1R - 184

REPORTS

DATE:

12/15/1986

143

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

OIL CON. DIV.

TONEY 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 thay 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

Bayer Ex 6

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

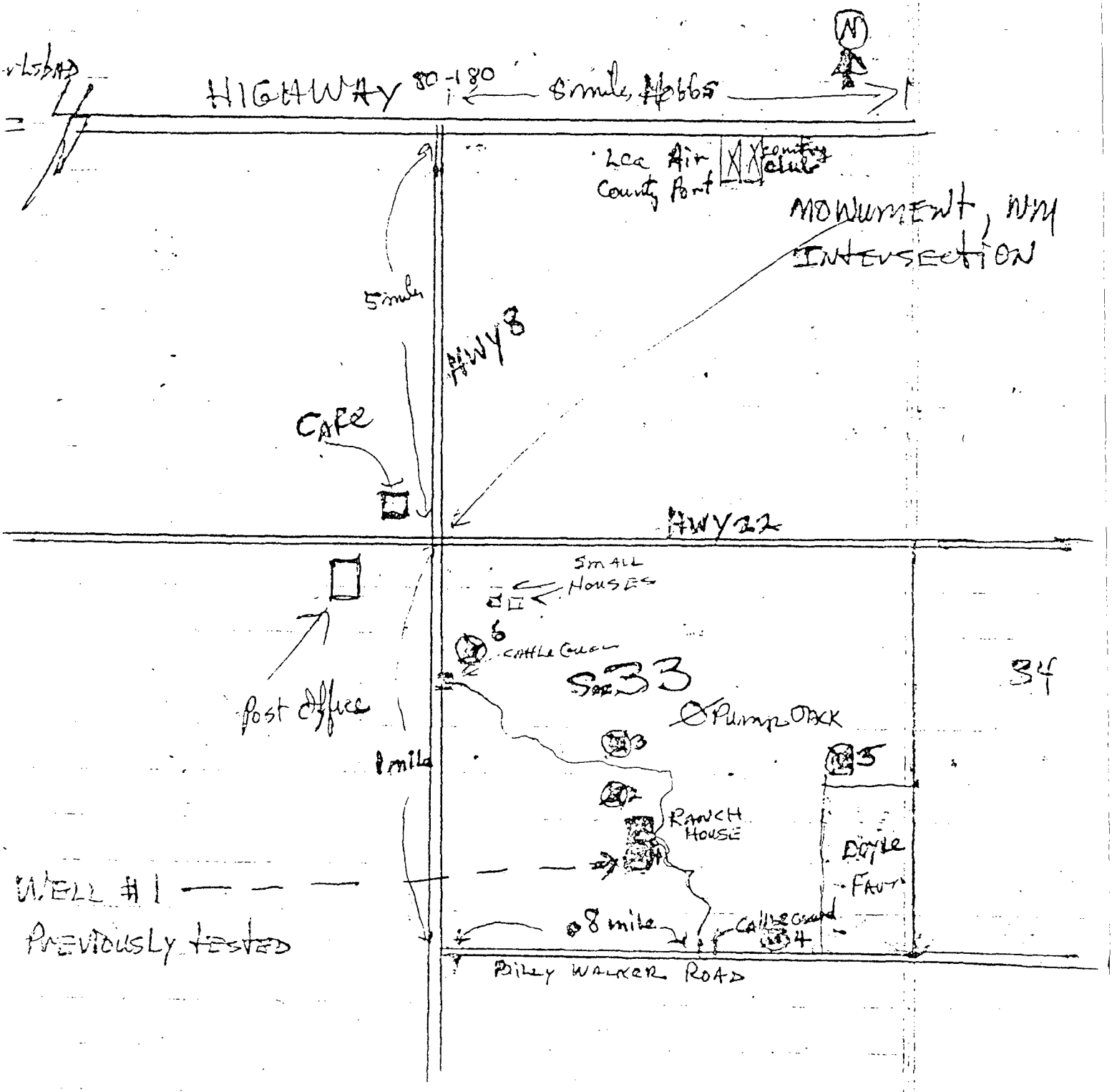
DAVID G. BOYER
Hydrogeologist/Environmental Bureau Chief

DGB:dp

Enc.

