICATION**

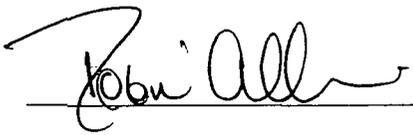
**Ad No. 55287**

**STATE OF NEW MEXICO  
County of San Juan:**

ROBIN ALLISON, being duly sworn says:  
That she is the CLASSIFIED MANAGER of  
THE DAILY TIMES, a daily newspaper of  
general circulation published in English at  
Farmington, said county and state, and that  
the hereto attached Legal Notice was  
published in a regular and entire issue of the  
said DAILY TIMES, a daily newspaper duly  
qualified for the purpose within the meaning of  
Chapter 167 of the 1937 Session Laws of the  
State of New Mexico for publication and  
appeared in the Internet at The Daily Times  
web site on the following day(s):

Monday, June 18, 2007

And the cost of the publication is \$48.96

  
\_\_\_\_\_

ON 6/19/07 ROBIN ALLISON  
appeared before me, whom I know personally  
to be the person who signed the above  
document.

  
My Commission Expires November 17, 2008

**COPY OF PUBLICATION**

<p><u>Public Notice</u></p> <p>XTO Energy Inc. is applying with the New Mexico Oil Conservation Division (NMOCD) to drill the Kutz Federal SWD #1, as a water disposal well. The Kutz Federal SWD #1 will be located at 2375' FNL &amp; 1445' FWL, Sec 6, T27N-R10W, San Juan County, NM. The well</p>	<p>will dispose of water produced from oil and gas wells into the Mesa Verde formation at a depth of 3,973' to 4,259' at a maximum rate of 3000 barrels of water per day and a maximum pressure of 1,800 psi. Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint Francis Drive,</p>	<p>Santa Fe, NM 87505, within 15 days. Additional information can be obtained by contacting Loren Forthgill, 2700 Farmington Avenue, Building K, Suite 1, Farmington, NM 87401, (505) 324-1090.</p> <p>Legal No. 55287 published in The Daily Times Farmington, New Mexico on Monday June 18, 2007</p>
--	--	--

# XTO ENERGY

2700 Farmington Ave, K-1 Farmington, NM 87401  
Phone: (505) 324-1090 FAX: (505) 564-6700

CERTIFIED MAIL 7006-0100-0005-2533-3043

June 25, 2007

Conoco/Phillips  
Burlington Resources Oil & Gas LP  
3401 East 30<sup>th</sup>  
Farmington, NM 87402

Re: XTO Energy Inc. Kutz Federal SWD #1  
2375' FNL & 1445' FWL  
Sec. 6, T27N-R10W  
San Juan County, New Mexico

To Whom It May Concern:

XTO Energy Inc. is proposing the drill the subject disposal well to the Mesa Verde formation at a depth of 3,973' to 4,259' at a maximum rate of 3000 barrels of water per day and a maximum pressure of 800 psi. A complete copy of the application is enclosed to comply with OCD Regulations.

Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint Francis Dr., Santa Fe, NM 87505 within 15 days.

Additional information may be obtained by contacting Loren Fothergill, 2700 Farmington Avenue, Building K, Suite 1, Farmington, NM 87401, (505)324-1090.

Yours truly,

Anne Jones  
Surface Use Coordinator

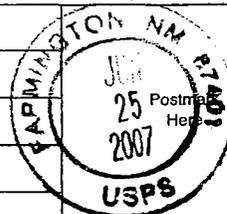
7006 0100 0005 2533 3043

**U.S. Postal Service™**  
**CERTIFIED MAIL™ RECEIPT**  
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For delivery information visit our website at [www.usps.com](http://www.usps.com)®

**OFFICIAL USE**

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$



Sent To Conoco Phillips  
 Street, Apt. No., or PO Box No. 3401 E 30th  
 City, State, ZIP+4 Farmington NM 87402

PS Form 3800, June 2002 See Reverse for Instructions

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Conoco/Phillips  
3401 E. 30th  
Farmington NM  
87402

2. Article Number  
(Transfer from service label)

7006 0100 0005 2533 3043

PS Form 3811, February 2004.

