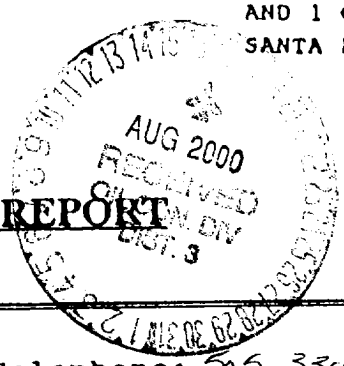
District I
P O Box 1980, Hobbs, NM
District II
P O Drawer DD, Artesia, NM 88211
District III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY TO APPROPRIATE DISTRICT OFFICE AND 1 COPY TO SANTA FE OFFICE



OK

PIT REMEDIATION AND CLOSURE REPORT

Operator: Koch Exploration Co. Telephone: 505-334-9111

Address: PO Box 489 Aztec, NM 87410

Facility Or: Cain 1A
Well Name

Location: Unit or Qtr/Qtr Sec D Sec 20 T 31N R 10W County San Juan

Pit Type: Separator ✓ Dehydrator ___ Other ___

Land Type: BLM ✓, State ___, Fee ___, Other ___

Pit Location: (Attach diagram)

Pit dimensions: length 20', width 15', depth 19'

Reference: wellhead ✓, other ___

Footage from reference: 96'

Direction from reference: 25° Degrees ✓ East North ___ 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)	0
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)	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)	0
	RANKING SCORE (TOTAL POINTS):	0

Date Remediation Started: 6/25/96 **Dated Completed:** 9/2/97

Remediation Method: (Check all appropriate sections) Excavation ✓ Approx. cubic yards 220

Landfarmed ___ Insitu Bioremediation ___

Other _____

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

General Description Of Remedial Action: Contaminated soil was removed and set up in an on-site landfarm. Excavation was done to 19 feet below the surface, the practical extent of the equipment. Two auger holes were drilled to properly determine the extent of contamination.

Ground Water Encountered: No ✓ Yes ___ Depth _____

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

Sample location 1) pit bottom east
2) " " west

Sample depth 18'

Sample date 1) 6/25/96 2) 6/26/96 Sample time 1) 1530 2) 1100

Sample Results

Benzene(ppm) 1) < 0.0002 2) < 0.0002

Total BTEX(ppm) 1) 0.0005 2) 0.0005

Field headspace(ppm) 1) 20 2) 0

TPH 1) 3333 ppm 2) < 25 ppm

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 AND TITLE Donald L. Johnson Operations Manager

6/25/96 Caine #1A Sec 20 T3N R10W SJ County

Began excavation of earth pit associated with a separator. Took PID samples as excavated.

#	Description	Result - PID
1	bottom center ~4'	533 ppm
2	" " 6'	837
3	" " 8'	810
4	" " 10'	775
5	" " 14'	785
6	" " 17-18'	799
7	" " 18'+	20 *

