

3R - 269

**GENERAL
CORRESPONDENCE**

YEAR(S):

2000 - 1995



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Jennifer A. Salisbury

Cabinet Secretary

Lori Wrotenbery

Director

Oil Conservation Division

November 1, 2000

Certified Receipt #7000 0520 0018 0515 3944

Don Johnson
Koch Exploration Company
P. O. Box 489
Aztec, NM 87410

RE: Pit Closures at 26 Well Sites

Dear Mr. Johnson:

The New Mexico Oil Conservation Division (OCD) has reviewed 30 pit closures at 26 Koch Exploration Company (Koch) well sites submitted under a cover letter dated August 21, 2000. Twenty-three of these pits are outside the expanded vulnerable area. The 13 pit closures listed in **ATTACHMENT A** are approved. The eight pit closures outside the vulnerable area listed in **ATTACHMENT B** are approved, although BTEX analysis for land farm closure has not been provided. The four pit closures listed in **ATTACHMENT C** are approved by risk analysis due to reaching bedrock, note the Gardner #5 and Dryden #1E are outside the vulnerable area and no land farm BTEX information has been provided. The four pit closures outside the vulnerable area listed in **ATTACHMENT D** are approved by risk analysis because remaining volumes of BTEX or TPH has been shown to be limited in volume, all four closures lack land farm BTEX analysis. The separator pit closure at the Dryden #2E, I-22-28N-08W, which encountered ground water, is approved by risk analysis because subsequent ground water sampling has shown no impact above Water Quality Control Commission Standards. (Other reviewers please note additional paperwork attached for Dryden #2E, Dryden #2, Blancett Corn #1 Center Pit, Walker #2A and Gardner #4). Note the location correction for the Walker #1E in **ATTACHMENT B**.

Please be advised that OCD approval does not relieve Koch of liability if remaining contaminants are found to pose a future threat to surface water, ground water, human health or the environment. OCD approval does not relieve Koch of compliance with other federal, state, tribal or local laws and regulations.

Yours truly,

Denny G. Foust
Environmental Geologist
Deputy Oil & Gas Inspector
dfoust@state.nm.us

DGF/mk

XC: Bill Olson, OCD Santa Fe w/attachments
Bill Liess, BLM Farmington w/attachments

DGF File
Environmental File

Exploration
November 1, 2000

ATTACHMENT A

- 1) Dryden #1, Sep
- 2) Howell #1, Drip
- 3) Moore #1, Drip
- 4) Walker #2A, Sep-cement
- 5) Walker #1R, Lower
- 6) Cain #1A, Sep
- 7) Lambe #2A, Drain
- 8) Lambe #3, Drain
- 9) Gardner #3, Drip
- 10) Gardner #3A, Drip
- 11) Gardner #4A, Drip
- 12) Blancett Com #1, Drain-north
- 13) Blancett Com #1, Blow-south

D-28-28N-08W
M-03-30N-08W
C-05-30N-08W
P-10-31N-10W
A-13-31N-10W
D-20-31N-10W
O-20-31N-10W
B-21-31N-10W
M-31-32N-08W
P-31-32N-08W
P-25-32N-09W
G-27-32N-09W
G-27-32N-09W

ATTACHMENT B

- 1) Gonsales #1, Sep
- 2) Mansfield #1, Sep
- 3) Mansfield #1E, Sep
- 4) Walker #1R, Sep
- 5) Lambe #2, Drain
- 6) Lambe #1, Drain
- 7) Lambe #3A, Sep
- 8) Gardner #4, Drip

P-01-29N-08W
E-25-30N-10W
B(O)-25-30N-10W
A-13-31N-10W
A-20-31N-10W
M-21-31N-10W
P-21-31N-10W
M-25-32N-09W

ATTACHMENT C

- 1) Dryden #2, Sep
- 2) Dryden #1E, Sep
- 3) Bennett Com #1, Sep-Dehy
- 4) Gardner #5, Drip

L-22-28N-08W
A-28-28N-08W
G-27-32N-09W
M-26-32N-09W

ATTACHMENT B

- 1) Walker #2, Drain
- 2) Walker #1A, Sep
- 3) Lambe #2, Sep
- 4) Lambe #1A, Sep