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

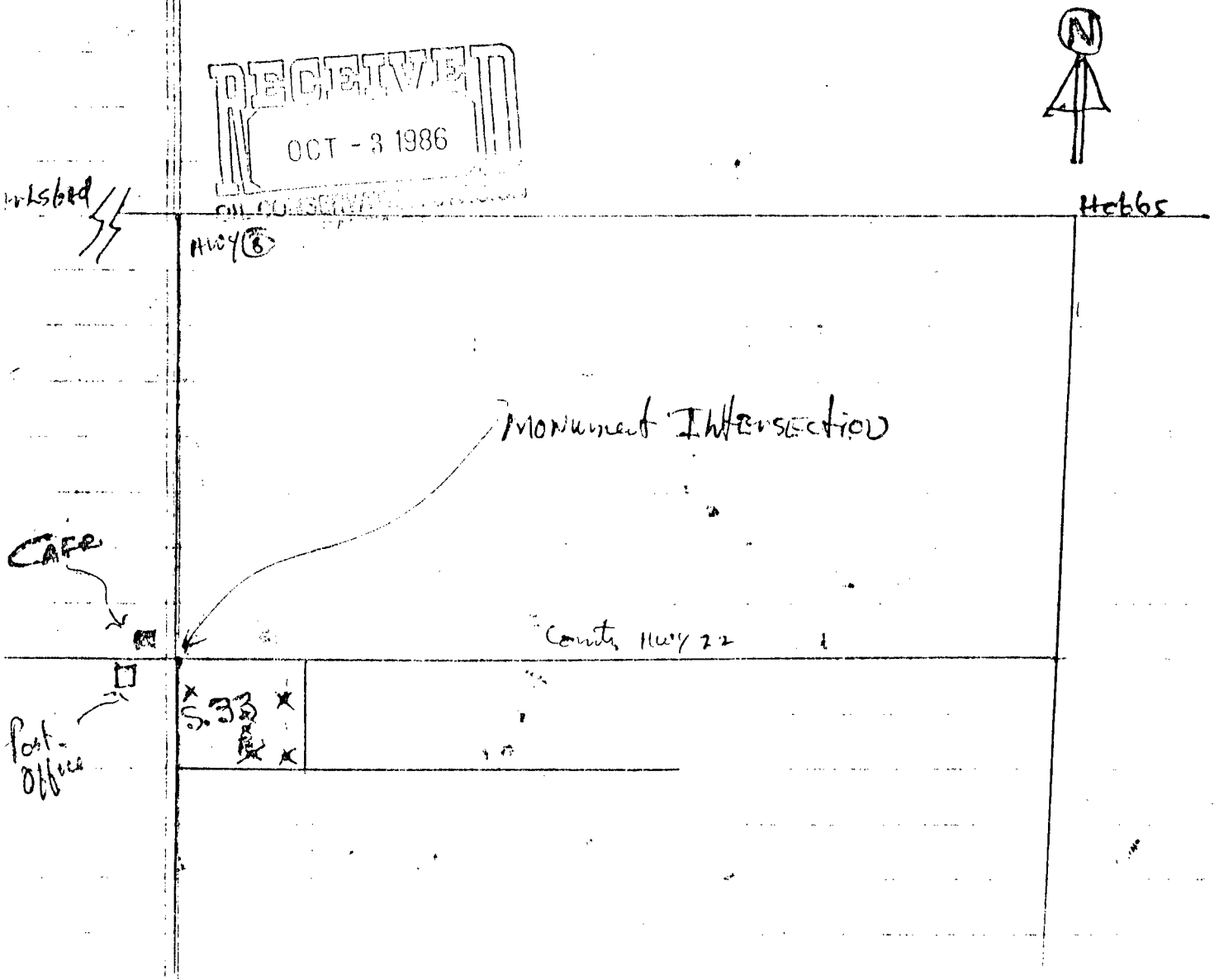
011047



(18) = WATER WELLS

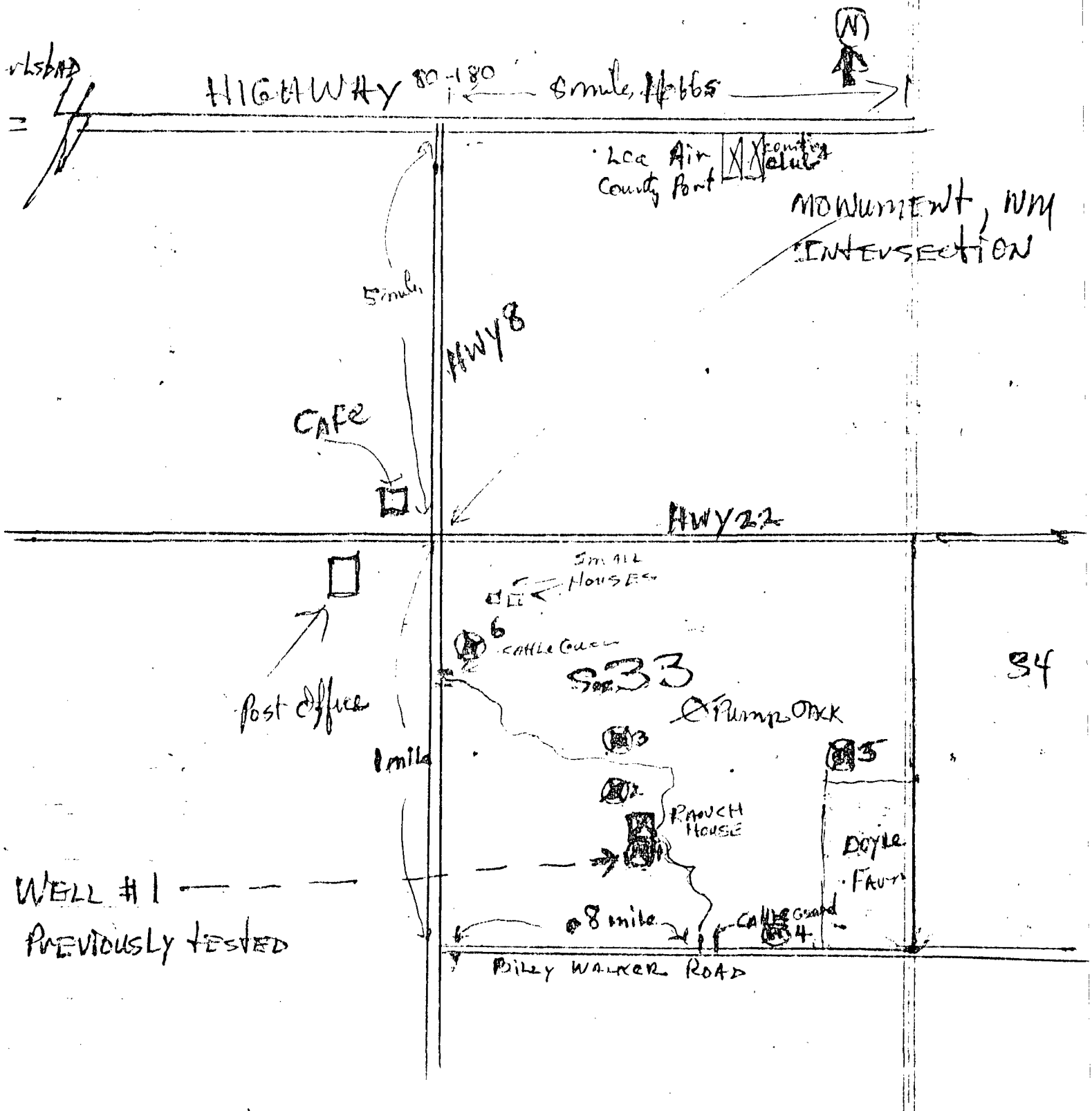
Monument Area
Section 33 and 34
T19S, R36E

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



* = WELLS

Boyer Ex 5



(W) = WATER WELLS

Monument Project
Section 33 and 34
T19S, R36E

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

011052

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 10 / ? / 86	LAB NO. [illegible]	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 861007	SITE INFORMATION ►	Sample location Williams Well #1 Monument	
Collection TIME 1035		Collection site description	
Collected by — Person/Agency Boyer / Berry /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: 827-5312

