

1R - 184

REPORTS

DATE:

5/24/1988

RESPECTFULLY SUBMITTED,



PAUL M. BOHANNON
4000 N. Big Spring, #211
Midland, Texas 79705
(915) 685-1801

This will certify that the undersigned deposited on this date a true and correct copy of the foregoing pleading in the United States mail, first class, postage prepaid, certified mail, return receipt requested No. _____ to all counsel of record.

Date: 5/24/88
Signed: PMB

EXHIBIT "A"

DEFINITIONS

1. "You" and "Your" refer to DAVID BOYER AND THE OCD, its agents, officers, employees, contractors, sub-contractors, representatives, parent or subsidiaries (if a corporation), affiliates, and any other person or entity acting for or in its behalf, their agents, employees, officers, contractors, subcontractors, representatives, parent or subsidiaries (if a corporation), and affiliates.

2. "Defendant" means TEXAS-NEW MEXICO PIPELINE CO., its agents, employees, representatives;, officers, and subcontractors.

3. "Identify" when referring:

(A) To a person, means to state his or her full

name and present or last known telephone number, business and residential address;

(B) To a public or private corporation, partnership, or other organization or entity, or to a governmental agency means to state its full name and present or last known pertinent business address;

(C) To a statement, means to identify who made, who took or recorded it, and all persons, if any, present during the taking of the statement; to state when, where, and how it was taken or recorded, and to identify who has present or last known possession, custody, or control thereof;

(D) To a document, means to give a reasonably detailed description thereof, including, if applicable, when, where, and how it was made; to identify who made it; and to identify who has present or last known possession, custody, or control thereof;

(D) "Person" shall mean any individual, partnership, association, corporation, joint venture, firm, proprietorship, agency, board, authority, commission, or any other legal or business entity.

(E) As used herein, the words "and" and "or" shall be construed either conjunctively or disjunctively as required by the context to bring

within the scope of these interrogatories and request for production any information that might be deemed outside the scope by another construction.

(F) "Document" means, without limitation, the following items, whether printed or recorded or reproduced by any other mechanical process, or written or produced by hand, BE IT DRAFT OR FINAL DOCUMENT: agreements; communications; state and federal government hearings, filings; reports; correspondence; telegrams; memorandums; telexes; telecopies and faxes; electronic mail transfers; summaries of records of any other documents or of telephone conversations; summaries or records of personal conversations or interviews; diaries; graphs; reports; notebooks; note charts; plans; drawing; sketches; maps; summaries or records of meetings or conferences; summaries or reports out of investigations or negotiations; invoices (payables or receivables); opinions or reports of consultants; photographs; motion picture or video films; brochures; pamphlets; advertisements; circulars; press releases; drafts; letters; ANY MARGINAL COMMENTS APPEARING ON ANY DOCUMENTS; scientific studies including but limited to samples, measurements, computer modeling; and all

other writings.

(G) "Describe in detail" means to give a complete and full description concerning the matter about which inquiry is made, including the full name, address, and telephone number of persons involved, if appropriate, along with dates, times, places, amounts, and other particulars that make the answer to the interrogatories and/or request to produce fair and meaningful.

REQUESTED DOCUMENTS

1. All documents relating to the 1984 pipeline leak investigation of Texas-New Mexico Pipeline Company and the Monument Water Users' Association.

2. All documents relating to investigation of contamination on or near the property of Joe R. Williams in the vicinity of Monument, New Mexico.

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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONY ANAYA
GOVERNOR

December 15, 1986

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501-2088
(505) 827-5800

Mr. Joe R. Williams
P. O. Box 75285
Albuquerque, NM 87194-0285

Dear Mr. Williams:

Enclosed are the test results from the sampling done by the OCD on October 7, 1986 at your Monument Ranch. The last results were received by us just before Thanksgiving. I will discuss the results for each one of the wells.

Wells 1, 2 and 5 show no traces of any contamination of any type (chlorides or organics). Well 5 would likely be the best producer since it has the greatest well saturated thickness (13 feet). Numbers 1 and 2 are only marginal for production having only 10 and 6 feet of saturated thickness respectively.

Well 3 shows an increase in chloride concentrations. Chloride and total dissolved solids values approach, but do not exceed, state ground water standards (attached). No dissolved organics were detected, but the water has an odor, and a hydrocarbon sheen was seen on the sample. Saturated thickness is 9 feet.

Well 4 has a slight elevation in chloride, and a number of organic contaminants were detected. Benzene was detected at less than 2 parts per billion. The water level in this well seems anomalously high, and I wonder if there is some surface seepage since the saturated thickness is reported as 36 feet. This well is apparently the closest to the site of the Texas-New Mexico pipeline break along your property in February, 1985. The relationship of the spill to water quality in the well, if any, is unknown without further study.

Well No. 6 is definitely contaminated with high chloride and total dissolved solids values. Results of the organic testing were indeterminate. The reported saturated water thickness is only about 3 feet so this well could not be used for production in any event.

Jerry Sexton's letter of August 26, 1985 (attached) discussed the fact that any current contamination on your property (aside from the Texas-New Mexico February, 1985 break) was likely from something that occurred many years ago. The very thin thickness of water sand does not help matters since any contamination would be concentrated in those zones.

The Texas-New Mexico pipeline break in September, 1984 that contaminated the Monument water well has not caused any contamination on your property and likely will not affect your wells. This is because the company immediately

began oil recovery operations that recovered much of their oil. The bad news is that their investigation showed an immense area of contamination beyond that that could have possibly been caused by their break. This discovery led to warnings of likely contamination of the second Monument municipal well which actually occurred this past June. This old contamination, unrelated to the 1984 pipeline break, will continue to move slowly to the southeast. The magnitude of the problem is such that effective containment, recovery, and other remedial action would be economically (if not technologically) unfeasible at this time. In addition, trying to locate and determine responsible parties after 50 years of oil and gas activities in the area would be legally very difficult. Because of these facts, I agree with Mr. Sexton's comment on his August 26, 1985 letter, that additional investigation of this matter would be difficult to undertake.

In summary, wells 1, 2 and 5 should provide sufficient water for domestic uses on the property. An occasional analysis for chloride should be made to detect any adverse water quality changes, and a more complete repeat analysis made if any drastic change (e.g., taste, odor, oil sheen) is noted. The Hobbs OCD office can provide a chloride analysis, and the Santa Fe office can assist if evidence indicates that a more extensive analysis is needed.

Unless other information comes to our attention, this completes our activities at your ranch. If you have any questions, please contact me at the above address, or by phone at 827-5812.

Sincerely,



DAVID G. BOYER
Hydrogeologist/Environmental Bureau Chief

DGB:dp

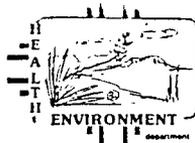
Enc.

cc: R. L. Stamets, Director, OCD
Jerry Sexton, OCD-Hobbs
Representative Gene Samberson

86-1163-C

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE
Albuquerque, NM 87106 841-2570



STATE OF NEW MEXICO

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

S.L.D. No. OR- 86-1163A-B
DATE REC. 10-8-86

PHONE(S): 827-5812 USER CODE: 8 2 2 3 5

SUBMITTER: David Boyer CODE: 2 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 8 6 1 0 1 0 7 1 0 3 5 2 8 8

SAMPLE TYPE: WATER , SOIL , FOOD , OTHER: _____ CODE: _____

COUNTY: Lea; CITY: Monument CODE: _____

LOCATION CODE: (Township-Range-Section-Tracts) 1 9 S + 3 7 E + 3 3 + 4 - - (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

EXTRACTABLE SCREENS

- (753) Aliphatic Purgeables (1-3 Carbons)
- (754) Aromatic & Halogenated Purgeables
- (765) Mass Spectrometer Purgeables
- (766) Trihalomethanes
- Other Specific Compounds or Classes
- _____
- _____
- _____
- _____
- _____

- (751) Aliphatic Hydrocarbons
- (760) Organochlorine Pesticides
- (755) Base/Neutral Extractables
- (758) Herbicides, Chlorophenoxy acid
- (759) Herbicides, Triazines
- (760) Organochlorine Pesticides
- (761) Organophosphate Pesticides
- (767) Polychlorinated Biphenyls (PCB's)
- (764) Polynuclear Aromatic Hydrocarbons
- (762) SDWA Pesticides & Herbicides

Remarks: _____

FIELD DATA:

pH= -; Conductivity= 475 umho/cm at 19°C; Chlorine Residual= _____ mg/l

Dissolved Oxygen= _____ mg/l; Alkalinity= _____ mg/l; Flow Rate _____

Depth to water 40 ft.; Depth of well 50 ft.; Perforation Interval _____ ft.; Casing: Steel 6"

Sampling Location, Methods and Remarks (i.e. odors, etc.)
Williams Well #1
Pump in well - sample from pump outlet into tank

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities. (signature collector) David Boyer Method of Shipment to the Lab: Hand

This form accompanies 2 Septum Vials, _____ Glass Jugs, and/or _____

- Samples were preserved as follows:
- NP: No Preservation; Sample stored at room temperature.
 - P-Ice: Sample stored in an ice bath (Not Frozen).
 - P-Na₂S₂O₃: Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from _____ to _____
at (location) _____ on _____ - _____ and that
the statements in this block are correct. Evidentiary Seals: Not Sealed Seals Intact: Yes No

