STATE OF NEW MEXICO

85 0650 B

SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE, Albuquerque, New Mexico 87106
(505) 841-2500

REPORT TO: DAVID G. BOYER
NEW MEXICO OIL CONSERVATION DIV
P.O. BOX 2088
SANTA FE, NM 87501

S.L.D. No.: OR- 650 -A
DATE REC. : 7/05/85
PHONE 827-5812
USER CODE: 8 2 2 3 5

CONTAINERS WHICH ACCOMPANY THIS FORM ARE COLLECTIVELY REFERED TO AS SAMPLE.

SUBMITTER: NM OCD CODE

LOCATION: CHACE OIL CO PINON #2 CODE 1 4 N 0 8 E 2 6 (TOWNSHIP RANGE SECTION TRACTS)

SOURCE: MUD PIT CODE (AQUIFER DEPTH)

COLLECTED: 7/2/85 BY BAILEY CODE 8 5 0 7 0 2 1 4 0 6 0 0 (YY MM DD HH MM SS)

SAMPLE TYPE: WATER SOIL (OTHER) CODE

NEAREST CITY: EALISTEO CODE

pH= 9.95 ; Conductivity= _____ umho/cm at _____ °C; Chlorine Risidual= _____
Dissolved Oxygen= _____ mg/l; Alkalinity= _____ ; Flow Rate= _____
Sampling Location, Methods and Remarks (i.e. odors, etc.)
PLASTIC LINED MUD PIT. MUD WT. 8.9 lbs/gal. VIS 36 sec.
BENTONITE MUD WITH CMC STARCH, SODA ASH, NaOH ADDITIVES

I certify that the statements in this block accurately reflect the results of my field analyses, observations and activities. _____
Method of shipment to the Laboratory Hand carried
This form accompanies 1 Septum Vials, ___ Glass Jugs, ___ _____
Containers are marked as follows to indicate preservation (circle):
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 $Na_2S_2O_3$ to remove chlorine residual.

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

(we) certify that this sample was transferred from _____
to _____ at (location) _____ on
(date & time) _____ and that the statements in this block are correct
Evidentiary Seals: Not Sealed Intact: Yes No
Signatures _____ _____

ANALYSES REQUESTED

LAB. No.: ORG- 650

PLEASE CHECK THE APPROPRIATE BOXES BELOW TO INDICATE THE TYPE OF ANALYTICAL SCREENS REQUIRED. WHENEVER POSSIBLE LIST SPECIFIC COMPOUNDS SUSPECTED OR REQUIRED.

QUALITATIVE	QUANTITATIVE	PURGEABLE SCREENS
		ALIPHATIC HYDROCARBON SCREEN
		AROMATIC HYDROCARBON SCREEN
		HALOGENATED HYDROCARBON SCREEN
		GAS CHROMATOGRAPH/MASS SPECTROMETER
		SPECIFIC COMPOUNDS

QUALITATIVE	QUANTITATIVE	EXTRACTABLE SCREENS
		ALIPHATIC HYDROCARBONS
		CHLORINATED HYDROCARBON PESTICIDES
		CHLOROPHENOXY ACID HERBICIDES
		HYDROCARBON FUEL SCREEN
		ORGANOPHOSPHATE PESTICIDES
		POLYCHLORINATED BIPHENYLS (PCB's)
		POLYNUCLEAR AROMATIC HYDROCARBONS
		TRIAZINE HERBICIDES
		SPECIFIC COMPOUNDS

REMARKS:

ANALYTICAL RESULTS

COMPOUND	[PPB]	COMPOUND	[PPB]
halogenated purgeables	none detected		
Benzene	N.D.*		
Toluene	N.D.		
ethylbenzene	N.D.		
p-Xylene	N.D.		
m-Xylene	N.D.		
o-Xylene	N.D.		
		* DETECTION LIMIT	50 ug/m/l

REMARKS: All samples should be submitted in duplicate. Twenty unsaturated hydrocarbons also detected by aromatic screen at <5ppb.