Domestic Return Receipt

Kutz Fed SWD

102595-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  Addressee  
Rachel Grant

B. Received by (Printed Name) Rachel Grant C. Date of Delivery

D. Is delivery address different from item 1?  Yes  No  
 If YES, enter delivery address below:

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0137  
Expires March 31, 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER

1. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. <b>NMSF 0777384</b>
2. Name of Operator <b>XTO Energy Inc.</b>		6. If Indian, Allottee or Tribe Name <b>N/A</b>
3a. Address <b>2700 Farmington Ave., Bldg. K. Ste 1 Farmington, NM</b>		7. Unit or CA Agreement Name and No. <b>N/A</b>
3b. Phone No. (include area code) <b>505-324-1090</b>		8. Lease Name and Well No. <b>KUTZ FEDERAL SWD #1</b>
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface <b>2375' FNL x 1445' FWL</b> At proposed prod. zone <b>SAME</b>		9. API Well No. <b>30-045-</b>
14. Distance in miles and direction from nearest town or post office* <b>Approximately 12 miles Southeast of Bloomfield, NM post office</b>		10. Field and Pool, or Exploratory <b>BLANCO MESAVERDE</b>
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) <b>1445'</b>	16. No. of Acres in lease <b>2108.35</b>	11. Sec., T., R., M., or Blk. and Survey or Area <b>(F) SEC 6, T27N, R10W</b>
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>766'</b>	19. Proposed Depth <b>4260'</b>	12. County or Parish <b>SAN JUAN</b>
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>5792' Ground Elevation</b>	22. Approximate date work will start* <b>July 2007</b>	13. State <b>NM</b>
		17. Spacing Unit dedicated to this well <b>N/A</b>
		20. BLM/BIA Bond No. on file <b>UTB000138</b>
		23. Estimated duration <b>2 weeks</b>

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan</li> <li>A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).</li> </ul> | <ul style="list-style-type: none"> <li>Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).</li> <li>Operator certification.</li> <li>Such other site specific information and/or plans as may be required by the authorized officer.</li> </ul> |
|--|--|

25. Signature 	Name (Printed/Typed) <b>Kyla Vaughan</b>	Date <b>05/10/07</b>
Title <b>Regulatory Compliance Tech</b>		
Approved by (Signature)	Name (Printed/Typed)	Date
Title	Office	

Application approval 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.  
Conditions of approval, if any, are attached.

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)

**APD/ROW**

DISTRICT I  
1825 N. Fench Dr., Hobbs, N.M. 88240

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102

Revised October 12, 2005

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

DISTRICT II  
701 W. Grand Avenue, Artesia, N.M. 88210

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.  
Santa Fe, NM 87504-2088

AMENDED REPORT

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV  
1220 South St. Francis Dr., Santa Fe, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT (water disposal)

<sup>1</sup> APN Number	<sup>2</sup> Pool Code 72319	<sup>3</sup> Pool Name (SWD) BLANCO MESAVERDE
<sup>4</sup> Property Code	<sup>5</sup> Property Name KUTZ FEDERAL S.W.D.	
<sup>7</sup> OGRB No. 5380	<sup>6</sup> Operator Name XTO ENERGY INC.	<sup>8</sup> Well Number 1
		<sup>9</sup> Elevation 5792'

