

District III **DEPUTY OIL & GAS INSPECTOR**

P.O. Drawer DD, Artesia, NM 88211

District III **DEC 02 1997**

1000 Rio Bonito 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

PIT REMEDIATION AND CLOSURE REPORT

Operator: Phillips Petroleum Company Telephone: (505) 599-3400

Address: 5525 Hwy. 64, NEBU 3004, Farmington, NM 87401

Facility Or: San Juan 29-6 Unit # 103
Well Name

Location: Unit or Qtr/Qtr Sec SW NE Sec 11 T 29N R 6W County Rio Arriba

Pit Type: Separator X Dehydrator Other

Land Type: BLM State X Fee Other

Pit Location: (Attach diagram) Pit dimensions: Length 15 ft, width 15 ft, depth 3 ft
Reference: wellhead X, other
Footage from reference: 65 ft
Direction from reference: 60 Degrees X East North
West South X

Depth to Ground Water: 80 ft
(vertical distance from
contaminants to seasonal
highwater elevation of
ground water)

<u>X</u>	Less than 50 feet	(20 points)	
	50 ft to 99 feet	(10 points)	
	Greater than 100 feet	(0 points)	<u>10</u>

Wellhead Protection Area:
(less than 200 feet from a private
domestic water source, or: less than
1000 feet from all other water sources)

<u>X</u>	Yes	(20 points)	
	No	(0 points)	<u>0</u>

Distance to Surface Water:
(Horizontal distance to perennial
lakes, ponds, rivers, streams, creeks,
irrigation canals and ditches.)

<u>X</u>	Less than 200 feet	(20 points)	
	200 feet to 1000 feet	(10 points)	
	Greater than 1000 feet	(0 points)	<u>0</u>

Form PITCFRM.WK3

RANKING SCORE (TOTAL POINTS): 10

Date Remediation Started: 11/18/93 Dated Completed: 8/15/97

Excavation X Approx. cubic yards 25

Landfarmed X Insitu Bioremediation _____

Other Risk Assessment

Remediation Method:
(Check all appropriate
sections)

Onsite X Offsite _____

General Description of Remedial Action: Based on the initial assessment, soils were excavated to a
depth of 1 foot below the original pit bottom where bedrock was encountered. A sample was
tested and provided a concentration above OCD and BLM guidelines. The pit is encased in
bedrock. The soils were landfarmed on location. The landfarm tested clean on 11/22/95.
A risk assessment was performed on 8/15/97, based on this information and the physical
location of the pit, there is no risk to human health or the environment.

Ground Water Encountered: No X Yes _____ Depth _____

Final Pit:

Sample location Bottom of pit

Closure Sampling:

(if multiple samples,
attach sample results
and diagram of sample
locations and depths)

Sample depth 3 feet below ground level

Sample date 5/19/94 Sample time N/A

Sample Results

Benzene (ppm) _____

Total BTEX (PPM) _____

Field Headspace (ppm) 91

TPH 14740

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

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETED TO THE BEST
OF MY KNOWLEDGE AND BELIEF.

DATE 8/26/97

PRINTED NAME Bob Wirtanen

SIGNATURE R.A. Wirtanen

and TITLE Sr. Safety & Environmental Specialist

ENVIROTECH Inc.

5796 US HWY. 84, FARMINGTON, NM 87401
(505) 632-0615

PIT NO: PA099

C.O.C. NO: 3206

FIELD REPORT: SITE ASSESSMENT

JOB No: 93163
PAGE No: 1 of 1

PROJECT: PIT ASSESSMENT
CLIENT: PHILLIPS PETROLEUM
CONTRACTOR: ENVIROTECH INC.
EQUIPMENT USED: CASE EXTEND-A-DIG

DATE STARTED: 11-18-93
DATE FINISHED: 11-18-93
ENVIRO. SPEC: REO
OPERATOR: Cimarron
ASSISTANT: K.S.

LOCATION: LEASE: San Juan 29-6 WELL: #103 QD: 1755' FNL & 1550' FEL (G)
SEC: 11 TWP: 29N RNG: 6W PM: NM CNTY: R.A. ST: NM PIT: Sep.

LAND USE: Range -- Lease #NM-012698
SURFACE CONDITIONS: Earthen pit -- Fenced 25' x 25' -- Some surface staining

PIT CENTER IS LOCATED APPROXIMATELY 65 FEET S. 60°E OF WELLHEAD.