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes___ NO X. 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 in this block and the analytical data on this page accurately reflect the analytical results for this sample.

Date(s) of analysis: 8 July 85. 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: K Meyerhen

SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

NN

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 07 05 85	LAB NO. UC-3347	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 7 2 85	SITE INFORMATION ►	Sample location: CHACE OIL CO. PIÑON #2 ORTIZ MINE LEASE SEC 26 T14N R8E	
Collection TIME 1406		Collection site description: PLASTIC LINED MUD PIT	
Collected by — Person/Agency: NM OCD BAILEY			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg. PO Box 2088
Santa Fe, NM 87501

Attn: David Boyer

RECEIVED
SEP 06 1985
OIL CONSERVATION DIVISION
SANTA FE

Station/well code:
Owner:

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level:	Discharge:	Sample type:
pH (00400) 9.95	Conductivity (Uncorrected): µmho	Water Temp. (00010): °C	Conductivity at 25°C (00094): µmho

Field comments: MUD WT 8.9 lbs/gal VIS 36 sec. BENTONITE MUD WITH CMC, STARCH, SODA ASH, NaOH ADDITIVES

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted:

☒ NF: Whole sample (Non-filtered) ☐ F: Filtered in field with 0.45 µ membrane filter ☐ A: 2 ml ~~H+SO~~/L added

☒ NA: No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☒ Conductivity (Corrected) 25°C (00095)	2000	µmho	8/2
☒ ~~Total non-filterable residue (suspended)~~ (00530)		mg/l	
☒ Other: pH	7.4		8/26
☐ Other:			
☐ Other:			

NF, A-~~H_2SO_4~~ HNO_3

☐ 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:			

NF, NA		Units	Date analyzed
☒ Calcium (00915)	100	mg/l	8/21
☒ Magnesium (00925)	25.4	mg/l	"
☒ Sodium (00930)	506	mg/l	8-13
☒ Potassium (00935)	5.85	mg/l	8-13
☒ Bicarbonate (00440)	1194	mg/l	8/26
☒ Chloride (00940)	62.7	mg/l	8/27
☒ Sulfate (00945)	235.8	mg/l	8/14
☒ Total filterable residue (dissolved) (70300)	1570	mg/l	8/27
☒ Other: F	1.76		7/31
☒ CO_3	None		

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: 8 28 85 | Reviewed by:

Laboratory remarks:

SLD 726 (12/84) *DISTRIBUTION:* WHITE — EID, GW&HW Bureau CANARY — WS System PINK — EID Local Office GOLDENROD — SLD

SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 07 05 85 | LAB NO. 7M-1247 | USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235

Collection DATE 7 2 85 | Collection TIME 1406 | Collected by — Person/Agency NM OCD BAILEY

SITE INFORMATION ►

Sample location: CHACE OIL CO. PIÑON #2 ORTIZ MINE LEASE SEC 26 T14N R8E

Collection site description: PLASTIC LINED MUD PIT

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501

Attn: David Boyer

Station/well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type
pH (00400) 9.95	Conductivity (Uncorrected) µmho	Water Temp. (00010) °C	Conductivity at 25°C (00094) µmho

Field comments: MUD WT. 8.9 lbs/gal VIS 36 SEC. BENTONITE MUD WITH CMC, STARCH, SODA ASH, NaOH ADDITIVES

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted

☒ NF: Whole sample (Non-filtered) ☐ F: Filtered in field with 0.45 µmembrane filter ☒ A: 2 ml ~~H_2SO_4~~ HNO_3/L added

☐ NA: No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

☒ NF ~~NA~~ HNO_3	Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho	
☐ Total non-filterable residue (suspended) (00530)	mg/l	
☒ Other: IC AP SCAN		
☐ Other:		
☐ Other:		

F, NA	Units	Date analyzed
☐ Calcium (00915)	mg/l	
☐ Magnesium (00925)	mg/l	
☐ Sodium (00930)	mg/l	
☐ Potassium (00935)	mg/l	
☐ Bicarbonate (00440)	mg/l	
☐ Chloride (00940)	mg/l	
☐ Sulfate (00945)	mg/l	
☐ Total filterable residue (dissolved) (70300)	mg/l	
☐ Other:		

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 8 28 85 | Reviewed by Jim Ashley

Laboratory remarks: Sample digested.