Signatures _____

ANALYSES PERFORMED

LAB. No.: OR- 1163

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:

PURGEABLE SCREENS

- (753) Aliphatic Purgeables (1-3 Carbons)
- (754) Aromatic & Halogenated Purgeables
- (765) Mass Spectrometer Purgeables
- (766) Trihalomethanes
- Other Specific Compounds or Classes
- _____
- _____
- _____
- _____
- _____

EXTRACTABLE SCREENS

- (751) Aliphatic Hydrocarbons
- (760) Organochlorine Pesticides
- (755) Base/Neutral Extractables
- (758) Herbicides, Chlorophenoxy acid
- (759) Herbicides, Triazines
- (760) Organochlorine Pesticides
- (761) Organophosphate Pesticides
- (767) Polychlorinated Biphenyls (PCB's)
- (764) Polynuclear Aromatic Hydrocarbons
- (762) SDWA Pesticides & Herbicides

ANALYTICAL RESULTS

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
<i>halogenated purgeables</i>	<i>ND</i>		
<i>aromatic purgeables</i>	<i>ND</i>		
* DETECTION LIMIT *	<i>1ppb</i>	+ DETECTION LIMIT +	<i>+</i>

ABBREVIATIONS USED:

- N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT
- T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)
- [RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: _____

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes No Seal(s) broken by: _____ date: _____

I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.

Date(s) of analysis: 10-10-86 Analyst's signature: [Signature]

I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.

Reviewers signature: [Signature]



New Mexico Health and Environment Department
 SCIENTIFIC LABORATORY DIVISION
 700 Camino de Salud NE
 Albuquerque, NM 87106 — (505) 841-2555

**GENERAL WATER CHEMISTRY
 and NITROGEN ANALYSIS**

DATE RECEIVED	10/8/86	LAB NO.	WC-4838	USER CODE	<input type="checkbox"/> 59300 <input type="checkbox"/> 59600 <input checked="" type="checkbox"/> OTHER: 82235
Collection DATE	86/10/07	SITE INFORMATION	Sample location		
Collection TIME	1235		Williams Well #1 Monument		
Collected by — Person/Agency		Collection site description			
Boyer / Seay / OCD					

SEND FINAL REPORT TO

ENVIRONMENTAL BUREAU
 NM OIL CONSERVATION DIVISION
 State Land Office Bldg, PO Box 2088
 Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

NOV 24 1986
 OIL CONSERVATION DIVISION
 SANTA FE
 Station/well code: 195-37E-33.4
 Owner:

SAMPLING CONDITIONS

<input type="checkbox"/> Bailed <input type="checkbox"/> Dipped	<input checked="" type="checkbox"/> Pump <input type="checkbox"/> Tap	Water level	Discharge	Sample type
		—	—	GRAB
pH (00400)	Conductivity (Uncorrected)	Water Temp. (00010)	Conductivity at 25°C (00094)	
—	475 μmho	19 °C	μmho	
Field comments: Ranch house well, ~50 feet deep, pump ~4855 Rate 79pm Water level ~40ft, 6" steel casing, 7 years old				

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted	1	<input checked="" type="checkbox"/> NF: Whole sample (Non-filtered)	<input type="checkbox"/> F: Filtered in field with 0.45 μm membrane filter	<input type="checkbox"/> A: 2 ml H ₂ SO ₄ /L added
<input checked="" type="checkbox"/> NA: No acid added		<input type="checkbox"/> Other-specify:	<input type="checkbox"/> A: 5ml conc. HNO ₃ added	<input type="checkbox"/> A: 4ml fuming HNO ₃ added

ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed	F, NA	Units	Date analyzed
<input type="checkbox"/> Conductivity (Corrected) 25°C (00095)	μmho		<input checked="" type="checkbox"/> Calcium (00915)	1066 mg/l	10/21
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input checked="" type="checkbox"/> Magnesium (00925)	12.5 mg/l	"
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Sodium (00930)	80.5 mg/l	"
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Potassium (00935)	3.51 mg/l	"
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Bicarbonate (00440)	283 mg/l	10/27
			<input checked="" type="checkbox"/> Chloride (00940)	94 mg/l	10/30
			<input checked="" type="checkbox"/> Sulfate (00945)	137 mg/l	10/30
			<input checked="" type="checkbox"/> Total filterable residue (dissolved) (70300)	572 mg/l	11/5
			<input checked="" type="checkbox"/> Other: CO ₃	1.4 mg/l	10/27
			<input checked="" type="checkbox"/> F, A-H ₂ SO ₄	1.48 mg/l	11/14
<input type="checkbox"/> Nitrate-N + Nitrate-N total (00630)	mg/l		<input type="checkbox"/> Nitrate-N + Nitrate-N dissolved (00631)	mg/l	
<input type="checkbox"/> Ammonia-N total (00610)	mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608)	mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()	mg/l		<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Total organic carbon ()	mg/l				
<input type="checkbox"/> Other:			Analyst	Date Reported	Reviewed by
<input type="checkbox"/> Other:				11/14/86	[Signature]

Laboratory remarks

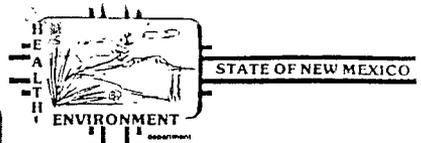
SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified 12/9/86 Phone or letter? Initials AWB

86-1164-C

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud, NE
Albuquerque, NM 87106 841-2570



REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

OCT 30 1986 SLD No. OR- 86-1164 A-B
DATE-REC. 10-8-86

OIL CONSERVATION DIVISION
SANTA FE

PHONE(S): 827-5812
SUBMITTER: David Boyer

PRIORITY
USER CODE: 8 2 2 3 5
CODE: 12 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 8610071105P-813

SAMPLE TYPE: WATER SOIL FOOD OTHER: _____
COUNTY: Lea; CITY: Monument
LOCATION CODE: (Township-Range-Section-Tracts) 19S+37E+33+4 (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

EXTRACTABLE SCREENS

- (753) Aliphatic Purgeables (1-3 Carbons)
- (754) Aromatic & Halogenated Purgeables
- (765) Mass Spectrometer Purgeables
- (766) Trihalomethanes
- Other Specific Compounds or Classes
- _____
- _____
- _____
- _____
- _____

- (751) Aliphatic Hydrocarbons
- (760) Organochlorine Pesticides
- (755) Base/Neutral Extractables
- (758) Herbicides, Chlorophenoxy acid
- (759) Herbicides, Triazines
- (760) Organochlorine Pesticides
- (761) Organophosphate Pesticides
- (767) Polychlorinated Biphenyls (PCB's)
- (764) Polynuclear Aromatic Hydrocarbons
- (762) SDWA Pesticides & Herbicides

Remarks:

FIELD DATA:

pH= _____; Conductivity= 550 umho/cm at 19 °C; Chlorine Residual= _____ mg/l
Dissolved Oxygen= _____ mg/l; Alkalinity= _____ mg/l; Flow Rate _____ / _____
Depth to water 34 ft.; Depth of well 40 ft.; Perforation Interval _____ - _____ ft.; Casing: 8" steel

Sampling Location, Methods and Remarks (i.e. odors, etc.)
Bailed approximately 6 times w/ small bailer
Williams Well # 2

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities. (signature collector): David Boyer Method of Shipment to the Lab: Hand

This form accompanies _____ Septum Vials, _____ Glass Jugs, and/or _____
Samples were preserved as follows:

- NP: No Preservation; Sample stored at room temperature.
- P-Ice Sample stored in an ice bath (Not Frozen).
- P-Na₂S₂O₃ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from _____ to _____
at (location) _____ on _____ - _____: _____ and that
the statements in this block are correct. Evidentiary Seals: Not Sealed Seals Intact: Yes No

Signatures _____

For OCD Use: Date Owner Notified 12/9/86 Phone or Letter? Initials DMB

ANALYSES PERFORMED

LAB. No.: OR- 1164

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:

PURGEABLE SCREENS

- (753) Aliphatic Purgeables (1-3 Carbons)
- (754) Aromatic & Halogenated Purgeables
- (765) Mass Spectrometer Purgeables
- (766) Trihalomethanes
- Other Specific Compounds or Classes
- _____
- _____
- _____
- _____
- _____

EXTRACTABLE SCREENS

- (751) Aliphatic Hydrocarbons
- (760) Organochlorine Pesticides
- (755) Base/Neutral Extractables
- (758) Herbicides, Chlorophenoxy acid
- (759) Herbicides, Triazines
- (760) Organochlorine Pesticides
- (761) Organophosphate Pesticides
- (767) Polychlorinated Biphenyls (PCB's)
- (764) Polynuclear Aromatic Hydrocarbons
- (762) SDWA Pesticides & Herbicides

ANALYTICAL RESULTS

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
halogenated purgeables	ND		
aromatic purgeables	ND		
* DETECTION LIMIT *	* 2 ppb	+ DETECTION LIMIT +	+

ABBREVIATIONS USED:
 N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT
 T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)
 [RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: _____

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes No . Seal(s) broken by: _____ date: _____
 I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.
 Date(s) of analysis: 10-10-86 . Analyst's signature: [Signature]
 I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.
 Reviewers signature: [Signature]