CLOSURE STD: 1000 ppm TPH
RANKING SCORE: 10

T1 : Wet, brown, silty, sandy - clay - odor
T2 : Moist, brown, silty - sand - no odor.

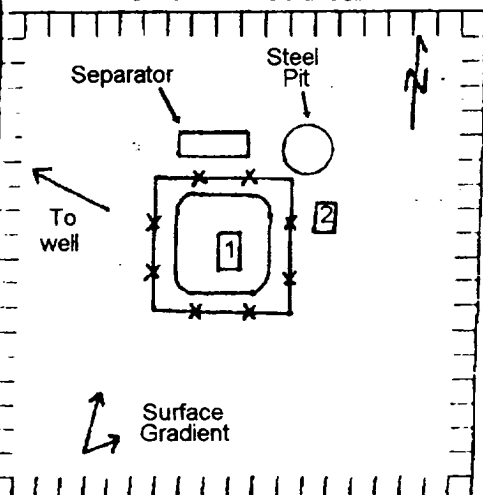
T1 TPH = 15,100 ; BTEX = OK
T2 TPH = ND -- GAC#0342

TEST HOLE LOGS

SAMPLE INVENTORY		
SMPL. ID	SMPL. TYPE	LABORATORY ANALYSIS
T1@1.5'	Soil	BTEX/418.
T2@2'	Soil	ND

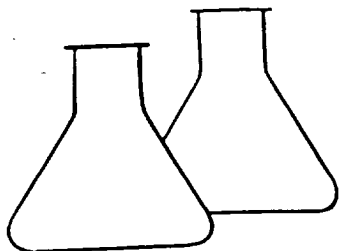
SCALE
0 10 20 FEET

SITE DIAGRAM



TH# 1			TH# 2			TH#			TH#			
GD	SOIL TYPE	SMPL. TYPE	OWN. TPH	SOIL TYPE	SMPL. TYPE	OWN. TPH	SOIL TYPE	SMPL. TYPE	OWN. TPH	SOIL TYPE	SMPL. TYPE	OWN. TPH
1	Pit bottom											
2	SC	GRB	134	SM	GRB	2.5						
	TD=1.5'			TD=2'								
3	Bedrock			Bedrock								
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												

SOIL TYPE: C - Clay, M - Silt, S - Sand, G - Gravel, Plasticity: L - Low, H - High, Group: P - Peaty, U - Silty



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PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Phillips	Project #:	93163
Sample ID:	T1 @ 1.5'	Date Sampled:	11-18-93
Laboratory Number:	6525	Date Received:	11-18-93
Sample Matrix:	Soil	Date Analyzed:	11-19-93
Preservative:	Cool	Date Reported:	11-19-93
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter -----	Concentration (mg/kg) -----	Det. Limit (mg/kg) -----
Total Petroleum Hydrocarbons	15,100	1000

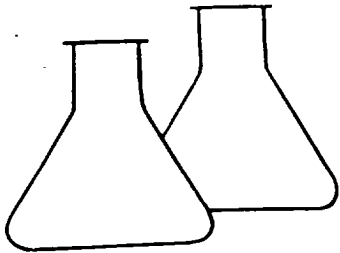
ND = Parameter not detected at the stated detection limit.
N/A = Not applicable

Method: Method 418.1, Petroleum Hydrocarbons, Total
Recoverable, Chemical Analysis of Water and
Waste, USEPA Storet No.4551, 1978

Comments: San Juan 29-6 #103, Sep Pit, PA099

Tony Tisdale
Analyst

Maris D. Young
Review



ENVIROTECH LABS

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PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Phillips	Project #:	93163
Sample ID:	T 1 @ 1.5'	Date Reported:	11-19-93
Laboratory Number:	6525	Date Sampled:	11-18-93
Sample Matrix:	Soil	Date Received:	11-18-93
Preservative:	Cool	Date Extracted:	11-19-93
Condition:	Cool & Intact	Date Analyzed:	11-19-93
		Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	316	39.4
Toluene	ND	118
Ethylbenzene	700	59
p,m-Xylene	11,500	99
o-Xylene	ND	59

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	97 %
	Bromofluorobenzene	100 %

Method: Method 5030, Purge-and-Trap, Test Methods for
Evaluating Solid Waste, SW-846, USEPA, July 1992

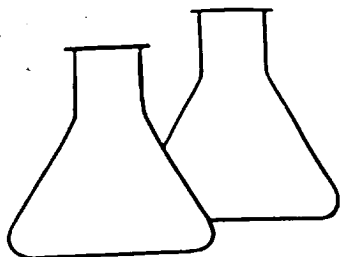
Method 8020, Aromatic Volatile Organics, Test Methods
for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

ND - Parameter not detected at the stated detection limit.