SLD 726 (12/84) *DISTRIBUTION:* **WHITE** — EID, GW&HW Bureau **CANARY** — WS System **PINK** — EID Local Office **GOLDENROD** — SLD

Lab Number: HM-1247

Sample Code: CHACE OIL CO. Pmw #2 Plastic Lined Mud Pit

Date Submitted: 7/5/85

Date Reported: 8/23/85

By: BAILey

By: Jim Bixby

Determination	Concentration (µg/ml)
Aluminum	630
Barium	130
Beryllium	<0.5
Boron	0.5
Cadmium	<0.5
Calcium	1550
Chromium	<0.5
Cobalt	<0.5
Copper	<0.5
Iron	450
Lead	3.0
Magnesium	200
Manganese	15.
Molybdenum	<0.5
Nickel	<0.5
Silicon	4.5
Silver	<0.5
Strontium	3.5
Tin	0.5
Vanadium	0.5
Yttrium	<0.5
Zinc	2.0

SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

NN

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 07 05 85	LAB NO. UC-3396	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 7 2 85	SITE INFORMATION ►	Sample location: CHACE OIL CO. PINON #2 ORTIZ MINE LEASE SEC 26 T14N R8E	
Collection TIME 1422		Collection site description: WATER TANK USED TO STORE WATER HAULED FROM SANTA FE.	
Collected by — Person/Agency: BAILEY / NMOCD			

SEND FINAL REPORT TO ►
ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office BTdg., PO Box 2088
Santa Fe, NM 87501
Attn: David Boyer

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OIL CONSERVATION DIVISION
SANTA FE

Station/ well code:
Owner:

SAMPLING CONDITIONS

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

Field comments: WATER USED TO MIX MUD FOR DRILLING WELL
PRESENT WELL DEPTH 2977'

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: ☒ NF: Whole sample (Non-filtered) ☐ F: Filtered in field with 0.45 μ membrane filter ☐ A: 2 ml H_2SO_4/L added
☒ NA: No acid added ☐ Other-specify:

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☒ Conductivity (Corrected) 25°C (00095)	250	μmho	8/11
☒ ~~Total non-filterable residue (suspended)~~ (00530)		mg/l	
☒ Other: pH	7.94		8/26
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	52	mg/l	8/21
☒ Magnesium (00925)	2.93	mg/l	"
☒ Sodium (00930)	32.2	mg/l	8-13
☒ Potassium (00935)	0.78	mg/l	8-13
☒ Bicarbonate (00440)	124.5	mg/l	8/26
☒ Chloride (00940)	9.8	mg/l	8/27
☒ Sulfate (00945)	17.0	mg/l	8/14
☒ Total filterable residue (dissolved) (70300)	172	mg/l	8/27
☒ Other: F	0.72		7/31
☒ CO_3	none		8/26

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 8 27 85 | Reviewed by

Laboratory remarks:

SLD 726 (12/84) *DISTRIBUTION:* WHITE — EID, GW&HW Bureau CANARY — WS System PINK — EID Local Office GOLDENROD — SLD

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 07/25/85	LAB NO. NM-1248	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 7/2/85	SITE INFORMATION ►	Sample location CHACE OIL CO. PINON #2 ORTIZ MINE LEASE SEC 26 T14N R8E	
Collection TIME 1422		Collection site description WATER TANK USED TO STORE WATER HAULED FROM SANTA FE.	
Collected by — Person/Agency BAILEY / NMOCD			

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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 87501
Attn: David Boyer