M-10-31N-10W
P-13-31N-10W
A-20-31N-10W
D-21-31N-10W

District I

P.O. Box 1980, Hobbs, NM

District II

P.O. Drawer DD, Artesia, NM 88211

District III

1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department**OIL CONSERVATION DIVISION**P.O. Box 2088
Santa Fe, New Mexico 87504-2088SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO
SANTA FE OFFICE**PIT REMEDIATION AND CLOSURE REPORT**Operator: KOCH Exploration Co. Telephone: 505) 334-9111Address: P.O. Box 489 Aztec, NM 87410Facility or: Dryden 2E
Full NameLocation: Unit or Qtr/Qtr Sec I Sec 22 T28N R 8W County San JuanPit Type: Separator ☒ Dehydrator ☐ Other ☐Land Type: BLM ☒, State ☐, Fee ☐, Other ☐Pit Location: Pit dimensions: length 20', width 20', depth 19'
(Attach diagram)Reference: wellhead ☒, other ☐Footage from reference: 85Direction from reference: 65 Degrees ☐ East North ☒
☐ West of 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) 20**RECEIVED****Wellhead Protection Area:**(Less than 200 feet from a private
domestic water source, or; less than
1000 feet from all other water sources)

AUG 21 2000

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISIONYes (20 points)
No (0 points) 0**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) 0RANKING SCORE (TOTAL POINTS): 20

Date Remediation Started: 9/12/95 Dated Completed: 4/28/98

Remediation Method: Excavation ☒ Approx. cubic yards 300
(Check all appropriate sections) Landfarmed ☒ Insitu Bioremediation ☐
Other _____

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

General Description Of Remedial Action: Contaminated soils were removed and placed in an on-site landfarm. Groundwater was encountered @ 25'. Auger holes were drilled to establish extent of contamination. All earthen pits were replaced with tanks and secondary boundaries.

Ground Water Encountered: No ☐ Yes ☒ Depth 25'

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

Sample location pit bottom, mid-pit

Sample depth 19'

Sample date 9/13/95 Sample time 1430

Sample Results

Benzene(ppm)	<u>N/A</u>	EPA 8015M	
Total BTEX(ppm)	<u>N/A</u>	Gas. Range	2603 ppm
Field headspace(ppm)	<u>2500+</u>	Die. Range	3841 ppm
TPH	<u>14,150</u>		

Ground Water Sample: Yes ☒ No ☐ (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 8/10/00

SIGNATURE Donald L. Johnson

PRINTED NAME Donald L. Johnson
AND TITLE Operations Manager

OFF: (505) 325-8786



LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn: *Shawn Adams*
Company: *Contract Environmental Services, Inc.*
Address: *P.O. Box 505*
City, State: *Kirtland, NM 87417*

Date: *13-Sep-95*
COC No.: *3181*
Sample No. *8186*
Job No. *2-1000*

Project Name: *Koch Exploration - Dryden 2E*
Project Location: *DRYD-100 Pit Bottom*
Sampled by: *SA*
Analyzed by: *BV*
Type of Sample: *Soil*

Date: *13-Sep-95* Time: *2:30*
Date: *13-Sep-95*

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
8186-3181	<i>Koch Exploration - Dryden 2E</i> <i>DRYD-100 Pit Bottom</i>	14,150 mg/kg

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: *[Signature]*
Date: *9/13/95*

P. O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 30-Apr-98

Client: Contract Environmental Services, Inc.
Work Order: 9804035
Lab ID: 9804035-01A **Matrix:** SOIL
Project: Koch Exploration

Client Sample Info: Dryden 2E
Client Sample ID: DRYD-101 Soil Farm East
Collection Date: 4/22/98 10:30:00 AM
COC Record: 4354

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	62	25		mg/Kg	1	4/28/98
GASOLINE RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C6-C10	ND	180		µg/Kg	1	4/26/98
Surr: Trifluorotoluene	92.6	70-130		%REC	1	4/26/98

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



CHAIN OF CUSTODY RECORD

4324

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase Order No.:		Job No.	
Name: <u>Don Tolson</u>		Title:	
Company: <u>Koch Expt.</u>		Company: <u>Continental Environmental Services, Inc.</u>	
Address: <u>PO Box 484</u>		Mailing Address: <u>PO Box 3376</u>	
City, State, Zip: <u>Albuquerque NM 87110</u>		City, State, Zip: <u>Albuquerque NM 87109</u>	
Sampling Location: <u>Divide 25 Gardens 4 Walker 12</u>		Telephone No.: <u>325-1198</u>	
Blauett Coal Gardens 5		Telefax No.:	
Sampler: <u>SPRINGS</u>		ANALYSIS REQUESTED	
SAMPLE IDENTIFICATION		LAB ID	
DATE	TIME	MATRIX	PRES.
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12/17	17:49	"	"
12/17	17:50	"	

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: **Shawn Adams**
 Company: **Contract Environmental Services, Inc.**
 Address: **P.O. Box 3376**
 City, State: **Farmington, NM 87499**

Date: **2-Sep-97**
 COC No.: **4352**
 Sample No.: **15922**
 Job No.: **2-1000**

Project Name: **Koch Exploration - Dryden 2E**
 Project Location: **DRYD-401; Soil Farm, Comp. 1&2**
 Sampled by: **SAA/PRC** Date: **25-Aug-97** Time: **13:30**
 Analyzed by: **DC/HR** GRO Date: **28-Aug-97**
 Sample Matrix: **Soil** DRO Date: **29-Aug-97**