New Mexico Health and Environment Department
 SCIENTIFIC LABORATORY DIVISION
 700 Camino de Salud NE
 Albuquerque, NM 87106 — (505) 841-2555

**GENERAL WATER CHEMISTRY
 and NITROGEN ANALYSIS**

DATE RECEIVED	10/8/86	LAB NO.	WC-4834	USER CODE	<input type="checkbox"/> 59300 <input type="checkbox"/> 59600 <input checked="" type="checkbox"/> OTHER: 82235
Collection DATE	86/10/07	SITE INFORMATION	Sample location		
Collection TIME	1103		Williams Ranch Well #2 Monument		
Collected by — Person/Agency		10CD		Collection site description	

SEND FINAL REPORT TO

ENVIRONMENTAL BUREAU
 NM OIL CONSERVATION DIVISION
 State Land Office Bldg, PO Box 2088
 Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5312

NOV 24 1986
 OIL CONSERVATION DIVISION
 SANTA FE

Station/well code: 145-37E-33.4
 Owner:

SAMPLING CONDITIONS

<input checked="" type="checkbox"/> Bailed <input type="checkbox"/> Dipped	<input type="checkbox"/> Pump <input type="checkbox"/> Tap	Water level	34 ft	Discharge		Sample type	Grab
pH (00400)		Conductivity (Uncorrected)	550 μmho	Water Temp. (00010)	19 °C	Conductivity at 25°C (00094)	μmho
Field comments: Well approx 2 yrs old, ~50' deep (40' measured) 8" diameter casing							

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted: 1

NF: Whole sample (Non-filtered) F: Filtered in field with 0.45 μm membrane filter A: 2 ml H₂SO₄/L added

NA: No acid added Other-specify: A: 5ml conc. HNO₃ added A: 4ml fuming HNO₃ added

ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed	F, NA	Units	Date analyzed
<input type="checkbox"/> Conductivity (Corrected) 25°C (00095)	μmho		<input checked="" type="checkbox"/> Calcium (00915)	108 mg/l	10-21
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input checked="" type="checkbox"/> Magnesium (00925)	25.4 mg/l	10-21
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Sodium (00930)	73.6 mg/l	10/21
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Potassium (00935)	5.07 mg/l	10/21
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Bicarbonate (00440)	340 mg/l	10/27
			<input checked="" type="checkbox"/> Chloride (00940)	23 mg/l	10/30
			<input checked="" type="checkbox"/> Sulfate (00945)	131 mg/l	10/30
			<input checked="" type="checkbox"/> Total filterable residue (dissolved) (70300)	562 mg/l	11/5
			<input checked="" type="checkbox"/> Other: CO ₃	0	10/27
NF, A-H₂SO₄			F, A-H₂SO₄		
<input type="checkbox"/> Nitrate-N + Nitrate-N total (00630)	mg/l		<input type="checkbox"/> Nitrate-N + Nitrate-N dissolved (00631)	mg/l	
<input type="checkbox"/> Ammonia-N total (00610)	mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608)	mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()	mg/l		<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Total organic carbon ()	mg/l				
<input type="checkbox"/> Other:					
<input type="checkbox"/> Other:					
Analyst		Date Reported	Reviewed by		
		11/12/86	[Signature]		

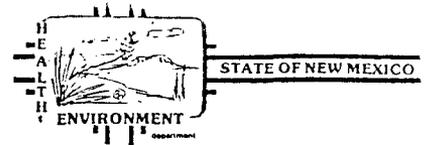
Laboratory remarks

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified 12/9/86 Phone or letter? Initials [Signature]

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE
Albuquerque, NM 87106 841-2570



REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

S.L.D. No. OR- 86-1162 A-B
DATE REC. 10-8-86

PHONE(S): 827-5812 USER CODE: 8 2 2 3 5
SUBMITTER: David Boyer CODE: 2 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 8 6 1 0 0 2 1 1 3 0 A R B

SAMPLE TYPE: WATER SOIL FOOD OTHER: CODE: | | |

COUNTY: Los; CITY: Monument CODE: | | | | |

LOCATION CODE: (Township-Range-Section-Tracts) 1 9 5 + 3 7 E + 3 3 + 4 (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

- (753) Aliphatic Purgeables (1-3 Carbons)
- (754) Aromatic & Halogenated Purgeables
- (765) Mass Spectrometer Purgeables
- (766) Trihalomethanes
- Other Specific Compounds or Classes
- _____
- _____
- _____
- _____
- _____

EXTRACTABLE SCREENS

- (751) Aliphatic Hydrocarbons
- (760) Organochlorine Pesticides
- (755) Base/Neutral Extractables
- (758) Herbicides, Chlorophenoxy acid
- (759) Herbicides, Triazines
- (760) Organochlorine Pesticides
- (761) Organophosphate Pesticides
- (767) Polychlorinated Biphenyls (PCB's)
- (764) Polynuclear Aromatic Hydrocarbons
- (762) SDWA Pesticides & Herbicides

Remarks:

FIELD DATA:

pH= 7; Conductivity= 850 umho/cm at 18.5 °C; Chlorine Residual= _____ mg/l

Dissolved Oxygen= _____ mg/l; Alkalinity= _____ mg/l; Flow Rate _____

Depth to water 33 ft.; Depth of well 41 ft.; Perforation Interval _____ ft.; Casing: 6" PVC

Sampling Location, Methods and Remarks (i.e. odors, etc.)
Williams Ranch Well #3 - Pump in well but unused odor, Hydrocarbons seen on bailed sample

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities. (signature collector): David H. Boyer Method of Shipment to the Lab: Hand

This form accompanies 2 Septum Vials, _____ Glass Jugs, and/or _____

Samples were preserved as follows:

- NP: No Preservation; Sample stored at room temperature.
- P-Ice Sample stored in an ice bath (Not Frozen).
- P-Na₂S₂O₃ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from _____ to _____ at (location) _____ on _____ - _____: _____ and that the statements in this block are correct. Evidentiary Seals: Not Sealed Seals Intact: Yes No

Signatures _____

ANALYSES PERFORMED

LAB. No.: OR- 1162

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:

PURGEABLE SCREENS

- (753) Aliphatic Purgeables (1-3 Carbons)
- (754) Aromatic & Halogenated Purgeables
- (765) Mass Spectrometer Purgeables
- (766) Trihalomethanes
- Other Specific Compounds or Classes
- _____
- _____
- _____
- _____
- _____
- _____

EXTRACTABLE SCREENS

- (751) Aliphatic Hydrocarbons
- (760) Organochlorine Pesticides
- (755) Base/Neutral Extractables
- (758) Herbicides, Chlorophenoxy acid
- (759) Herbicides, Triazines
- (760) Organochlorine Pesticides
- (761) Organophosphate Pesticides
- (767) Polychlorinated Biphenyls (PCB's)
- (764) Polynuclear Aromatic Hydrocarbons
- (762) SDWA Pesticides & Herbicides

ANALYTICAL RESULTS

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
<i>halogenated purgeables</i>	<i>ND</i>		
<i>aromatic purgeables</i>	<i>ND</i>		
* DETECTION LIMIT *	<i>1 ppb</i>	+ DETECTION LIMIT +	<i>+</i>

ABBREVIATIONS USED:
 N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT
 T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)
 [RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: _____

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes No . Seal(s) broken by: _____ date: _____
 I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.
 Date(s) of analysis: *10-10-86* . Analyst's signature: *J. J. Finney*
 I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.
 Reviewers signature: *L. Meyer*



New Mexico Health and Environment Department
 SCIENTIFIC LABORATORY DIVISION
 700 Camino de Salud NE
 Albuquerque, NM 87106 — (505) 841-2555

**GENERAL WATER CHEMISTRY
 and NITROGEN ANALYSIS**

DATE RECEIVED 10 8 1986	LAB NO. WC-4841	USER CODE <input type="checkbox"/> 59300 <input type="checkbox"/> 59600 <input checked="" type="checkbox"/> OTHER: 82235
Collection DATE 8610107	SITE INFORMATION	Sample location Williams Ranch well #3
Collection TIME 1138		Collection site description
Collected by — Person/Agency Isaiah Isay / OCD		

SEND FINAL REPORT TO

ENVIRONMENTAL BUREAU
 NM OIL CONSERVATION DIVISION
 State Land Office Bldg, PO Box 2088
 Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

RECEIVED
 NOV 24 1986
 OIL CONSERVATION DIVISION
 SANTA FE

Station/well code **195-37E-33.4**
 Owner

SAMPLING CONDITIONS

<input checked="" type="checkbox"/> Bailed <input type="checkbox"/> Dipped	<input type="checkbox"/> Pump <input type="checkbox"/> Tap	Water level 32'	Discharge -	Sample type Grab
pH (00400) -	Conductivity (Uncorrected) 850 μ mho	Water Temp. (00010) 18.5 °C	Conductivity at 25°C (00094) μ mho	
Field comments Approx 7 1/2' to well, 241 FT deep 6" PVC casing odor, Hydrocarbon sheen				

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted 1	<input checked="" type="checkbox"/> NF: Whole sample (Non-filtered)	<input type="checkbox"/> F: Filtered in field with 0.45 μ m membrane filter	<input type="checkbox"/> A: 2 ml H ₂ SO ₄ /L added
<input checked="" type="checkbox"/> NA: No acid added	<input type="checkbox"/> Other-specify:	<input type="checkbox"/> A: 5ml conc. HNO ₃ added	<input type="checkbox"/> A: 4ml fuming HNO ₃ added

ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed	F, NA	Units	Date analyzed
<input type="checkbox"/> Conductivity (Corrected) 25°C (00095)	μ mho		<input checked="" type="checkbox"/> Calcium (00915)	mg/l	10/21
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input checked="" type="checkbox"/> Magnesium (00925)	mg/l	"
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Sodium (00930)	mg/l	"
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Potassium (00935)	mg/l	"
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Bicarbonate (00440)	mg/l	10/27
			<input checked="" type="checkbox"/> Chloride (00940)	mg/l	10/30
			<input checked="" type="checkbox"/> Sulfate (00945)	mg/l	10/30
			<input checked="" type="checkbox"/> Total filterable residue (dissolved) (70300)	mg/l	11/5
			<input checked="" type="checkbox"/> Other: CO ₃	mg/l	10/27
<input type="checkbox"/> Nitrate-N +, Nitrate-N total (00630)	mg/l		F, A-H₂SO₄		
<input type="checkbox"/> Ammonia-N total (00610)	mg/l		<input type="checkbox"/> Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()	mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608)	mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	
<input type="checkbox"/> Total organic carbon ()	mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Other:			Analyst	Date Reported	Reviewed by
<input type="checkbox"/> Other:				11/12/86	CS

Laboratory remarks

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified 12/9/86 Phone or letter: 218 Initials CS



New Mexico Health and Environment Department
 SCIENTIFIC LABORATORY DIVISION
 700 Camino de Salud NE
 Albuquerque, NM 87106 — (505) 841-2555

**GENERAL WATER CHEMISTRY
 and NITROGEN ANALYSIS**

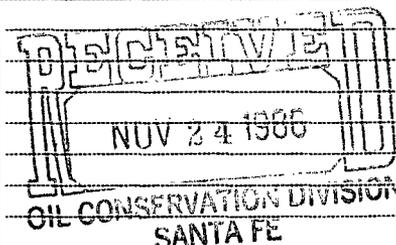
DATE RECEIVED	10/8/86	LAB NO.	WC-4842	USER CODE	<input type="checkbox"/> 59300 <input type="checkbox"/> 59600 <input checked="" type="checkbox"/> OTHER: 82235
Collection DATE	06/10/07	SITE INFORMATION	Sample location		
Collection TIME	1205		Williams Ranch Well #4 Monument		
Collected by — Person/Agency		Collection site description			
Boyer, Kay / OCD					

SEND FINAL REPORT TO

ENVIRONMENTAL BUREAU
 NM OIL CONSERVATION DIVISION
 State Land Office Bldg, PO Box 2088
 Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812



Station/well code: 195-57E-33.A
 Owner:

SAMPLING CONDITIONS

<input checked="" type="checkbox"/> Bailed	<input type="checkbox"/> Pump	Water level	Discharge	Sample type
<input type="checkbox"/> Dipped	<input type="checkbox"/> Tap	~12.5'	—	Carab
pH (00400)	Conductivity (Uncorrected)	625 µmho	Water Temp. (00010)	Conductivity at 25°C (00094)
—			18.5°C	µmho
Field comments: Bailed ~ 6 times w/ 1" bailer				

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted	/	<input checked="" type="checkbox"/> NF: Whole sample (Non-filtered)	<input type="checkbox"/> F: Filtered in field with 0.45 µm membrane filter	<input type="checkbox"/> A: 2 ml H ₂ SO ₄ /L added
<input checked="" type="checkbox"/> NA: No acid added		<input type="checkbox"/> Other-specify:	<input type="checkbox"/> A: 5ml conc. HNO ₃ added	<input type="checkbox"/> A: 4ml fuming HNO ₃ added

ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed	F, NA	Units	Date analyzed
<input checked="" type="checkbox"/> Conductivity (Corrected) 25°C (00095)	943 µmho	11/18	<input checked="" type="checkbox"/> Calcium (00915)	131 mg/l	10/21
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input checked="" type="checkbox"/> Magnesium (00925)	18.1 mg/l	4
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Sodium (00930)	69 mg/l	4
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Potassium (00935)	429 * mg/l	4
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Bicarbonate (00440)	363 mg/l	10/27
			<input checked="" type="checkbox"/> Chloride (00940)	133 mg/l	10/30
			<input checked="" type="checkbox"/> Sulfate (00945)	54 mg/l	10/30
			<input checked="" type="checkbox"/> Total filterable residue (dissolved) (70300)	980 mg/l	11/5
			<input checked="" type="checkbox"/> Other: CO ₃	38.2	10/27
NF, A-H₂SO₄			F, A-H₂SO₄		
<input type="checkbox"/> Nitrate-N +, Nitrate-N total (00630)	mg/l		<input type="checkbox"/> Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
<input type="checkbox"/> Ammonia-N total (00610)	mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608)	mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()	mg/l		<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Total organic carbon ()	mg/l				
<input type="checkbox"/> Other:			Analyst	Date Reported	Reviewed by
<input type="checkbox"/> Other:				11/12/86	CB

Laboratory remarks: * Potassium 4.29 mg/l as per T.S., SLD 12/9/86
 (Signature: A.K. Boyer)

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified 12/9/86 Phone or letter:

Initials: (Signature)

86- 1165-C

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE
Albuquerque, NM 87106 841-2570



STATE OF NEW MEXICO

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

S.L.D. No. OR- 86-1165 A-B
DATE REC. 10-8-86

PHONE(S): 827-5812 USER CODE: 8 2 2 3 5

SUBMITTER: David Boyer CODE: 2 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 8610071205A8B

SAMPLE TYPE: WATER SOIL FOOD OTHER: _____ CODE: _____

COUNTY: Lea; CITY: Monument CODE: _____

LOCATION CODE: (Township-Range-Section-Tracts) 19S+37E+33+4-1- (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

- (753) Aliphatic Purgeables (1-3 Carbons)
- (754) Aromatic & Halogenated Purgeables
- (765) Mass Spectrometer Purgeables
- (766) Trihalomethanes
- Other Specific Compounds or Classes
- _____
- _____
- _____
- _____
- _____

EXTRACTABLE SCREENS

- (751) Aliphatic Hydrocarbons
- (760) Organochlorine Pesticides
- (755) Base/Neutral Extractables
- (758) Herbicides, Chlorophenoxy acid
- (759) Herbicides, Triazines
- (760) Organochlorine Pesticides
- (761) Organophosphate Pesticides
- (767) Polychlorinated Biphenyls (PCB's)
- (764) Polynuclear Aromatic Hydrocarbons
- (762) SDWA Pesticides & Herbicides

Remarks: _____

FIELD DATA:

pH= ~; Conductivity= 625 umho/cm at 16.5°C; Chlorine Residual= _____ mg/l
Dissolved Oxygen= _____ mg/l; Alkalinity= _____ mg/l; Flow Rate _____ / _____
Depth to water 12.5 ft.; Depth of well 49 ft.; Perforation Interval _____ ft.; Casing: 4" PVC

Sampling Location, Methods and Remarks (i.e. odors, etc.)
Bailed approx 6 times w/ small 1" bailey
Williams Well # 4

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities. (signature collector): David H Boyer Method of Shipment to the Lab: Hand

This form accompanies 2 Septum Vials, _____ Glass Jugs, and/or _____

- Samples were preserved as follows:
- NP: No Preservation; Sample stored at room temperature.
 - P-Ice Sample stored in an ice bath (Not Frozen).
 - P-Na₂S₂O₃ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from _____ to _____
at (location) _____ on _____ / _____ / _____ - _____ : _____ and that
the statements in this block are correct. Evidentiary Seals: Not Sealed Seals Intact: Yes No

Signatures _____

For OCD Use: Date Owner Notified 12/9/86 Phone or Letter? Letter Initials AVB

86-1166-C

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE
Albuquerque, NM 87106 841-2570



STATE OF NEW MEXICO

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

S.L.D. No. OR- 86-1166 A-B
DATE REC. 10-8-86

PHONE(S): 827-5812 USER CODE: 8 2 2 3 5
SUBMITTER: David Boyer CODE: 12 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 8 6 1 0 0 7 1 2 3 0 1 2 3

SAMPLE TYPE: WATER SOIL FOOD OTHER: _____ CODE: _____

COUNTY: Lea; CITY: Monument CODE: _____

LOCATION CODE: (Township-Range-Section-Tracts) 19 S + 37 E + 33 + 4 - - (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

- (753) Aliphatic Purgeables (1-3 Carbons)
- (754) Aromatic & Halogenated Purgeables
- (765) Mass Spectrometer Purgeables
- (766) Trihalomethanes
- Other Specific Compounds or Classes _____
- _____
- _____
- _____
- _____

EXTRACTABLE SCREENS

- (751) Aliphatic Hydrocarbons
- (760) Organochlorine Pesticides
- (755) Base/Neutral Extractables
- (758) Herbicides, Chlorophenoxy acid
- (759) Herbicides, Triazines
- (760) Organochlorine Pesticides
- (761) Organophosphate Pesticides
- (767) Polychlorinated Biphenyls (PCB's)
- (764) Polynuclear Aromatic Hydrocarbons
- (762) SDWA Pesticides & Herbicides