Station/ well code
Owner

SAMPLING CONDITIONS

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

Field comments: WATER USED TO MIX MUD FOR DRILLING WELL
PRESENT WELL DEPTH 2977'

SAMPLE FIELD TREATMENT — *Check proper boxes*

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

ANALYTICAL RESULTS from SAMPLES

NF, ~~A~~ A HNO_3		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☒ Other: ICAP SCAN			
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☐ Calcium (00915)		mg/l	
☐ Magnesium (00925)		mg/l	
☐ Sodium (00930)		mg/l	
☐ Potassium (00935)		mg/l	
☐ Bicarbonate (00440)		mg/l	
☐ Chloride (00940)		mg/l	
☐ Sulfate (00945)		mg/l	
☐ Total filterable residue (dissolved) (70300)		mg/l	
☐ Other:			

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
	8/16/85	J. F. Bailey

Laboratory remarks

SLD 726 (12/84) *DISTRIBUTION:* **WHITE** — EID, GW&HW Bureau **CANARY** — WS System **PINK** — EID Local Office **GOLDENROD** — SLD

ICAP SCREEN

Lab Number: HM 1248

Sample Code: Chave Oil Co. Pinnacle

Date Submitted: 7/5/85

Date Reported: 8/16/85

By: NMOCD

By: Jim Ashley

Determination	Concentration (µg/ml)
Aluminum	<0.1
Barium	0.1
Beryllium	<0.1
Boron	<0.1
Cadmium	<0.1
Calcium	18.
Chromium	<0.1
Cobalt	<0.1
Copper	<0.1
Iron	0.1
Lead	<0.1
Magnesium	2.3
Manganese	<0.05
Molybdenum	<0.1
Nickel	<0.1
Silicon	7.7
Silver	<0.1
Strontium	0.2
Tin	<0.1
Vanadium	<0.1
Yttrium	<0.1
Zinc	<0.1

DOMESTIC WELL

85-0819-C

STATE OF NEW MEXICO
ENVIRONMENT

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

REPORT TO: DAVID G. BOYER
PLEASE PRINT
NEW MEXICO OIL CONSERVATION DIV.
P.O. BOX 2088
SANTA FE, NM 87501
PHONE(S): 827-5812

S.L.D. No.: OR-819-A.B
DATE REC. : 8/9/85
SLD PRIORITY #:

USER CODE: 8 2 2 3 5
SUBMITTER: DAVID BOYER
SUBMITTER CODE:
SAMPLE TYPE: WATER [X], SOIL [ ], OTHER
SAMPLE TYPE CODE:
COLLECTED: 8 / 8 / 85 - 10 : 10 BY GB/RJ
DATE TIME INITIALS
CODE: 8 5 0 8 0 8 1 0 1 0 GB
Y Y M M D D H H M M I I I
SOURCE: OWEN RANCH CORRAL FAUCET
471-1459
CODE: + +
AQUIFER DEPTH
NEAREST CITY: SANTA FE - CERRILLOS
CODE:
LOCATION:
CODE:
TOWNSHIP RANGE SECTION TRACTS

pH= 6.97 ; Conductivity= 710 umho/cm at 22 °C; Chlorine Residual=
Dissolved Oxygen= mg/l; Alkalinity= ; Flow Rate=
Sampling Location, Methods and Remarks (i.e. odors, etc.)
HORSE RANCH. SEPTIC > 300' DOWNGRADIENT. TASTES MUSTY + CLAYEY.
WELL 200 gpm, TD 70', WATER LEVEL 16'

I certify that the statements in this block accurately reflect the results of my field analyses, observations and activities. Jamie Bailey
Method of shipment to the Laboratory Hand carried
This form accompanies 2 Septum Vials, Glass Jugs,
Containers are marked as follows to indicate preservation:
[ ] 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 $Na_2S_2O_3$ to remove chlorine residual.

