NM2 - 9

PERMITS, RENEWALS, & MODS

Closed

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

March 31, 2003

Lori Wrotenbery
Director
Oil Conservation Division

Mr. John Cunningham
R&J Enterprises
P.O. Box 51
Farmington NM 87499

RE: Closure of R&J Enterprises Rule 711 surface waste management facility
NW/4 NE/4 of Section 16, T 20 N, R 12 W, NMPM,
Mckinley County, New Mexico

Dear Mr. Cunningham:

The New Mexico Oil Conservation Division (OCD) is in receipt of the R&J Enterprises Pit Remediation and Closure Report dated March 14, 2002 for the Nose Rock evaporation ponds. Based on the Remediation and Closure Report, the analytical data dated January 15, 2001, the OCD July 19, 2002 inspection, and the OCD pit closure approval letter dated December 2, 2003 Based on the information provided. The OCD hereby approves of the closure R&J Enterprises Rule 711 surface waste management facility evaporation ponds.

Please be advised that OCD approval does not relieve R&J Enterprises of liability should any remaining contaminants result in pollution of the ground water, surface water or the environment. In addition, OCD approval does not relieve R&J Enterprises of the responsibility for compliance with other federal, state, or local laws and/or regulations.

If you have any questions, please do not hesitate to contact Martyne Kieling at (505) 476-3488.

Sincerely,

Roger C. Anderson
Environmental Bureau Chief

RCA/mjk

xc: OCD Aztec Office
SLO David Coss

Chris Eustice

NEW MEXICO STATE LAND OFFICE

CONSERVATION DIVISION
RECEIVED

IMPROVEMENT DAMAGE BOND FOR OIL & GAS LEASE (ONE LEASE BOND)

'95 DEC 5 AM 8 52

Nose Rock

BOND NO. 9009265 (For Use of Surety Company)

BOND NO. _____ (For Land Office Use)

PREMIUM $2,000.00

KNOW ALL MEN BY THESE PRESENTS:

That R-J ENTERPRISES, (an individual) (a partnership) (a corporation organized in the State of _____, with its principal office in the City of FARMINGTON State of NEW MEXICO, and authorized to do business in the State of New Mexico), as PRINCIPAL, and FAR WEST INSURANCE COMPANY, a corporation organized and existing under the laws of the State of CALIFORNIA, and authorized to do business in the State of New Mexico with duly appointed resident agent licensed in the State of New Mexico to execute this bond on behalf of the surety company, as SURETY, are held firmly bound unto the State of New Mexico, for the use and benefit of lessees holding grazing or agricultural leases on state trust lands and for the use and benefit of purchasers holding purchase contract or deed to state lands, with minerals reserved, their grantees or successors in interest, pursuant to Section 7-11-20, New Mexico Statutes Annotated, 1953 Compilation, as amended, in the sum of Ten Thousand Dollars ($10,000.00) lawful money of the United States, for the payment of which, well and truly to be made, said PRINCIPAL AND SURETY hereby bind themselves, their successors and assigns, jointly and severally, firmly by these presents.

The conditions of this obligation are such that:

WHEREAS, the above principal has heretofore or may hereafter enter into an oil and gas lease with the State of New Mexico; and

WHEREAS, said lease was entered into by the said principal, subject to the requirements of the provisions of Section 7-11-20, New Mexico Statutes Annotated, 1953 Compilation, as amended; and

WHEREAS, all or part of the lands embraced in said oil and gas lease have been leased for grazing or agricultural purposes or have been sold, with minerals reserved to the State of New Mexico, to various purchasers who hold limited patents from the State of New Mexico or State purchase contracts; and

WHEREAS, the above principal, individually, or in association with one or more parties, has commenced or may commence development or operations upon the land embraced in the aforesaid oil and gas lease.

NOW, THEREFORE, if the above bounden principal and surety or either of them or their successors or assigns, or any of them, upon demand shall make good and sufficient recompense, satisfaction or payment unto the holders of State grazing or agriculture leases or on State purchase contracts or holders of patents for State lands, with minerals reserved to the State, their heirs, executors, administrators, successors and assigns, for all damages to the livestock, range, water, crops, or tangible improvements on such lands as may be suffered by such purchasers or their successors in interest, by reason of such development, use of occupancy of such lands by such lessee or principal, or for such damages as a court of competent jurisdiction may determine and fix in any action brought on this bond.

THEN, THEREFORE, this obligation shall be null and void; otherwise and in default of complete compliance with any and all of said obligations, the same shall remain in full force and effect.

SIGNED AND SEALED this 11TH day of MARCH, 19 94.

PRINCIPAL	SURETY
R-J ENTERPRISES	FAR WEST INSURANCE COMPANY
313 N. LOCKE AVE. FARMINGTON, NM (Address)	P.O. BOX 4500 WOODLAND HILLS, CA (Address)
BY Kelly Stell (Signature)	BY Patsy T. Fry (Attorney-in-Fact)
Partner (Title)	PATSY T. FRY

(Note: Principal, if corporation affix corporate seal here)

(Note: Corporate surety affix corporate seal here)

(Note: If corporate surety executes this bond by an Attorney-in-Fact not in New Mexico, the resident New Mexico agent shall countersign here below)

Countersigned by:

Mary Fowler
New Mexico Resident Agent

PO Box 569 Farmington NM 87499
Address

(ACKNOWLEDGMENTS ON REVERSE SIDE)

OG-104 7/1977

POWER NUMBER
FW08077
BOND NUMBER
9009265
This Power of Attorney has been delivered in connection with the above bond number.

Amwest
Far West Insurance Company
P.O. Box 4500, Woodland Hills, CA 91365-4500
Tel.: (818) 704-1111

VOID IF NOT USED BY
JUNE 1, 1994
No Power of Attorney on this form shall be valid as to bonds, undertakings, recognizances or other written obligations in the nature thereof executed on or after said expiration date.

LIMITED POWER OF ATTORNEY

(READ CAREFULLY)

To be used only in conjunction with the bond specified herein.

NAME OF PRINCIPAL: R-J ENTERPRISES PENAL SUM $ 10,000.00

NAME OF OBLIGEE: NEW MEXICO STATE LAND OFFICE

This Power of Attorney may not be used in conjunction with any other power of attorney. This Power of Attorney is void if altered or erased. This document is printed on Gray paper with black and red ink. This power of attorney bears a raised seal of **FAR WEST INSURANCE COMPANY**. Only originals of this Power of Attorney are valid. No representations or warranties regarding this Power of Attorney may be made by any person other than an authorized officer of **FAR WEST INSURANCE COMPANY**, and must be in writing. Questions or inquiries regarding this Power of Attorney must be addressed to **FAR WEST INSURANCE COMPANY** at the address and telephone number set forth at the top of this Power of Attorney, Attention: Underwriting Department. This Power of Attorney shall be governed by the laws of the State of California. Any power of attorney used in connection with any bond issued by **FAR WEST INSURANCE COMPANY** on or after July 1, 1990 must be on Far West Form UN-F1007 (Rev. 7/90). All other previous power of attorney forms issued by **FAR WEST INSURANCE COMPANY** have been revoked and are of no further force or effect.

KNOW ALL MEN BY THESE PRESENTS, that **FAR WEST INSURANCE COMPANY**, A CALIFORNIA CORPORATION, (the "Company"), does hereby make, constitut and appoint

Patsy I. Fry

its true and lawful Attorney(s)-in-Fact, with limited power and authority for and on behalf of the Company as surety, to execute and deliver and affix the seal of th Company thereto if a seal is required, bonds, undertakings, recognizances or other written obligations in the nature thereof, as follows:

License & Permit Bonds up to Fifty Thousand Dollars ($50,000)
Miscellaneous Bonds up to Fifty Thousand Dollars ($50,000)

and to bind **FAR WEST INSURANCE COMPANY** thereby. This appointment is made under and by authority of the following provisions of the By-Laws of the Compan which are now in full force and effect:

Article II, Section 7 of the By-Laws of **FAR WEST INSURANCE COMPANY**

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following resolutions adopted by the board of directors of **FAR WES INSURANCE COMPANY** at a meeting duly held on July 28, 1983:

RESOLVED that the president or any vice-president, in conjunction with the secretary or any assistant secretary, may appoint attorneys-in-fact or agents with authority as defined or limited in the instrument evidencing the appointment in each case, for and on behalf of the company to execute and deliver and afix the seal of the company to bonds, undertakings, recognizances and suretyship obligations of all kinds; and said officers may remove any such attorney-in-fact or agent and revoke any power of attorney previously granted to such person.

RESOLVED FURTHER that any bond, undertaking, recognizance, or suretyship obligation shall be valid and binding upon the company

(i) when signed by the president or any vice-president and attested and sealed (if a seal be required) by any secretary or assistant secretary; or

(ii) when signed by the president or any vice-president or secretary or assistant secretary, and countersigned and sealed (if a seal be required) by a duly authorized attorney-in-fact or agent; or

(iii) when duly executed and sealed (if a seal be required) by one or more attorneys-in-fact or agents pursuant to and within the limits of the authority evidenced by the power of attorney issued by the company to such person or persons.

RESOLVED FURTHER that the signature of any authorized officer and the seal of the company may be affixed by facsimile to any power of attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the company; and such signature and seal when so used shall have the same force and effect as though manually affixed.

IN WITNESS WHEREOF, **FAR WEST INSURANCE COMPANY** has caused these presents to be signed by its proper officers, and its corporate seal to b

hereunto affixed this 1 day of June 19 92.

John E Savage
John E. Savage, President

Karen G. Cohen
Karen G. Cohen, Secret

State of California

County of Los Angeles

On June 1, 1992 before me, Peggy B. Lofton (here insert name) Nota Public, personally appeared John E. Savage and Karen G. Cohen, personally known to me (or prove to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me all that he/she/the executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which th person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature Peggy B. Lofton (Seal)

OFFICIAL SEAL
PEGGY B. LOFTON
Notary Public-California
LOS ANGELES COUNTY
My Commission Expires
July 28, 1995

STATE OF CALIFORNIA, COUNTY OF LOS ANGELES—ss

CERTIFICATE

I, the undersigned, _____ secretary of the **FAR WEST INSURANCE COMPANY**, a California corporation, DO HEREBY CERTIFY that th foregoing and attached Power of Attorney remains in full force and has not been revoked, and furthermore, that the provisions of the By-Laws of the Company ar the Resolutions of the board of directors set forth in the Power of Attorney, are now in force.

Signed and sealed at DENVER, CO this 11TH day of MARCH 19 94

Karen G. Cohen
Karen G. Cohen, Secret

ACKNOWLEDGMENT FORM FOR NATURAL PERSONS

STATE OF New Mexico }
COUNTY OF San Juan } ss

On this 15 day of March, 19 94, before me personally appeared Riley S. Hill to me known to be the person (s) described in and who executed the foregoing instrument and acknowledged that he (they) executed the same as his (their) free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year in this certificate first above written.

May 20, 1996
My Commission Expires

Robin L. Hagee
Notary Public

ACKNOWLEDGMENT FORM FOR CORPORATION

STATE OF _____ }
COUNTY OF _____ } ss

On this _____ day of _____, 19_____, before me personally appeared _____, to me personally known who, being by me duly sworn, did say that he is _____ of _____ and that the foregoing instrument was signed and sealed on behalf of said corporation by authority of its board of directors, and acknowledged said instrument to be the free act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year in this certificate first above written.

_____
My Commission Expires

_____
Notary Public

ACKNOWLEDGMENT FORM FOR CORPORATE SURETY

STATE OF COLORADO }
COUNTY OF DENVER } ss

On this 11TH day of MARCH, 19 94, before me appeared PATSY I. FRY, to me personally known, who, being by me duly sworn, did say that he is ATTORNEY-IN-FACT of FAR WEST INSURANCE COMPANY and that the foregoing instrument was signed and sealed on behalf of said corporation by authority of its board of directors, and acknowledged said instrument to be the free act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year in this certificate first above written.

6-7-96
My Commission Expires

Natalie A Great
Notary Public

(Note: Corporate surety attach power of attorney)

APPROVED THIS _____ day of _____, 19_____.

_____
COMMISSIONER OF PUBLIC LANDS

NOTE: File with Commissioner of Public Lands, P. O. Box 1148, New Mexico State Land Office Building, Santa Fe, New Mexico 87501, before development or operations are commenced.

OG-104 7/1977

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Betty Rivera
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

Certified Receipt #7001 1140 0000 4018 5561

December 2, 2002

John Cunningham
R & J Enterprises
Post Office Box 51
Farmington, NM 87499

RE: Nose Rock Evaporation Ponds Closure

Dear Mr. Cunningham:

The New Mexico Oil Conservation Division (OCD) has reviewed closure data submitted by R&J Enterprises on July 1, 2002 for the Nose Rock Evaporation Ponds near the State Cookie #1 well. The Nose Rock Evaporation Ponds are within a vulnerable area. This location is within fifty vertical feet of a braided arroyo system. A field inspection by Henry Villanueva on 7/19/2002 confirmed the Small Tank #2 was closed and that the Small Tank #1 and the Large Tank remain open subject to final approval from the state land office. The OCD approves the remediation of the Nose Rock Evaporation Ponds and the closure of the Small Tank #2. The State Land Office still must sign the approval for the Large Pond and Small Tank #1 to remain open for benefit of livestock and wildlife.

Please be advised OCD approval does not relieve R&J Enterprises of liability should contamination from produced water pose a future threat to surface water, ground water, human health or the environment. OCD approval does not relieve R&J Enterprises of compliance with other federal, state, tribal or local laws and regulations.

If you have questions, please feel free to call me at 505-334-6178 ext 15.