* To LAB for TPH = Cain 40D: 3333 ppm

and B <0.2 ppb

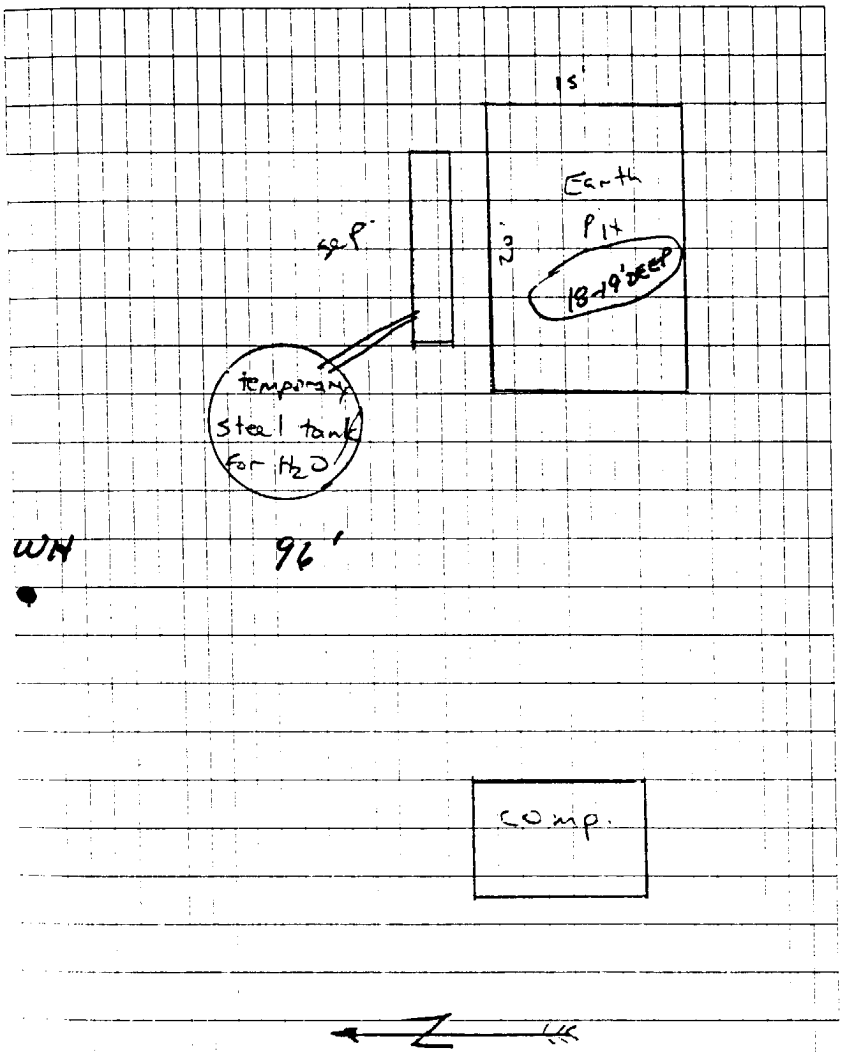
T <0.2 ppb

E <0.2 ppb

m,p-X 0.5 ppb

o-X <0.2 ppb

total = 0.5 ppb.



OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

TOTAL PETROLEUM HYDROCARBONS

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

Date: 2-Jul-96
COC No.: 4197
Sample No. 11368
Job No. 2-1000

Project Name: Koch Exploration Company - Cain #1A
Project Location: CAIN-400; Bottom East Center, 18' deep
Sampled by: SA/JB Date: 25-Jun-96 Time: 15:30
Analyzed by: HR Date: 2-Jul-96
Sample Matrix: Soil

Laboratory Analysis

Parameter	Result	Detection Limit	Unit of Measure	Method
Total Petroleum Hydrocarbons, TPH	3333	25	mg/kg	EPA Method 418.1

Quality Assurance Report

Laboratory Fortified Blank/Spike Soil

Laboratory Identification	Analyzed Value	Acceptable Range	Unit of Measure
Laboratory Fortified Blank Soil - QCBS2	<25	<25	mg/kg
Laboratory Fortified Spike Soil - QCSS1	897	828 - 1024	mg/kg

Duplication

Laboratory Identification	(% RSD)	Limit (% RSD)
11361-4033	<0.1	15.0

Approved by: DaG
Date: 7/2/96

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	2-Jul-96
Company:	*Contract Environmental Services, Inc.*	*COC No.:*	*4197*
Address:	*P.O. Box 505*	*Sample No.*	*11368*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Koch Exploration Company - Cain #1A***				
Project Location:	***CAIN-400; Bottom East Center, 18' deep***				
Sampled by:	SA/JB	Date:	25-Jun-96	Time:	15:30
Analyzed by:	DC	Date:	1-Jul-96		
Sample Matrix:	*Soil*				

Laboratory Analysis

Parameter	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	<0.2	ug/kg	0.2	ug/kg
Toluene	<0.2	ug/kg	0.2	ug/kg
Ethylbenzene	<0.2	ug/kg	0.2	ug/kg
m,p-Xylene	0.5	ug/kg	0.2	ug/kg
o-Xylene	<0.2	ug/kg	0.2	ug/kg
TOTAL	0.5	ug/kg		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by:
Date: 7/2/96

6/26/96 Caine #1A

Continuing excavation in pit bottom and taking samples.