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Gasoline Range Organics (C5 - C9)	ND	mg/kg	0.5	mg/kg
Diesel Range Organics (C10 - C28)	17	mg/kg	5	mg/kg

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

GRO QC No.: 0537-STD

DRO QC No.: 0548-STD

Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
Gasoline Range (C5 - C9)	ND	ppb	1,801	1,752	2.8	15%
Diesel Range (C10 - C28)	ND	ppm	200	197	1.5	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
Gasoline Range (C5-C9)	91	101	(80-120)	10	20%
Diesel Range (C10-C28)	80	81	(75-125)	1	20%

Method: SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*
 Date: **9/2/97**

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

KOCH Exploration Company Risk Analysis

Prepared by:

Contract Environmental Services, Inc

Prepared for:

Oil Conservation Division -District III

Date: 7/31/97

Location: Dryden 2E-Separator Pit Unit-I, Sec22, T28N, R8W

Lease Number: NM—
013861

Resources

Ground Water: 25 feet (auger hole drilling)

Closest Surface Water: No down gradient perennial bodies within 1000 feet (visual inspection of the area)

Water Sources: No private, domestic water source is located within 1000 feet of this site.

Risk Management

Natural Barriers: Soil is one natural barrier that will protect groundwater from site contamination.

Additional
Investigation:

Four auger holes were drilled on this site. Three of the four holes were drilled within 8 feet of the original earthen pit, the fourth was drilled at a distance of 35 feet from the pit. All four auger holes were drilled to a depth of 25-27 feet. All holes were drilled on the southwest side of the pit, toward the Carrizo Wash.

Ground water was encountered at 25 feet in each auger hole.

Field-testing and laboratory analysis was done on the soil and water from these test holes. The results of this analysis and testing are shown in Table 1 on the following page. All data is supported with laboratory result sheets and field data sheets found in this closure package.

All holes were grouted after sampling was completed to assure ground water was protected.

Risk Analysis

Contract Environmental Services, Inc.
Post Office Box 3376
Farmington, New Mexico 87499

Additional
Investigation: (continued)

Table 1. Auger hole field and laboratory results summary.

Auger Hole	Sample			
	Depth	Field Headspace Results	TPH* Laboratory Results	Remarks
	(feet)	(PPM)	(PPM)	
Test Hole 1	5-7	10.6		
	10-12	10.3		
	15-17	7.3		
	20-22	10.1	ND	
	25-27	7.8	ND	
Water Sample	28	N/A	1.7	Total-BTEX
Test Hole 2	5-7	8.4		
	10-12	8.4		
	15-17	10.8		
	20-22	9.6	ND	
	25-27	2.9	ND	
Test Hole 3	5-7	4.7		
	10-12	6.9		
	15-17	7.5		
	20-22	8.2	ND	
	25-27	10.3	ND	
Test Hole 4	5-7	8.2		
	10-12	7.8		
	13-15	7.6		
	15-17	8.7		
	17.5-19.5	8.7		
	20-22	7.1		
	22.5-24.5	2.8	ND	
	25-27	2.4	ND	

* Total Petroleum Hydrocarbons (TPH)

OFF: (505) 325-8786



LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn: Shawn Adams
 Company: Contract Environmental Services, Inc.
 Address: P.O. Box 505
 City, State: Kirtland, NM 87417

Date: 7-Oct-95
 COC No.: 3181
 Sample No. 8186
 Job No. 2-1000

Project Name: Koch Exploration - Dryden 2E
 Project Location: DRYD-100 Pit Bottom
 Sampled by: SA
 Analyzed by: DC
 Type of Sample: Soil

Date: 13-Sep-95 Time: 2:30
 Date: 5-Oct-95

Laboratory Analysis

Analyte	Result	Units of Measure	Detection Limit	Units of Measure
Gasoline Range (C5 - C9)	2603.0	mg/kg	5.0	mg/kg
Diesel Range (C10 - C28)	3840.9	mg/kg	5.0	mg/kg
	TOTAL	6443.8		mg/kg

Quality Assurance Report

GRO QC No.: 0429-STD

DRO QC No.: 0430-STD

Calibration Check

Analyte	Method Blank	Units of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	< 10	ppb	1,351	1,422	5.3	15%
Diesel Range (C10 - C28)	< 5	ppm	2,000	1,988	0.6	15%

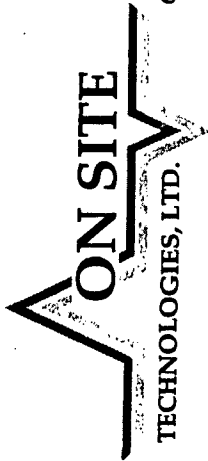
Matrix Spike

Analyte	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	97	104	(70-130)	5	20%
Diesel Range (C10-C28)	98	101	(70-130)	2	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas ChromatographyApproved by: *Da G*Date: *10/7/95*