Yours truly,

Denny G. Foust

Denny G. Foust
Environmental Geologist
dfoust@state.nm.us

DGF/mk

XC: Martyne Kieling, OCD Santa Fe with enclosures.
State Land Office, Santa Fe with enclosures c/o Martyne Kieling
Environmental File
DGF File

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit 1 copy to appropriate District Office and 1 copy to the Santa Fe Office

(Revised 3/9/94)

PIT REMEDIATION AND CLOSURE REPORT

Operator: R & J ENTERPRISES Telephone: 505-327-9931

Address: P. O. BOX 51 FARMINGTON, NM 87499

Facility Or: ~~STATE COOKIE #1~~ Nose Rock Evaporation Ponds D&J 11/26/02
Well Name

330FNL-990FEL

Location: Unit or Qtr/Qtr Sec ~~M~~ Sec 16 T 20N R 12W County McKINLEY

Pit Type: Separator _____ Dehydrator _____ Other HOLDING

Land Type: BLM _____, State X, Fee _____ Other _____

2 PITS 108' 57' 8' 8'
Pit Location: Pit dimmensions: length 207, width 204, depth 10'
(Attach diagram)

Reference: wellhead X, ~~other~~ of the State Cookie #1 D&J 11/26/02

Footage from reference: 50'

Direction from reference: _____ Degrees _____ East North X of West South _____

Depth To Ground Water (Vertical distance from contaminants to seasonal high water elevation of ground water.)	Less than 50 feet	(20 points)
	50 feet to 99 feet	(10 points)
	Greater than 100 feet	(0 points) ____
Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources.)	Yes	(20 points)
	No	(0 points) ____
Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches.)	Less than 200 feet	(20 points)
	200 feet to 1000 feet	(10 points)
	Greater than 1000 feet	(0 points) ____

RANKING SCORE (TOTAL POINTS): _____

Date Remediation Started: _____ Date completed: _____

Remediation Method: (Check all appropriate sections.) Excavation _____ Approx. cubic yards _____

Landfarmed _____ Insitu Bioremediation _____

Other THIS PIT TO BE TURNED OVER TO NEW MEXICO SURFACE DIVISION

CONTACT RICHARD GALLEGOS 505-326-5716

Remediation Location: (i.e. landfarmed onsite, name and location of offsite facility) Onsite _____ Offsite _____

General Description of Remedial Action: THEIR ARE 3 PITS, ONE TO BE FILLED IS 45'x57'x8' APROX

TWO (2) PITS LEFT FOR SURFACE DIVISION ARE 108'x57'x8' &

207'x204'x10' APROX. ALSO LEAVING FENCE AT THEIR REQUEST

Ground Water Encountered: No X Yes _____ Depth _____

Final Pit: Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location BOTTOM & SIDES OF PIT's

Sample depth 2'

Sample Date 1/11/02 Sample time 12noon

Sample Results SEE ATTACHED REPORT

Benzene(ppm) _____

Total BTEX(ppm) _____

Field headspace(ppm) _____

TPH _____

Ground Water Sample: Yes _____ No X (If yes, attach sample results)

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Date 3/14/02

Signature [signature] Printed Name and Title JOHN CUNNINGHAM OWNER

NEW MEXICO STATE LAND OFFICE

APPLICATION FOR PERMISSION TO MAKE IMPROVEMENTS

I, NAVAJO NATION of (address) Window Rock, Az

herewith make application for the written consent of the Commissioner of Public Lands to make improvements on the lands in Lease No. E-2257, described as follows:

SUBDIVISION	SEC.	TWP.	RGE.	ACRES
NWNE	16	20N	12W	—

If any or all proposed improvements are to be built under a federal cost-share program, please check which program or programs are involved and give actual cost of each item.

Great Plains Program (SCS) ( ) - ASCS ( ) - OTHER ( ) - NONE (✓)

Barns, stables and corrals _____ Value $_____

Well (give depth and description) _____

_____ Value $_____

Fences (give length, i.e., miles or footage and kind) _____

_____ Value $_____

Windmill _____ Value $ 0

Other improvements 2 EARTHEN TANKS - TRANSFERRED FROM E & E ENTERPRISE FOR USE FOR LIVESTOCK WATER. SHOWN ON ATTACHED DIAGRAM AS SMALL TANK AND LARGE TANK.

TOTAL VALUE OF IMPROVEMENTS $_____

Amount to be defrayed by federal cost-share program, if any . . . . . Value $ 0

Total economic cost expended by LESSEE . . . . . Value $ 0

Estimated time of completion: _____

X _____ LESSEE

X _____ LESSEE

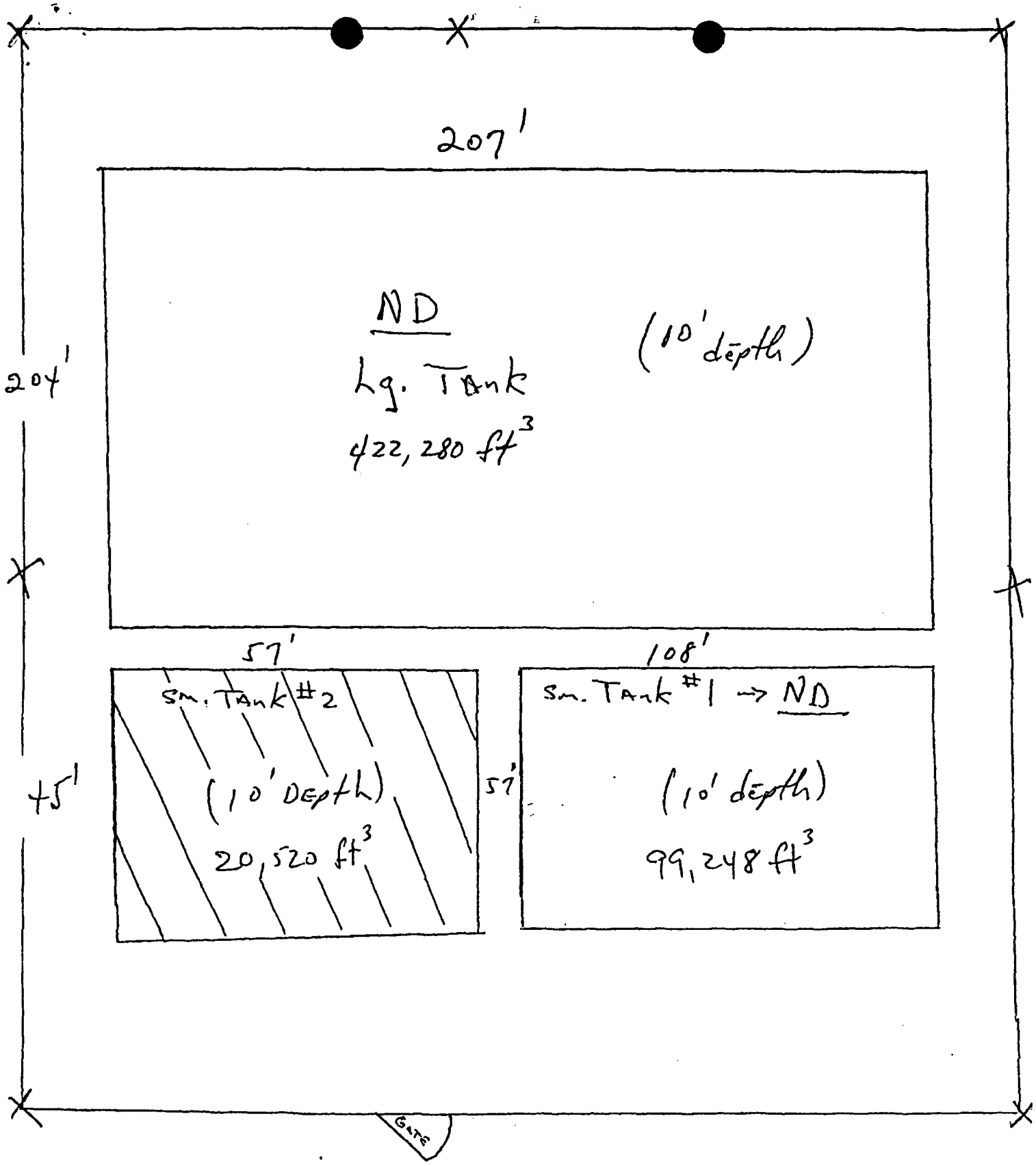
I, _____, Commissioner of Public Lands, hereby give my consent to the above lessee(s) to make improvements as listed above, conditioned upon the completion of construction and installation of such improvements on or before _____, 19_____, and further conditioned upon receipt of copy of federal cost-share agreement (when applicable) and evidence of actual costs.

_____ APPROVAL DATE

_____ COMMISSIONER OF PUBLIC LANDS

(On plat on reverse side indicate approximate location of proposed improvements.)

APPLICATION FEE $30.00


207'
ND
Lg. Tank
422,280 ft³
(10' depth)
204'
57'
108'
Sm. Tank #2
(10' Depth)
20,520 ft³
45'
51'
Sm. Tank #1 → ND
(10' depth)
99,248 ft³
GATE

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

January 15, 2001

Mr. John Cunningham
R & J Enterprises
P.O. Box 51
Farmington, NM 87499

Phone: (505) 327-9931

Project No.: 01104-001

Dear Mr. Cunningham,

Enclosed are the analytical results for the samples collected from the location designated as "Sec 16 T20N R12W". Two soil samples were collected on 1/10/01, and received by the Envirotech laboratory on 1/11/01 for TPH per USEPA 8015 and BTEX per USEPA 8021.

The samples were documented on Envirotech Chain of Custody No. 8902 and assigned Laboratory Nos. 21790 (Small Pit) and 21791 (Large Pit) for tracking purposes.

The samples were analyzed 1/14/01 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/RJ.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	R & J Enterprises	Project #:	01104-001
Sample ID:	Small Pit	Date Reported:	01-14-02
Laboratory Number:	21790	Date Sampled:	01-10-02
Chain of Custody:	8902	Date Received:	01-11-02
Sample Matrix:	Soil	Date Analyzed:	01-14-02
Preservative:	Cool	Date Extracted:	01-14-02
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**94.2**	**1.8**
Toluene	**ND**	**1.7**
Ethylbenzene	**42.5**	**1.5**
p,m-Xylene	**ND**	**2.2**
o-Xylene	**8.2**	**1.0**
Total BTEX	**145**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**96 %**
	1,4-difluorobenzene	**96 %**
	Bromochlorobenzene	**96 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Sec 16 T20N R12W.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	R & J Enterprises	Project #:	01104-001
Sample ID:	Large Pit	Date Reported:	01-14-02
Laboratory Number:	21791	Date Sampled:	01-10-02
Chain of Custody:	8902	Date Received:	01-11-02
Sample Matrix:	Soil	Date Analyzed:	01-14-02
Preservative:	Cool	Date Extracted:	01-14-02
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**1.8**
Toluene	**ND**	**1.7**
Ethylbenzene	**ND**	**1.5**
p,m-Xylene	**ND**	**2.2**
o-Xylene	**ND**	**1.0**
Total BTEX	**ND**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**96 %**
	1,4-difluorobenzene	**96 %**
	Bromochlorobenzene	**96 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Sec 16 T20N R12W.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	01-14-BTEX QA/QC	Date Reported:	01-14-02
Laboratory Number:	21788	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-14-02
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I Cal RF	C Cal RF	%Dif Accept Range 0 - 15%	Blank Conc	Detect Limit
Benzene	1.7143E-001	1.7195E-001	0.3%	ND	0.2
Toluene	9.4693E-002	9.4883E-002	0.2%	ND	0.2
Ethylbenzene	1.2284E-001	1.2321E-001	0.3%	ND	0.2
p,m-Xylene	1.0810E-001	1.0843E-001	0.3%	ND	0.2
o-Xylene	9.2106E-002	9.2290E-002	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Dif	Accept Range	Detect Limit
Benzene	5.8	5.7	1.7%	0 - 30%	1.8
Toluene	ND	ND	0.0%	0 - 30%	1.7
Ethylbenzene	60.6	59.1	2.5%	0 - 30%	1.5
p,m-Xylene	144	140	2.3%	0 - 30%	2.2
o-Xylene	22.4	22.0	1.8%	0 - 30%	1.0

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	5.8	50.0	55.7	99.8%	39 - 150
Toluene	ND	50.0	49.9	99.8%	46 - 148
Ethylbenzene	60.6	50.0	111	99.9%	32 - 160
p,m-Xylene	144	100	243	99.9%	46 - 148
o-Xylene	22.4	50.0	72.3	99.9%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **QA/QC for samples 21788 - 21791.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	R & J Enterprises	Project #:	01104-001
Sample ID:	Small Pit	Date Reported:	01-14-02
Laboratory Number:	21790	Date Sampled:	01-10-02
Chain of Custody No:	8902	Date Received:	01-11-02
Sample Matrix:	Soil	Date Extracted:	01-14-02
Preservative:	Cool	Date Analyzed:	01-14-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Sec 16 T20N R12W.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	R & J Enterprises	Project #:	01104-001
Sample ID:	Large Pit	Date Reported:	01-14-02
Laboratory Number:	21791	Date Sampled:	01-10-02
Chain of Custody No:	8902	Date Received:	01-11-02
Sample Matrix:	Soil	Date Extracted:	01-14-02
Preservative:	Cool	Date Analyzed:	01-14-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Sec 16 T20N R12W.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	01-14-TPH QA/QC	Date Reported:	01-14-02
Laboratory Number:	21787	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-14-02
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	Cal RF	C-Cal RF	% Difference	Accept. Range
Gasoline Range C5 - C10	01-07-02	2.5028E-002	2.5003E-002	0.10%	0 - 15%
Diesel Range C10 - C28	01-07-02	1.2696E-002	1.2671E-002	0.20%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	250	100.0%	75 - 125%
Diesel Range C10 - C28	ND	250	250	100.0%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples 21787 - 21791.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

08902

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
R & J Enterprises	Sec 16 T 20N R 12W	
Sampler:	Client No. 01104-001	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	8021 BTEX	Soil TPH					Remarks
Small Pit	1-10-02	—	21790	Soil	1	✓	✓					
Large Pit	1-10-02	—	21791	1	1	✓	✓					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
John Cunningham	1-11-02	8:40	Denise L. Peterson	1-11-02	8:40
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

PO Box 51
Farmington 87499
327-9931 320-1073 cell
John Cunningham

ENVIROTECH INC.
5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

Nose Rock Evaporation Pond

Small Tank #2 backfilled

Nose Rock
Large Tank

R&J Enterprises
July 19, 2002
Inspection by OCD, Enriques Villanueva

Photo 1. Closed pit and remaining pit

Photo 4. Closed pit

Photo 2. Empty pit to be left for surface owner / lessee use

Photo 3. Closed pit

Kieling, Martyne

From: Foust, Denny
Sent: Monday, July 15, 2002 10:07 AM
To: Kieling, Martyne
Cc: Chavez, Frank; Anderson, Roger; Olson, William; Perrin, Charlie
Subject: R&J Enterprises Closure and Questar Evaporation Pond Operated without a Permit.

Martyne,
I talked to Mike Matusak about the R&J Enterprises closure and he said to get in touch with him to find who approved the closure from State Land Surface Management Group. Do you want to review the pit closures or do you want me to do it? I can send out an approval then you can okay the facility closure. Get back with me on this, Mr. Cunningham was supposed to have sent you the pit closure data, I have it here.

We had a report from BLM of Questar disposing produced in an earthen pit at the State J #7, G-16-23N-07W, 30-039-25349. This was confirmed by Henry Villanueva. Questar thought they had inherited a permit from BCO, Inc. the previous operator. Disposal at this site has probably been ongoing since 1994. I have requested fence repairs, cease dumping and forwarded Roger Anderson request for Total Anion-Cation Lab test on the water. Currently they are emptying the tanks on location. Roger suggested you would write a compliance letter for permitting or closure.

Kieling, Martyne

From: Foust, Denny
Sent: Thursday, July 25, 2002 7:34 AM
To: Kieling, Martyne
Subject: FW: DCP00836.JPG;DCP00835.JPG;DCP00834.JPG;DCP00837.JPG RJ Enterprises Nose Rock Facility


DCP00836.JPG


DCP00835.JPG


DCP00834.JPG


DCP00837.JPG

o g t to identify this as Nose Rock

-----Original Message-----
From: Foust, Denny
Sent: Thursday, July 25, 2002 8:32 AM
To: Kieling, Martyne
Subject: FW: DCP00836.JPG;DCP00835.JPG;DCP00834.JPG;DCP00837.JPG

Martyne,

Henry took these photos of Nose Rock and they fit Mr. Cunningham's description. The fence around the pits is not shown but it is still in place except for where they closed the small pit. Should we require the removal of the fence? Do we have any leverage?