Remarks: _____

FIELD DATA:

pH= —; Conductivity= 475 umho/cm at 18 °C; Chlorine Residual= _____ mg/l
Dissolved Oxygen= _____ mg/l; Alkalinity= _____ mg/l; Flow Rate _____ / _____
Depth to water 27 ft.; Depth of well 40 ft.; Perforation Interval _____ ft.; Casing: 6" PVC

Sampling Location, Methods and Remarks (i.e. odors, etc.)
Williams Ranch Well #5 Drilled ~ 7 years ago
Baked approx 6 times w/ 1" PVC Bales

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities. (signature collector): David H. Boyer Method of Shipment to the Lab: Hand

This form accompanies 2 Septum Vials, _____ Glass Jugs, and/or _____

- Samples were preserved as follows:
- NP: No Preservation; Sample stored at room temperature.
 - P-Ice Sample stored in an ice bath (Not Frozen).
 - P-Na₂S₂O₃ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from _____ to _____
at (location) _____ on _____ / _____ / _____ - _____ : _____ and that
the statements in this block are correct. Evidentiary Seals: Not Sealed Seals Intact: Yes No

Signatures _____

For OCD Use: Date Owner Notified 12/9/86 Phone or (Letter?) Initials DHB

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:

PURGEABLE SCREENS

- (753) Aliphatic Purgeables (1-3 Carbons)
- (754) Aromatic & Halogenated Purgeables
- (765) Mass Spectrometer Purgeables
- (766) Trihalomethanes
- Other Specific Compounds or Classes
- _____
- _____
- _____
- _____
- _____

EXTRACTABLE SCREENS

- (751) Aliphatic Hydrocarbons
- (760) Organochlorine Pesticides
- (755) Base/Neutral Extractables
- (758) Herbicides, Chlorophenoxy acid
- (759) Herbicides, Triazines
- (760) Organochlorine Pesticides
- (761) Organophosphate Pesticides
- (767) Polychlorinated Biphenyls (PCB's)
- (764) Polynuclear Aromatic Hydrocarbons
- (762) SDWA Pesticides & Herbicides

ANALYTICAL RESULTS

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
halogenated/purgeables	ND		
aromatic purgeables	ND*		
* DETECTION LIMIT *	2 ppb	+ DETECTION LIMIT +	+

ABBREVIATIONS USED:

- N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT
- T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)
- [RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: *6 ppb toluene was present in one of the duplicate samples, but that appears to be lab contamination.

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes No Seal(s) broken by: _____ date: _____

I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.

Date(s) of analysis: 10-10-86 10-16-86 Analyst's signature: *J. Finney*

I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.

Reviewers signature: *R. Meyerhen*



New Mexico Health and Environment Department
 SCIENTIFIC LABORATORY DIVISION
 700 Camino de Salud NE
 Albuquerque, NM 87106 — (505) 841-2555

**GENERAL WATER CHEMISTRY
 and NITROGEN ANALYSIS**

DATE RECEIVED 10 18 1986	LAB NO. NC-4837	USER CODE <input type="checkbox"/> 59300 <input type="checkbox"/> 59600 <input checked="" type="checkbox"/> OTHER: 82235
Collection DATE 10/10/86	SITE INFORMATION	Sample location Williams Ranch Well #5 Monument
Collection TIME 1230		Collection site description
Collected by: Person/Agency Boyer/Seay 10CD		

SEND FINAL REPORT TO

ENVIRONMENTAL BUREAU
 NM OIL CONSERVATION DIVISION
 State Land Office Bldg, PO Box 2088
 Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

NOV 24 1986

OIL CONSERVATION DIVISION
 SANTA FE

Station/well code **195-37E-33.4**

Owner

SAMPLING CONDITIONS

<input checked="" type="checkbox"/> Bailed <input type="checkbox"/> Dipped	<input type="checkbox"/> Pump <input type="checkbox"/> Tap	Water level ~27'	Discharge -	Sample type Grab
pH (00400) -	Conductivity (Uncorrected) 475 μ mho	Water Temp. (00010) 18 °C	Conductivity at 25°C (00094) μ mho	
Field comments 6" PVC casing total depth ~40'				

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted **1**

NF: Whole sample (Non-filtered) F: Filtered in field with 0.45 μ m membrane filter A: 2 ml H₂SO₄/L added

NA: No acid added Other-specify: A: 5ml conc. HNO₃ added A: 4ml fuming HNO₃ added

ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed	F, NA	Units	Date analyzed
<input type="checkbox"/> Conductivity (Corrected) 25°C (00095)	μ mho		<input checked="" type="checkbox"/> Calcium (00915)	80 mg/l	10/21
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input checked="" type="checkbox"/> Magnesium (00925)	82.5 mg/l	"
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Sodium (00930)	92.0 mg/l	"
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Potassium (00935)	4 mg/l	"
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Bicarbonate (00440)	262 mg/l	10/27
			<input checked="" type="checkbox"/> Chloride (00940)	63 mg/l	10/30
			<input checked="" type="checkbox"/> Sulfate (00945)	158 mg/l	10/30
			<input checked="" type="checkbox"/> Total filterable residue (dissolved) (70300)	530 ma/l	11/5
			<input checked="" type="checkbox"/> Other: CO₃	0	10/27
NF, A-H₂SO₄			F, A-H₂SO₄		
<input type="checkbox"/> Nitrate-N + Nitrate-N total (00630)	mg/l		<input type="checkbox"/> Nitrate-N + Nitrate-N dissolved (00631)	mg/l	
<input type="checkbox"/> Ammonia-N total (00610)	mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608)	mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()	mg/l		<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Total organic carbon ()	mg/l		Analyst	Date Reported	Reviewed by
<input type="checkbox"/> Other:				11/12/86	CS
<input type="checkbox"/> Other:					

Laboratory remarks

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified **10/9/86** Phone or letter? Initials **CS**

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE

Albuquerque, NM 87106 841-2570



STATE OF NEW MEXICO

86-1159-C

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

S.L.D. No. OR- 86-1159 A-B
DATE REC. 10-8-86

PHONE(S): 827-5812 USER CODE: 8 2 2 3 5
SUBMITTER: David Boyer CODE: 2 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 8610071300 A 1 B

SAMPLE TYPE: WATER [X] SOIL [] FOOD [] OTHER: [] CODE: [] [] []

COUNTY: Lea; CITY: Monument CODE: [] [] []

LOCATION CODE: (Township-Range-Section-Tracts) 19 5 + 3 7 6 + 3 3 + 3 1 - 1 (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

- (753) Aliphatic Purgeables (1-3 Carbons)
(754) Aromatic & Halogenated Purgeables
(765) Mass Spectrometer Purgeables
(766) Trihalomethanes
Other Specific Compounds or Classes

EXTRACTABLE SCREENS

- (751) Aliphatic Hydrocarbons
(760) Organochlorine Pesticides
(755) Base/Neutral Extractables
(758) Herbicides, Chlorophenoxy acid
(759) Herbicides, Triazines
(760) Organochlorine Pesticides
(761) Organophosphate Pesticides
(767) Polychlorinated Biphenyls (PCB's)
(764) Polynuclear Aromatic Hydrocarbons
(762) SDWA Pesticides & Herbicides

Remarks:

FIELD DATA:

pH= ; Conductivity= 1750 umho/cm at 18 C; Chlorine Residual= mg/l
Dissolved Oxygen= mg/l; Alkalinity= mg/l; Flow Rate
Depth to water 21 ft.; Depth of well 24 ft.; Perforation Interval - ft.; Casing: 6" PVC

Sampling Location, Methods and Remarks (i.e. odors, etc.)
Williams Ranch Well #6 Railed w/ 1" Bailey
Slight hydrocarbon sheen, some odor

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities. (signature collector): David A. Boyer Method of Shipment to the Lab: Hand

This form accompanies 2 Septum Vials, Glass Jugs, and/or

- Samples were preserved as follows:
NP: No Preservation; Sample stored at room temperature.
P-Ice: Sample stored in an ice bath (Not Frozen).
P-Na2S2O3: Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from to
at (location) on - and that
the statements in this block are correct. Evidentiary Seals: Not Sealed [] Seals Intact: Yes [] No []
Signatures

For OCD Use: Date Owner Notified 10/9/86 Phone or Letter? Initials



New Mexico Health and Environment Department
 SCIENTIFIC LABORATORY DIVISION
 700 Camino de Salud NE
 Albuquerque, NM 87106 — (505) 841-2555

**GENERAL WATER CHEMISTRY
 and NITROGEN ANALYSIS**

DATE RECEIVED 10 8 86 LAB NO. WC-4833 USER CODE 59300 59600 OTHER: 82235
 Collection DATE 8/10/87 SITE INFORMATION Sample location Williams Ranch well #6, Monument
 Collection TIME _____ Collection site description _____
 Collected by Person/Agency Boyer / seaf / OCD

ENVIRONMENTAL BUREAU
 NM OIL CONSERVATION DIVISION
 State Land Office Bldg, PO Box 2088
 Santa Fe, NM 87504-2088

SEND FINAL REPORT TO

Attn: David Boyer

Phone: 827-5812

NOV 24 1986
 OIL CONSERVATION DIVISION
 SANTA FE
 Station/well code 195-32E-33.3
 Owner _____