P. O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



CHAIN OF CUSTODY RECORD

3181

Date: 9/13/95

Page 1 of 1

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase Order No.:		Job No.	
Name <u>Don Johnson</u>		Title	
Company <u>Koch Exploration</u>		Company <u>Contract Environmental Services, Inc</u>	
Address <u>PO Box 489</u>		Mailing Address <u>PO Box 505</u>	
City, State, Zip <u>Albuquerque NM 87410</u>		City, State, Zip <u>Albuquerque NM 87417</u>	
Sampling Location:		Telephone No. <u> </u>	
Telefax No. <u> </u>		Title	
REPORT TO		RESULTS TO	
Number of Containers		ANALYSIS REQUESTED	
Sampler: <u>STADAMS</u>			
SAMPLE IDENTIFICATION		LAB ID	
DATE	TIME	MATRIX	PRES.
<u>9/13/95</u>	<u>1700</u>	<u>Soil</u>	<u>Me</u>
<u>WYD-100 Diggle-2E Palatton</u>		<u>8161-3181</u>	
Relinquished by: <u>Don Johnson</u>		Received by: <u> </u>	
Date/Time <u>9/13/95</u>		Date/Time <u>9/13/95</u>	
Relinquished by:		Received by:	
Date/Time		Date/Time	
Relinquished by:		Received by:	
Date/Time		Date/Time	
Method of Shipment:		10 Working Days	
Authorized by: <u>CA</u>		24-48 Hours	
(Client Signature Must Accompany Request)		Special Instructions:	

100

DATE: 8/13/83

LOCATION: DRYDEN 2E

NOTES: CAME TO LOCATION TO EXCAVATE

CONTAMINATED SOIL. SAND CLEAR TO

19', LEFT CONTAMINATION IN HOLE

DUG UNTIL 9'00". Then moved to

DRYDEN 2

SAMPLE NO. DEPTH PID (PPM)

2' 2500+

6' 2500+

10' 2500+

14' 2500+

19' 2500+

SOIL SAMPLE 402. TAKEN FOR PIT

BOTTOM CLEARANCE RESULTS (PPM)

DRYD-100? Pit bottom 14,150

GAS

DIESEL

ADD DRYD-100

2,603

3840.9

9/13/85

DRYDEN 2

TOOK 402 PIT BOTTOM SAMPLE

SAMPLE NO. RESULTS (PPM)

DRYD-100? Pit bottom 3,456

GAS

DIESEL

326.3

228.2

ADD DRYD-100

TOTAL PETROLEUM HYDROCARBONS
EPA Method 418.1Contract Environmental Services, Inc.

Project ID: **Dryden #2E**
Sample Matrix: **Soil**
Preservative: **Cool**
Condition: **Intact**

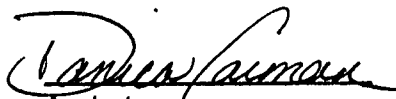
Report Date: 10/27/95
Date Sampled: 10/19/95
Date Received: 10/20/95
Date Extracted: 10/26/95
Date Analyzed: 10/26/95

Sample ID	Lab ID	Concentration (mg/kg)	Detection Limit (mg/kg)
DRYD - 555	1716	ND	20.3
DRYD - 556	1717	ND	16.8
DRYD - 557	1718	ND	20.3
DRYD - 558	1719	ND	14.9
DRYD - 559	1720	ND	18.3
DRYD - 560	1721	ND	21.2
DRYD - 561	1722	ND	23.8
DRYD - 562	1723	ND	17.9

ND- Analyte not detected at the stated detection limit.

Reference: Method 3550 - Sonication Extraction; Test Methods for Evaluating Solid Waste, SW-846, United States Environmental Protection Agency, September, 1986;
Method 418.1 - Petroleum Hydrocarbons, Total Recoverable; Chemical Analysis of Water and Waste, United States Environmental Protection Agency, 1978.

Comments:


Analyst


Review

PURGEABLE AROMATICS

Contract Environmental Services, Inc.

Project ID: Dryden #2E
Sample ID: DRYD - 999
Lab ID: 1724
Sample Matrix: Water
Preservative: Cool
Condition: Intact

Report Date: 10/25/95
Date Sampled: 10/19/95
Date Received: 10/20/95
Date Analyzed: 10/25/95

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.50
Toluene	0.67	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	1.03	1.00
o-Xylene	ND	0.50

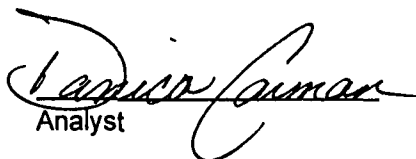
Total BTEX	1.70
------------	------

ND - Analyte not detected at the stated detection limit.