-----Original Message-----
From: Villanueva, Enriques
Sent: Thursday, July 25, 2002 8:26 AM
To: Foust, Denny
Subject: DCP00836.JPG;DCP00835.JPG;DCP00834.JPG;DCP00837.JPG

nose rock pit closure.

DCP00836.JPG;DCP00835.JPG;DCP00834.JPG;DCP00837.JPG

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit 1 copy to appropriate District Office and 1 copy to the Santa Fe Office

(Revised 3/9/94)

PIT REMEDIATION AND CLOSURE REPORT

Operator: R & J ENTERPRISES Telephone: 505-327-9931

Address: P. O. BOX 51 FARMINGTON, NM 87499

Facility Or: STATE COOKIE #1
Well Name

330FNL-990FEL
Location: Unit or Qtr/Qtr Sec ~~K~~ Sec 16 T 20N R 12W County McKINLEY

Pit Type: Separator _____ Dehydrator _____ Other HOLDING

Land Type: BLM _____, State X, Fee _____ Other _____

2 PITS 108' 57' ~~8~~ 8'
Pit Location: Pit dimmensions: length 207, width 204, depth 10'
(Attach diagram)

Reference: wellhead X, other _____

Footage from reference: 50'

Direction from reference: _____ Degrees _____ East North X
of
_____ West South _____

Depth To Ground Water (Vertical distance from contaminants to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet to 99 feet Greater than 100 feet	(20 points) (10 points) (0 points) ____
Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources.)	Yes No	(20 points) (0 points) ____
Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches.)	Less than 200 feet 200 feet to 1000 feet Greater than 1000 feet	(20 points) (10 points) (0 points) ____

RANKING SCORE (TOTAL POINTS): _____

Date Remediation Started: _____ Date completed: _____

Remediation Method: (Check all appropriate sections.) Excavation _____ Approx. cubic yards _____

Landfarmed _____ Insitu Bioremediation _____

Other THIS PIT TO BE TURNED OVER TO NEW MEXICO SURFACE DIVISION

CONTACT RICHARD GALLEGOS 505-326-5716

Remediation Location: (i.e. landfarmed onsite, name and location of offsite facility) Onsite _____ Offsite _____

General Description of Remedial Action: THEIR ARE 3 PITS, ONE TO BE FILLED IS 45'x57'x8' APROX

TWO (2) PITS LEFT FOR SURFACE DIVISION ARE 108'x57'x8' &

207'x204'x10' APROX. ALSO LEAVING FENCE AT THEIR REQUEST

Ground Water Encountered: No X Yes _____ Depth _____

Final Pit: Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location BOTTOM & SIDES OF PIT's

Sample depth 2'

Sample Date 1/11/02 Sample time 12noon

Sample Results SEE ATTACHED REPORT

Benzene(ppm) _____

Total BTEX(ppm) _____

Field headspace(ppm) _____

TPH _____

Ground Water Sample: Yes _____ No X (If yes, attach sample results)

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Date 3/14/02

Signature _____ Printed Name and Title JOHN CUNNINGHAM OWNER

NEW MEXICO STATE LAND OFFICE

APPLICATION FOR PERMISSION TO MAKE IMPROVEMENTS

I, NAVAJO NATION of (address) Window Rock, Az

herewith make application for the written consent of the Commissioner of Public Lands to make improvements on the lands in Lease No. ES-2257, described as follows:

SUBDIVISION	SEC.	TWP.	RGE.	ACRES
NWNE	16	20N	12W	—

If any or all proposed improvements are to be built under a federal cost-share program, please check which program or programs are involved and give actual cost of each item.

Great Plains Program (SCS) ( ) - ASCS ( ) - OTHER ( ) - NONE (✓)

Barns, stables and corrals _____ Value $_____

Well (give depth and description) _____

_____ Value $_____

Fences (give length, i.e., miles or footage and kind) _____

_____ Value $_____

Windmill _____ Value $ 0

Other improvements 2 Earthen tanks - Transferred from E & D Enterprise for use for livestock water. shown on attached diagram as Small Tank #1 and Large Tank.

TOTAL VALUE OF IMPROVEMENTS $_____

Amount to be defrayed by federal cost-share program, if any . . . . . Value $ 0

Total economic cost expended by LESSEE . . . . . Value $ 0

Estimated time of completion: _____

X _____ LESSEE

X _____ LESSEE

I, _____, Commissioner of Public Lands, hereby give my consent to the above lessee(s) to make improvements as listed above, conditioned upon the completion of construction and installation of such improvements on or before _____, 19_____, and further conditioned upon receipt of copy of federal cost-share agreement (when applicable) and evidence of actual costs.

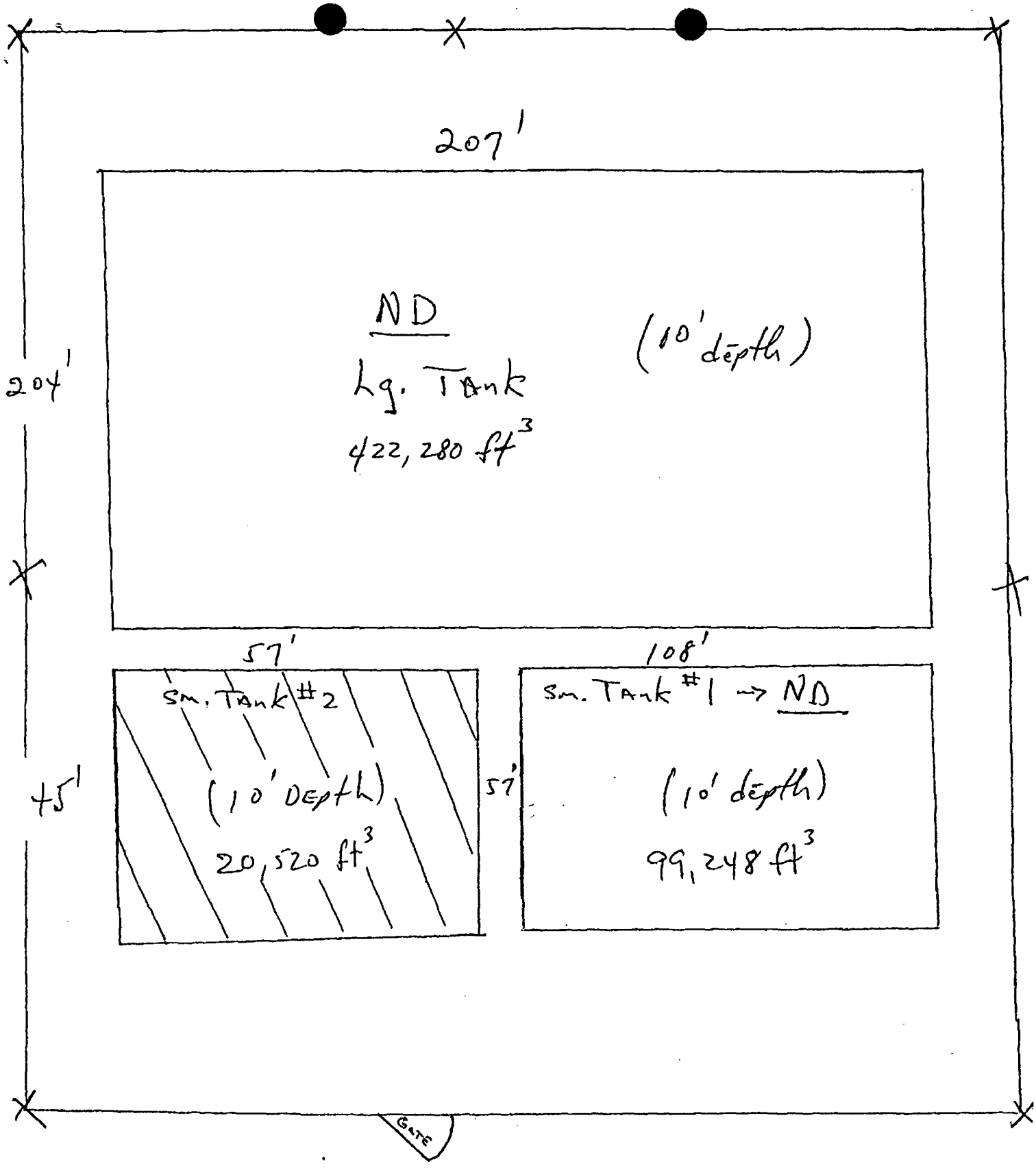
_____ APPROVAL DATE

_____ COMMISSIONER OF PUBLIC LANDS

(On plat on reverse side indicate approximate location of proposed improvements.)

APPLICATION FEE $30.00

S-09 (REVISED 8/4/88)


207'
ND
Lg. Tank
422,280 ft³
(10' depth)
204'
57'
108'
Sm. Tank #2
(10' Depth)
20,520 ft³
Sm. Tank #1 → ND
(10' depth)
99,248 ft³
45'
57'
GATE

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

January 15, 2001

Mr. John Cunningham
R & J Enterprises
P.O. Box 51
Farmington, NM 87499

Phone: (505) 327-9931

Project No.: 01104-001

Dear Mr. Cunningham,

Enclosed are the analytical results for the samples collected from the location designated as "Sec 16 T20N R12W". Two soil samples were collected on 1/10/01, and received by the Envirotech laboratory on 1/11/01 for TPH per USEPA 8015 and BTEX per USEPA 8021.

The samples were documented on Envirotech Chain of Custody No. 8902 and assigned Laboratory Nos. 21790 (Small Pit) and 21791 (Large Pit) for tracking purposes.

The samples were analyzed 1/14/01 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/RJ.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	01-14-TPH QA/QC	Date Reported:	01-14-02
Laboratory Number:	21787	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-14-02
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept Range
Gasoline Range C5 - C10	01-07-02	2.5028E-002	2.5003E-002	0.10%	0 - 15%
Diesel Range C10 - C28	01-07-02	1.2696E-002	1.2671E-002	0.20%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	ND	250	250	100.0%	75 - 125%
Diesel Range C10 - C28	ND	250	250	100.0%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples 21787 - 21791.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	R & J Enterprises	Project #:	01104-001
Sample ID:	Large Pit	Date Reported:	01-14-02
Laboratory Number:	21791	Date Sampled:	01-10-02
Chain of Custody:	8902	Date Received:	01-11-02
Sample Matrix:	Soil	Date Analyzed:	01-14-02
Preservative:	Cool	Date Extracted:	01-14-02
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**1.8**
Toluene	**ND**	**1.7**
Ethylbenzene	**ND**	**1.5**
p,m-Xylene	**ND**	**2.2**
o-Xylene	**ND**	**1.0**
Total BTEX	**ND**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**96 %**
	1,4-difluorobenzene	**96 %**
	Bromochlorobenzene	**96 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Sec 16 T20N R12W.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	R & J Enterprises	Project #:	01104-001
Sample ID:	Large Pit	Date Reported:	01-14-02
Laboratory Number:	21791	Date Sampled:	01-10-02
Chain of Custody:	8902	Date Received:	01-11-02
Sample Matrix:	Soil	Date Analyzed:	01-14-02
Preservative:	Cool	Date Extracted:	01-14-02
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**1.8**
Toluene	**ND**	**1.7**
Ethylbenzene	**ND**	**1.5**
p,m-Xylene	**ND**	**2.2**
o-Xylene	**ND**	**1.0**
Total BTEX	**ND**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**96 %**
	1,4-difluorobenzene	**96 %**
	Bromochlorobenzene	**96 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Sec 16 T20N R12W.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	R & J Enterprises	Project #:	01104-001
Sample ID:	Small Pit	Date Reported:	01-14-02
Laboratory Number:	21790	Date Sampled:	01-10-02
Chain of Custody No:	8902	Date Received:	01-11-02
Sample Matrix:	Soil	Date Extracted:	01-14-02
Preservative:	Cool	Date Analyzed:	01-14-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Sec 16 T20N R12W.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	R & J Enterprises	Project #:	01104-001
Sample ID:	Small Pit	Date Reported:	01-14-02
Laboratory Number:	21790	Date Sampled:	01-10-02
Chain of Custody:	8902	Date Received:	01-11-02
Sample Matrix:	Soil	Date Analyzed:	01-14-02
Preservative:	Cool	Date Extracted:	01-14-02
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**94.2**	**1.8**
Toluene	**ND**	**1.7**
Ethylbenzene	**42.5**	**1.5**
p,m-Xylene	**ND**	**2.2**
o-Xylene	**8.2**	**1.0**
Total BTEX	**145**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**96 %**
	1,4-difluorobenzene	**96 %**
	Bromochlorobenzene	**96 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Sec 16 T20N R12W.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	R & J Enterprises	Project #:	01104-001
Sample ID:	Large Pit	Date Reported:	01-14-02
Laboratory Number:	21791	Date Sampled:	01-10-02
Chain of Custody No:	8902	Date Received:	01-11-02
Sample Matrix:	Soil	Date Extracted:	01-14-02
Preservative:	Cool	Date Analyzed:	01-14-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Sec 16 T20N R12W.**

Analyst

Review

CHAIN OF CUSTODY RECORD

08902

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
R & J Enterprises	Sec 16 T 26 N R 12 W	
Sampler:	Client No. 01104-001	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	8021 BTEX	8015 TPH					Remarks
Small Pit	1-10-02	—	21790	Soil	1	✓	✓					
Large Pit	1-10-02	—	21791	1	1	✓	✓					

	Date	Time		Date	Time
Relinquished by: (Signature)	1-11-02	8:40	Received by: (Signature) Denise L. Pepperman	1-11-02	8:40
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