SAMPLING CONDITIONS

<input checked="" type="checkbox"/> Bailed <input type="checkbox"/> Dipped	<input type="checkbox"/> Pump <input type="checkbox"/> Tap	Water level <u>~21'</u>	Discharge <u>—</u>	Sample type <u>Grab</u>
pH (00400) <u>—</u>	Conductivity (Uncorrected) <u>1750</u> μ mho	Water Temp. (00010) <u>—</u> °C	Conductivity at 25°C (00094) <u>—</u> μ mho	
Field comments <u>Slight green, some odor TB ~24'</u>				

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted 1 NF: Whole sample (Non-filtered) F: Filtered in field with 0.45 μ m membrane filter A: 2 ml H₂SO₄/L added
 NA: No acid added Other-specify: _____ A: 5ml conc. HNO₃ added A: 4ml fuming HNO₃ added

ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed	F, NA	Units	Date analyzed
<input type="checkbox"/> Conductivity (Corrected) 25°C (00095)	μ mho	_____	<input checked="" type="checkbox"/> Calcium (00915)	mg/l	<u>11.2</u> 10/21
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l	_____	<input checked="" type="checkbox"/> Magnesium (00925)	mg/l	<u>2.9</u> 10/21
<input type="checkbox"/> Other: _____	_____	_____	<input checked="" type="checkbox"/> Sodium (00930)	mg/l	<u>342</u> 10/21
<input type="checkbox"/> Other: _____	_____	_____	<input checked="" type="checkbox"/> Potassium (00935)	mg/l	<u>24.9</u> 10/21
<input type="checkbox"/> Other: _____	_____	_____	<input checked="" type="checkbox"/> Bicarbonate (00440)	mg/l	<u>645</u> 10/27
			<input checked="" type="checkbox"/> Chloride (00940)	mg/l	<u>921</u> 10/30
			<input checked="" type="checkbox"/> Sulfate (00945)	mg/l	<u>162</u> 10/30
			<input checked="" type="checkbox"/> Total filterable residue (dissolved) (70300)	mg/l	<u>2170</u> 11/5
			<input checked="" type="checkbox"/> Other: <u>CO₃</u>	_____	<u>0</u> 10/27
NF, A-H₂SO₄			F, A-H₂SO₄		
<input type="checkbox"/> Nitrate-N +, Nitrate-N total (00630)	mg/l	_____	<input type="checkbox"/> Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	_____
<input type="checkbox"/> Ammonia-N total (00610)	mg/l	_____	<input type="checkbox"/> Ammonia-N dissolved (00608)	mg/l	_____
<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	_____	<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	_____
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l	_____	<input type="checkbox"/> Other: _____	_____	_____
<input type="checkbox"/> Total organic carbon ()	mg/l	_____			
<input type="checkbox"/> Other: _____	_____	_____	Analyst	Date Reported	Reviewed by
<input type="checkbox"/> Other: _____	_____	_____		<u>11/12/86</u>	<u>CO</u>

Laboratory remarks _____

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified 12/9/86 Phone or Letter? ()

Initials W/B

Mr David Boyer
Oil Conservation Director
POB 2088
Santa Fe, NM 87504

RECEIVED
OCT - 9 1986
OIL CONSERVATION DIVISION
SANTA FE

RECEIVED
OCT - 3 1986
OIL CONSERVATION DIVISION
SANTA FE



wksbad
⚡

Hebbs

HWY 8

Monument Intersection

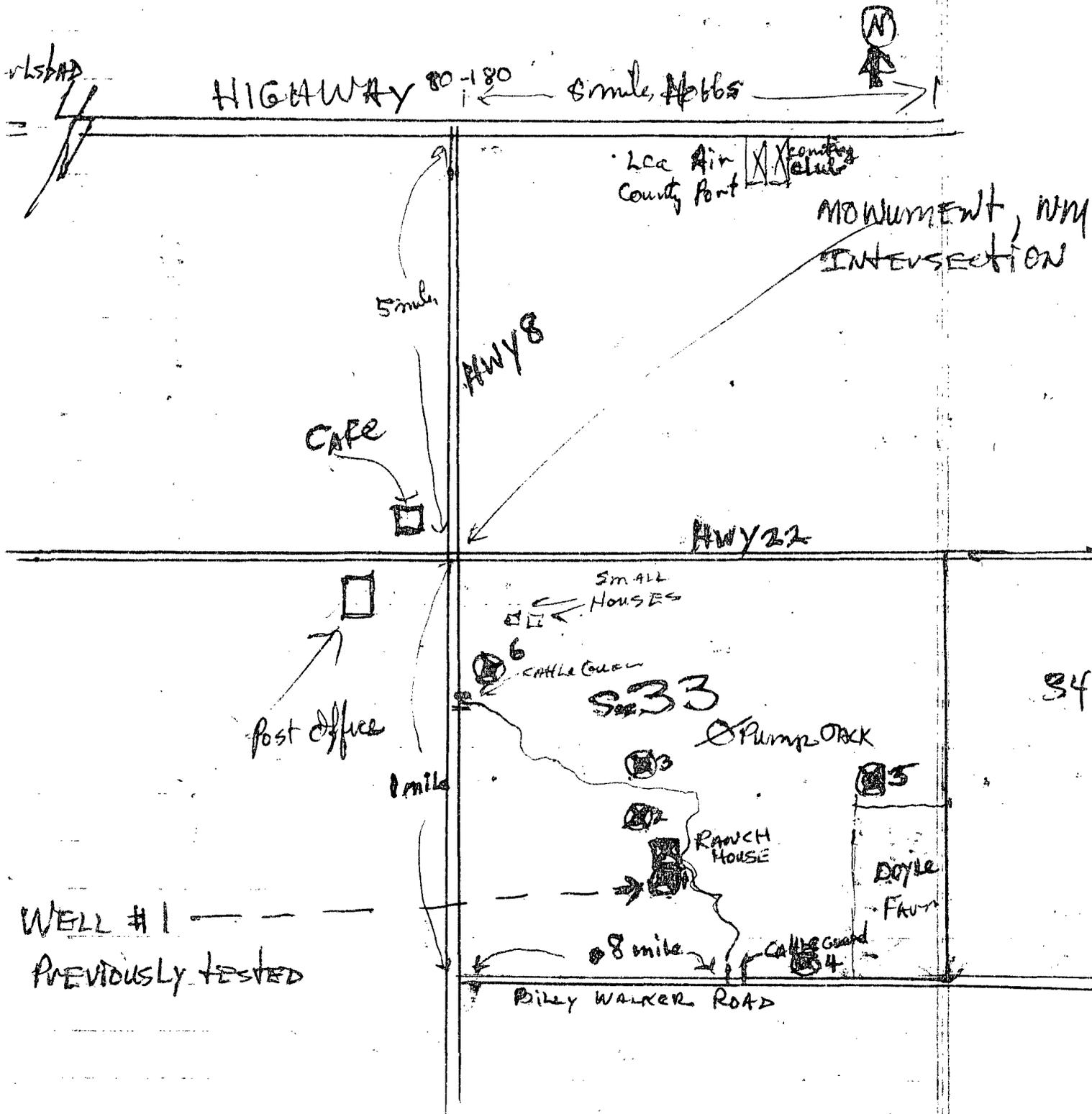
County Hwy 22

CAFE

Post-Office

X S. 33 X
X
X

X = WELLS



(circle with dot) = WATER
 (circle with dot) = WELLS

Monument Ranch
 Section 33 and 34
 TWP 15S, Rq 37E

Hobbs Trip - 10/3/86
LV @ 15 PM RTN 5 PM (By Plane)
Ranch House Well, #1
Joe Williams Ranch
~ 50 FT deep, pump set
~ 48 FT Rate - 7 gpm
Water level ~ 40 FT
6" casing. Drilled ~ 7 years ago.
8610071035

Sp. cond 75 μ mhos @ 19°C

Well #2 Approx 2 yrs old
~ 50 FT deep? (40 FT measured)
depth to water 34 FT from top
8" diameter 10 casing casing
(Steel)

8610071105
sp cond 550 @ 19°C

Well #3 Approx 7 yrs old
~ 41 FT deep, DTW 32 FT
6" PVC casing
Sp. cond 850 @ 18.5°C
8610071130 odor, Hydrocarbon
sheen

Williams #4

~12.5' water

Total Depth - 49' (5' casing top)

Drilled approx 3 1/2" ago
4" PVC

Sp. cond 625 @ 18.5°C

~~861071227~~ 861071205 CH 029

Williams #5

Drilled ~ 7 1/2" ago

Sp. cond 475 @ 18°C

861071230 CH 029

Total depth ~ 40 ft

DTW ~ 27 ft 6" PVC

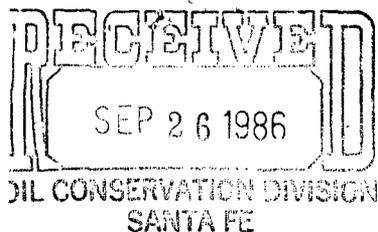
Williams #6

DTW 21' from top of casing

Total Depth 24', 6" PVC

Sp. Cond 175 @ 18°C

Slight HC sheen, some rd @ 7



APOLLO REALTY



(Sales, Loans, Appraisals)

P. O. BOX 205* 75285
ALBUQUERQUE, N. M. 87103* 87194-0285

831-5334
PHONE (505) *255-2266*
3006* CENTRAL* S.E.
ALBUQUERQUE, N.M. 87108
POB 7525

J. R. WILLIAMS
Licensed & Bonded
Broker

September 24, 1986

Mr. David Boyer, Bureau Chief
Environmental Bureau
New Mexico Oil Conservation Commission
POB 2088
Sante Fe, NM 875404 (827-5812, 827-5800)

Re: Texas-New Mexico Oil Pipeline contamination of the water wells
of the community of the Monument, New Mexico and the wells of
the Monument Ranch, owned by me, adjoining this this Community.