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Trifluorotoluene	101	88 - 110%
	Bromofluorobenzene	104	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:


Analyst


Review

PROJECT MANAGER:

Analytica Lab I.D.:

Company:

Address:

Phone:

Fax:

Bill To:

Company:

Address:

CONTRACT ENVIRONMENTAL SERVICES, INC.
PO Box 505, KIATLAND, NM 87417

325-1198

CAME

KOCH EXPLORATION

M.R. DEW JONES

PO Box 489 Aztec 87410

CHAIN OF CUSTODY

0532

Page 1 of 2

Sample ID				Date	Time	Matrix	Lab ID
DR40-555				10/19/95	10:14 AM	Soil	
DR40-556				"	10:18 AM	"	
DR40-557				"	11:27 AM	"	
DR40-558				"	11:31 P	"	
DR40-559				"	12:35 P	"	
DR40-560				"	12:43 P	"	
DR40-561				"	2:38	"	
DR40-562				"	2:44	"	

Project Information		Sample Receipt	
Proj. #:	No. Containers:	Signature	Signature
Proj Name: DR40-555	Custody Seals: Y / N / NA	Date: 10/19/95	Date: 9/16/95
P.O. No.	Received Intact:	Company:	Company:
Shipped Via:	Received Cold		
Required Turnaround Time (Prior Authorization Required for Rush)		Relinquished by:	
Received By: Signature		Signature	
Date:		Date:	
Time:		Time:	
Company:		Company:	

ORGANIC ANALYSES										WATER ANALYSES					METALS		COMMENTS									
Petroleum Hydrocarbons (418.1)	Gasoline / Diesel (mod. 8015)	Gasoline (GRO)	Aromatic HCs BTEX/MTBE (602/8020)	Chlorinated Hydrocarbons (8010)	SDWA Volatiles (502.1/503.1)	Chlorinated Pesticides / PCBs (608 / 8080)	Herbicides (615 / 8150)	Volatiles GC/MS (624 / 8240 / 8260)	Base / Neutral / Acid GC/MS (625 / 8270)	Polynuclear Aromatic Hydrocarbons (8100)	TCLP Extraction	Other (Specify):	Cation / Anion	Specific Cations (Specify):	Specific Anions (Specify):	BOD / Fecal / Total Coliform		Solids : TDS / TSS / SS	Nutrients: NH4+ / NO2- / NO3- / TKN	Oil and Grease	Other (Specify):	Priority Pollutants	RCRA Metals (Total)	RCRA Metals TCLP (1311)	Other (Specify):	
X													Anger	HALE #1	20-22'Deep											DR40-555 ND
X													Anger	HALE #1	25-27'Deep											"
X													Anger	HALE #2	20-22'Deep											"
X													Anger	HALE #2	25-27'Deep											"
X													Anger	HALE #3	20-22'Deep											"
X													Anger	HALE #3	25-27'Deep											"
X													Anger	HALE #4	22.5-24.5'Deep											"
X													Anger	HALE #4	25-27'Deep											"

Please Fill Out Thoroughly.

Shaded areas for lab use only.

White/Yellow: Analytica
Pink: Client

Koch

DATE: 8/19/83

LOCATION: RYDEN 2E

NOTES: CAME TO LOCATION TO DRILL
ANGERS AND SAMPLE AROUND
EXCAVATION. PHILIP ENVIRONMENTAL
DID DRILLING. ARRIVE 8:00 AM.
DEEPEN HOLE 3' INTO GROUNDWATER
TO CATCH A SAMPLE FOR THE LAB
2 - 40 ML VOA'S, SOIL SAMPLES
TAKEN FROM LAB @ 20-22',
AND 25-27', DRYO-SSS AND
DRYN-SSG RESPECTIVELY.
4 OZ. SOIL SAMPLES FOR TPH
BY EPA 418.1. GRANTED HOLE
TO SURFACE. TD = 28'.
GROUNDWATER AT 25'.

BORING #1 (CENTER)		
DEPTH	P.O. (AUG)	P.O. (PEAK APR)
5-7'	3.0	10.6
10-12'	4.9	10.3
15-17'	2.6	7.3
20-22'	4.3	10.1
25-27'	2.9	7.8
* GROUNDWATER AT 25'		

Koch

DATE: 10/19/93

LOCATION: DRYDEN 2E

NOTES: FIELD SKETCH FOR AUGER

EXPLORATION

SAMPLE NO. LOCATION RESULTS (PPB)