PO Box 51
Farmington 87499
327-9931 320-1073 cell
John Cunningham

ENVIROTECH INC.
5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

Martyne Keling

R. J. ENTERPRISES NOSEROCK 711 FACILITY INSPECTION (PHOTOS BY OCD)

PHOTO NO. 1 DATE:06/12/97

PHOTO NO. 2 DATE:06/11/97

R. J. ENTERPRISES NOSEROCK 711 FACILITY INSPECTION (PHOTOS BY OCD)

PHOTO NO. 3 DATE:06/12/97

PHOTO NO. 4 DATE:06/12/97

R. J. ENTERPRISES NOSEROCK 711 FACILITY INSPECTION (PHOTOS BY OCD)

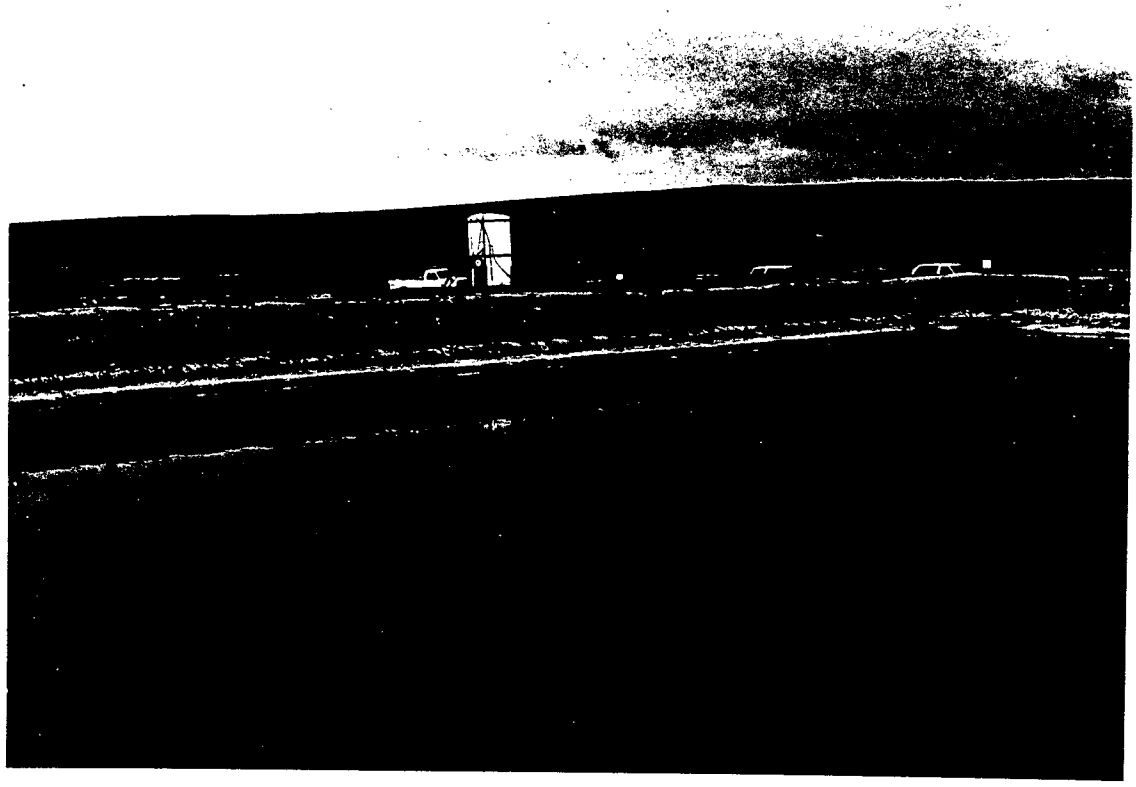


PHOTO NO. 3 DATE:06/12/97

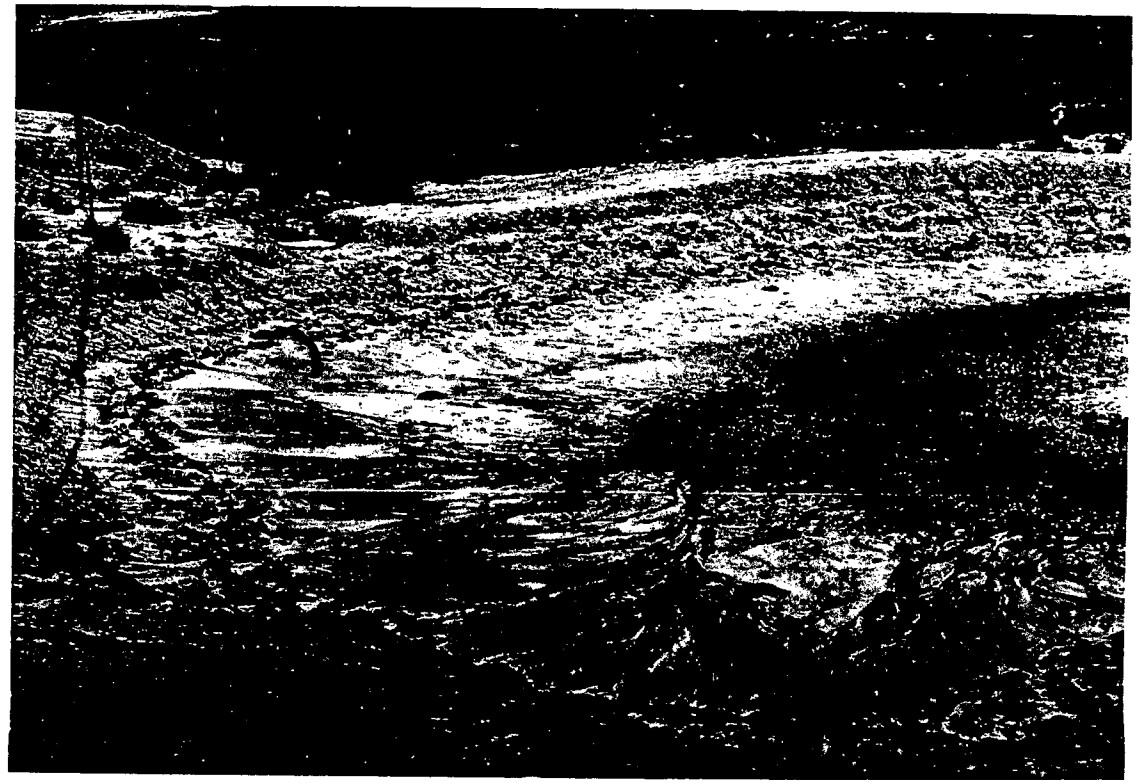


PHOTO NO. 4 DATE:06/12/97

R. J. ENTERPRISES NOSEROCK 711 FACILITY INSPECTION (PHOTOS BY OCD)

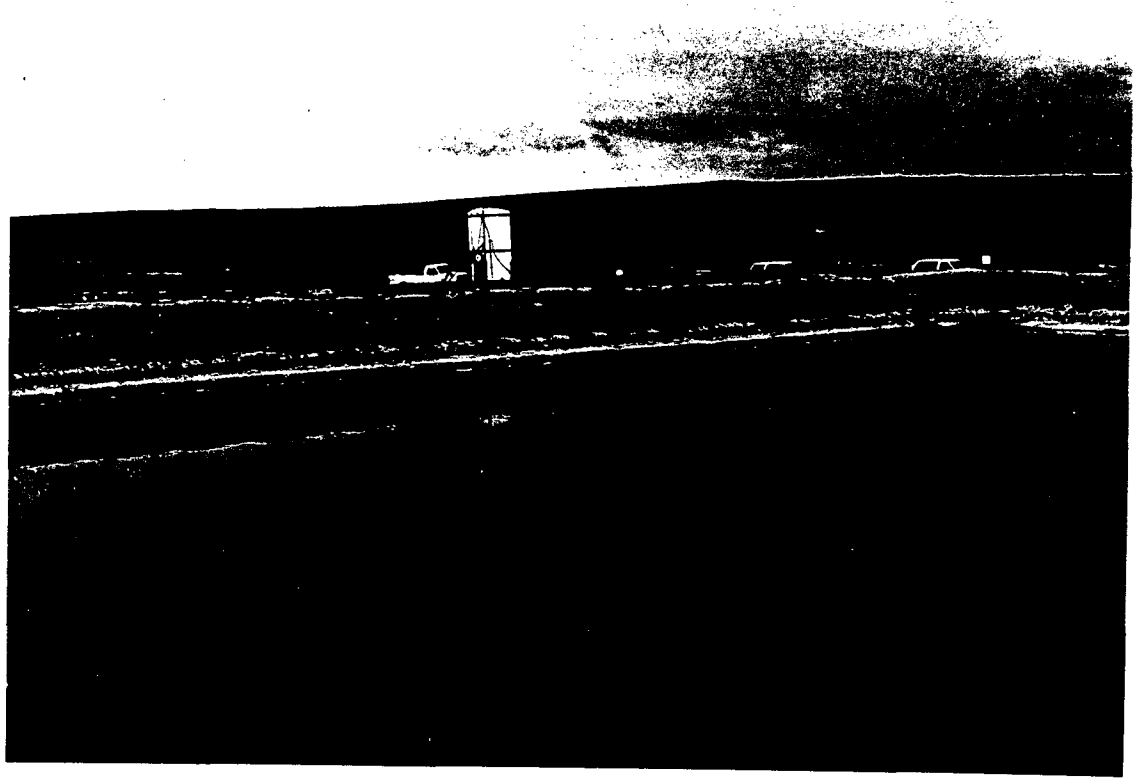


PHOTO NO. 3 DATE:06/12/97

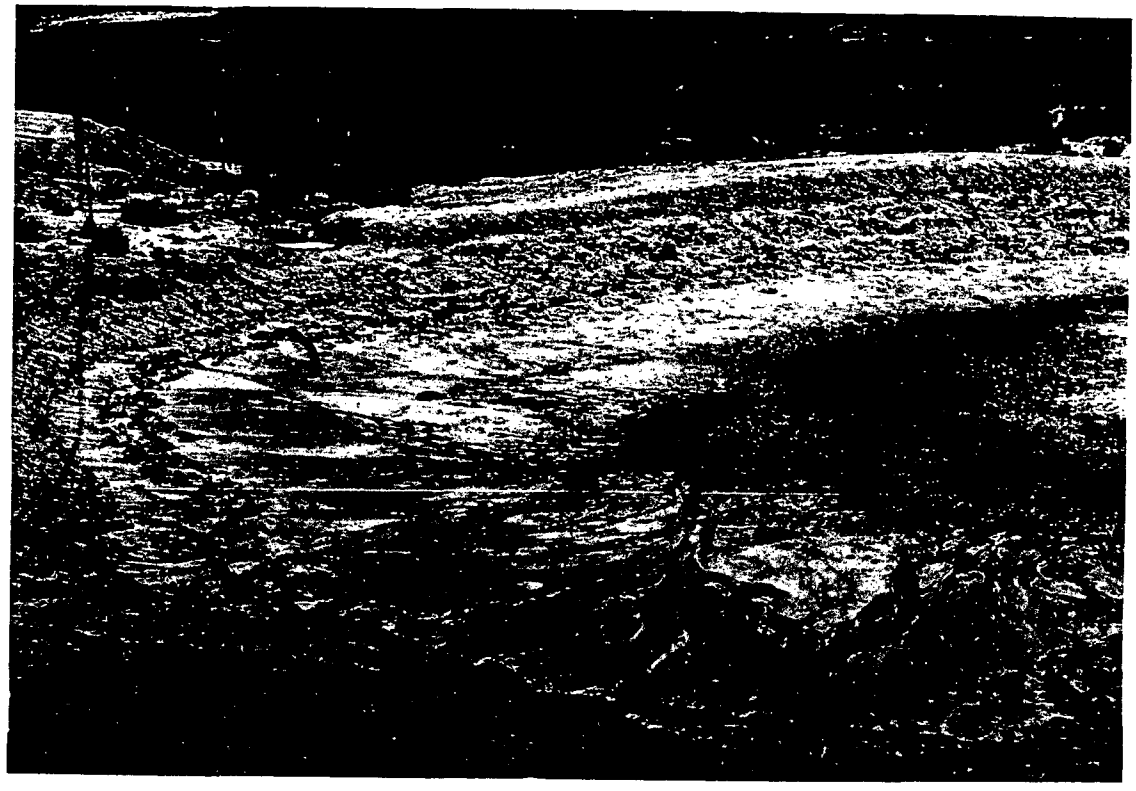


PHOTO NO. 4 DATE:06/12/97

R. J. ENTERPRISES NOSEROCK 711 FACILITY INSPECTION (PHOTOS BY OCD)

PHOTO NO. 1 DATE:06/12/97

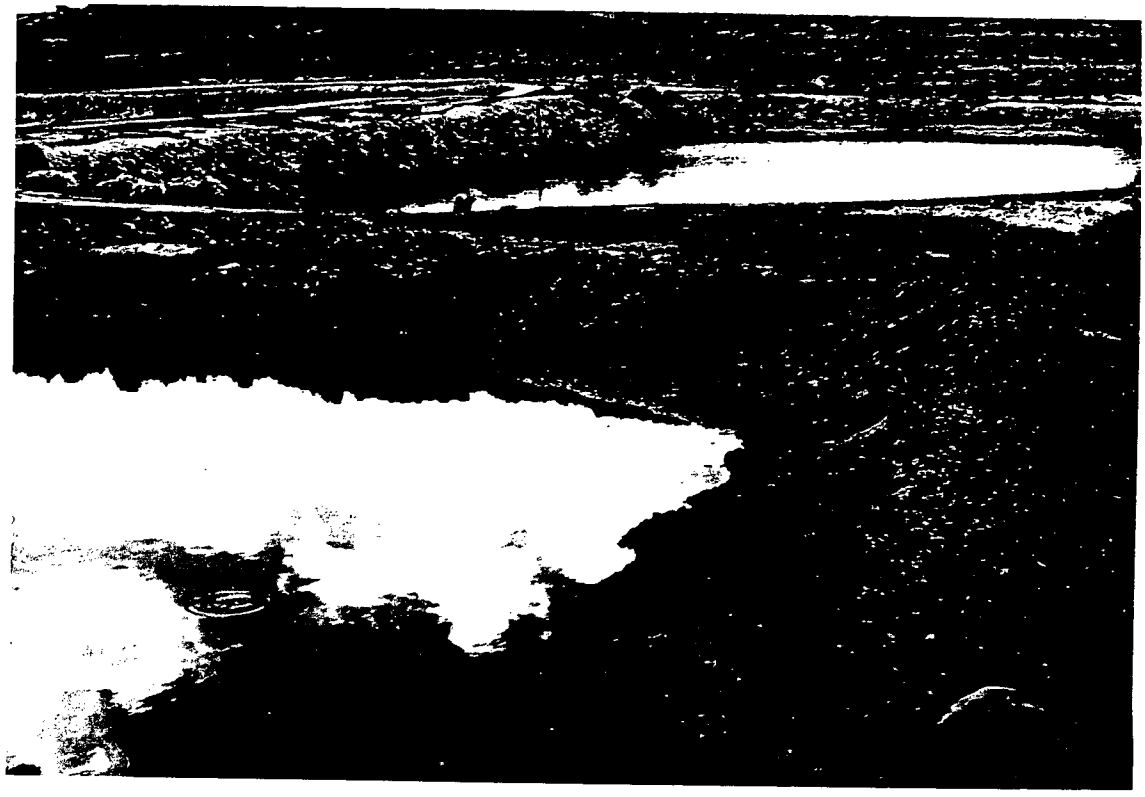


PHOTO NO. 2 DATE:06/11/97

R. J. ENTERPRISES NOSEROCK 711 FACILITY INSPECTION (PHOTOS BY OCD)

PHOTO NO. 1 DATE:06/12/97

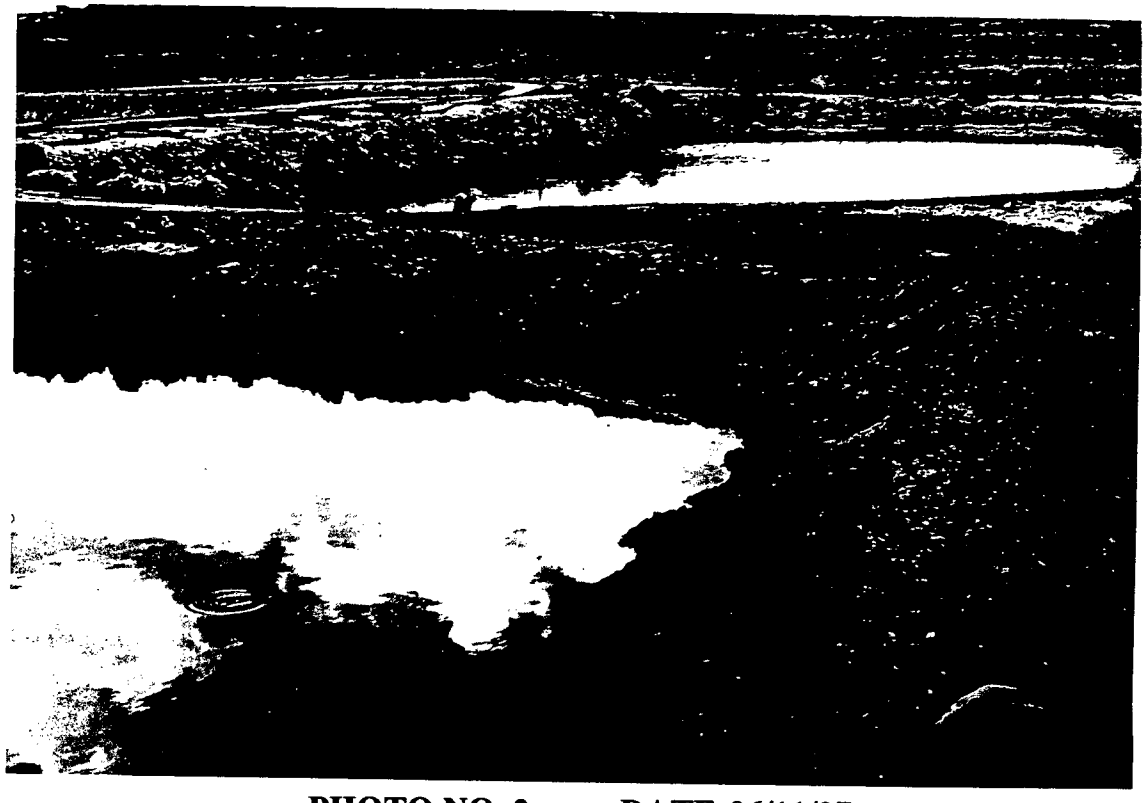


PHOTO NO. 2 DATE:06/11/97

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-137
Originated 8/8/95
Revised 6/25/97

Submit Original
Plus 1 Copy
to Santa Fe
1 Copy to appropriate
District Office

APPLICATION FOR WASTE MANAGEMENT FACILITY

(Refer to the OCD Guidelines for assistance in completing the application)

☐ Commercial ☐ Centralized

1. Type: ☐ Evaporation ☐ Injection ☐ Other _____
   ☐ Solids/Landfarm ☐ Treating Plant

2. Operator: _____
   Address: _____
   Contact Person: _____ Phone: _____

3. Location: _____/4 _____/4 Section _____ Township _____ Range _____
   Submit large scale topographic map showing exact location

4. Is this a modification of an existing facility? ☐ Yes ☐ No

5. Attach the name and address of the landowner of the facility site and landowners of record within one mile of the site.

6. Attach description of the facility with a diagram indicating location of fences, pits, dikes, and tanks on the facility.

7. Attach designs prepared in accordance with Division guidelines for the construction/installation of the following: pits or ponds, leak-detection systems, aerations systems, enhanced evaporation (spray) systems, waste treating systems, security systems, and landfarm facilities.

8. Attach a contingency plan for reporting and clean-up for spills or releases.

9. Attach a routine inspection and maintenance plan to ensure permit compliance.

10. Attach a closure plan.

11. Attach geological/hydrological evidence demonstrating that disposal of oil field wastes will not adversely impact groundwater. Depth to and quality of ground water must be included.

12. Attach proof that the notice requirements of OCD Rule 711 have been met.

13. Attach a contingency plan in the event of a release of H_2S.

14. Attach such other information as necessary to demonstrate compliance with any other OCD rules, regulations and orders.

15. CERTIFICATION

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

Name: _____ Title: _____

Signature: _____ Date: _____

NOSEROCK

RJ INTERPRISES

6/12/97

Nose Rock

RJ Interprises

6/12/97

Nose Rock

RJ Interprises

6/12/97

Nose Rock

RS Interprises

6/12/97

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time 2:30	Date 7-2-97

Originating Party	Other Parties
Johnny Cunningham 327-9931	Martyne Kieling

Subject: Nose Rock Bond

Discussion: Write a letter to the Director Requesting a Varance to the Rule to Have the Bond Amount Reflect The Estimate of Closure two estimates have been $6900.00 & $10.000.00

Blackoil - JR Enterprises - Nose -

Conclusions or Agreements: Work with Denny Foutz Distric Aztec

Distribution

Signed: Martyne Kieling

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

April 18, 1994

CERTIFIED MAIL
RETURN RECEIPT NO. P-111-334-314

Mr. Riley S. Hill
R.J. Enterprises
313 North Locke
Farmington, New Mexico 87401

RE: **REQUEST FOR COMPLIANCE WITH RULE 711**
R.J. ENTERPRISES
SAN JUAN COUNTY, NEW MEXICO

Dear Mr. Hill:

The New Mexico Oil Conservation Division (OCD) regulates commercial and centralized surface disposal facilities pursuant to OCD Rule 711 (effective date June 6, 1988) and as defined in OCD Order R-8662. Under Ordering Paragraph (2) of R-8662, existing facilities are required to comply with the provisions of Rule 711 no later than 120 days after receipt of OCD's request for additional information.

OCD Rule 711 outlines specific information required by the OCD to permit surface disposal facilities. Although the pond at your facility was administratively approved previously, certain information now required by Rule 711 must be supplied by R.J. Enterprises in order for your facility to come into compliance with OCD Rule 711.

You have 120 days from receipt of this letter to come into compliance with OCD Rule 711 for your centralized surface collection facility located in Section 16, Township 20 North, Range 12 West, NMPM, San Juan County, New Mexico. Please submit the following information to the OCD in a timely manner to allow sufficient time for review and evaluation of your facility prior to permit approval:

1. The contact person's name and phone number.

2. A plat and topographic map showing the location of the facility in relation to

governmental surveys, roads, watercourses, water wells, and dwellings within one mile of the site.

3. The names and addresses of landowners of record within one-half mile of the site.

4. A facility description and diagram indicating the location of fences, gates, cattleguards, pits/ponds, dikes, tanks and piping at the facility.

5. Detailed engineering designs with diagrams for any pits or ponds, liners, leak-detection systems, aeration systems, enhanced evaporation (spray) system, waste treating systems, security systems and associated waste facilities. Note that disposal of all approved wastes must be in accordance with Division rules, regulations, and guidelines. Enclosed is a copy of the OCD Guidelines for Permit Application, Design, and Construction of Waste Storage/Disposal Facilities.

6. A routine inspection and maintenance plan. Include a proposed testing schedule and plan for analysis of the pond water.

7. A contingency plan for reporting and clean-up of spills or releases.

8. A contingency plan in the event of a release of hydrogen sulfide (H2S).

9. A closure plan.