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

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

700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED: 8/12/85	LAB NO. UC-3993	USER CODE: ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE: 8/8/85	SITE INFORMATION ►	Sample location: OWEN RANCH CORRAL FAUCET	
Collection TIME: 1010		Collection site description: WELL 70' T.D. · HORSE RANCH WATER TASTES MUSTY; PUMP CONNECTIONS COATED WITH WHITE SCALE	
Collected by — Person/Agency: BAILEY / OCD		CORRAL FAUCET CLOSEST TO WELL	
		BUSTOS CREEK AREA	
		Station/well code:	
		Owner:	

SEND FINAL REPORT TO ►
ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg., P.O. Box 2088
Santa Fe, NM 87501
Attn: David Boyer

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SANTA FE

SAMPLING CONDITIONS

☐ Bailed ☐ Dipped ☒ Pump ☐ Tap	Water level: 16'	Discharge: 200 gpm	Sample type
pH (00400): 6.97	Conductivity (Uncorrected): 710 µmho	Water Temp. (00010): 22 °C	Conductivity at 25°C (00094): µmho

Field comments: SEPTIC FIELD > 300' DOWNGRADIENT. COMPLAINS OF SULFUR SMELL. O/G WELL BEING DRILLED 1/4 mi UPGRADIENT: LINED PITS

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:

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)	117.6	mg/l	8-27
☒ Magnesium (00925)	62.5	mg/l	"
☒ Sodium (00930)	138.0	mg/l	8-13
☒ Potassium (00935)	34.0	mg/l	8-13
☒ Bicarbonate (00440)	242	mg/l	8/26
☒ Chloride (00940)	14.9	mg/l	8/27
☒ Sulfate (00945)	515	mg/l	8/27
☒ Total filterable residue (dissolved) (70300)	1088	mg/l	8/27
☒ Other: CO_3	None		
☒ F	1.07		8/20

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
	8/28/85	

Laboratory remarks:

SLD 726 (12/84) DISTRIBUTION: WHITE — EID, GW&HW Bureau CANARY — WS System PINK — EID Local Office GOLDENROD — SLD

SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

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GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED: 8/12/85 | LAB NO.: LC 3944 | USER CODE: ☐ 59300 ☐ 59600 ☒ OTHER: 82235

Collection DATE: 8/8/85 | Collection TIME: 1010 | Collected by — Person/Agency: BAILEY / OCD

SITE INFORMATION ►

Sample location: OWEN RANCH CORRAL FAUCET

Collection site description: WELL 70' T.D. - HORSE RANCH. WATER TASTES MUSTY; PUMP CONNECTIONS COATED WITH WHITE SCALE

CORRAL FAUCET CLOSEST TO WELL

GALISTEO CREEK AREA

Station/well code:

Owner

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg., PO Box 2088
Santa Fe, NM 87501

Attn: David Boyer

RECEIVED
SEP 19 1985
OIL CONSERVATION DIVISION

SAMPLING CONDITIONS

☐ Bailed ☐ Dipped ☐ Pump ☒ Tap	Water level: 16'	Discharge: 200 gpm	Sample type
pH (00400): 6.97	Conductivity (Uncorrected): 710 µmho	Water Temp. (00010): 22 °C	Conductivity at 25 °C (00094): µmho

Field comments: SEPTIC FIELD > 300' DOWNGRADIENT. COMPLAINS OF SULFUR SMELL. O/G WELL BEING DRILLED 1/4 mi UPGRADIENT. LINED PITS

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

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

☐ NA: No acid added ☐ Other-specify:

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)		mg/l	
☐ Magnesium (00925)		mg/l	
☐ Sodium (00930)		mg/l	
☐ Potassium (00935)		mg/l	
☐ Bicarbonate (00440)		mg/l	
☐ Chloride (00940)		mg/l	
☐ Sulfate (00945)		mg/l	
☐ Total filterable residue (dissolved) (70300)		mg/l	
☐ Other:			

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)	0.23	mg/l	8/23
☒ Ammonia-N dissolved (00608)	< 0.1	mg/l	8/26
☒ Total Kjeldahl-N ( )	< 0.1	mg/l	8/27
☐ Other:			