Dear Mr. Boyer:

Recently, I have discussed with you and Oscar Simpson of the E.I.D.
(water Supply Division), P.O.B. 968, Sante Fe 87504, the problem
of oil contamination of water wells in the Community of Monument,
and the contamination of wells on my Ranch that adjoins the Monu-
ment Townsite.

The E.I.D. has stated they are going to ~~test~~ my wells but have
a financial impediment at this time; also, you stated that you
would be able to test the wells in about a month.

You have requested the location of my wells; all 5 wells are offi-
cially located ~~in~~ feet from section lines in Section 33, Tn19S,
Rge 37E, Lea County, New Mexico; I do not have copies of these
well records with me in Albuquerque at this time; would you please
request these from the State Engineer's Office.

Please advise me if there is any other information or action neces-
sary in order for you to continue your investigation.

Sincerely,

Joe R. Williams
Joe R. Williams

cc Oscar Simpson
Gene Samberson

WILLIAM G. W. SHOBRIDGE
ATTORNEY AT LAW

817 NORTH LINAM DRAWER 5889
HOBBS, NEW MEXICO 88241

(505) 397-2496 OR 397-2497

June 26, 1986

Mr. Dave Boyer
Energy and Minerals Department
Oil Conservation Division
P. O. Box 1980
Hobbs, New Mexico 88240

Re: Joe R. Williams -v- Texas-New Mexico
Pipeline Co.

Dear Mr. Boyer:

Joe R. Williams has asked me to investigate a potential water contamination case against Texas-New Mexico Pipeline Company. I enclose herewith for your reference a copy of a letter that Jerry Sexton wrote to Mr. Williams in August of 1985. Mr. Williams believes that his water was contaminated as a result of a pipeline leak that occurred in August of 1984. I enclose herewith copies of the location of Mr. Williams' property. Mr. Williams advises me that the Monument Wells are in the Monument Draw which crosses his property. He further claims that the ground water system in the area flows from Northwest to Southeast. Mr. Sexton's letter indicates that you would be willing to discuss the hydrology of the area.

Please give me a call so that we can set up an appointment to discuss this matter. Your cooperation is appreciated.

Very truly yours,

WILLIAM G. W. SHOBRIDGE

WILLIAM G. W. SHOBRIDGE

/ccs

cc: Joe R. Williams
Jerry Sexton

NEW MEXICO OIL CONSERVATION DIVISION

NOTIFICATION OF FIRE, BREAKS, SPILLS, LEAKS, AND BLOWOUTS

NAME OF OPERATOR					ADDRESS				
TEXAS-NEW MEXICO PIPE LINE CO					Box 2528, Hobbs, New Mexico 88240				
REPORT OF	FIRE	BREAK	SPILL	LEAK	BLOWOUT	OTHER*			
				X					
TYPE OF FACILITY	DRLG WELL	PROD WELL	TANK BTY	PIPE LINE	GASO PLNT	OIL RFY	OTHER*		
				X					
NAME OF FACILITY									
4" Gathering Line									
LOCATION OF FACILITY (QUARTER/QUARTER SECTION OR FOOTAGE DESCRIPTION)					SEC.	TWP.	RGE.	COUNTY	
SE/4 SW/4					33	19	37	Lea	
DISTANCE AND DIRECTION FROM NEAREST TOWN OR PROMINENT LANDMARK					3/4 Mi. S. of Monument, N.M. & 1/2 Mi. E of St. Rd #8				
DATE AND HOUR OF OCCURENCE					DATE AND HOUR OF DISCOVERY				
Unknown					2/12/85 12:30 P.M.				
WAS IMMEDIATE NOTICE GIVEN?		YES	NO	NOT RE-REQUIRED	IF YES, NMOCC - E. W. Seay TO WHOM SCC - Ray Elliott				
		X							
BY WHOM					DATE AND HOUR				
NMOCC - R. C. Hamrick SCC - C. Johnson					NMOCC - 2-12-85 5:48 P.M. SCC - 2-13-85 8:20 a.m.				
TYPE OF FLUID LOST					QUANTITY OF LOSS		VOLUME RECOVERED		
Sour Crude					300 BBLs		60 BBLs		
DID ANY FLUIDS REACH A WATERCOURSE?		YES	NO	QUANTITY					
			X						
IF YES, DESCRIBE FULLY**									
DESCRIBE CAUSE OF PROBLEM AND REMEDIAL ACTION TAKEN**									
Outside party with caterpillar/dozer was cleaning brush & mesquite along existing fence line and dug up our 4" pipe line. (temporary repairs)									
*** Cut damaged section out & replaced with dresser sleeve & 4" pipe. repairs)									
DESCRIBE AREA AFFECTED AND CLEANUP ACTION TAKEN**									
21,000 sq ft pasture land									
Oil soaked earth covered with fresh soil in prospects of full restoration									
DESCRIPTION OF AREA		FARMING	GRAZING	URBAN	OTHER*				
			X						
SURFACE CONDITIONS		SANDY	SANDY LOAM	CLAY	ROCKY	WET	DRY	SNOW	
			X				X		
DESCRIBE GENERAL CONDITIONS PREVAILING (TEMPERATURE, PRECIPITATION, ETC.)**									
62°									
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF									
SIGNED		B.L. Lednicky			TITLE			DATE	
		B.L. Lednicky			Dist. Manager			2-13-85	

*SPECIFY

**ATTACH ADDITIONAL SHEETS IF NECESSARY

HDO-18

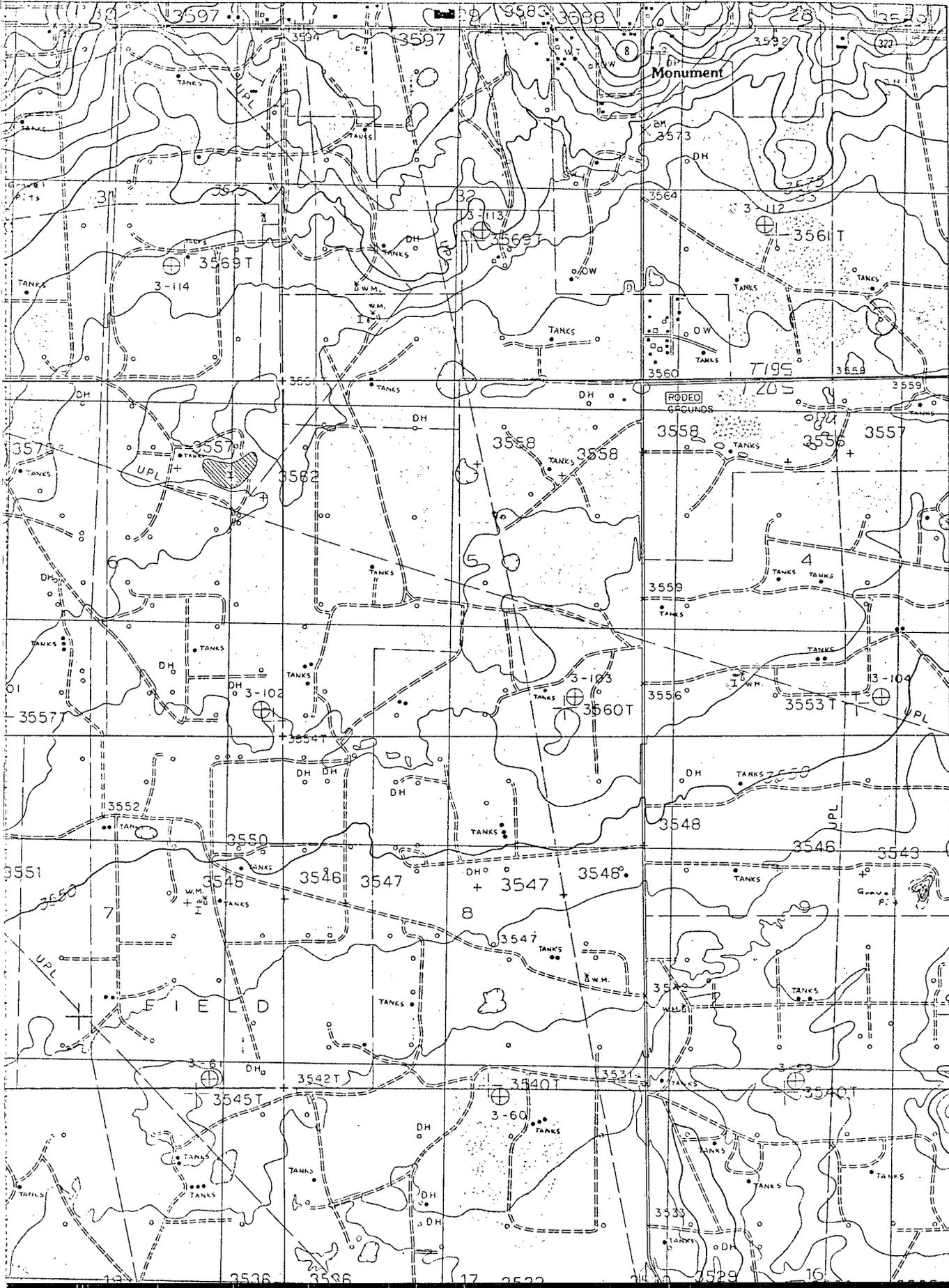
cc: Hazardous Waste Section
N.M. Environmental Improvement Division