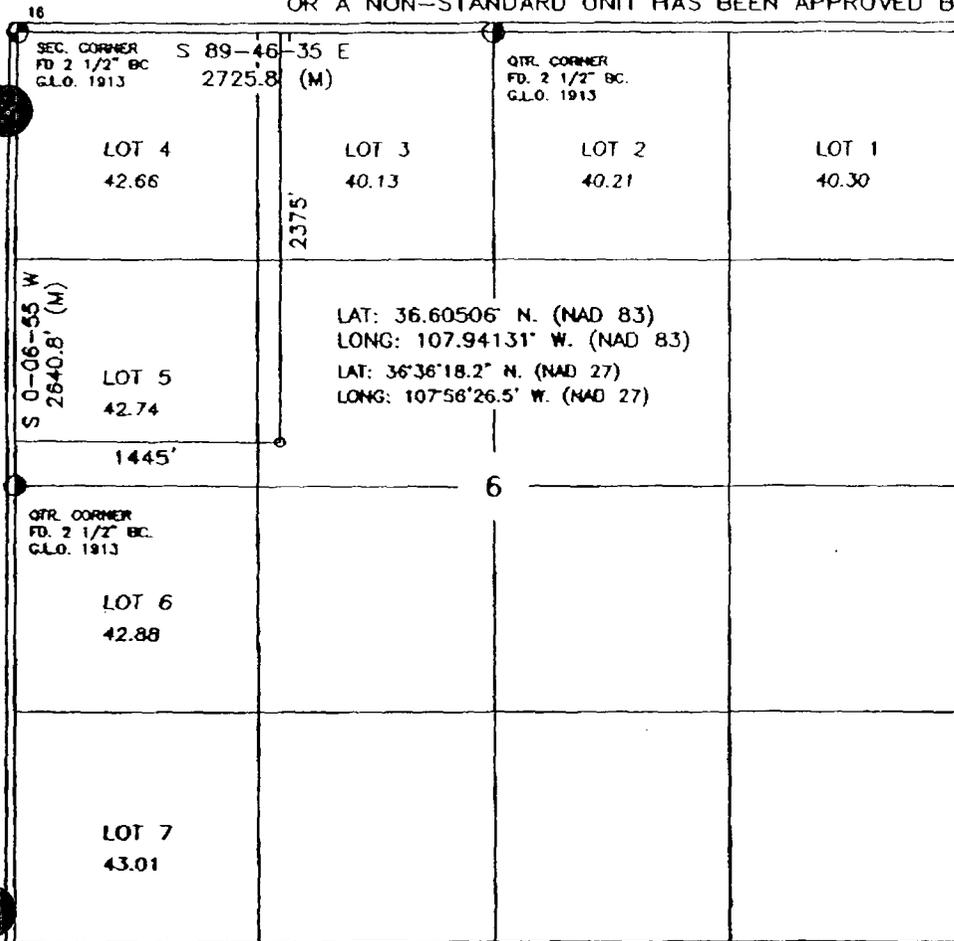
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	6	27-N	10-W		2375	NORTH	1445	WEST	SAN JUAN

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code			<sup>15</sup> Order No.		

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



<sup>17</sup> OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or leased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

*Kyla Vaughan* 5/9/07  
Signature Date  
*Kyla Vaughan*  
Printed Name

<sup>18</sup> SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

DECEMBER 15, 2006

Date of Survey  
Signature and Seal of Registered Professional Land Surveyor



Certificate Number

# SURFACE USE PLAN

XTO Energy Inc.  
**Kutz Federal SWD #1**  
2375' FNL x 1445' FWL  
Section 6, T27N, R10W  
San Juan County, New Mexico

## THIRTEEN POINT SURFACE USE PLAN

The dirt contractor will be provided with an approved copy of the surface use plan of operations before initiating construction.

### 1. Existing Roads:

- a. Proposed route to location is shown on the East Fork Kutz Canyon USGS quadrangle map. See Exhibit "A".
- b. Location of proposed well in relation to town or other reference point:  
From the intersection of Hwy 64 & Hwy 550 in Bloomfield go South on Hwy 550 8.4 miles and turn East. Follow road 4 miles and turn South. Follow road 0.1 miles to location.
- c. All existing roads within 1 mile of the drill site are shown on Exhibit "A". If necessary, all existing roads that will be used for access to the well location will be maintained to their current condition or better unless BLM approval or consent is given to upgrade the existing road(s).