Analyst | Date Reported: 8/27/85 | Reviewed by:

Laboratory remarks:

SLD 726 (12/84) DISTRIBUTION: WHITE — EID, GW&HW Bureau CANARY — WS System PINK — EID Local Office GOLDENROD — SLD

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

YT

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED: 8 12 85	LAB NO.: HM-1437	USER CODE: ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE: 8 8 85	SITE INFORMATION ►	Sample location: OWEN RANCH CORRAL FAUCET	
Collection TIME: 1010		Collection site description: WELL 70' T.D. HORSE RANCH. WATER TASTES MUSTY. PUMP CONNECTIONS COATED WITH WHITE SCALE	
Collected by — Person/Agency: BAILEY / OCD		CORRAL FAUCET CLOSEST TO WELL	
		GALISTEO CREEK AREA	
		Station/ well code	
		Owner	

SEND FINAL REPORT TO ►
ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501
Attn: David Boyer

SAMPLING CONDITIONS

☐ Bailed ☐ Dipped ☐ Pump ☒ Tap	Water level: 16'	Discharge: 200 gpm	Sample type:
pH (00400): 6.97	Conductivity (Uncorrected): 710 µmho	Water Temp. (00010): 22 °C	Conductivity at 25°C (00094): µmho

Field comments: SEPTIC FIELD > 300' DOWNGRADIENT. COMPLAINS OF SULFUR SMELL. O/G WELL BEING DRILLED ¼ mi UPGRADIENT. LINED PITS

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☐ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µ membrane filter ☐ A: ~~4~~ ml ~~H_2SO_4~~ HNO_3/L added

☐ NA: No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

~~NF NA~~ F A HNO_3	Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho	
☐ Total non-filterable residue (suspended) (00530)	mg/l	
☒ Other: ICAP SCAN		
☐ Other:		
☐ Other:		

F. NA	Units	Date analyzed
☐ Calcium (00915)	mg/l	
☐ Magnesium (00925)	mg/l	
☐ Sodium (00930)	mg/l	
☐ Potassium (00935)	mg/l	
☐ Bicarbonate (00440)	mg/l	
☐ Chloride (00940)	mg/l	
☐ Sulfate (00945)	mg/l	
☐ Total filterable residue (dissolved) (70300)	mg/l	
☐ Other:		

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
	8 26 85	Jim Bailey

Laboratory remarks:

SLD 726 (12/84) *DISTRIBUTION:* WHITE — EID GW&HW Bureau CANARY — WS System PINK — EID Local Office GOLDENROD — SLD

ICAP SCREEN

Lab Number: HM1437

Date Submitted: 8/12/85

By: Bailey

Sample Code: Owen Ranch Corral Faucet

Date Reported: 8/26/85

By: Jim Bailey

Date Analyzed: 8/21/85

Determination	Concentration (µg/ml)
Aluminum	<0.1
Barium	<0.1
Beryllium	<0.1
Boron	0.2
Cadmium	<0.1
Calcium	120.
Chromium	<0.1
Cobalt	<0.1
Copper	<0.1
Iron	<0.1
Lead	<0.1
Magnesium	42.
Manganese	<0.05
Molybdenum	<0.1
Nickel	<0.1
Silicon	10.
Silver	<0.1
Strontium	1.6
Tin	<0.1
Vanadium	<0.1
Yttrium	<0.1
Zinc	<0.1

ATOMIC ABSORPTION ANALYSES

Determination	Concentration (µg/ml)
Arsenic	
Selenium	
Mercury	

STATE OF NEW MEXICO
ENVIRONMENT
SEP 06 1985

[redacted] C LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 841-2570

REPORT TO: DAVID G. BOYER
PLEASE PRINT
NEW MEXICO OIL CONSERVATION DIV.
P.O. BOX 2088
SANTA FE, NM 87501
PHONE(S): 827-5812