10. An affidavit of verification by an authorized representative of the company. Please use the attached "Application for Surface Waste Disposal Facility."

If any of the above items do not pertain to your facility please indicate on the application. Pursuant to OCD Rule 711, centralized facilities do not require a $25,000 bond or public notice. If you have any questions please do not hesitate to contact Roger Anderson at (505) 827-5812.

Sincerely,

Kathy M. Brown
Geologist

Attachments

xc: Denny Foust, OCD Aztec District Office

J.C. WELL SERVICE
1604 EAST 30TH STREET
FARMINGTON, NEW MEXICO 87401
505-327-9931 or 505-326-0722

JOHN CUNNINGHAM
OWNER

OWNER OPERATOR OF WELL's

R.J. ENTERPRISES
P. O. BOX 51
FARMINGTON,NM 87499

DEAR SIRS:

FOLLOWING IS A LIST OF FOUR WELLS THAT DISCHARGE INTO POND LOCATED IN SEC. 16, T20N, R12W AS LISTED

NMALCO GURLEY #1	SEC.9 T20N, R12W	36BWPD
SALAZAR NAVACITO #1	SEC.10, T20N R12W	41BWPD
STATE COOKIE #1	SEC. 16, T20N R12W	26BWPD
STATE COOKIE #5	SEC. 16, T20N R12W	31BWPD
	TOTAL	134BWPD

POND IS IN THE NE CORNER OF SEC. 16 T20N R12W OF McKINLEY COUNTY, NEW MEXICO ALL WELL's OWNED BY R.J. ENTERPRISES

IF ANY QUESTIONS OR I CAN BE OF SERVICE CALL

JOHN CUNNINGHAM (505) 327-9931 or 320-1073

THANK YOU

John Cunningham

JOHN CUNNINGHAM

UNICHEM INTERNATIONAL WATER ANALYSIS REPORT

Company: R J. ENTERPRISES	Location: Adjac. #1 GURLEY #1 - COOKIE #1-#5
Field: N. MALCO	Engineer: J. C. CUNNINGHAM
County: SAN JUAN	Analyst: A. RICH
State: NEW MEXICO	SAMPLE DATE: 01-04-94

CATIONS:	mg/L	meq/L	ANIONS:	mg/L	meq/L
Potassium	0.00	0.00	Sulfate	16.3	0.34
Sodium	540.00	23.49	Chloride	415.0	11.71
Calcium	2.10	0.10	Carbonate	0.0	0.00
Magnesium	0.50	0.04	Bicarbonate	730.0	11.96
Iron	0.60	0.03	Hydroxide	0.0	0.00
Barium	0.75	0.01	–	0.0	0.00
Manganese	0.04	0.00	–	0.0	0.00
SUM +	544.0	23.67	SUM –	1161.3	24.01

DISSOLVED GASES:

	mg/l
Carbon Dioxide (CO2)	0
Oxygen (O2)]	0
Hydrogen Sulfide (H2S)	0

OTHER PROPERTIES:

Ionic Strength:	0.023
Specific Gravity:	1.001
ph:	7.80
Total Dissolved Solids:	1580

SCALE INDEX (Positive Value Indicates Scale Tendency)

Temperature		CaCO3 SI	CaSO4 SI
86F	30.0C	-0.32	-0.25
122F	50.0C	-0.30	-0.24

MICROBIOLOGICAL:	colonies
Sulfate Reducing Bacteria	ND
Aerobic Bacteria	ND

THIS SAMPLE TAKEN FROM POND #2 DISCHARGE

FROM ALL WELL's

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

January 12, 1994

CERTIFIED MAIL
RETURN RECEIPT NO. P-111-334-067

Mr. Riley S. Hill
R.J. Enterprises
3113 North Locke
Farmington, New Mexico 87401

RE: REQUEST FOR OCD RULE 711 COMPLIANCE
NOSE ROCK-HOSPAH EVAPORATION POND
McKINLEY COUNTY, NEW MEXICO

Dear Mr. Hill:

On November 30, 1993 (enclosure), the New Mexico Oil Conservation Division (OCD) requested Black Oil to submit information on the unlined pond located in Section 16, Township 20 North, Range 12 West, NMPM, McKinley County, New Mexico. The pond was originally permitted by the OCD on November 4, 1987. The information required was to bring the pit into compliance with the permit approval and to determine if the evaporation pond requires an OCD Rule 711 permit.

Mr. Black has informed the OCD that he sold this operation to Mr. Pat Gurley of Gurley Oil Company who in turn sold the properties to R.J. Enterpises. If you are the new operator of this pond please submit the following information:

1. Discharge Quality: An analysis of the pond water using standard EPA sampling methods and analyzing for volatile aromatic organics using EPA method 8020, heavy metals using ICAP, mercury using the Atomic Absorption (AA) method, and major cations/anions including TDS using approved EPA methods.

2. Discharge Volume: The average daily volume of water discharged into the pond. Include the name, number, owner and operator of the wells currently and historically discharging into the pond.

The OCD requests that R.J. Enterprises submit the materials requested above by February 18, 1994. If you have any questions, please do not hesitate to contact Kathy Brown at (505) 827-5884.

Sincerely,

Roger C. Anderson
Environmental Bureau Chief

RCA/kmb

Enclosures

xc: Denny Foust, OCD Aztec Office

BRUCE A. BLACK Ph.D.
Registered Petroleum Geologist
206 W. 38th Ph: (505) 325-7855
Farmington, New Mexico 87401

December 13, 1993

Roger Anderson
Energy, Minerals and Natural Resources Department
PO Box 2088 State Land Office Building
Santa Fe, New Mexico 87504

RE: Certified Mail No. p-111-334-079

Dear Mr. Anderson:

I spoke to Kathy Brown of your office yesterday and explained that I am no longer the Operator of the Nose Rock - Hospah oil field. Mr. Pat Gurley of Gurley Oil company took over all operations and responsibilities several years ago (1989 or 1990). This year he has sold the properties to R.J. Enterprises at 313 North Locke in Farmington, New Mexico 87401. I have taken the liberty of sending a copy of your letter on to them.

If I can be of further assistance please advise.

Sincerely,

Bruce A. Black

STATE OF NEW MEXICO

OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time	Date
	3:00 P.M.	Nov 4, 1993

Originating Party	Other Parties
Billie Robinson	K. Brown
983-7195	OCD

Subject: Black Oil Nose Rock Centralized Pit

Discussion: Billie + Georg Coleman are leasees of record and want to know the status of the pond — is it legal? under permit? under compliance? Black Oils interest ~~Right now the~~ in lease went to Gurley in 1989. or so. Now Gurley wants to sell to Riley Hill + Johnny Cunningham Of the 5 wells going to the unlined pond, 3 are P/A + 2 are producing. Need to check file and permit

Conclusions or Agreements

Need annual water analysis (TDS) of pond from Bill LeMay's approval Nov. 4, 1987.

Distribution

Signed Kathy Brown

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

November 30, 1993

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

CERTIFIED MAIL
RETURN RECEIPT NO. P-111-334-079

Mr. Bruce A. Black
Black Oil, Inc.
P.O. Box 537
Farmington, New Mexico 87499

RE: REQUEST FOR OCD RULE 711 COMPLIANCE
BLACK OIL, INC. EVAPORATION POND
McKINLEY COUNTY, NEW MEXICO

Dear Mr. Black:

On November 4, 1987 (enclosure) the New Mexico Oil Conservation Division (OCD) approved the discharge of up to 150 BPD of produced water to be used for watering livestock. The source of the water is from five (5) producing oil wells located in the Nose Rock-Hospah Extension field. The water is discharged into an unlined pond located in Section 16, Township 20 North, Range 12 West, NMPM, McKinley County, New Mexico.