### 2. Planned Access Roads:

- a. Location (centerline): Starting from a point along an existing road in the SENW of sec 6, T27N, R10W.
- b. Length of new access to be constructed: Approx 0 feet of new access will be constructed in order to gain safe access to the wellpad. See Exhibit "A"
- c. Length of existing roads to be upgraded: No additional upgrades should be necessary to existing oilfield service roads.
- d. Maximum total disturbed width: Typically both existing roads and new access roads require up to 40' of disturbed width in order to obtain a 20' driving surface. If both the road and pipeline are capable of sharing the ROW, then only 50' of disturbed width may be needed.
- e. Maximum travel surface width: 25' or less
- f. Maximum grades: Maximum grades will not exceed 10% after construction.
- g. Turnouts: No turnouts are planned at this time. Turnouts may be specified in the approved APD.

# XTO ENERGY INC.

Kutz Federal SWD #1

APD Data

May 9, 2007

Location: 2375' FNL x 1445' FWL Sec 6, T27N, R10W County: San Juan State: New Mexico

GREATEST PROJECTED TD: 4260'  
APPROX GR ELEV: 5792'

OBJECTIVE: Mesaverde Disposal  
Est KB ELEV: 5804' (12' AGL)

## 1. MUD PROGRAM:

INTERVAL	0' to 600'	600' to 2500'	2500' to 4260'
HOLE SIZE	12.25"	8.75"	8.75"
MUD TYPE	FW/Spud Mud	FW/Polymer	LSND / Gel Chemical
WEIGHT	8.6-9.0	8.4-8.8	8.6- 9.20
VISCOSITY	28-32	28-32	45-60
WATER LOSS	NC	NC	8-10

Remarks: Use fibrous materials as needed to control seepage and lost circulation. Pump high viscosity sweeps as needed for hole cleaning. Raise viscosity at TD for logging. Reduce viscosity after logging for cementing purposes.

## 2. CASING PROGRAM:

Surface Casing: 9.625" casing to be set at ± 600' in a 12-1/4" hole filled with 9.20 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-600'	600'	36.0#	J-55	ST&C	2020	3520	394	8.921	8.765	7.040	12.26	18.24

Production Casing: 7" casing to be set at TD (±4260') in 8.75" hole filled with 9.20 ppg mud.

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-4260	4260'	23.0#	J-55	LT&C	3270	4360	313	6.366	6.241	1.60	2.14	3.19

## 3. WELLHEAD:

- A. Casing Head: Larkin Fig 92 (or equivalent), 9" nominal, 2,000 psig WP (4,000 psig test) with 8-5/8" 8rnd thread on bottom and 11-3/4" 8rnd thread on top.
- B. Tubing Head: Larkin Fig 612 (or equivalent), 6.456" nominal, 2,000 psig WP (4,000 psig test), 5-1/2" 8rnd female thread on bottom (or slip-on, weld-on), 8-5/8" 8rnd thread on top.

EXHIBIT F

4. CEMENT PROGRAM (Slurry design may change slightly, but the plan is to circulate cement to surface on both casing strings):

A. Surface: 9.625", 36.0#, J-55, ST&C casing to be set at  $\pm 600'$  in 12-1/4" hole.

270 sx of Type III cement (or equivalent) typically containing accelerator and LCM, mixed at 14.5 ppg, 1.39 ft<sup>3</sup>/sk, & 6.70 gal wtr/sk.

*Total slurry volume is 376 ft<sup>3</sup>, 100% excess of calculated annular volume to 600'.*

B. Production: 7", 23.0#, J-55 (or K-55), LT&C casing to be set at  $\pm 4260'$  in 8.75" hole. DV Tool set @  $\pm 3000'$

1<sup>st</sup> Stage

172 sx Type III or equivalent cement with bonding additive, LCM, dispersant, & fluid loss mixed at 14.2 ppg, 1.54 cuft/sx, 8.00 gal/sx.

2<sup>nd</sup> Stage

LEAD:

$\pm 199$  sx of Type III or equivalent cement with 8% gel & LCM mixed at 11.9 ppg, 2.54 ft<sup>3</sup>/sk, 15.00 gal wtr/sx.

TAIL:

100 sx Type III or equivalent cement with bonding additive, LCM, dispersant, & fluid loss mixed at 14.2 ppg, 1.54 cuft/sx, 8.00 gal/sx.