Comments: San Juan 29-6 #103 Separator Pit PA099

Devin L. Brewer
Analyst

Maris D. Young
Review



ENVIROTECH LABS

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PHONE: (505) 632-0615 • FAX: (505) 632-1865

FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Phillips Petroleum	Project #:	93163
Sample ID:	T2 @ 2'	Date Analyzed:	11-18-93
Project Location:	San Juan 29-6, #103	Date Reported:	11-22-93
Laboratory Number:	GAC0342	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	ND	10

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	112	92	20

*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Separator Pit PA099

R. E. O'Neil
Analyst

Maria D. Young
Review

ENVIROTECH INC.
5796 U.S. Highway 64-3014
Farmington, New Mexico 87401
(505) 632-0615

CLIENT: PHILLIPS PETROLEUM**ENVIROTECH Inc.**PIT NO: PA0995796 US HWY. 64, FARMINGTON, NM 87401
(505) 632-0615

C.O.C. NO: _____

FIELD REPORT: CLOSURE VERIFICATIONJOB No: 93163PAGE No: 1 of 1LOCATION: NAME: San Juan 29-6 WELL #: 103 PIT: Sep.DATE STARTED: 5/19/94DATE FINISHED: 5/19/94QUAD/UNIT: G SEC. 11 TWP. 29N RNG. 6W BM. NM CNTY. R.AST. NMENVIRONMENTAL
SPECIALIST: THQTR/FOOTAGE: 1755' FNL & 1550' FEL CONTRACTOR: _____SOIL REMEDIATION: EXCAVATION APPROX. 15 FT. x 15 FT. x 3 FT. DEEP.DISPOSAL FACILITY: On-site Landfarm CUBIC YARDAGE: 2.5LAND USE: Range LEASE: #NM-012698FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 65 FEET S. 60° E. FROM WELLHEAD.DEPTH TO GROUNDWATER: 80' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'NMOCB RANKING SCORE: 10 NMOCB TPH CLOSURE STD: 1000 PPM

SOIL AND EXCAVATION DESCRIPTION: North side and bottom in bedrock

FIELD 4181 CALCULATIONS

SAMPLE I.D.	LAB No.	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
T5 @ 3'	GAC517	10	20	10	737	14740