A condition of approval was that Black Oil would submit an annual analysis for total dissolved solids (TDS) on or before November 1, beginning in 1988. The last analysis that the OCD has on record is dated February 17, 1988. To come into compliance with the permit approval and to determine if the evaporation pond requires an OCD Rule 711 permit, please submit the following information:

1. Discharge Quality: An analysis of the pond water using standard EPA sampling methods and analyzing for volatile aromatic organics using EPA method 8020, heavy metals using ICAP, mercury using the Atomic Absorption (AA) method, and major cations/anions including TDS using approved EPA methods.

2. Discharge Volume: The average daily volume of water discharged into the pond. Include the name, number, owner and operator of the wells currently and historically discharging into the pond.

The OCD requests that Black Oil submit the materials requested above by January 1, 1994. If you have any questions, please do not hesitate to contact Kathy Brown at (505) 827-5884.

Sincerely,

Roger C. Anderson
Environmental Bureau Chief

RCA/kmb

Enclosure

xc: Denny Foust, OCD Aztec Office

Black Oil

4/19/88

Black Oil 4/19/88

Black Oil 4/19/88

Black Oil 4/19/88

Black Oil 4/19/88

BLACK OIL, INC.
P.O. BOX 537 • FARMINGTON, N.M. 87499 • PHONE (505) 325-9671

February 17, 1988

Mr. David G. Boyer
Energy, Minerals and Natural Resources Dept.
Oil Conservation Division
P.O. 2088
Santa Fe, New Mexico 87504

Dear Mr. Boyer:

Enclosed please find water analysis reports on produced water being discharged into a centralized pit to be used for stock water at our Nose Rock-Hospah Ext. field. The field is located in section 16, T20N, R12W, in McKinley County, New Mexico.

Water samples are from our NMALCO Gurley No. 1 and 4, State Cookie No. 1, State Margie No. 1, and Salazar Navajocito No. 1.

If you have any questions or require further information, please contact us.

Sincerely,

Bruce A. Black

BAB/ta

cc: Aztec District Office

Encs.

Unichem International

707 North Leech P.O.Box 1499

Hobbs, New Mexico 88240

Company : Black Oil
Date : 01-08-1988
Location: Gurley #1 - Gunbarrel (on 12-17-1987)

	Sample 1
Specific Gravity:	1.001
Total Dissolved Solids:	1343
pH:	8.65
IONIC STRENGTH:	0.024

CATIONS:		me/liter	mg/liter
Calcium	(Ca^{+2})	0.333	6.67
Magnesium	(Mg^{+2})	0.533	6.48
Sodium	(Na^{+1})	20.1	462
Iron (total)	(Fe^{+2})	0.039	1.10
Barium	(Ba^{+2})	0.004	0.300
ANIONS:			
Bicarbonate	(HCO_3^{-1})	6.00	366
Carbonate	(CO_3^{-2})	5.60	168
Hydroxide	(OH^{-1})	0	0
Sulfate	(SO_4^{-2})	0.229	11.0
Chloride	(Cl^{-1})	9.12	323

SCALING INDEX (positive value indicates scale)

Temperature		Calcium Carbonate	Calcium Sulfate
86°F	30°C.	0.77	-20
120°F	49°C	1.7	-20

Unichem International

707 North Leech P.O.Box 1499

Hobbs, New Mexico 88240

Company : Black Oil Company
Date : 02-12-1988
Location: Navajocito #1 - Separator (on 01-25-1988)

	Sample 1
Specific Gravity:	1.002
Total Dissolved Solids:	2167
pH:	8.18
IONIC STRENGTH:	0.035

CATIONS:		me/liter	mg/liter
Calcium	(Ca^{+2})	0.500	10.0
Magnesium	(Mg^{+2})	0.500	6.07
Sodium	(Na^{+1})	31.5	725
Iron (total)	(Fe^{+2})	0.023	0.630
Barium	(Ba^{+2})	0.001	0.060
Manganese	(Mn^{+2})	0.003	0.070
ANIONS:			
Bicarbonate	(HCO_3^{-1})	10.4	634
Carbonate	(CO_3^{-2})	2.40	72.0
Hydroxide	(OH^{-1})	0	0
Sulfate	(SO_4^{-2})	1.67	80.0
Chloride	(Cl^{-1})	18.1	640

SCALING INDEX (positive value indicates scale)

Temperature		Calcium Carbonate	Calcium Sulfate
86°F	30°C	0.47	-19
120°F	49°C	1.4	-19

Unichem International

707 North Leech P.O.Box 1499

Hobbs, New Mexico 88240

Company : Black Oil Company
Date : 02-12-1988
Location: St. Cookie #1 - Separator (on 01-25-1988)

	Sample 1
Specific Gravity:	1.002
Total Dissolved Solids:	2245
pH:	8.05
IONIC STRENGTH:	0.036

CATIONS:		me/liter	mg/liter
Calcium	(Ca^{+2})	0.400	8.00
Magnesium	(Mg^{+2})	0.600	7.29
Sodium	(Na^{+1})	32.6	751
Iron (total)	(Fe^{+2})	0.012	0.330
Barium	(Ba^{+2})	0.003	0.180
Manganese	(Mn^{+2})	0.003	0.080
ANIONS:			
Bicarbonate	(HCO_3^{-1})	10.8	659
Carbonate	(CO_3^{-2})	2.00	60.0
Hydroxide	(OH^{-1})	0	0
Sulfate	(SO_4^{-2})	1.67	80.0
Chloride	(Cl^{-1})	19.2	680

SCALING INDEX (positive value indicates scale)

Temperature		Calcium Carbonate	Calcium Sulfate
86°F	30°C	0.24	-19
120°F	49°C	1.1	-19

Unichem International

707 North Leech P.O.Box 1499

Hobbs, New Mexico 88240

Company : Black Oil Company
Date : 02-12-1988
Location: Gurley #4 - Separator (on 01-25-1988)

	Sample 1
Specific Gravity:	1.002
Total Dissolved Solids:	2106
pH:	8.17
IONIC STRENGTH:	0.035

CATIONS:		me/liter	mg/liter
Calcium	(Ca^{+2})	0.700	14.0
Magnesium	(Mg^{+2})	0.300	3.65
Sodium	(Na^{+1})	30.9	711
Iron (total)	(Fe^{+2})	0.012	0.330
Barium	(Ba^{+2})	0.001	0.060
Manganese	(Mn^{+2})	0.007	0.190
ANIONS:			
Bicarbonate	(HCO_3^{-1})	9.40	573
Carbonate	(CO_3^{-2})	2.80	84.0
Hydroxide	(OH^{-1})	0	0
Sulfate	(SO_4^{-2})	1.67	80.0
Chloride	(Cl^{-1})	18.1	640

SCALING INDEX (positive value indicates scale)

Temperature		Calcium Carbonate	Calcium Sulfate
86°F	30°C	0.58	-19
120°F	49°C	1.5	-19

Unichem International

707 North Leech P.O.Box 1499

Hobbs, New Mexico 88240

Company : Black Oil Company
Date : 02-12-1988
Location: St. Margie #1 - Separator (on 01-25-1988)

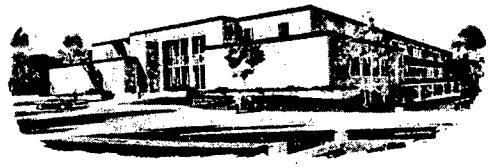
	Sample 1
Specific Gravity:	1.002
Total Dissolved Solids:	2203
pH:	8.18
IONIC STRENGTH:	0.036

CATIONS:		me/liter	mg/liter
Calcium	(Ca^{+2})	0.700	14.0
Magnesium	(Mg^{+2})	0.200	2.43
Sodium	(Na^{+1})	32.2	740
Iron (total)	(Fe^{+2})	0.023	0.630
Barium	(Ba^{+2})	0.001	0.090
Manganese	(Mn^{+2})	0.003	0.070
ANIONS:			
Bicarbonate	(HCO_3^{-1})	10.4	634
Carbonate	(CO_3^{-2})	2.40	72.0
Hydroxide	(OH^{-1})	0	0
Sulfate	(SO_4^{-2})	1.67	80.0
Chloride	(Cl^{-1})	18.6	660

SCALING INDEX (positive value indicates scale)

Temperature		Calcium Carbonate	Calcium Sulfate
86°F	30°C	0.61	-19
120°F	49°C	1.5	-19

State of New Mexico



W.R. HUMPHRIES
COMMISSIONER

Commissioner of Public Lands

P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

November 19, 1987

David G. Boyer
Environmental Bureau Chief
Oil Conservation Division
State Land Office Building
Santa Fe, NM 87504

RE: T-20N, R-12W, Section 16
Black Oil Company
Robert Becenti - Crownpoint, N. M.

I understand from our recent conversation and the material you sent me on October 28, that Black Oil Company is requesting approval from OCD to discharge produced water into an unlined pit which a Land Office grazing lessee, Robert Becenti, wishes to use for watering his stock.

Your tests have shown the water presently to be of sufficient quality for stock drinking without adverse side effects to the cattle or those who might consume products of the animal (milk or beef). Mr. Becenti states he is assuming the risk for his cattle drinking the water.

The Land Office probably has no obligation to police the relationship between users where they have mutually agreed to a given activity as long as the agreed activity is not detrimental to the trust's interests. As it is your decision to issue the requested permit based upon present water quality, I would strongly recommend that Black Oil Company regularly test the water and advise OCD and the grazing lessee periodically in writing of its quality. I understand you have decided to make this a requirement of the permit.

Thank you for the courtesy of advising of the situation. It is a healthy and welcomed approach that our two offices are working in sinc where we can on environmental matters.

Very truly yours,

Nicholas J. Black
Associate Counsel

cc: Gary Carlson
Dwain Glidewell
Bill Garcia

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

November 4, 1987

Dr. Bruce Black
Black Oil, Inc.
P.O. Box 537
Farmington, New Mexico 87499

Dear Dr. Black:

Your request for approval of the discharge of up to 150 BPD of produced water to be used for stock water at the Nose Rock-Hospah Ext. field, Section 16, T20N, R12W has been received and evaluated by the Oil Conservation Division.

Based on the information furnished by you in letters dated June 1, June 10, October 22 and October 30, 1987, and the laboratory analyses of samples taken August 6, 1987, this request is hereby approved. Please be advised that this approval does not relieve you of liability should your operation result in pollution of surface or ground water or endangerment of humans or stock that may be actionable under other laws and/or regulations. Copies of the laboratory analyses are being provided for your information.

Annual analyses for total dissolved solids for water in the pond shall be submitted to the Oil Conservation Division on or before November 1, beginning in 1988.

You are required to notify the Oil Conservation Division if any changes are made in the discharge to the pond, submitting total dissolved solids analyses for water from any additional wells you may want to add to the system.

Sincerely,

William J. Lemay
Director

WJL:JB:sl

xc: OCD-Aztec
David Catanach

BLACK OIL, INC.

P.O. BOX 537 • FARMINGTON, N.M. 87499 • PHONE (505) 325-9671

October 30, 1987

Mr. David G. Boyer
Energy Minerals and Natural Resources Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504

Dear Mr. Boyer:

Enclosed is a completed pit registration form on our proposed facility located at our Nose Rock field in McKinley County, and a map showing the site of contributing wells. We will post a sign at the watering area stating that the water is not to be consumed by humans. We will submit to you a water sample each year detailing the solids contained in the water.

Please advise if we need to furnish any other information.

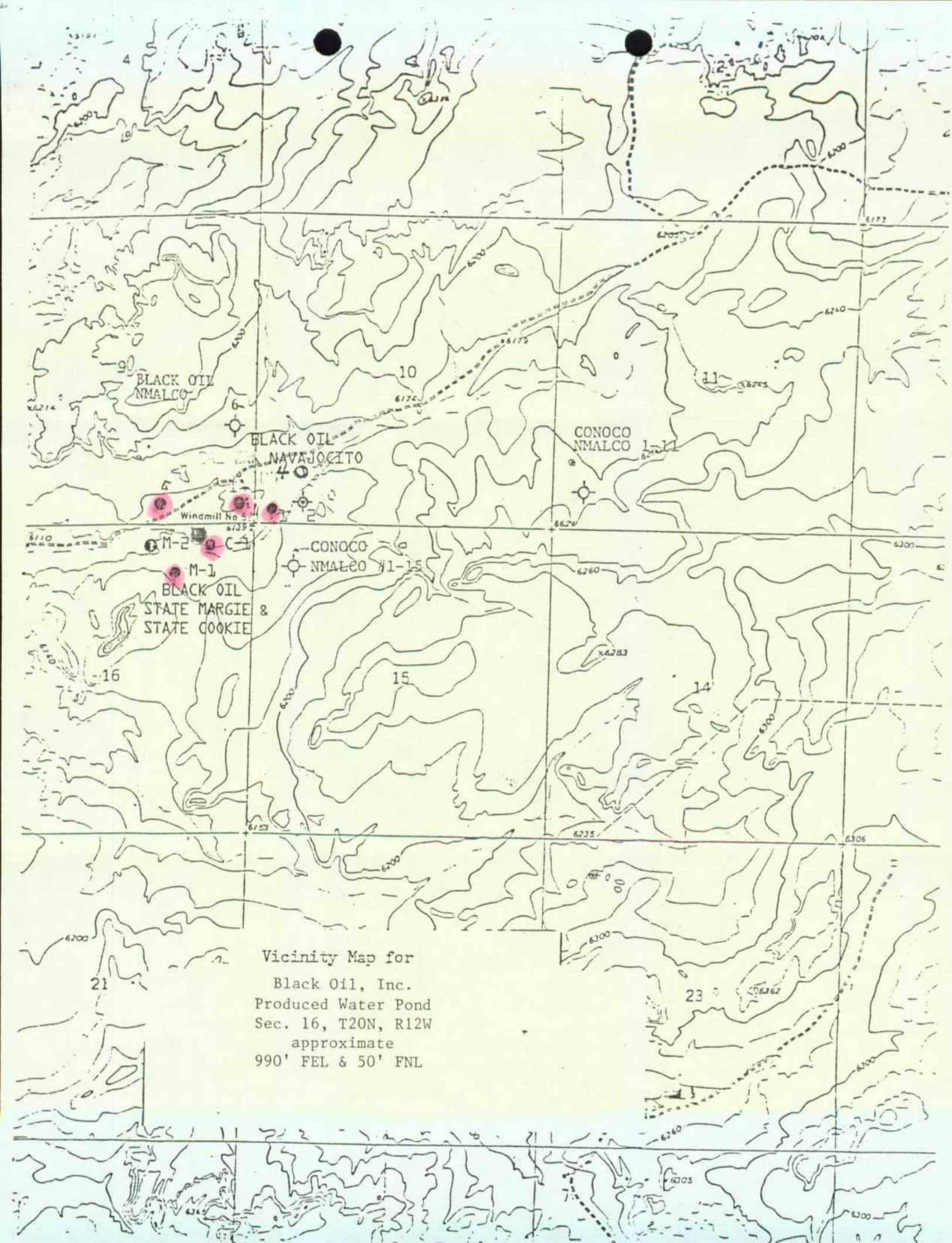
Sincerely,

Bruce A. Black

BAB/ta

Enc.

cc: Aztec District Office



Vicinity Map for

Black Oil, Inc.
Produced Water Pond
Sec. 16, T20N, R12W
approximate
990' FEL & 50' FNL

State of New Mexico
Energy and Minerals Department

OIL CONSERVATION DIVISION
P. O. Box 2088
Santa Fe, New Mexico 87501
(505) 827-5800

CENTRALIZED DISPOSAL OR COLLECTION PIT REGISTRATION FORM

Owner/Operator: Black Oil, Inc.
(List information only for pits operated by you at a lease or at other locations)

Address: P.O. Box 2092, Farmington, NM 87499

Well and Lease, or Facility Name: Nose Rock - Hospah Ext.