*Total estimated slurry volume for the 7" production casing is 910 ft<sup>3</sup>.*

*Note: The slurry design may change slightly based upon actual conditions. Final cement volumes will be determined from the caliper logs plus 40%. It will be attempted to circulate cement to the surface.*

5. LOGGING PROGRAM:

A. Mud Logger: None.

B. Open Hole Logs as follows: Run Array Induction/SFL/GR/SP fr/TD (4260') to the bottom of the surface csg. Run Neutron/Lithodensity/Pe/GR/Cal from TD (4260') to 3,000'.

EXHIBIT F

6. FORMATION TOPS:

Est. KB Elevation: 5804'

<u>FORMATION</u>	<u>Sub-Sea</u>	<u>MD</u>
Ojo Alamo SS	5367	437
Kirtland Shale	5237	567
Farmington SS		
Fruitland Formation	4736	1,068
Lower Fruitland Coal	4269	1535
Pictured Cliffs SS	4249	1,555
Lewis Shale	4082	1,722
Chacra SS	3315	2,489
Cliffhouse SS	2701	3,103
Menefee	2574	3,230
Point Lookout SS*	1831	3,973
Mancos Shale	1545	4,259
<b>TD</b>	1544	4,260

\* Primary Objective    \*\* Secondary Objective

\*\*\*\* Maximum anticipated BHP should be <2,000 psig ( <0.30 psi/ft) \*\*\*\*

7. COMPANY PERSONNEL:

Name	Title	Office Phone	Home Phone
John Egelston	Drilling Engineer	505-564-6734	505-330-6902
Jerry Lacy	Drilling Superintendent	505-566-7917	505-320-6543
John Klutsch	Project Geologist	817-885-2800	--

JWE  
5/9/07

EXHIBIT F

DISTRICT I  
1625 N. Fench Dr., Hobbs, N.M. 88240

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised October 12, 2005

DISTRICT II  
1301 W. Grand Avenue, Artesia, N.M. 88210

Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87504-2088

DISTRICT III  
1500 Rio Brazos Rd., Aztec, N.M. 87410

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number		<sup>2</sup> Pool Code		<sup>3</sup> Pool Name	
<sup>4</sup> Property Code		<sup>5</sup> Property Name KUTZ FEDERAL S.W.D.			<sup>6</sup> Well Number 1
<sup>7</sup> OGRID No.		<sup>8</sup> Operator Name XTO ENERGY INC.			<sup>9</sup> Elevation 5792'