SCALE



0

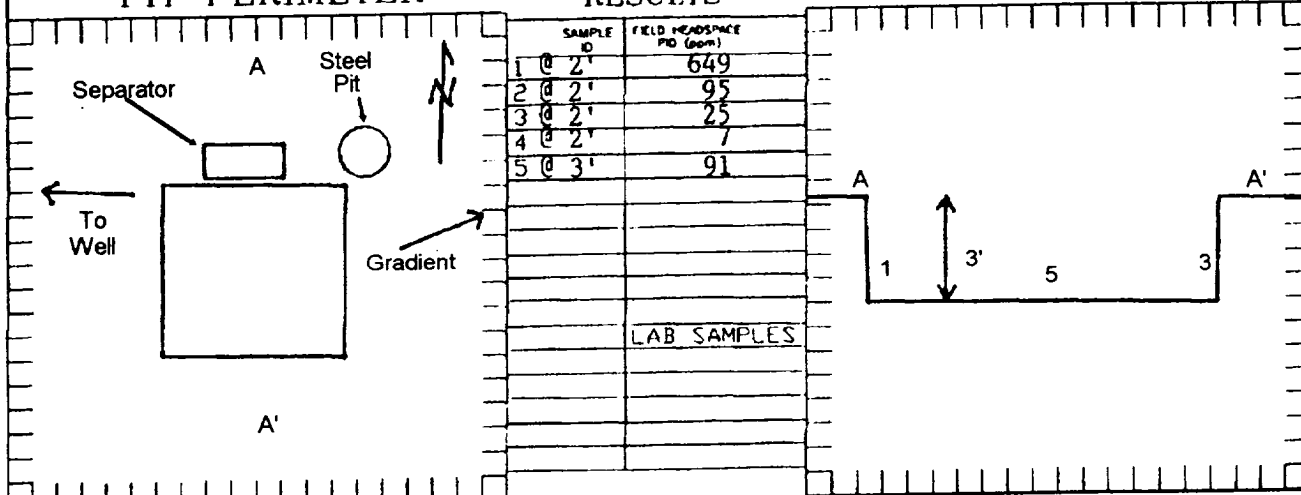
FEET

PIT PERIMETER

OVM

RESULTS

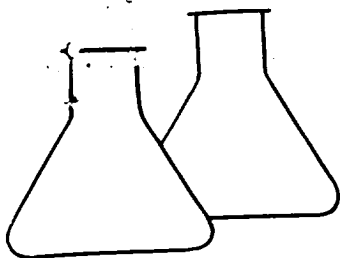
PIT PROFILE



TRAVEL NOTES:

CALLOUT: _____

ONSITE: 5/19/94



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FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: Phillips Petroleum
Sample ID: CB @ 3'
Project Location: San Juan 29-6 #103
Laboratory Number: GAC0517

Project #: 93163
Date Analyzed: 5-19-94
Date Reported: 5-23-94
Sample Matrix: Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	14700	100

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	7,860	5,200	41

*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Separator Pit PA099

Tom Hansen
Analyst

Morris D. Young
Review

ENVIROTECH Inc.

5798 US HWY 84, FARMINGTON, NM 87401
(505) 632-0615

PIT No: PA099
C.O.C #: 4151

FIELD REPORT: REMEDIATION FACILITY CLOSURE VERIFICATION

JOB No: 93163
PAGE No: 1 of 1

FACILITY LOCATION: San Juan 29-6 # 103

SOURCE LOCATION:

SOURCE LOCATION:

SOURCE LOCATION:

FACILITY CLASSIFICATION: On-site Landfarm PIT TYPE: Sep.

DATE STARTED: 4-11-95
DATE FINISHED: 4-11-95

ENVIRONMENTAL
SPECIALIST: CJC

SOIL REMEDIATION: QUANTITY: 7 cy # OF COMP. SAMPLES: 1
DIMENSIONS: 30' x 12' x .5' deep

VISIBLE OBSERVATIONS:
SAMPLING PLAN: 1 5-point composite

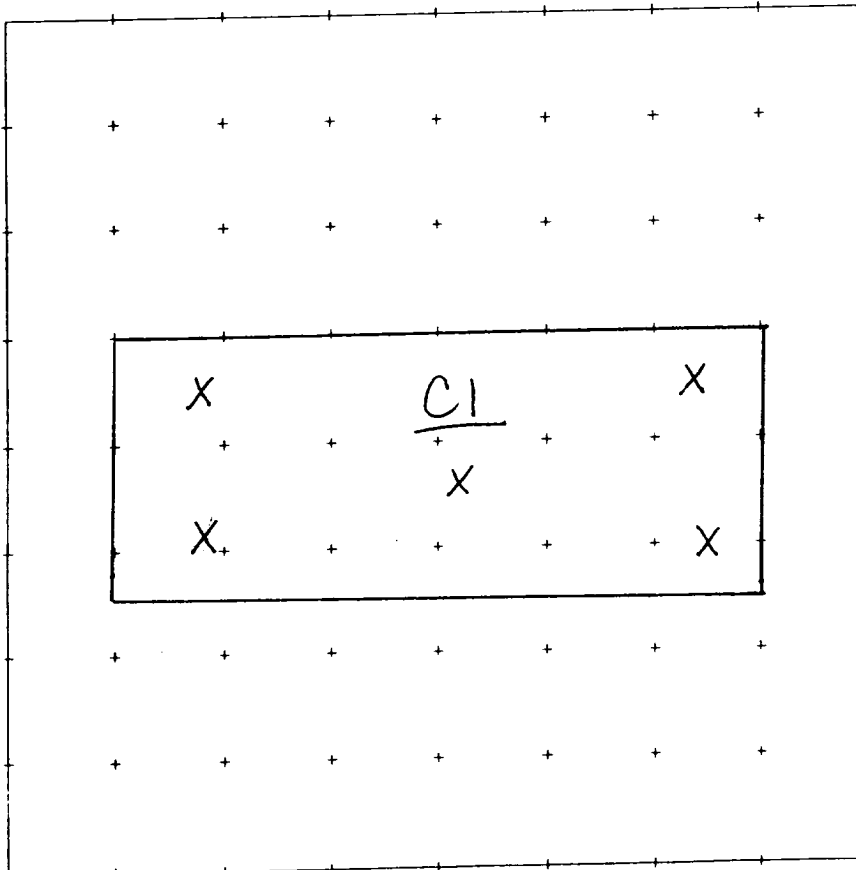
FIELD NOTES & REMARKS: FACILITY CENTER LOCATED APPROX 19 YARDS NW FROM WELLHEAD.