RECEIVED
NOV 24 1986
OIL CONSERVATION DIVISION
SANTA FE

Station/well code 19S-37E-33.4

Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Pump ☐ Dipped ☐ Tap	Water level —	Discharge —	Sample type GRAB
pH (00400) —	Conductivity (Uncorrected) 475 µmho	Water Temp. (00010) 19 °C	Conductivity at 25°C (00094) µmho

Field comments: Ranch house well, ~50 feet deep, pump ~48 ft, Rate 7gpm Water level ~40 ft, 6" steel casing, 7 years old

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1 | ☒ NF: Whole sample (Non-filtered) | ☐ F: Filtered in field with 0.45 µmembrane filter | ☐ A: 2 ml H_2SO_4/L added

☒ NA: No acid added ☐ Other-*specify*: ☐ A: 5ml conc. HNO_3 added ☐ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

~~F, NA~~ NF-NA		Units	Date analyzed
☒ Calcium (00915)	101.6	mg/l	10/21
☒ Magnesium (00925)	12.5	mg/l	"
☒ Sodium (00930)	20.5	mg/l	"
☒ Potassium (00935)	3.31	mg/l	"
☒ Bicarbonate (00440)	283	mg/l	10/27
☒ Chloride (00940)	44	mg/l	10/30
☒ Sulfate (00945)	137	mg/l	10/30
☒ Total filterable residue (dissolved) (70300)	572	mg/l	11/5
☒ Other: CO3	<1.4		10/27
F	1.48		11/14

NF, A-H_2SO_4		Units	Date analyzed
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4		Units	Date analyzed
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	11/14/86	[signature]

Laboratory remarks

SLD 726 (12/84)

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

Boyer Ex 4 — this set missing Well # 4

86-1163-C

SCIENTIFIC LABORATORY DIVISION

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

STATE OF NEW MEXICO
ENVIRONMENT

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088
PHONE(S): 827-5812

S.L.D. No. OR- 86-1163 A-B
DATE REC. 10-8-86
PRIORITY
USER CODE: 82235
SUBMITTER: David Boyer
CODE: 260

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 861010171015AB

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

COUNTY: Lea ; CITY: Monument CODE: [ ]

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

- [ ] (753) Aliphatic Purgeables (1-3 Carbons)
- [X] (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 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 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.
- [X] P-Ice Sample stored in an ice bath (Not Frozen).
- [ ] P-$Na_2S_2O_3$ 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 MB

011051

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]
halogenated purgeables	ND		
aromatic purgeables	ND		
* DETECTION LIMIT *	1ppb	+ 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: 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 Meyerhoff

007395

Attachment - C-103

Gulf Oil Corporation - B. V. Culp No. 4-G, 19-19S-37E

Repaired 5-1/2" casing leak as follows:

1. Pulled tubing.
2. Ran 5-1/2" Baker magnesium bridge plug set at 3725'.
3. Ran HRC tool. Found top hole between 531' and 563'. Bottom hole between 1547' and 1579'.
4. Ran 5-1/2" Howco DM cement retainer set at 1606'.
5. Pumped 537 sacks 4% Gel below retainer. Circulated estimated 25 sacks out 7-5/8" bradenhead. Pumped 50 sacks 4% Gel down 10-3/4" casing.
6. Waited on cement.
7. Ran bit to 1606'. Pressured 5-1/2" casing. Pressure dropped from 500# to 200# in 3 seconds.
8. Drilled to 1780'.
9. Perforated 5-1/2" casing at 1650' with 2, 1/2" Jet holes. Perforated 5-1/2" casing at 1325' with 2, 1/2" Jet Holes.
10. Set DM cement retainer at 1247'.
11. Pumped 275 sacks 4% Gel below retainer.
12. Waited on cement.
13. Tested 5-1/2" casing with 500# for 30 minutes. No drop in pressure.
14. Drilled out cement and retainer. Tested 5-1/2" casing with 500# for 30 minutes. No drop in pressure. Drilled out bridge plug.
15. Returned well to production.