Trouble w/ rental PID meter - pack samples in glass to bring in and analyze using our PID.

#	Description	PID Result
1	18-19' - Bottom East	1.0 (Rental)
2	18-19' - Bottom West	0.0 (Rental) 511 (our PID) *

* To LAB for Analysis CAIN-401

TPH = <25 ppm

B = <0.2 ppb

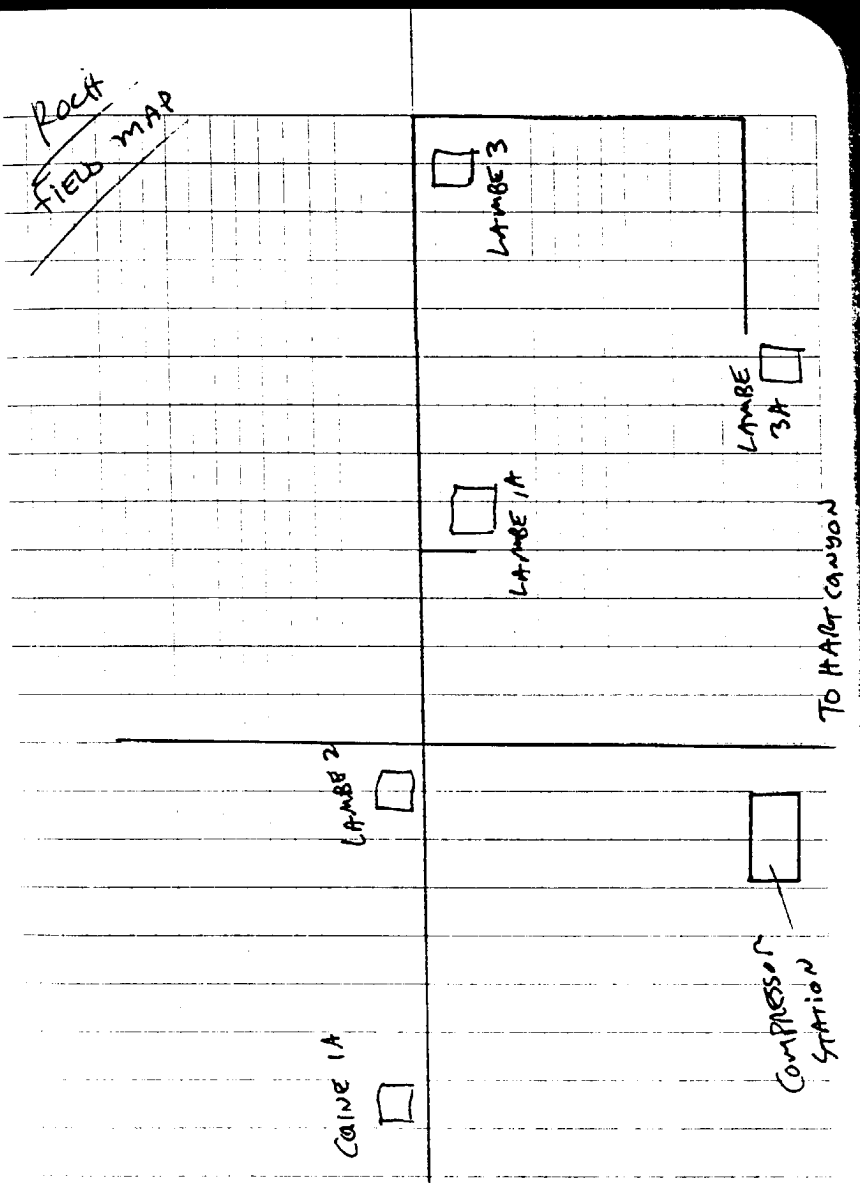
T = 1.8

E = <0.2

m,p-X = 2.6

O-X = 0.5

total = 4.9 ppb.



OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

TOTAL PETROLEUM HYDROCARBONS

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

Date: 2-Jul-96
COC No.: 4197
Sample No. 11369
Job No. 2-1000

Project Name: *Koch Exploration Company - Cain #1A*
Project Location: *CAIN-401; Bottm West, 18-19" deep*
Sampled by: SA/JB Date: 26-Jun-96 Time: 11:00
Analyzed by: HR Date: 2-Jul-96
Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Result	Detection Limit	Unit of Measure	Method
Total Petroleum Hydrocarbons, TPH	<25	25	mg/kg	EPA Method 418.1

Quality Assurance Report

Laboratory Fortified Blank/Spike Soil

Laboratory Identification	Analyzed Value	Acceptable Range	Unit of Measure
Laboratory Fortified Blank Soil - QCBS2	<25	<25	mg/kg
Laboratory Fortified Spike Soil - QCSS1	897	828 - 1024	mg/kg

Duplication

Laboratory Identification	(% RSD)	Limit (% RSD)
11361-4033	<0.1	15.0

Approved by: JAG
Date: 7/2/96

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn:	Shawn Adams	Date:	2-Jul-96
Company:	Contract Environmental Services, Inc.	COC No.:	4197
Address:	P.O. Box 505	Sample No.	11369
City, State:	Kirtland, NM 87417	Job No.	2-1000

Project Name:	Koch Exploration Company - Cain #1A				
Project Location:	CAIN-401; Bottom West, 18-19' deep				
Sampled by:	SA/JB	Date:	26-Jun-96	Time:	11:00
Analyzed by:	DC	Date:	1-Jul-96		
Sample Matrix:	Soil				

Laboratory Analysis

Parameter	Result	Units of Measure	Detection Limit	Units of Measure
Benzene	<0.2	ug/kg	0.2	ug/kg
Toluene	1.8	ug/kg	0.2	ug/kg
Ethylbenzene	<0.2	ug/kg	0.2	ug/kg
m,p-Xylene	2.6	ug/kg	0.2	ug/kg
o-Xylene	0.5	ug/kg	0.2	ug/kg
TOTAL	4.9	ug/kg		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DaG

Date: 7/2/96

ON SITE TECHNOLOGIES, LTD.

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

CHAIN OF CUSTODY RECORD

4197

Date: 7/1/96

Purchase Order No.: | Job No.:

SEND INVOICE TO
Name: Dan Johnson
Company: Keck Exploration Company | Dept.:
Address: PO Box 489
City, State, Zip: Aztec NM 87410

REPORT RESULTS TO
Name: Shawn Adams | Title:
Company: Contract Environmental Services Inc.
Mailing Address: PO Box 505
City, State, Zip: Kirtland NM 87417
Telephone No.: 325-1198 | Telefax No.:

Sampling Location: CAIN #1A, LAMBE #2

Sampler: S.Adams JB/Ankhard

ANALYSIS REQUESTED

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers		8015 GAS		418.1 TPH		8020 BTEX				LAB ID
CAIN-400 CAIN #1A	6/26/96	3:30	SOIL	ne	1		X		X		X	East Bottom Center 12' DEEP			
CAIN-401 " " 1.0PPM PID	6/26/96	11:00A	SOIL	"	"		X		X		X	West Bottom 18-19' DEEP			
LAMB-100 LAMBE #2	6/26/96	12:00	"	"	1		X		X		X	Pit Bottom 10' DEEP			
LAMB-101 " "	6/26/96	12:20P	"	"	1		X		X		X	SW Corner 7-8' DEEP			

Relinquished by:	Date/Time	Received by:	Date/Time
Shawn Adams	7/1/96 7:00		

Method of Shipment:

Rush: 24 hrs as promised | 24-48 Hours | 10 Working Days | Special Instructions:

Authorized by: SEA Date 7/1/96
(Client Signature Must Accompany Request)

White - ... Pink - Sampler Goldenrod - Client

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:	*Shawn Adams*	Date:	23-Jun-97
Company:	*Contract Environmental Services, Inc.*	COC No.:	*4316*
Address:	*P.O. Box 3376*	Sample No.:	*15056*
City, State:	*Farmington, NM 87499*	Job No.:	*2-1000*