S.L.D. No.: OR- 821-A B
DATE REC. : 8/09/85
SLD PRIORITY #:

USER CODE: 8 2 2 3 5

SUBMITTER: DAVID BOYER
SUBMITTER CODE:

SAMPLE TYPE: WATER ☐, SOIL ☐, OTHER DRILLING FLUID
SAMPLE TYPE CODE:

COLLECTED: 8/8/85 - 10:30 BY JB/RJ
DATE TIME INITIALS
CODE: 8 5 0 8 0 8 / 1 0 5 0
Y Y M M D D H H M M I I I

SOURCE: CHACE OIL CO. PINON UNIT #2
CODE: AQUIFER + DEPTH

NEAREST CITY: SANTA FE - CERRILLOS
CODE:

LOCATION: MUD PIT ARAPAHO RNCH
CODE: TOWNSHIP RANGE SECTION TRACTS

pH= 7.0T; Conductivity= 1500 umho/cm at 27 °C; Chlorine Residual= _____
Dissolved Oxygen= _____ mg/l; Alkalinity= _____; Flow Rate= _____

Sampling Location, Methods and Remarks (i.e. odors, etc.)
O/O WELL BEING DRILLED 1/4 MI UPGRADIENT FROM OWEN RANCH. MUD ADDITIVES GEL, STARCH TREE BARK, SODA ASH, PARAFORMALDEHYDE, CAUSTIC SODA. HYDRAULIC + ENGINE OILS ON PIT SURFACE; SURFACE CASING CEMENTED; PITS LINED WITH PLASTIC

I certify that the statements in this block accurately reflect the results of my field analyses, observations and activities. [signature]
Method of shipment to the Laboratory Hand carried
This form accompanies 2 Septum Vials, ___ Glass Jugs, ___ _____
Containers are marked as follows to indicate preservation:
☐ 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 $Na_2S_2O_3$ to remove chlorine residual.

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

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

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 8/12/85	LAB NO. C-3995	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 8/8/85	SITE INFORMATION ►	Sample location: CHACE OIL CO ARAPAHO RIG II	
Collection TIME 1050		Collection site description: LINED MUD PIT	
Collected by — Person/Agency: BAILEY / OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg., PO Box 2088
Santa Fe, NM 87501

Attn: David Boyer

RECEIVED
SEP 06 1985
OIL CONSERVATION DIVISION
SANTA FE

Station/well code:
Owner:

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type
pH (00400) 7.07	Conductivity (Uncorrected) 1500 µmho	Water Temp. (00010) 27 °C	Conductivity at 25°C (00094) µmho

Field comments:
O/G WELL BEING DRILLED 1/4 MI. UPGRADIENT FROM OWEN RANCH.
MUD ADDITIVES: GEL, STARCH, TREE BARK, SODA ASH, PARAFORMALDEHYDE, CAUSTIC SODA

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

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

☒ NA: No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed	F, NA	Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho		☒ Calcium (00915) 6.4	mg/l	8/21
☐ Total non-filterable residue (suspended) (00530)	mg/l		☒ Magnesium (00925) 1.57	mg/l	8/21
☐ Other:			☒ Sodium (00930) 1150	mg/l	8/28
☐ Other:			☒ Potassium (00935) 6.63	mg/l	8/28
☐ Other:			☒ Bicarbonate (00440) 1684	mg/l	8/26
			☒ Chloride (00940) 290	mg/l	8/26
			☒ Sulfate (00945) 304	mg/l	8/27
			☒ Total filterable residue (dissolved) (70300) 3155	mg/l	8/28
			☒ Other: CO_3 None		
			☒ F 0.66		8/27

NF, A-H_2SO_4			F, A-H_2SO_4		
☐ Nitrate-N + Nitrate-N total (00630)	mg/l		☐ Nitrate-N + Nitrate-N dissolved (00631)	mg/l	
☐ Ammonia-N total (00610)	mg/l		☐ Ammonia-N dissolved (00608)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l		☐ Total Kjeldahl-N ( )	mg/l	
☐ Chemical oxygen demand (00340)	mg/l		☐ Other:		
☐ Total organic carbon ( )	mg/l				
☐ Other:					
☐ Other:					