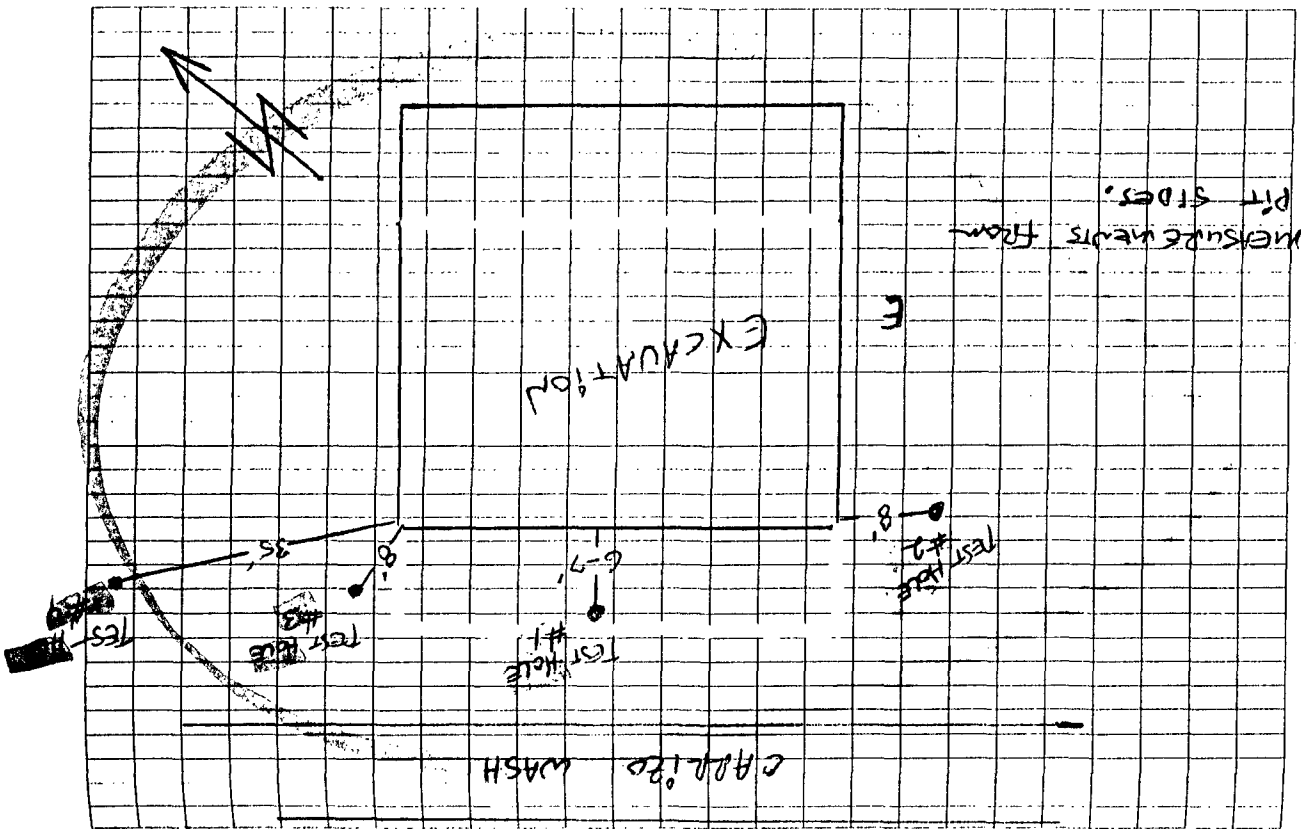
DR40-999 Boring #1 28' Deep B ND

T 0.67

E ND

X 1.03

tot = 1.70 ppb



KOC#

DATE: 10/19/95

LOCATION: BREWEN 20

NOTES: NO WATER SAMPLE TAKEN
AT BOTTOM, GROUNDWATER EN-
COUNTED 25'. GROUTED HOLE TO
SURFACE. SOIL SAMPLE TAKEN FOR
LAB CONFIRMATION 4 OZ. GLASS
TPH log EPA 418.1 @ 20-22' and
25-27' SAMPLES DRYD-557 and
DRYD-558, TD=25'

SAMPLE NO.	LOCATION	RESULTS (PPM)
DRYD-555	Hole 1 20-22' Deep	ND
DRYD-556	Hole 1 25-27' Deep	ND
DRYD-557	Hole 2 20-22' Deep	ND
DRYD-558	Hole 2 25-27' Deep	ND
DRYD-559	Hole 3 20-22' Deep	ND
DRYD-560	Hole 3 25-27' Deep	ND
DRYD-561	Hole 4 21.5-24.5 Deep	ND
DRYD-562	Hole 4 25-27' Deep	ND

BORING #2 (EAST)

DEPTH	PI (AUG)	PI (PPM)
5-7'	3.4	8.4
10-12'	3.4	8.4
15-17'	4.2	10.8
20-22'	4.0	9.6
25-27'	0.8	2.9

KOCH

DATE: 10/19/95

LOCATION: DRYDEN 25

(Hole 3)

NOTES: SAMPLING INTERVALS ALL

CLEAR. AUGERS BROUGHT OUT

OF HOLE WERE CONTAMINATED

FROM 18-20'! DARKEST ON

AUGERS! SURPRISE! TD=25'

GROUNDDWATER AT 25'.