Project Name:	***Koch Exploration - Caine 1A***				
Project Location:	***CAIN-203; East Boring, 30-32' deep***				
Sampled by:	SA	Date:	20-Jun-97	Time:	14:53
Analyzed by:	HR	Date:	23-Jun-97		
Sample Matrix:	*Soil*				

Laboratory Analysis

Parameter	Results as Received	Limit of Quantitation	Unit of Measure	Method
Total Petroleum Hydrocarbons, TPH	ND	25	mg/kg	EPA Method 418.1

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

Laboratory Fortified Blank/Spike Soil

Laboratory Identification	Analyzed Value	Acceptable Range	Unit of Measure
Laboratory Fortified Blank Soil - QCBS2	ND	ND	mg/kg
Laboratory Fortified Spike Soil - QCSS1	878	828 - 1024	mg/kg

Duplication

Laboratory Identification	RPD	Limit RPD
15053-4316	3.8	15.0

Approved by:

Date: 6/23/97

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

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: 23-Jun-97
COC No.: *4316*
Sample No.: *15057*
Job No.: *2-1000*

Project Name: ***Koch Exploration - Caine 1A***
Project Location: ***CAIN-204; West Boring, 30-32' deep***
Sampled by: SA Date: 20-Jun-97 Time: 16:06
Analyzed by: HR Date: 23-Jun-97
Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Results as Received	Limit of Quantitation	Unit of Measure	Method
Total Petroleum Hydrocarbons, TPH	ND	25	mg/kg	EPA Method 418.1

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

Laboratory Fortified Blank/Spike Soil

Laboratory Identification	Analyzed Value	Acceptable Range	Unit of Measure
Laboratory Fortified Blank Soil - QCBS2	ND	ND	mg/kg
Laboratory Fortified Spike Soil - QCSS1	878	828 - 1024	mg/kg

Duplication

Laboratory Identification	RPD	Limit RPD
15053-4316	3.8	15.0

Approved by:
Date: 6/23/97

4316

CHAIN OF CUSTODY RECORD

ON SITE TECHNOLOGIES, LTD.

Date: 6/23/97

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.		
SEND INVOICE TO: Name		REPORT RESULTS TO: Name	Title
Company	Dept.	Company	
Address		Mailing Address	
City, State, Zip		City, State, Zip	
		Telephone No.	Telefax No.

Sampling Location:

Sampler:

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	ANALYSIS REQUESTED	LAB ID

Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Authorized by: _____ Date 6/23/97

(Client Signature Must Accompany Request)

Rush | 24-48 Hours | 10 Working Days | Special Instructions:

Distribution: White – On Site Yellow – LAB Pink – Sampler Goldenrod – Client

KOCH

					PPM Results			
AmB-202	Lambe 1A	Boring 1	35-37'	EPA 418.1	ND	WEST	6/20/97	
AmB-201	"	" Boring 2	30-32'	" "	ND	EAST	6/20/97	
AmB-205	Lambe 1	Auger 1	35-37'	" "	2,010	EAST	6/20/97	8015 ORDERED Encountered SS 37'
AmB-206	"	" Auger 2	15-22'	" "	ND	WEST	6/20/97	
JalK-200	Walker 2	Auger	20-27'	" "	52	Center	6/20/97	
CAiN-203	Caine 1A	Auger 1	30-32'	" "	ND	East	6/20/97	
CAiN-204	"	" Auger 2	15-22'	" "	ND	WEST	6/20/97	

KOCH

* [redacted] 6/20/97

Auger 1 EAST

DEPTH	PID (PPM)
10-12'	7.0
15-17'	1.0
20-22'	3.0
25-27'	0.0
30-32'	23.0

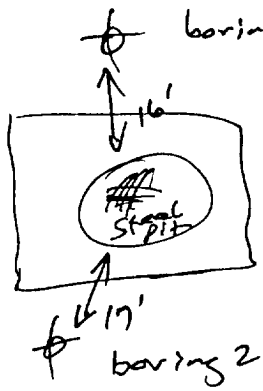
Rocks or bedrock encountered at 31' granite/shale in spoon