DEPTH TO GROUNDWATER: 80'
NEAREST WATER SOURCE/TYPE: >1000'
NEAREST SURFACE WATER: >1000'
MAX TPH PER NMOC: 1000 ppm

No. OF 5-POINT
COMPOSITE SAMPLES:
YARDAGE--#
0-200=1
201-400=2
401-1000=3
>1000=5

FACILITY DIAGRAM

GRID SCALE: 5'

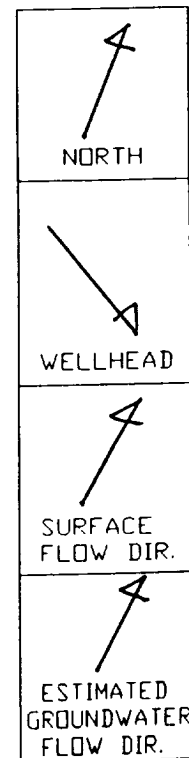


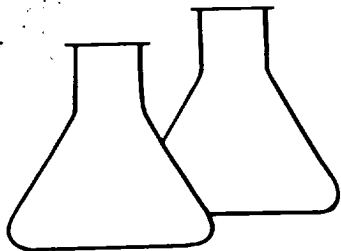
OVM RESULTS

SAMPLE ID:	FIELD HEADSPACE PID (ppm)
C1	3.0

LAB RESULTS

SAMPLE ID:	ANALYSIS REQUESTED	RESULTS PPM
C1	TPH	9370





ENVIROTECH LABS

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PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Phillips	Project #:	93163
Sample ID:	S.J.29-6 #103 C1	Date Reported:	04-13-95
Laboratory Number:	8341	Date Sampled:	04-11-95
Chain of Custody No:	4151	Date Received:	04-12-95
Sample Matrix:	Soil	Date Extracted:	04-12-95
Preservative:	Cool	Date Analyzed:	04-12-95
Condition:	Cool and Intact	Analysis Needed:	TPH

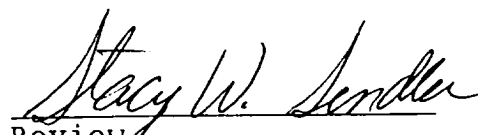
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----	-----	-----
Total Petroleum Hydrocarbons	9370	10.0

ND = Parameter not detected at the stated detection limit.

Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978.

Comments:


Analyst


Review

CHAIN OF CUSTODY RECORD

Client/Project Name		Project Location		ANALYSIS/PARAMETERS											
Sample No./ Identification		Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH	BTEX						Remarks	
S.J. 29-b #103 C1		4-1-95	901	8341	soil	1	X								
S.J. 29-b #14 A C1			1001	8342		1	X								
S.J. 29-b #89 C1			1108	8343		1	X								
S.J. 29-b #106 C1			1626	8344		1	X								
S.J. 30-b #47 C1			1357	8345		1	X								
S.J. 31-b #50 DK C1			1258	8346		1	X								
S.J. 30-b #73 DK C1			1444	8347		1	X								
S.J. 29-b #94 C1			1584	8348		1	X								
S.J. 29-b #87 C1		✓	1707	8349		2	X								
S.J. 29-b #87 C1		4-11-95	1707	8350											
Relinquished by: (Signature)		C. Jack Collins		Date	4-12-95	Time	0713	Received by: (Signature)		Nathan Speer		Date	4-12-95	Time	0713
Relinquished by: (Signature)								Received by: (Signature)							
Relinquished by: (Signature)								Received by: (Signature)							

ENVIROTECH INC.