Analyst	Date Reported	Reviewed by
	8/27/85	

Laboratory remarks:

SLD 726 (12/84) *DISTRIBUTION:* WHITE — EID, GW&HW Bureau CANARY — WS System PINK — EID Local Office GOLDENROD — SLD

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	8/12/85	LAB NO.	HM-14378
USER CODE	☐ 59300 ☐ 59600 ☒ OTHER:	82235	
Collection DATE	8/8/85	SITE INFORMATION ►	Sample location: CHACE OIL CO ARAPAHO RIG II
Collection TIME	1050		Collection site description: LINED MUD PIT, SAMPLE FILTERED THRU 142 mm MEMBRANE
Collected by — Person/Agency	BAILEY / OCD		

SEND FINAL REPORT TO ►
ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501
Attn: David Boyer

RECEIVED
SEP 09 1985
WATER SUPPLY
REGULATION SECTION

Station/well code
Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type
pH (00400) 7.07	Conductivity (Uncorrected) 1500 µmho	Water Temp. (00010) 27 °C	Conductivity at 25°C (00094) µmho

Field comments: O/G WELL BEING DRILLED 1/4 mi. UPGRADIENT FROM OWEN RANCH.
MUD ADDITIVES: GEL, STARCH, TREE BARK, SODA ASH, PARAFORMALDEHYDE, CAUSTIC SODA

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☒ NF: Whole sample (Non-filtered) 142mm ☐ F: Filtered in field with 0.45 µmembrane filter ☒ A: 4 ml ~~H_2SO_4~~ HNO_3/L added

☐ NA: No acid added ☐ Other-*specify:*

ANALYTICAL RESULTS from SAMPLES

NF, ☒A HNO_3	Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho	
☐ Total non-filterable residue (suspended) (00530)	mg/l	
☒ Other: ICAP SCAN		
☐ Other:		
☐ Other:		

F, NA	Units	Date analyzed
☐ Calcium (00915)	mg/l	
☐ Magnesium (00925)	mg/l	
☐ Sodium (00930)	mg/l	
☐ Potassium (00935)	mg/l	
☐ Bicarbonate (00440)	mg/l	
☐ Chloride (00940)	mg/l	
☐ Sulfate (00945)	mg/l	
☐ Total filterable residue (dissolved) (70300)	mg/l	
☐ Other:		

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:		

RECEIVED
SEP 1985
LIQUID WASTE/GROUND WATER SURVEILLANCE

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
	8/28/85	

Laboratory remarks: digested 8/20/85

SLD 726 (12/84) *DISTRIBUTION:* **WHITE** — EID, GW&HW Bureau **CANARY** — WS System **PINK** — EID Local Office **GOLDENROD** — SLD

ICAP SCREEN

CHACE OIL CO. ARAPAHOE

Lab Number: HM 1438

Sample Code: LINED MUD PIT

Date Submitted: 8/12/85

Date Reported: 8/23/85

By: Bailey

By: Jim Cowley

Date Analyzed: 8/21/85

Determination	Concentration (µg/ml)
Aluminum	150.
Barium	7.8
Beryllium	<0.1
Boron	0.3
Cadmium	<0.1
Calcium	170.
Chromium	0.2
Cobalt	<0.1
Copper	0.1
Iron	116.
Lead	0.7
Magnesium	40.
Manganese	1.3
Molybdenum	<0.1
Nickel	<0.1
Silicon	1.9
Silver	<0.1
Strontium	1.9
Tin	<0.1
Vanadium	0.2
Yttrium	<0.1
Zinc	0.7

ATOMIC ABSORPTION ANALYSES

Determination	Concentration (µg/ml)
Arsenic	
Selenium	
Mercury	