Auger 2 WEST

DEPTH	PID (PPM)
10-12'	1.0
15-17'	3.0
20-22'	1.0
25-27'	1.0
30-32'	7.0

claystone in bottom of spoon. Stopped @ 32'

Former Barracks



KOCH CANYE 1-4
6-20-97
SOIL BORING

SAMPLE	BORING 1 PID (PPM)		BORING 2 PID (PPM)		
2	START SAMPLING AT 10' DUE TO PREVIOUS RECORD		5	boulder	SAND
4					
5-6					
6			7	boulder	
8					
10-12'	clay sand	7.0 1st 23 Blows Sample	10-12'	1st Sample	1.0 PPM
12					
14					
15-17'	clay sand	1.0 2nd 20 Blows Sample	15-17'	2nd Sample	3.0 PPM
16					
18					
20-22'	SILTY SAND	3.0 3rd sample	20-22'	3rd Sample	1.0 PPM
22					
24					
25-27'		0.0 4th 20 Blows Sample	25-27'	4th Sample	1.0 PPM
26					clay
28					
30-32'		23.0 5th sample	30-32'	5th Sample	7.0 PPM
30	hit slough of rocks or bedrock at 31' stopped @ 31' granite and shale in spoon				claystone in bottom
32					
34					
36	Packed out bottom sample in 4 oz glass jar CAIN - 203 for EPA 418.1 Lab analyses				Sample packed in 4 oz. glass jar CAIN - 204 for TPH EPA 418.1
38					
40					

KOCH Exploration Company

Risk Analysis

Prepared by:
Contract Environmental Services, Inc.

Prepared for:
Oil Conservation Division - District III

Date: 7/31/97

Location: Caine 1A-Separator Pit Unit-D, Sec20, T31N, R10W

Lease Number: NM-003187

Resources

Ground Water: 100 feet and 120 feet (cathodic protection data)

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

Water Sources: A private, domestic water well is located within 1000 feet of this site. This water well is a water source for a family residence.

Risk Management

Natural Barriers: Natural soil permeability is one natural barrier that will protect ground water from site contamination. Shale was noted in two separate auger holes drilled at the site, as discussed below. This shale, at a depth of 30-32 feet will also serve as a natural barrier to preventing ground water contamination.

Additional Investigation: Two auger holes were drilled on this site. Each hole was drilled within 20 feet of the original earthen pit, each to a depth of 32 feet at which point shale was encountered. One hole was to the West of the original earthen pit and the other was drilled to the East of the original earthen pit. Field-testing and laboratory analysis was done on these test holes. The results of this analysis and testing are shown in Table 1 on the following page. All data is supported with lab result sheets and field data sheets found in this closure package.

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	Laboratory Results	Remarks
	(feet)	(PPM)	(PPM)	
Auger 1 (East)	10-12	7.0		
	15-17	1.0		
	20-22	3.0		
	25-27	0.0		
	30-32	23.0	TPH - ND	Hit rocks/ shale bedrock
Auger 2 (West)	10-12	1.0		
	15-17	3.0		
	20-22	1.0		
	25-27	1.0		
	30-32	7.0	TPH - ND	Hit shale bedrock

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	**X**
Low	
Moderate	
High	

The ground water under this site is at almost no danger of being impacted by contamination from this site. From the low laboratory and field-test results for the two auger holes the restrictive geologic soil barriers it is concluded that the **risk of resource contamination is extremely low.**

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

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

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.: *4353*
Sample No.: *15937*
Job No.: *2-1000*

Project Name: ***Koch Exploration - Caine 1A***
Project Location: ***CAINE-609; Soil Farm, Comp. 1, 2, 3***
Sampled by: SAA/PRC
Analyzed by: DC/HR
Sample Matrix: *Soil*

Date: 26-Aug-97
GRO Date: 28-Aug-97
DRO Date: 29-Aug-97
Time: 17:00

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)	28	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:
Date: 9/2/97