Location: SE of Sec. 9, SW of Sec. 10, NE of Sec. 16, McKinley County

(A) Pit Fluid Sources	(B) Pit Fluid Type:	(C) Maximum Daily Discharge to each Pit	(D) Pit Type:
Pumping oil Wells	x 1. Produced Water 2. Completion Fluids 3. Drilling Fluids 4. Drill Cuttings	150	x 1. Unlined 2. Lined 3. Tank

List all Wells & Locations that Contribute Fluid to Pit

NMALCO GURLEY #1 - 330' FSL & 330' FNL, Sec. 9, T20N, R12W

NMALCO GURLEY #4 - 330' FSL & 1750' FEL, Sec. 9, T20N, R12W

STATE COOKIE #1 - 330' FNL & 990' FEL, Sec. 16, T20N, R12W

STATE MARGIE #1 - 990' FNL & 1650' FEL, Sec. 16, T20N, R12W

SALAZAR NAVAJOCITO #1 - 330' FSL & 330' FNL, Sec. 10, T20N, R12W

Is this facility located in or within 100 horizontal feet of a watercourse? Yes _____ No X

Watercourse: Any lake-bed or gully, draw, stream bed, wash, arroyo, or natural or man-made channel through which water flows or has flowed.

Is ground water at the site at 10 feet or less from the base of the pit? Yes _____ No X

I hereby certify that I am familiar with the information contained in and submitted with this application and that such information is true, accurate and complete to the best of my knowledge and belief."

(Signature) — (Date) 10-30-87

Bruce A. Black — (Printed Name of Person Signing)

President — (Title)

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

October 28, 1987

M E M O R A N D U M

TO: Nicholas Black, Attorney, State Land Office

FROM: David Boyer, Environmental Bureau Chief, OCD

RE: Black Oil Company Request to Discharge Produced Water near Crownpoint

Since the requested discharge location is on state land (Section 16, T 20 N, R 12 W), I am enclosing for your information data on the site and planned operation. When OCD receives all the requested information, we plan to approve the application with the stipulation that they take samples and report pond Total Dissolved Solids yearly as well as sample and report the same for water from any additional wells they want to add to the system.

If you need further information, please contact me at extension 5812.

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

October 23, 1987

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

Mr. Mike Maloney
Black Oil Company
Box 537
Farmington, NM 87499

Re: Centralized Pit Registration

Dear Mr. Maloney:

Enclosed is a copy of OCD Rule R-7940 A and a pit registration form for your proposed facility near Crownpoint. Please complete the form and return it to us along with the following information:

1. A map showing location of the site and contributing wells.

2. A drawing showing proposed location of pit(s), separation equipment, and cattle watering equipment.

3. Pit information (number, dimensions, depth, berms, fencing, etc.)

4. A statement or affidavit from the person responsible for the cattle stating that he understands the water is from an oil production facility and is not to be consumed by humans. Also, the document should acknowledge that while tests indicate the water is currently potable for livestock, no representations as to continued quality are made by Black Oil or the Oil Conservation Division, and the livestock owner takes responsibility for its use.

5. A commitment to post a sign at the watering area stating that the water is not to be consumed by humans.

After we receive this information, we expect to approve the pit, since we have already evaluated the ground water contamination potential as minimal. Also, if you do not desire to construct an injection well, please withdraw your application by notifying David Catanach of this office. Please contact me or Roger Anderson if you have any questions.

Sincerely,

David G. Boyer
Hydrogeologist/Environmental Bureau Chief

Encl.

cc: David Catanach
Aztec District Office

BLACK OIL, INC.

P.O. BOX 537 • FARMINGTON, NM 87499 • PHONE (505) 325-9671

October 22, 1987

Mr. Dave Boyer
Oil and Gas Commission
P.O. Box 2088
Santa Fe, NM 87504

Dear Mr. Boyer:

In accordance with your conversation today with Mike Maloney, we are enclosing the surface lease owner's letter giving us permission to give him stock tank water from our production zone in the Nose Rock field. Additionally, he has accepted full responsibility and liability for the water and its affects on his cattle.

We are also enclosing a vicinity map with the approximate location of our proposed pond, and a drawing showing the size of the proposed ponds.

We will fence the two ponds to keep all livestock out of the ponds and the third pond will be for livestock drinking water.

We appreciate your help and we anxiously await your final approval of our plans. Please advise if we need to furnish any other information.

Sincerely,

Bruce A. Black

June 1, 1987

Bruce A. Black
Black Oil, Inc.
P.O. Box 537
Farmington, NM 87499

Dear Mr. Black:

I am the surface grazing lease owner in the area where your new Nose Rock oil field is being drilled. You have told us that there is some fresh water being produced with the oil in this field.

Since we are in need of all the water we can find, we would greatly appreciate your making arrangements to provide to us any water that you produce for our surface stock tanks. We presently have a stock tank in section 16. This is a State owned parcel and we are using the surface under our grazing lease.

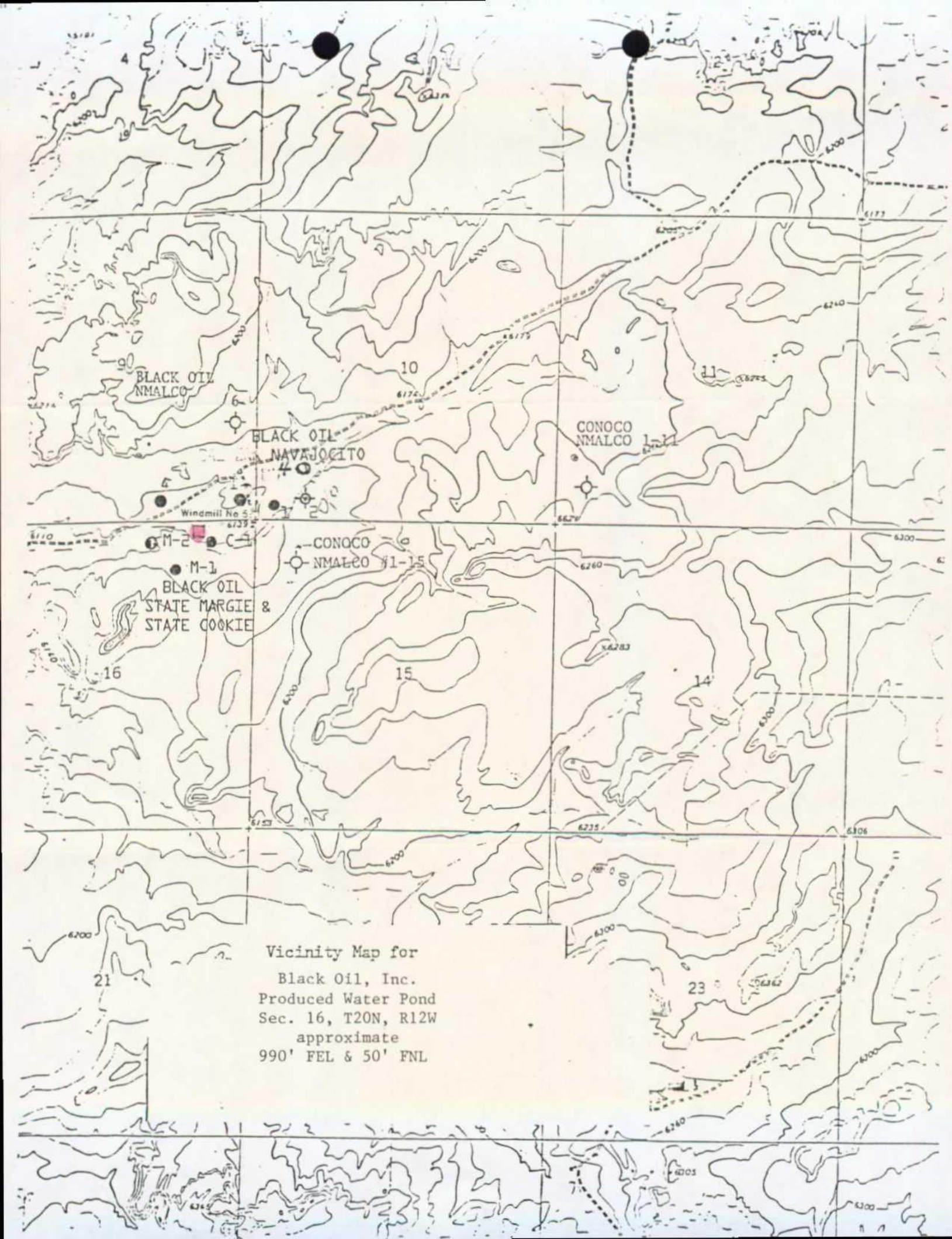
We would also greatly appreciate additional stock tank development or enlargement for the section if the water can be made available. I, of course, will accept full responsibility and liability for the water and its affect on our cattle.

Thank you for your help in arranging to help us with our water needs and in helping provide us with this badly needed resource.

Sincerely,

Robert Becenti

Robert Becenti
Box 5
Crownpoint, NM 87313



Vicinity Map for

Black Oil, Inc.
Produced Water Pond
Sec. 16, T20N, R12W
approximate
990' FEL & 50' FNL

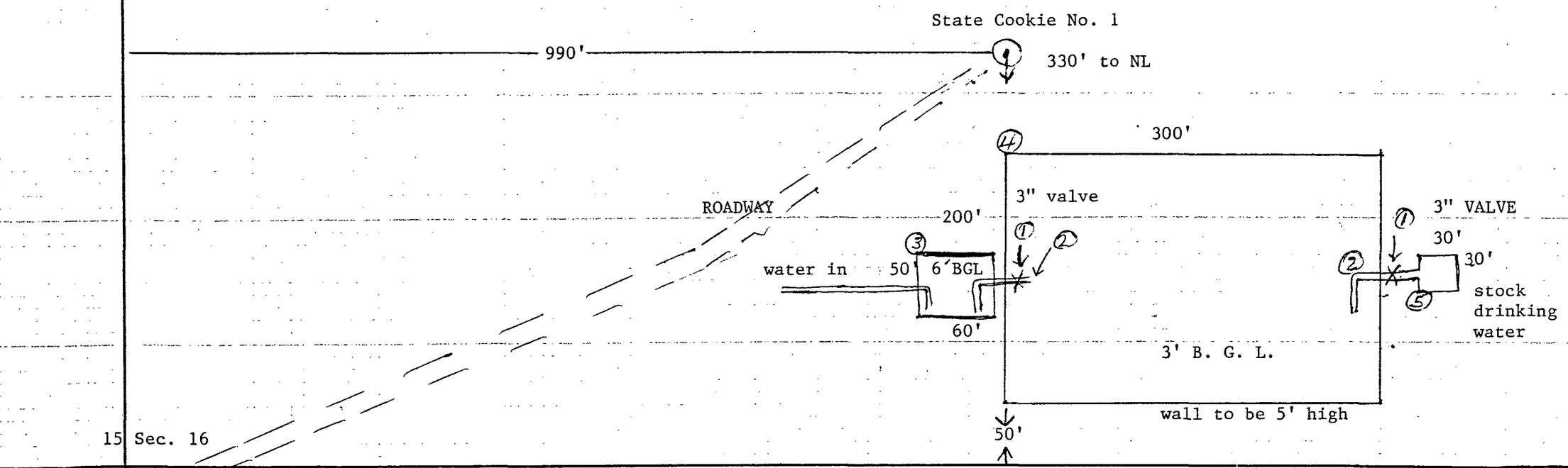
10-22-87

Black Oil, Inc.
Sec. 16, T20N, R12W

Approximate NE Corner 990' FEL & 50' FNL

proposed pond for stockwater
produced water

1. 3" valve to control flow
2. 3" steel pipe
3. pond 50' X 60' X 6'
4. pond 200' X 300' X 3'
5. pond 30' X 30' X 3'



MCKINLEY COUNTY, NEW MEXICO

753
#343 A,B
8-11-87

87-1343-C

87-1328-C

SCIENTIFIC LABORATORY DIVISION

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

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

S.L.D. No. OR- 1328 AB
DATE REC. 8-7-87
PRIORITY 3
PHONE(S): 827-5812

COLLECTION CITY: Crownpoint ; COUNTY: San Juan

COLLECTION DATE/TIME CODE: (Year-Month-Day-Hour-Minute) 87|08|06|11|10

LOCATION CODE: (Township-Range-Section-Tracts) 20N+12W+09+ | | (10N06E2

USER CODE: 82335 SUBMITTER: Bill Olson CODE:

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

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.

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 Headspace (1-5 Carbons)
- [X] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [X] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (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=_____umho/cm at _____°C; Chlorine Residual=_____mg/l

Dissolved Oxygen=_____mg/l; Alkalinity=_____mg/l; Flow Rate_____ _____/_____

Depth to water _____ft.; Depth of well_____ft.; Perforation Interval _____-_____ft.; Casing:_____

Sampling Location, Methods and Remarks (i.e. odors, etc.)

Black Oil Co. - NMALCO Garley #1 second fiberglass holding tank

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

CHAIN OF CUSTODY

I certify that this sample was transferred from _____ to _____

at (location) _____ on ____/____/____ - ____:____ and t

the statements in this block are correct. Evidentiary Seals: Not Sealed [ ] OR Seals Intact: Yes [ ] No [ ]

Signatures _____ _____

ANALYSES PERFORMED

LAB. No.: OR- 1328/1343

THIS PAGE FOR LABORATORY RESULTS ONLY

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

PURGEABLE SCREENS

- [x] (753) Aliphatic Headspace (1-5 Carbons)
- [ ] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (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. [redacted]	COMPOUND(S) DETECTED	CONC. PPB'
Headspace		halogenated purgeables	N.D
Methane MDL = 5ppm	459 ppm	aromatic purgeables	see remarks
Ethane MDL = 1ppm	16 ppm	[m-xylene]	500
Propane MDL = 1ppm	95 ppm		
isobutane MDL = 1ppm	229 ppm		
n-butane MDL = 1ppm	326 ppm		
isopentane MDL = 1ppm	1557 ppm		
n-pentane MDL = 1ppm	2273 ppm		
* DETECTION LIMIT *		÷ DETECTION LIMIT ÷	10 ppb

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: Forty compounds that range from early eluting to late eluting at approx 100-600 ppb detected by the photoionization detector but not identified. These compounds as analyzed by mass spec. appear to be a mixture of cyclic aliphatics and linear aliphatics as well as unsaturated aliphatics.