5796 U.S. Highway 64-3014

Farmington, New Mexico 87401

(505) 632-0615

CLIENT: PHILLIPS PETROLEUM**ENVIROTECH Inc.**5798 US HWY. 84, FARMINGTON, NM 87401
(505) 832-0815PIT NO: PA099C.O.C. NO: 4194**FIELD REPORT: CLOSURE VERIFICATION**JOB No: 93163PAGE No: 1 of 1LOCATION: NAME: San Juan 29-6 WELL #: 103 PIT: Sep.DATE STARTED: 5-11-95DATE FINISHED: 5-11-95QUAD/UNIT: G SEC: 11 TWP: 29N RNG: 6W BM: NM CNTY: R.A.ST.NMQTR/FOOTAGE: 1755' ENL & 1550' FEL CONTRACTOR: Envirotech Case 580ENVIRONMENTAL
SPECIALIST: CJCSOIL REMEDIATION: EXCAVATION APPROX. 15 FT. x 15 FT. x 2 FT. DEEP.DISPOSAL FACILITY: On-site Landfarm CUBIC YARDAGE: LAND USE: Range LEASE: #NM-012698FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 65 FEET S. 60° E FROM WELLHEAD.DEPTH TO GROUNDWATER: 80' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'NMOC D RANKING SCORE: 10 NMOC D TPH CLOSURE STD: 1000 PPM

SOIL AND EXCAVATION DESCRIPTION:

Fail : TPH

FIELD 4181 CALCULATIONS

SAMPLE I.D.	LAB No.	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

1" =

SCALE

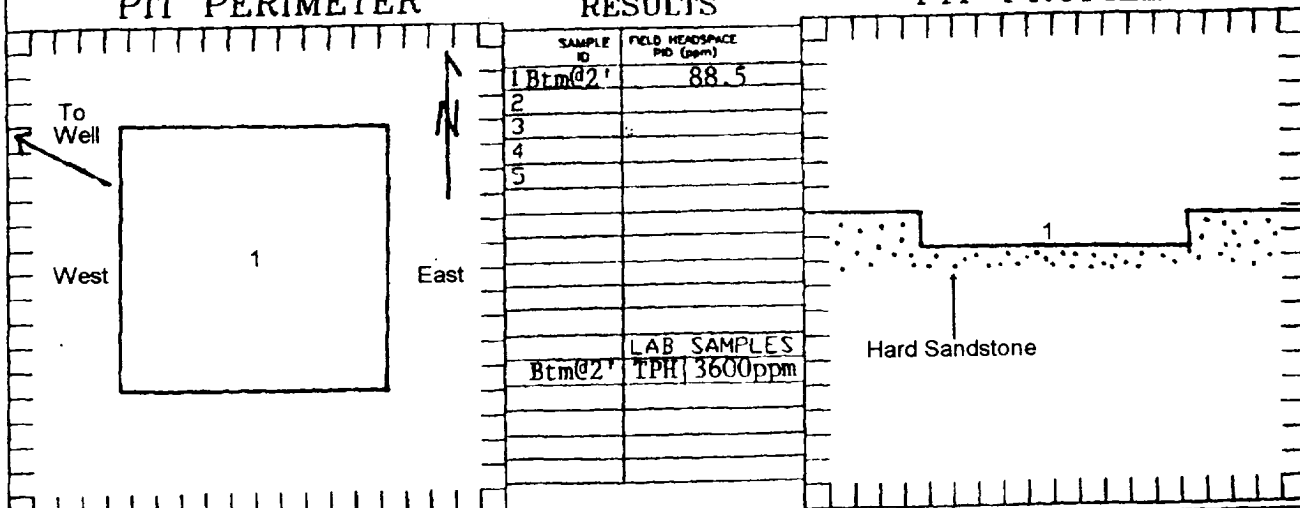
0

10 FEET

PIT PERIMETER

OVM
RESULTS

PIT PROFILE



TRAVEL NOTES:

CALLOUT: ONSITE:

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS


Client:	Phillips	Project #:	93163
Sample ID:	S.J. 29-6 #103	Date Reported:	05-12-95
Laboratory Number:	8490	Date Sampled:	05-11-95
Chain of Custody No:	4194	Date Received:	05-11-95
Sample Matrix:	Soil	Date Extracted:	05-12-95
Preservative:	Cool	Date Analyzed:	05-12-95
Condition:	Cool and Intact	Analysis Needed:	TPH

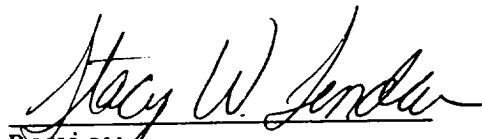
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----	-----	-----
Total Petroleum Hydrocarbons	3580	10.0

ND = Parameter not detected at the stated detection limit.

Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978.

Comments: Bottom @ 2'.


Analyst


Review

CHAIN OF CUSTODY RECORD

Client/Project Name		Project Location		ANALYSIS/PARAMETERS											
Phillips / 93163		Chain of Custody Tape No.		No. of Containers		TPH		BTEX						Remarks	
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix											
S.D. 24-b #100DLC C1-LF	5-11-95	1307	8488	Soil											
S.J. 29-b #89 BTME5	5-11-95	1446	8489	Soil											Run BTEX 1F TPH < 100 ppm
S.D. 24-b #103 BTME 2	5-11-95	1344	8490	Soil											
S.D. 24-b #103 C1-LF	5-11-95	1355	8491	Soil											
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time					
C. Jack Collins		5-11-95		1230		Nathan Spence		5-11-95		1730					
Relinquished by: (Signature)						Received by: (Signature)									
Relinquished by: (Signature)						Received by: (Signature)									

ENVIROTECH INC.
 5796 U.S. Highway 64-3014
 Farmington, New Mexico 87401
 (505) 632-0615

ENVIROTECH Inc!

5798 US HWY. 84, FARMINGTON, NM 87401
(505) 632-0615

PIT No: PA099
C.O.C #: 4194

FIELD REPORT: REMEDIATION FACILITY CLOSURE VERIFICATION

JOB No: 93163
PAGE No: 1 of 1

DATE STARTED: 5-11-95
DATE FINISHED: 5-11-95

ENVIRONMENTAL
SPECIALIST: CJC

FACILITY LOCATION: San Juan 29-6 # 103
SOURCE LOCATION: _____
SOURCE LOCATION: _____
SOURCE LOCATION: _____
FACILITY CLASSIFICATION: On-site Landfarm PIT TYPE: Sep.

SOIL REMEDIATION: QUANTITY: 5 cy # OF COMP. SAMPLES: 1
DIMENSIONS: 12' x 21' x .5' deep

VISIBLE OBSERVATIONS: _____
SAMPLING PLAN: 1 5-point composite

FIELD NOTES & REMARKS: FACILITY CENTER LOCATED APPROX 19 YARDS NW FROM WELLHEAD.

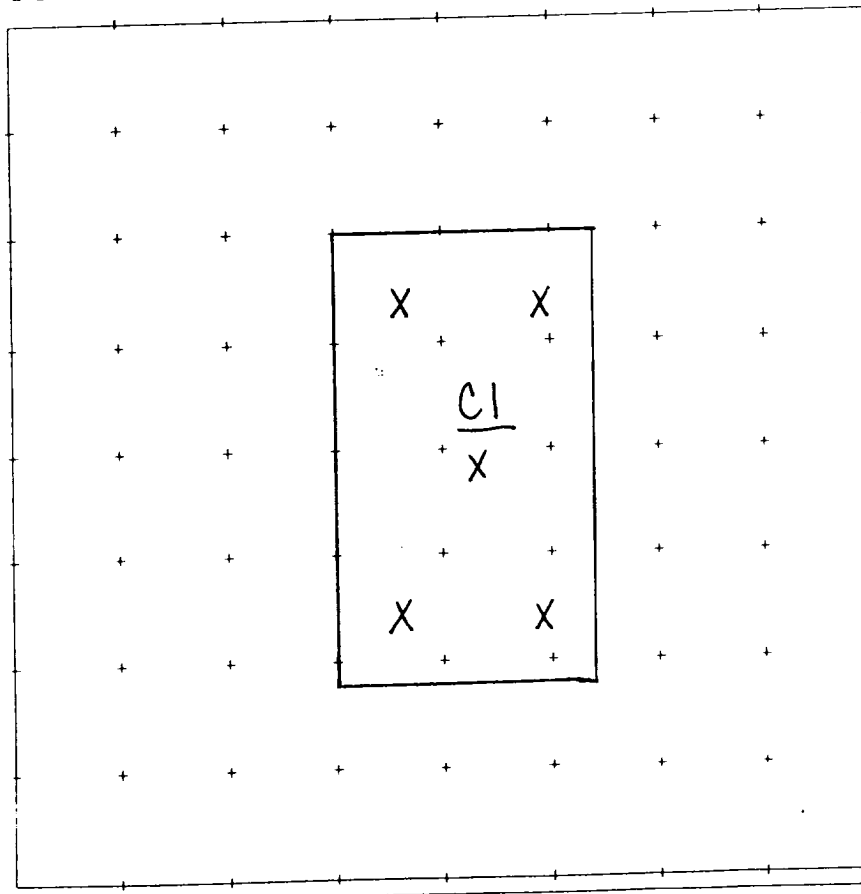
DEPTH TO GROUNDWATER: 80'
NEAREST WATER SOURCE/TYPE: >1000'
NEAREST SURFACE WATER: >1000'
MAX TPH PER NMDC: 1000 ppm