B17

007396

Attachment - C-103

Gulf Oil Corporation - B. V. Culp No. 5-H, 19-19S-37E

Repaired 5-1/2" casing leak as follows:

1. Pulled tubing.
2. Ran 5-1/2" Baker Model N magnesium bridge plug on wire line set at 3775'.
3. Ran HRC tool. Found top hole between 1735' and 1776' and bottom hole between 2059' and 2090'.
4. Ran 5-1/2" Howco DM cement retainer set at 1741'.
5. Pumped 540 sacks 4% Gel cement below retainer and out 7-5/8" bradenhead. Circulated estimated 25 sacks cement.
6. Pressured 10-3/4" casing with 200# for 15 minutes. No drop in pressure.
7. Waited on cement.
8. Pressured 5-1/2" casing with 500# for 30 minutes. No drop in pressure. ~~Ran bit to top cement~~ Pressured 7-5/8" casing with 300# for 30 minutes. No drop in pressure. Ran bit to top cement at 1705'. Drilled cement and retainer from 1705' to 2005'. Pressured 5-1/2" casing at 1850' and at 1950' with 500# for 30 minutes. No drop in pressure. Pressured 5-1/2" casing at 2090'. Pumped 40 bbls water in formation in 15 minutes at 400#.
9. Ran 5-1/2" DM cement retainer set at 2008'.
10. Pumped 186 sacks Neat cement below retainer. Then pumped 75 sacks Neat in 3 stages. Let cement set 15 minutes on each stage. Squeezed with 700#. Reversed out approximately 48 sacks cement.
11. Waited on cement.
12. Ran bit to top cement at 1998'. Pressured 5-1/2" casing with 500# for 30 minutes. No drop in pressure. Drilled to 2162'. Pressured 5-1/2" casing at 2050' with 500# for 30 minutes. No drop in pressure. Pressured 5-1/2" casing at 2162' with 500# for 30 minutes. No drop. Drilled out cement and bridge plug from 3765' to 4000'.
13. Returned well to production.

007461

Attachment- C-103

Gulf Oil Corporation - F. W. Kutter Well No. 1-O, 20-19S-37E

Repaired leak in 5-1/2" casing as follows:

1. Pulled rods, pump and tubing.
2. Set 5-1/2" bridge plug at 3822'. Dumped 2 sacks cement on top of plug.
3. Ran HOWCO HRC tool. Found leak between 1220-1252'.
4. Perforated 5-1/2" casing with 2, 1/2" holes at 1300'.
5. Set 5-1/2" cement retainer at 1189'. Pumped 100 sacks 4% Gel. Circulated approximately 10 sacks out 7-5/8" bradenhead. Pumped 235 sacks 4% Gel down 10-3/4" casing in 5 stages.
6. Tested 7-5/8" - 10-3/4" bradenhead with 500# for 30 minutes. No drop in pressure.
7. Drilled cement and retainer from 1189-1308'. Pressure tested 5-1/2" casing with 1000# for 30 minutes. No drop in pressure.
8. Drilled cement and bridge plug at 3812'. Cleaned out to 4007' (total depth).
9. Reran tubing, rods and pump. Returned well to production.

1954

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

011055

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 10 | 3 | 86 LAB NO. WC-4-34 USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235

Collection DATE 8610107
Collection TIME 1103
Collected by — Person/Agency Boyer / Seay / OCD

SITE INFORMATION ►
Sample location: Williams Ranch Well #2 Monument
Collection site description:

RECEIVED
NOV 24 1986
OIL CONSERVATION DIVISION
SANTA FE

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: 19S-37E-33.4
Owner:

SAMPLING CONDITIONS

☒ Bailed ☐ Dipped ☐ Pump ☐ 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 Appx 24" dia, ~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 H_2SO_4/L added

☒ NA: No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☐ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	108	mg/l	10-21
☒ Magnesium (00925)	25.4	mg/l	10-21
☒ Sodium (00930)	73.6	mg/l	10-21
☒ Potassium (00935)	5.07	mg/l	10-21
☒ Bicarbonate (00440)	340	mg/l	10/27
☒ Chloride (00940)	23	mg/l	10/30
☒ Sulfate (00945)	131	mg/l	10/30
☒ Total filterable residue (dissolved) (70300)	562	mg/l	11/5
☒ Other: CO_3	0		10/27

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst | Date Reported 11 | 12 | 86 | Reviewed by

Laboratory remarks:

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified 12/9/86 Phone or Letter? _____ Initials AJR

(1)

164-C

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud, NE
Albuquerque, NM 87106 (505) 841-2570

STATE OF NEW MEXICO
ENVIRONMENT

RECEIVED
OCT 30 1986
OIL CONSERVATION DIVISION
SANTA FE

011253

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

S.L.D. No. OR- 86-1164 A-B
DATE REC. 10-30-86
PRIORITY

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 7 1 1 0 5 A B

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

- ☐ (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= 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 F 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-$Na_2S_2O_3$: 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 KB

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: A 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 Meyrhel

Boyer
Ex 4

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

011058

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 10/3/86	LAB NO. WC-4841	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER:	82235
Collection DATE 86/10/07	SITE INFORMATION ►	Sample location	Williams Ranch well #3
Collection TIME 1130		Collection site description	
Collected by — Person/Agency Boyer/Berry /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: 827-5312

RECEIVED
NOV 24 1986
OIL CONSERVATION DIVISION
SANTA FE

Station/well code 19S-37E-33
Owner

SAMPLING CONDITIONS

☒ Bailed ☐ Pump ☐ Dipped ☐ Tap	Water level 32'	Discharge —	Sample type Grab
pH (00400) —	Conductivity (Uncorrected) 850 µmho	Water Temp. (00010) 18.5 °C	Conductivity at 25°C (00094)

Field comments: Approx 7 yrs old, 41 ft deep 6" PVC Cas... odor, Hydrocarbon sheen

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1	☒ NF: Whole sample (Non-filtered)	☐ F: Filtered in field with 0.45 µmembrane filter	☐ A: 2 ml H_2SO_4/L added
☒ NA: No acid added	☐ Other-specify:	☐ A: 5ml conc. HNO_3 added	☐ A: 4ml fuming HNO

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

F, NA		Units	Date
☒ Calcium (00915)	140	mg/l	10
☒ Magnesium (00925)	24.4	mg/l	
☒ Sodium (00930)	161	mg/l	
☒ Potassium (00935)	7.0	mg/l	
☒ Bicarbonate (00440)	356	mg/l	10
☒ Chloride (00940)	245	mg/l	10
☒ Sulfate (00945)	110	mg/l	
☒ Total filterable residue (dissolved) (70300)	918	mg/l	
☒ Other: CO3	0		10

NF, A-H_2SO_4		Units	Date
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4		Units	Date
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	11/12/86	CG

Laboratory remarks

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified 12/9/86 Phone or Letter? DGB Initials ____

86-1162-C

SCIENTIFIC LABORATORY DIVISION

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

STATE OF NEW MEXICO
ENVIRONMENT

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088
PHONE(S): 827-5812

S.L.D. No. OR- 86-1162 A-B
DATE REC. 10-8-86
PRIORITY
USER CODE: 8 2 2 3 5
SUBMITTER: David Boyer
CODE: 2 6 0

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

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

COUNTY: Lea ; CITY: Monument CODE: _____

LOCATION CODE: (Township-Range-Section-Tracts) T 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

- [ ] (753) Aliphatic Purgeables (1-3 Carbons)
- [X] (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= 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 removed
odor, Hydrocarbon sheen 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 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.
- [X] P-Ice Sample stored in an ice bath (Not Frozen).
- [ ] P-$Na_2S_2O_3$ 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 KGR

011056

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]
halogenated purgeables	ND		
aromatic purgeables	ND		
* DETECTION LIMIT *	1 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: G. H. 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: K 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

011063

DATE RECEIVED	LAB NO.	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 8/10/07	SITE INFORMATION ►	Sample location Williams Kendrick well #5 Monument	
Collection TIME 1230		Collection site description	
Collected by — Person/Agency Roy / Leay / 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 2 1 1996
OIL CONSERVATION DIVISION
SANTA FE

Station/well code 19S-37E-33.4

Owner

SAMPLING CONDITIONS

☒ Bailed ☐ Dipped ☐ Pump ☐ Tap	Water level ~27'	Discharge —	Sample type Grab
pH (00400) —	Conductivity (Uncorrected) 475 µmho	Water Temp. (00010) 18 °C	Conductivity at 25°C (00094) µmho