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Not Sealed [x] 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: 9/4/87 9/14/87 Analyst's signature: A.S. Ramsey ; Mary C. Allen

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

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

WNW 854

LAB NUMBER WC 3632
DATE RECEIVED 8-7-87
DATE REPORTED
SLD USER CODE NUMBER 82235

RECEIVED
OCT - 9 1987
OIL CONSERVATION DIVISION
SANTA FE

Well Location Address T-20N, R-24W

Point of Collection NMALCO - Gurley #1

Well Owner/User Mark Oil Co.

Number of People Drinking Water from Well 0

Collected 8/6/87 (Date) 1100 (Time) By Bill Olson (Name) OCD (Agency)

Well Depth

Water Level

pH 8.5

Conductivity (Uncorrected) 3000 umho/cm

Temperature 27° Oc

Conductivity at 25°C umho/cm

Taste? Odor? Color? Collectors Remarks
sampled from inlet to second fiberglass holding tank

PROJECT:

From ____, A-H_2SO_4 Sample:

- ☐ Nitrate-N^+ Nitrite-N ____ mg/l ____
- ☐ Ammonia-N ____ mg/l ____
- ☐ Chemical oxygen demand ____ mg/l ____
- ☐ ____ ____ ____

From ____, A-HNO_3 Sample:

- ☐ ICAP Scan
- ☐ Metals by AA (Specify)

From NF, NA Sample:

			Date Analyzed
☑	Calcium	2 mg/l	9/10
☑	Potassium	1.95 mg/l	8/31
☑	Magnesium	<1 mg/l	9/10
☑	Sodium	598 mg/l	8/31
☑	Bicarbonate	654 mg/l	9/2
☑	Chloride	438 mg/l	9/1
☑	Sulfate	57.4 mg/l	9/1
☑	Total Solids	1380 mg/l	9/25
☑	Ion Balance		

This form accompanies 1 sample(s) marked as follows to indicate field treatment:

- (NF): Whole sample (no filtration)
- F: Filtered in field with 0.45u membrane filter
- A-H_2SO_4: Acidified with 2 ml conc H_2SO_4/l
- A-HNO_3: Acidified with 5ml conc HNO_3/l
- (NA): No acid added

Sum 1,751

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

STATE OF NEW MEXICO
ENV. 87-1088-C

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088
PHONE(S): 327-5812
SUBMITTER: David Boyer

S.L.D. No. OR-1088 A+B
DATE REC. 6-11-87
PRIORITY 3
USER CODE: 8 2 2 3 5
CODE: 2 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 8 7 0 6 0 4 1 0 1 5 W C O

SAMPLE TYPE: WATER ☒, SOIL ☐, FOOD ☐, OTHER:_____ CODE: ___

COUNTY: McKinley; CITY: Crownpoint CODE: ____

LOCATION CODE: (Township-Range-Section-Tracts) 2 0 N + 1 2 W + 0 9 + ____ (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

RECEIVED
AUG - 6 1987
OIL CONSERVATION DIVISION
SANTA FE

Remarks: _____

FIELD DATA:

pH=_____; Conductivity=3500 umho/cm at 50+ °C; Chlorine Residual=_____mg/l

Dissolved Oxygen=_____mg/l; Alkalinity=_____mg/l; Flow Rate_____ ____/____

Depth to water _____ft.; Depth of well_____ft.; Perforation Interval _____-_____ft.; Casing:_____

Sampling Location, Methods and Remarks (i.e. odors, etc.)

Black Oil Co. - NMALCO Garley #1 oil & paraffins in water stream

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

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 _____ Phone or Letter?_____ Initials _____

ANALYSES PERFORMED

LAB. No.: OR- 1088

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]
aromatic purgeables	N.D.		
halogenated purgeables	N.D.		
	-		
* DETECTION LIMIT *	* 25 ug/L	+ 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: not sealed 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: 10/29/87 Analyst's signature: Gary C. Eblen

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

SCIENTIFIC LABORATORY DIVISION

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

754 wipe

87-1087-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- 1087 A+B
DATE REC. 6-11-87
PRIORITY 3

PHONE(S): 327-5812
USER CODE: 32235
SUBMITTER: David Boyer
CODE: 260

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 870604/1040WC0

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

COUNTY: McKinley; CITY: Crownpoint CODE: _____

LOCATION CODE: (Township-Range-Section-Tracts) 20N+12W+09+ _____ (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

RECEIVED
AUG - 6 1987
OIL CONSERVATION DIVISION
SANTA FE

Remarks: _____

FIELD DATA:

pH=_____; Conductivity=2450 umho/cm at 19 °C; Chlorine Residual=_____ mg/l

Dissolved Oxygen=_____ mg/l; Alkalinity=_____ mg/l; Flow Rate_____ ____/____

Depth to water _____ ft.; Depth of well_____ ft.; Perforation Interval _____-_____ ft.; Casing:_____

Sampling Location, Methods and Remarks (i.e. odors, etc.)

Black Oil Co. - NMALCO Curley #4, oil in water stream.

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): William Olson 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 _____ Phone or Letter?_____ Initials _____

ANALYSES PERFORMED LAB. NO: OR- 1087

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]
aromatic purgeables	N.D.		
halogenated purgeables	N.D.		
	—		
* DETECTION LIMIT * ✳	25 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: not sealed 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: 6/29/87 . Analyst's signature: Mary C. Eden

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

753
1344 A.3
8-16-87

SCIENTIFIC LABORATORY DIVISION

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

87-1329-C

754 WPV

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

S.L.D. No. OR-1329 A.3
DATE REC. 8-7-87
PRIORITY 3
PHONE(S): 827-5812

87-1344-C

COLLECTION CITY: Crownpoint ; COUNTY: San Juan

COLLECTION DATE/TIME CODE: (Year-Month-Day-Hour-Minute) 8 7 0 8 1 0 6 1 1 4 7

LOCATION CODE: (Township-Range-Section-Tracts) 2 1 0 N + 1 2 W + 0 9 + (10N06E2

USER CODE: 8 2 2 3 1 5 SUBMITTER: Bill Olson CODE:

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

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.

See 16? WPV

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 Headspace (1-5 Carbons)
- [X] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ]
- [X] Heat Space
- [ ]
- [ ]
- [ ]

EXTRACTABLE SCREENS

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

Remarks: _____

FIELD DATA:

pH=_____; Conductivity=_____umho/cm at _____°C; Chlorine Residual=_____mg/l

Dissolved Oxygen=_____mg/l; Alkalinity=_____mg/l; Flow Rate_____ ____/____

Depth to water _____ft.; Depth of well_____ft.; Perforation Interval _____-_____ft.; Casing:_____

Sampling Location, Methods and Remarks (i.e. odors, etc.)

Black Oil Co. - IK-5 Windmill
Sampled from pvc line running to stock pond

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

CHAIN OF CUSTODY

I certify that this sample was transferred from _____ to _____

at (location) _____ on ____/____/____ - ____:____ and t

the statements in this block are correct. Evidentiary Seals: Not Sealed [ ] OR Seals Intact: Yes [ ] No [ ]

Signatures _____ _____

ANALYSES PERFORMED LAB. No.: OR- 1329/1344

THIS PAGE FOR LABORATORY RESULTS ONLY

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

PURGEABLE SCREENS

- [x] (753) Aliphatic Headspace (1-5 Carbons)
- [x] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (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)
Headspace		aromatic purgeables	N.D
Methane MDL = 5ppm TR < 5		halogenated purgeables	N.D.
* DETECTION LIMIT *		÷ DETECTION LIMIT ÷	1 PPB

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) Not Sealed [x] 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: 8/11/87 9/14/87 Analyst's signature: GS Burney ; Gary C. Allen

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 Meyerhein

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

859
WNN

LAB NUMBER WC-3633
DATE RECEIVED 8-7-87
DATE REPORTED CO 9/25/87
Initials
SLD USER CODE NUMBER 82235

Well Location Address T-20N R-12W sec (9) Sec 16? NW

Point of Collection IK-5 Windmill

Well Owner/User Black Oil Co.

Number of People Drinking Water from Well feeds cattle stock pond

Collected 8/6/87 (Date) 1147 (Time) By Bill Olson (Name) OCD (Agency)

Well Depth _____ pH 8.5

Water Level _____ Conductivity (Uncorrected) 2000 umho/cm

Taste? Odor? Color? Collectors Remarks
taken from PVC line running out of tank fed by windmill

Temperature 27° Oc

Conductivity at 25°C _____ umho/cm

PROJECT:

From ____, A-H_2SO_4 Sample:

- ☐ Nitrate-N^+ Nitrite-N _____ mg/l _____
- ☐ Ammonia-N _____ mg/l _____
- ☐ Chemical oxygen demand _____ mg/l _____
- ☐ _____ _____ _____

From ____, A-HNO_3 Sample:

- ☐ ICAP Scan
- ☐ Metals by AA (Specify)

From NE, NA Sample:

			Date Analyzed
☑ Calcium	2	mg/l	9/10
☑ Potassium	1.17	mg/l	8/31
☑ Magnesium	< 1	mg/l	9/10
☑ Sodium	508	mg/l	8/31
☑ Bicarbonate	411	mg/l	9/2
☑ Chloride	43.8	mg/l	9/1
☑ Sulfate	570	mg/l	9/1
☑ Total Solids	1318	mg/l	9/17
☒ [illegible] Balance			

pH = 9.15, $[CO_3^{-2}]$ = 38 mg/l

This form accompanies 1 sample(s) marked as follows to indicate field treatment:

(NF:) Whole sample (no filtration)
F: Filtered in field with 0.45u membrane filter
A-H_2SO_4: Acidified with 2 ml conc H_2SO_4/l
A-HNO_3: Acidified with 5ml conc HNO_3/l
(NA:) No acid added

Sum 1,574

112

BLACK OIL, INC.

P.O. BOX 537 • FARMINGTON, N.M. 87499 • PHONE (505) 325-9671

June 10, 1987

Mr. Dave Boyer
Oil and Gas Commission
P.O. Box 2088
Santa Fe, NM 87504

Dear Mr. Boyer:

In accordance with our conversation last week, I have procured and am enclosing the surface lease owner's letter giving us permission to give him stock tank water from our production zone in the Nose Rock field. Additionally, he has accepted full responsibility and liability for the water and its affects on his cattle.

I appreciate your field workers picking up samples of the water and we anxiously await the determination of the water quality. Please keep us advised as soon as you know the results. Thanks for your help.

Sincerely,

Bruce A. Black

BAB/ta

Enc.

June 1, 1987

Bruce A. Black
Black Oil, Inc.
P.O. Box 537
Farmington, NM 87499

Dear Mr. Black:

I am the surface grazing lease owner in the area where your new Nose Rock oil field is being drilled. You have told us that there is some fresh water being produced with the oil in this field.

Since we are in need of all the water we can find, we would greatly appreciate your making arrangements to provide to us any water that you produce for our surface stock tanks. We presently have a stock tank in section 16. This is a State owned parcel and we are using the surface under our grazing lease.

We would also greatly appreciate additional stock tank development or enlargement for the section if the water can be made available. I, of course, will accept full responsibility and liability for the water and its affect on our cattle.

Thank you for your help in arranging to help us with our water needs and in helping provide us with this badly needed resource.

Sincerely,

Robert Becenti

Robert Becenti
Box 5
Crownpoint, NM 87313

BLACK OIL, INC.

P.O. BOX 537 • FARMINGTON, N.M. 87499 • PHONE (505) 325-9671

June 1, 1987

Mr. Dave Boyer
Oil and Gas Commission
P.O. Box 2088
Santa Fe, NM 87504

Dear Mr. Boyer:

In accordance with our conversation on Monday, June 1st, I am sending you a copy of our first chemical analysis on the produced water from the Nose Rock field.

I want to thank you for your help in guiding us on how we can utilize these waters for the Indians who have the surface grazing lease. They are desperate for water in this part of the country and it will, of course, help us in producing our oil field more efficiently.

I will be forwarding to you Mr. Becenti's (the grazing lessee) written request for the water in the near future.

Sincerely,

Bruce A. Black

BAB/ta

Enc.

UNICHEM INTERNATIONAL

Home Office 707 N. Leech, P.O. Box 1499 / Hobbs, NM 88240 / Ph. 505/393-7751, TWX 910/986-0010

September 8, 1986

Black Oil
Box 537
Farmington, NM 87401

Attention: Bruce Black

Dear Mr. Black:

Enclosed please find our water analyses reports on the samples from the Gurley #1 and #4 submitted to our laboratory on August 29, 1986.

If you have any questions or require further information, please contact us.

Sincerely,

Sharon Wright

Sharon Wright
Laboratory Technician

SW/ce

cc: Mike Jones
Harold McCullough
Doyle Roberts
Skeet Raybon

UNICHEM INTERNATIONAL

707 NORTH LEECH P.O.BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY : BLACK OIL
DATE : 9-8-86
FIELD,LEASE&WELL : ~~GURLEY #1~~
SAMPLING POINT: STOCK TANK BOTTOM
DATE SAMPLED : ~~8-25-86~~

SPECIFIC GRAVITY = 1.001
TOTAL DISSOLVED SOLIDS = 3479
RESISTIVITY AT 74F IS 3.25 OHMS
PH = 8.62

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	.5	10.0
MAGNESIUM	(MG)+2	1.6	19.8
SODIUM	(NA),CALC.	53.8	1237.
ANIONS			
BICARBONATE	(HCO3)-1	8.6	524.
CARBONATE	(CO3)-2	1.4	42.0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	.95	45.5
CHLORIDES	(CL)-1	45	1600
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		3.7
BARIUM	(BA)+2	0	.3
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) =.059

SCALING INDEX	TEMP 30C 86F	90C 194F
CARBONATE INDEX	1.05	2.93
CALCIUM CARBONATE SCALING	LIKELY	LIKELY
CALCIUM SULFATE INDEX	-19.	-19.
CALCIUM SULFATE SCALING	UNLIKELY	UNLIKELY

NICHEM INTERNATIONAL

707 NORTH LEECH P.O.BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY : BLACK OIL
DATE : 9-8-86
FIELD,LEASE&WELL : ~~GURLEY #4~~
SAMPLING POINT : STOCK TANK BOTTOM
DATE SAMPLED : ~~8-25-86~~

SPECIFIC GRAVITY = 1.001
TOTAL DISSOLVED SOLIDS = 4366
RESISTIVITY AT 74F IS 2.04 OHMS
PH = 7.28

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	2	40.0
MAGNESIUM	(MG)+2	30	364.
SODIUM	(NA),CALC.	42.0	966.
ANIONS			
BICARBONATE	(HCO3)-1	10	610.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	8.0	385
CHLORIDES	(CL)-1	56	2000
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		120.
BARIUM	(BA)+2	0	.24
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) =.095

SCALING INDEX	TEMP 30C 86F	90C 194F
CARBONATE INDEX	-.05	1.83
CALCIUM CARBONATE SCALING	UNLIKELY	LIKELY
CALCIUM SULFATE INDEX	-23.	-15.
CALCIUM SULFATE SCALING	UNLIKELY	UNLIKELY