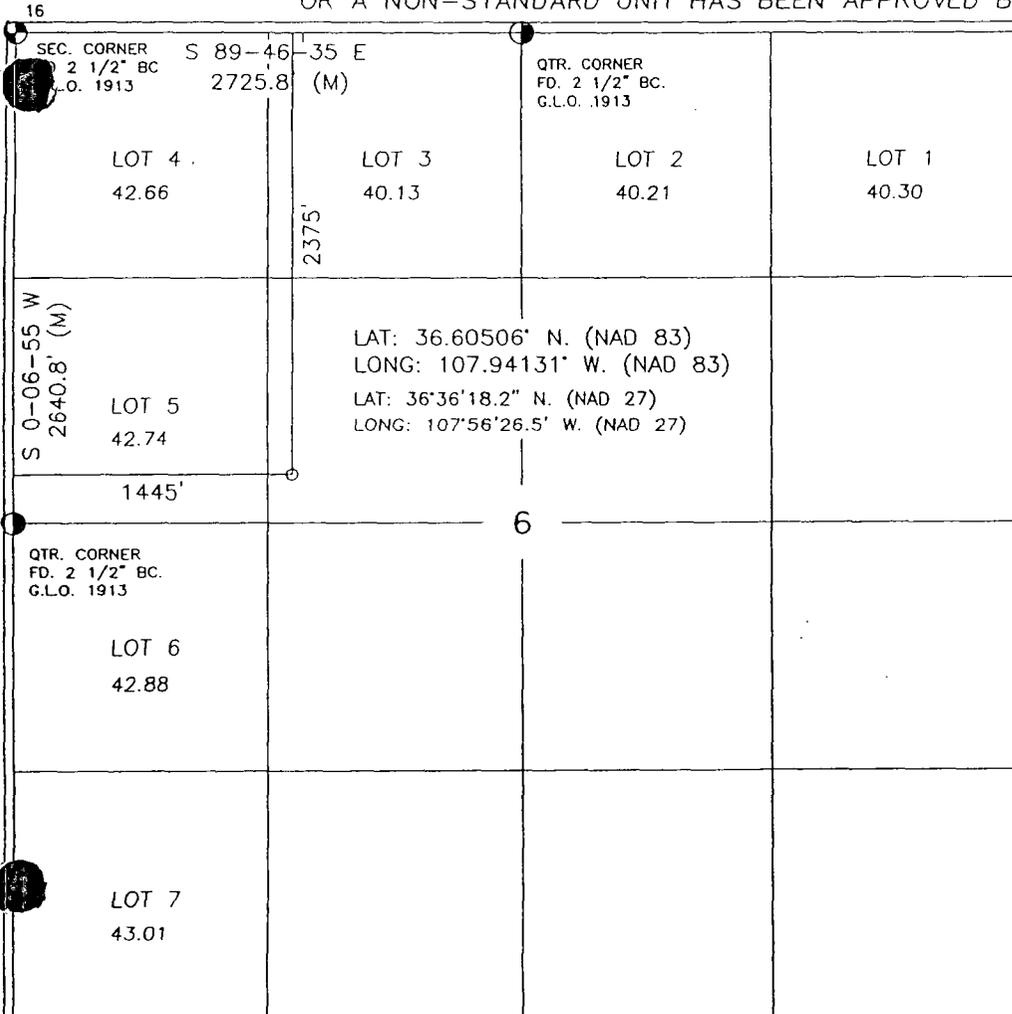
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	6	27-N	10-W		2375	NORTH	1445	WEST	SAN JUAN

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



<sup>17</sup> OPERATOR CERTIFICATION

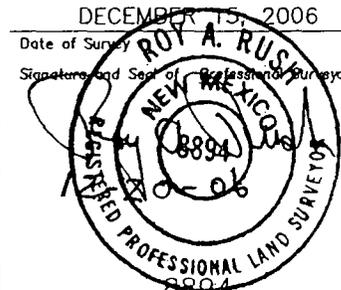
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature \_\_\_\_\_ Date \_\_\_\_\_  
Printed Name \_\_\_\_\_

<sup>18</sup> SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

DECEMBER 15, 2006  
Date of Survey  
Signature and Seal of Professional Surveyor:



Certificate Number \_\_\_\_\_

OPER	API #	WELL	LOCATION	DATE DRILLED	DATE COMPLETED	ZONE	TD	STATUS	CASING SIZE	CASING DEPTH	CEMENT VOLUMES	CEMENT IOPS	Mtd Det IOPS
XTO	30-045-06909	Kutz J. Federal #2	NW/NE Sec 6 T27N-R10W 990' FNL & 1831' FEL	1/30/1959	2/12/1959	Dakota	6580	PGW	10 3/4" 5 1/2"	278' KB 6396' KB	240 SX 458 CU FT SQZ 350 SX 482 CU FT	1360' <i>not confirmed</i>	CBL 4327 - surf
XTO	30-045-20365	M N Galt J #2	NWNW Sec 6 T27N-R10W 790' FWL & 990' FWL	12/15/1968	1/14/1969	Dakota	6439	PGW	8 5/8" 4 1/2"	338' 6439'	244 SX 1925 SX	Surface 1st stg 70 bbbls cmt 2nd stg (DV 4,429') 75 bbbls cmt 3rd stg (DV 1,843') Circ 35bbbls cmt.	Visual
XTO	30-045-29136	M N Galt B #1R	NWSW Sec 6 T27N-R10W 1740' FSL & 1240' FWL	9/14/1994	1/8/1996	Fruitland Coal Pictured Cliffs	6611	PGW	9 5/8" 7"	474' 6607'	230 SX 1335 SX	900'	Temp Survey
XTO	30-045-30354	M N Galt B #1Y	NESW Sec 6 T27N-R10W 1450' FSL & 1800' FWL	1/6/2001	2/7/2001	Dakota	6906	PGW	8 5/8" 4 1/2"	392' 6906'	275 SX 1630 SX	SURFACE. Circ 89 cuft cmt on 1st stg & 140 cuft cmt on 2nd stg (DV 3,320')	Visual
XTO	30-045-31691	M N Galt J #3	SENE Sec 6 T27N-R10W 1880' FNL & 2030' FWL	11/2/2003	12/13/2003	Dakota Gallup	6698	PGW	13.37" 8.625" 5.50"	80' 881' 6696'	92 SX 560 SX 1200 SX	SURFACE. Circ 21 bbbls cmt on 1st stg & 130 bbbls cmt on 2nd stg (DV 3,914')	Visual
XTO	30-045-32697	Kutz J. Federal #2G	SWSE Sec 6 T27N-R10W 665' FSL & 1860' FEL	6/9/2005	8/19/2005	Gallup Mancos	6815	PGW	8 5/8" 5 1/2"	380' 6810'	244 SX 1325 SX	SURFACE. Circ 70 bbbls cmt on 1st stg & 125 bbbls cmt on 2nd stg DV 3,990'.	Visual
XTO	30-045-23781	E H Pipkin 10-E	SENE Sec 1 T27N-R11W 1520' FNL & 810' FEL	3/11/1980	7/24/2003	Gallup	6255	PGW	8 5/8" 4 1/2"	768' KB 6243' KB	500 SX 1580 SX	2nd stg (DV 4,377') 700' 1st stg unknown Cal 4,955' @ 50%	Temp Survey
OPER		WELL	LOCATION	DATE DRILLED	Date P & A	ZONE	ID	STATUS					
Pan American Petro.	30-045-06775	M N Galt J #1	SESW Sec 6 T27N-R10W 790' FSL & 1750' FWL	3/3/1960	11/17/1968	Dakota	6500	P&A					

AOR  
Well

REPAIR "INTENT"

Kutz J Federal #2  
Unit B, Sec 6 T 27 N, R 10 W  
San Juan County, New Mexico

### Squeeze Casing Procedure

XTO Energy proposes to squeeze the un cemented casing across the Mesaverde formation in this well per the following procedure.

1. MIRU PU.
2. ND WH. NU BOP.
3. Release packer. If unable to release packer, RIH with free point tool and determine free point. Cut off 2-3/8" tubing
4. Fish tubing and packer with overshot and grapple. If unable to fish, mill over packer and recover.
5. MIRU WL equipment. RIH with 5-1/2" CIBP and set at 4,800'. Pressure test casing and CIBP to 550 psig. If pressure test fails, the casing leak will be determined and BLM and New Mexico Oil Conservation office will be contacted to determine a course of action.
6. If weel passes pressure test. Perforate 4 squeeze holes at 4,400'. POH with casing gun. TIH with 5-1/2" packer and tubing to 4,350'. Breakdown and establish injection rate into squeeze holes. TOH with packer and tubing.
7. RIH with 5-1/2" CICR to 2,100'. Set CICR.
8. Perforate 4 squeeze holes at 2,000'. POH with casing gun. RDMO WL equipment.
9. TIH with 5-1/2" CICR stinger and 2-3/8" tubing. Establish circulation down tubing and up tubing casing annulus. Circulate trash out wellbore.
10. MIRU Cement equipment. Mix and pump 250 sx class "G" cement with 6% gel, 5#/sx Gilsonite (12.6 PPG and 2.04 Cuft/sx). Displace with 2,940 gals 2% KCL water. Sting out of CICR. TOH with 10 jts tubing and reverse circulate out cement. TOH with tubing.
11. WOC 48 hours. TIH with 4-3/4" bit, SN and tubing. Tag cement. Drill out cement to CICR at 2,100'. Pressure test casing and squeeze hole at 2,000' to 550 psig. If the pressure test passes, DO CICR at 2,100'. TIH and tag cement. DO cement. Pressure test casing and squeeze holes at 4,400' to 550 psig for 30 minutes.
12. If pressure test fails, contact Loren Fothergill for instructions.
13. TIH and tag CIBP at 4,800'. DO CIBP. TIH and tag PBTD.
14. TOH with tubing, SN and bit. TIH with NC, SN and 2-3/8" tbg to 6,250'.
15. RDMO PU. Report rates and pressures to Loren W Fothergill.