SS9 - S60?

(Hole 4)

NOTES: NO DISCOLORATION, NO STAIN,

NO ODOR, GROUT ALL WELL BORES

TD=25' BOTTLE # S61 & S62

HOLE #3 (WEST)

DEPTH

PID (AUG)

PID (PEAK)

5-7'

1.0

4.7

10-12'

2.6

6.9

15-17'

4.0

7.5

20-22'

3.7

8.2

25-27'

5.1

10.3

HOLE #4

DEPTH

PID (AUG)

PID (PEAK)

5-7'

2.4

8.2

10-12'

1.9

7.8

13-15'

2.9

7.6

15-17'

2.9

8.7

17.5-19.5'

2.9

8.7

20-22'

3.2

7.1

22.5-24.5'

0.5

- 2.8

25-27'

0.8

- 2.4

(S61) (S62)

KOCH

DATE: 10/17/93

LOCATION: DRYDEN, DE

NOTES: CAME TO LOCATION TO DISC SOIL

FARM, CONTRACT TO CLAUDE

KUBOTA 4X4 RED TRACTOR L2950

DISC SOIL FARM, REPLACE BERMUS

WITH FRONT-END LOADER

CLEANUP SCORE 100 > 19

SOIL FARM LOOKS GOOD

NO BLACK OR GRAY SOIL STAINING

NICE EVEN COLOR

SAMPLE NO. PID (PPM)

#1 96

#2 57

#3 125

#4 728

#5 384

#6 909

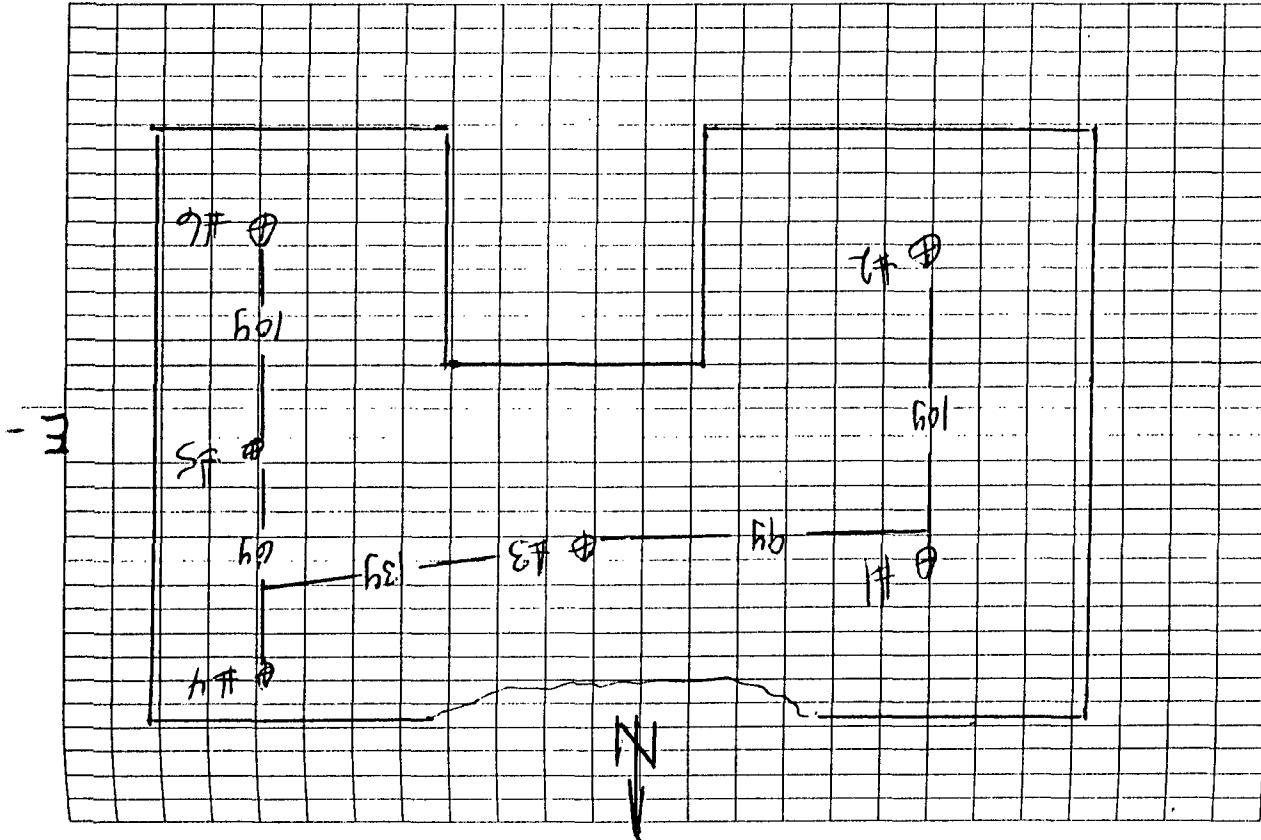
AUGER SAMPLES REQUIRED BY DENNY

FOUNT. PROVE WE HAVE NOT IMPACTED GROUND

WATER. 3 TEST HOLES 1 UPGRADE, 2

DOWNGRADIENT. DEFINE WEST AND HORIZONTAL

EXTENT OF CONTAMINATION.