85-036940

*** Permanent repairs to be made by replacing 40 ft 4" gathering line

MONUMENT SOUTH QUADRANGLE
NEW MEXICO-LEA CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

660 17' 30" 661 662 830000 FEET 103° 15' 32' 37' 30"



590000
EAST

*Williams
Ranch well*

3609

3608

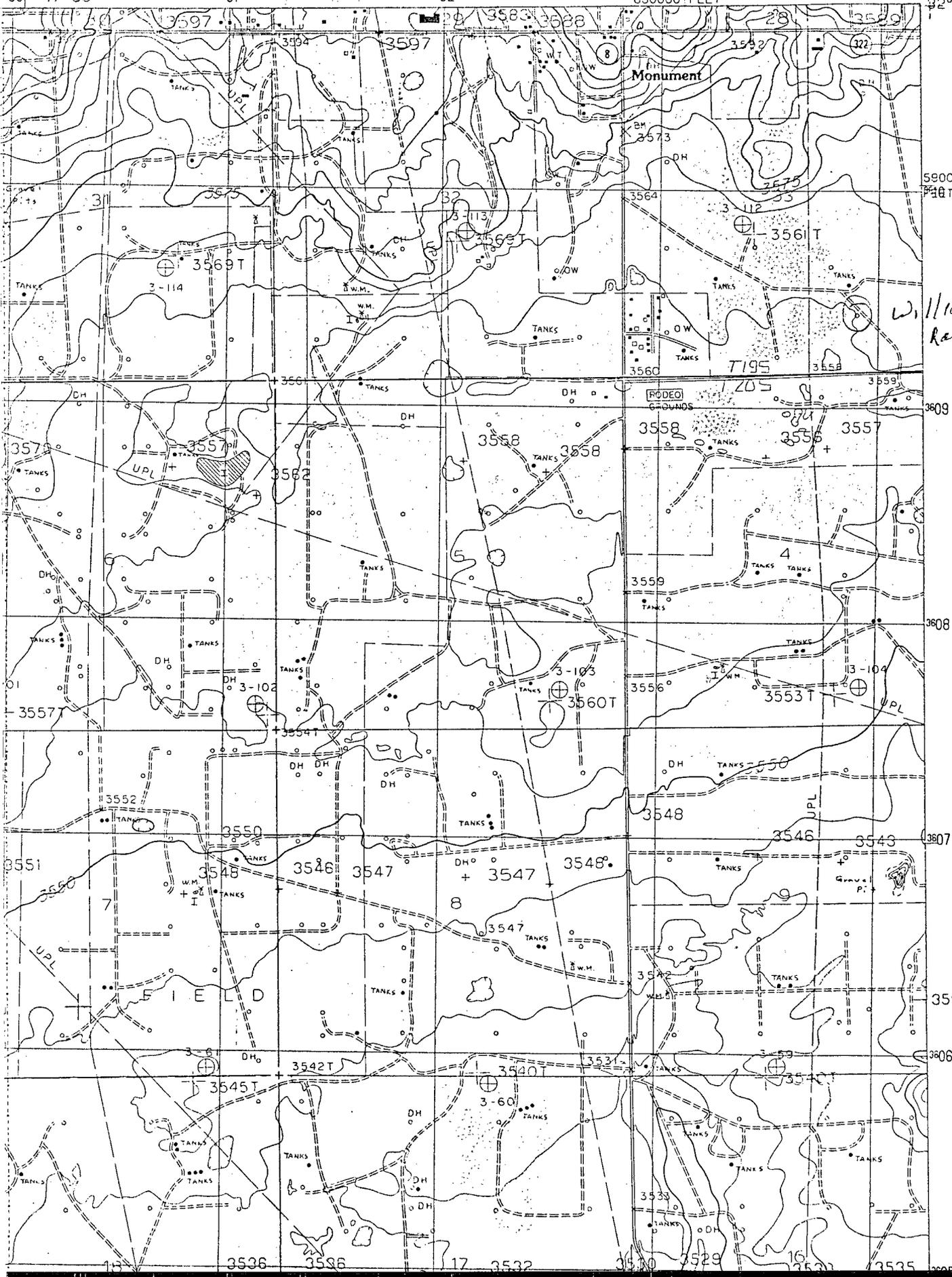
3607

35'

3606

MONUMENT SOUTH QUADRANGLE
NEW MEXICO-LEA CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

660 17' 30" 661 662 830000 FEET 103° 15' 32° 37' 30"



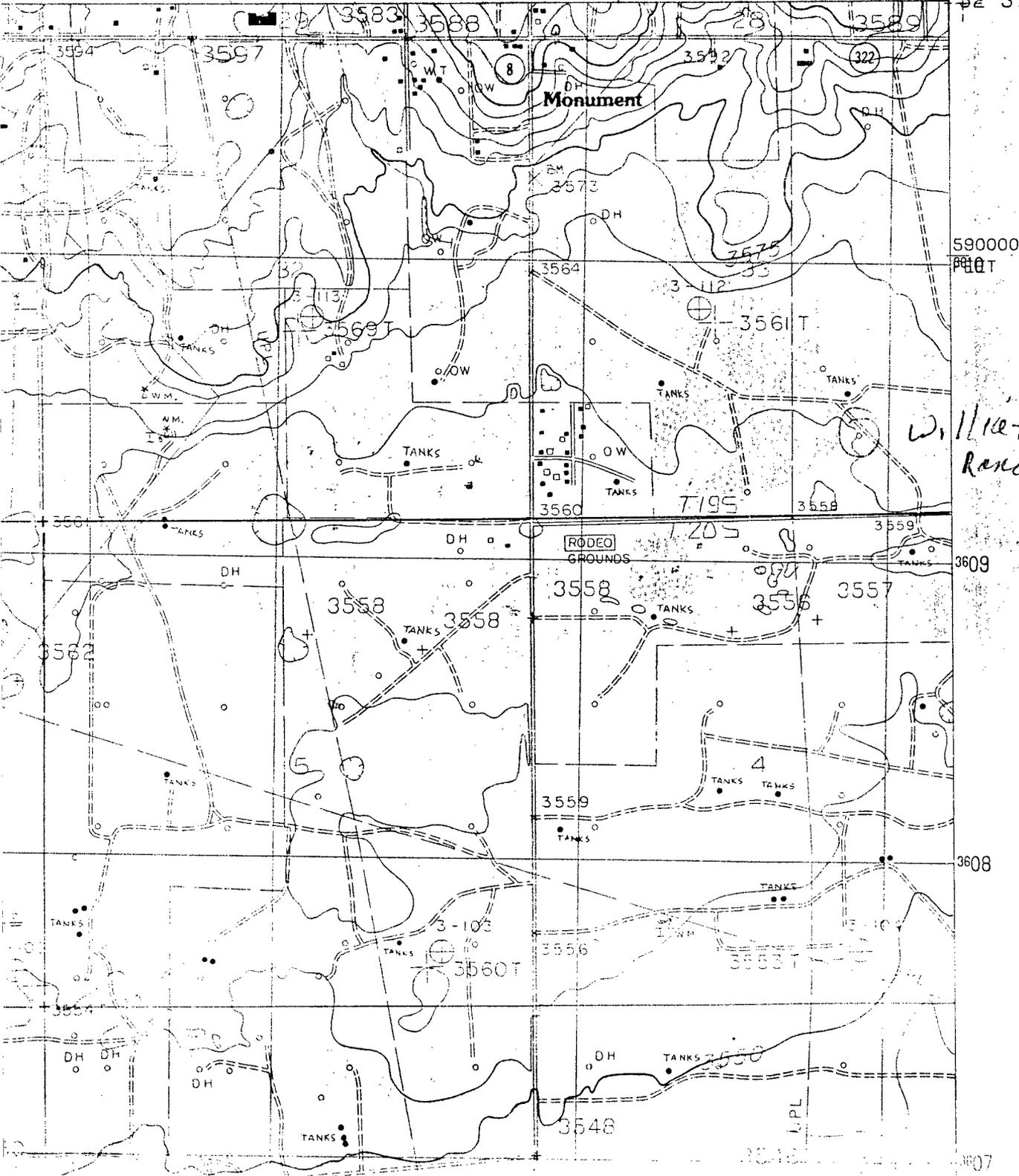
W. Williams
Ranch Well

MONUMENT SOUTH QUADRANGLE
NEW MEXICO-LEA CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

662

830000 FEET

103° 15'
32° 37' 30"



Scale III
(MONUMENT)
1:62,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