Injection Permit Checklist 2/8/07

2-11-11 New well

SWD Order Number 1097-A Dates/Division Approved \_\_\_\_\_ District Approved \_\_\_\_\_  
 Well Name/Num: KUTZ Federal SWD #1 Date Spudded: New Well Spud 5/18/05  
 API Num: (30-) 04534317 County: SAN JUAN  
 Footages 2375 FNL/1445 FWL Sec 6 Tsp 27N Rge 10W Loren Fothergill  
 Operator Name: XTO Energy (OGRD 5380) Contact AMIE JONES  
 Operator Address: 2700 FARMINGTON AVE, K-1, FARMINGTON NM 87401  
 Current Status of Well: NOT DRILLED Planned Work: \_\_\_\_\_ Inj. Tubing Size: 2 1/8 @ 3900'

	Hole/Pipe Sizes	Depths	Cement	Top/Method
Surface	12 1/4 9 5/8	600'	270	Surf
Intermediate				
Production	8 3/4 7	4260'	(910 CF)	Surf.
Last DV Tool	→ → → → →			
Open Hole/Liner		3000'		
Plug Back Depth			4260' Planned	

Diagrams Included (Y/N): Before Conversion  After Conversion   
 Checks (Y/N): Well File Reviewed  ELogs in Imaging will be RUN

Intervals:	Depths	Formation	Producing (Yes/No)
<del>Salt/Potash</del>			
<del>Capitan Reef</del>			
Cliff House, Etc:	416 48		
Formation Above	<del>3103</del>	<del>CLIFF HOUSE</del>	
Top Inj Interval	<del>3003</del> 4104	PLS.	
Bottom Inj Interval	<del>4324</del>	PLS.	
Formation Below			

SP  
~~75~~ PSI Max. WHIP  
 NO Open Hole (Y/N)  
 NO Deviated Hole (Y/N)

Fresh Water: Depths: 0-687' Wells (Y/N) NO Analysis Included (Y/N):  Affirmative Statement   
 Salt Water Analysis: Injection Zone (Y/N/NA) \_\_\_\_\_ Disp Waters (Y/N/NA) \_\_\_\_\_ Types: DKTD, Gulp, MVRD, CHOC, FRC, PC  
 Notice: Newspaper (Y/N) \_\_\_\_\_ Surface Owner BLM Mineral Owner(s) \_\_\_\_\_

3973  
 7946

Other Affected Parties: Burl.  
 AOR/Repairs: Num Active Wells 406 Repairs? 1 Producing in Injection Interval in AOR NO  
 AOR Num of P&A Wells 41 Repairs? 0 Diagrams Included? X 2 RBDMS Updated (Y/N) \_\_\_\_\_  
 Well Table Adequate (Y/N) \_\_\_\_\_ AOR STRs: Sec \_\_\_\_\_ Tsp \_\_\_\_\_ Rge \_\_\_\_\_ UIC Form Completed (Y/N) \_\_\_\_\_  
 New AOR Table Filename \_\_\_\_\_ Sec \_\_\_\_\_ Tsp \_\_\_\_\_ Rge \_\_\_\_\_ This Form completed \_\_\_\_\_  
 Conditions of Approval: Sec \_\_\_\_\_ Tsp \_\_\_\_\_ Rge \_\_\_\_\_ Data Request Sent \_\_\_\_\_

SWAB or other test → report results & catch water for analysis

AOR Required Work: one well.

Required Work to this Well: \_\_\_\_\_