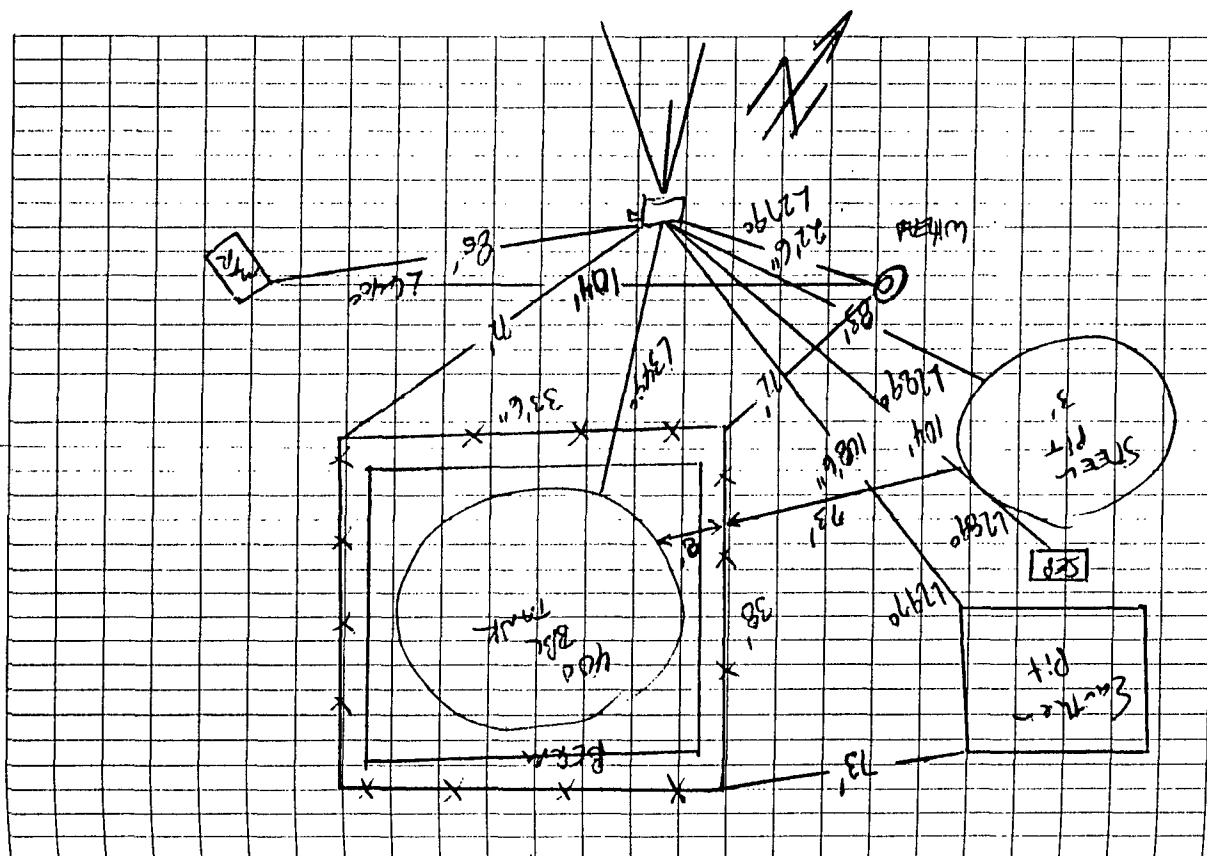
DATE: 8/21/95

LOCATION: DRYDEN ZE

Notes: came to location to survey

IN SURFACE EQUIP AND MEASURE

Distances for site plan



Risk

The following table and conclusion summarize the risk this contamination sources poses to the ground water.

Table 2. Total risk table

RISK	CHOICE
Extremely Low	
Low	
Moderate	X
High	

The ground water under this site is at danger of being impacted by contamination from this site. From the low laboratory and field-test results for the four auger holes it is concluded that the **risk of resource contamination is moderate.**

Risk Analysis

Contract Environmental Services,
 Inc. Post Office Box 3376
 Farmington, New Mexico 87499

Farmington, New Mexico 87499