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 µmembrane filter ☐ A: 2 ml H_2SO_4/L added

☒ NA: No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☐ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	80	mg/l	10/21
☒ Magnesium (00925)	50.5	mg/l	"
☒ Sodium (00930)	92.6	mg/l	"
☒ Potassium (00935)	4	mg/l	"
☒ Bicarbonate (00440)	363	mg/l	10/27
☒ Chloride (00940)	63	mg/l	10/30
☒ Sulfate (00945)	152	mg/l	10/30
☒ Total filterable residue (dissolved) (70300)	530	mg/l	11/5
☒ Other: CO_3	0		10/27

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	11 / 12 / 96	CG

Laboratory remarks

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified 12/9/96 Phone or ~~letter~~ _____ Initials DFR

86-1166-C

SCIENTIFIC LABORATORY DIVISION

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

HEALTH ENVIRONMENT — STATE OF NEW MEXICO

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088
PHONE(S): 827-5812

S.L.D. No. OR-
DATE REC.
011061
PRIORITY
USER CODE: 8 2 2 3 5

SUBMITTER: David Boyer
CODE: 2 6 0

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

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

COUNTY: Lea ; CITY: Monument CODE: _____

LOCATION CODE: (Township-Range-Section-Tracts) T 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

- [ ] (753) Aliphatic Purgeables (1-3 Carbons)
- [X] (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
Baled approx 6 times w/ 1" PVC Bailer

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.
- [X] P-Ice Sample stored in an ice bath (Not Frozen).
- [ ] P-$Na_2S_2O_3$ 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?) H Initials BJS

ANALYSES PERFORMED

LAB. No.: OR- 1166

THIS PAGE FOR LABORATORY RESULTS ONLY

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

011062

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. Tierney

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

Reviewers signature: K. Meyerhoff

011066

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 11/8/96	LAB NO. 96-4332	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 26/10/07	SITE INFORM-ATION ►	Sample location Williams Ranch Well #6, Monument	
Collection TIME		Collection site description	
Collected by - Person/Agency Boyer / Leavy / OCD			

RECEIVED
NOV 12 1996
OIL CONSERVATION DIVISION
SANTA FE

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 195-33E-33.3

Owner

SAMPLING CONDITIONS

☒ Bailed ☐ Dipped ☐ Pump ☐ Tap	Water level ~21'	Discharge —	Sample type Grab
pH (00400) —	Conductivity (Uncorrected) 1250 µmho	Water Temp. (00010) °C	Conductivity at 25°C (00094) — µmho

Field comments Slight green, some odor TD ~24'

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1

☒ NF: Whole sample (Non-filtered) ☐ F: Filtered in field with 0.45 µmembrane filter ☐ A: 2 ml H_2SO_4/L added

☒ NA: No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☐ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	—	µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	11.2	mg/l	10/31
☒ Magnesium (00925)	2.9	mg/l	10/31
☒ Sodium (00930)	342	mg/l	10/31
☒ Potassium (00935)	24.9	mg/l	10/31
☒ Bicarbonate (00440)	645	mg/l	10/27
☒ Chloride (00940)	921	mg/l	10/30
☒ Sulfate (00945)	162	mg/l	10/30
☒ Total filterable residue (dissolved) (70300)	~2170	mg/l	11/5
☒ Other: CO_3	0		10/27

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	11/12/96	CO

Laboratory remarks

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified 12/9/96 Phone or letter? _____ Initials DJB

86- 1159-C

SCIENTIFIC LABORATORY DIVISION

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

HEALTH ENVIRONMENT — 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- 86-1159-C-3
DATE REC. 12-8-86
011084
PRIORITY

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 7 1 3 0 0 A M B

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 + 3 1 - U (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.)

W. Vacuum Ranch Well #6 Bailed ~6 times w/1" Bailey
Slight hydrocarbon sheen, no 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-$Na_2S_2O_3$ 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 AGB

ANALYSES PERFORMED

LAB. No.: OR- 1159

THIS PAGE FOR LABORATORY RESULTS ONLY

011065

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 * ✳	1 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: ⊛ Two other compounds were detected by the aromatic screen that were not identified; however it is possible that this is 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: M 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: K Meyerhein