No. OF 5-POINT
COMPOSITE SAMPLES:
YARDAGE--#
0-200=1
201-400=2
401-1000=3
>1000=5

Fail : TPH

FACILITY DIAGRAM

GRID SCALE: 5'



OVM RESULTS

SAMPLE ID:	FIELD HEADSPACE PID (ppm)
C1	18.6

LAB RESULTS

SAMPLE ID:	ANALYSIS REQUESTED	RESULTS PPM
C1	TPH	1900

4

NORTH

WELLHEAD

SURFACE
FLOW DIR.

ESTIMATED
GROUNDWATER
FLOW DIR.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Phillips	Project #:	93163
Sample ID:	S.J. 29-6 #103	Date Reported:	05-12-95
Laboratory Number:	8491	Date Sampled:	05-11-95
Chain of Custody No:	4194	Date Received:	05-11-95
Sample Matrix:	Soil	Date Extracted:	05-12-95
Preservative:	Cool	Date Analyzed:	05-12-95
Condition:	Cool and Intact	Analysis Needed:	TPH


Parameter -----	Concentration (mg/kg) -----	Det. Limit (mg/kg) -----
Total Petroleum Hydrocarbons	1880	10.0

ND = Parameter not detected at the stated detection limit.

Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978.

Comments: C1 - L.F.


Analyst


Review

CHAIN OF CUSTODY RECORD

Client/Project Name		Project Location		ANALYSIS/PARAMETERS																	
Phillips / 93163				4194																	
Sample (Signature)		Chain of Custody Tape No.		Sample Identification		Sample Date		Sample Time		Lab Number		Sample Matrix		No. of Containers		BTEX		TPH		Remarks	
C. J. Phillips				S.J. 24-6 #1000K		5-11-95		1307		8488		Soil				✓					
C1-LF																				only	
S.J. 24-6 #89				5-11-95		1446				8487		Soil				✓				Run BTEX, IF TPH < 100 ppm	
BTME 2.1																					
S.J. 24-6 #103				5-11-95		1344				8490		Soil				✓					
BTME 2.1																					
S.J. 24-6 #103				5-11-95		1355				8491		Soil				✓					
C1-LF																					
Relinquished by: (Signature)				5-11-95		1230				Received by: (Signature)		5-11-95		1730		Date		Time			
C. J. Phillips																					
Relinquished by: (Signature)																					
Relinquished by: (Signature)																					

ENVIROTECH INC.

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Farmington, New Mexico 87401

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ENVIROTECH Inc

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PIT No: PA099
C.O.C #: 4340

FIELD REPORT: REMEDIATION FACILITY CLOSURE VERIFICATION

JOB No: 93163
PAGE No: 1 of 1

FACILITY LOCATION: San Juan 29-6 #103 DK
SOURCE LOCATION: Section 11, T29N, R6W
SOURCE LOCATION: Rio Arriba Co. NM
SOURCE LOCATION: Separator Pit
FACILITY CLASSIFICATION: On-site Landfarm PIT TYPE: Separator

DATE STARTED: 8-15-95
DATE FINISHED: 8-15-95

ENVIRONMENTAL
SPECIALIST: HMB

SOIL REMEDIATION: QUANTITY: ± 15 cy # OF COMP. SAMPLES: 1
DIMENSIONS: 12' x 30' x 1.1' deep

VISIBLE OBSERVATIONS: Tilled with small tractor; loose soil $\pm 3"$, hard 3" to bottom
SAMPLING PLAN: 1 5-point composite at 3"-4" below surface

FIELD NOTES & REMARKS: FACILITY CENTER LOCATED APPROX 21 YARDS WNW FROM WELLHEAD.

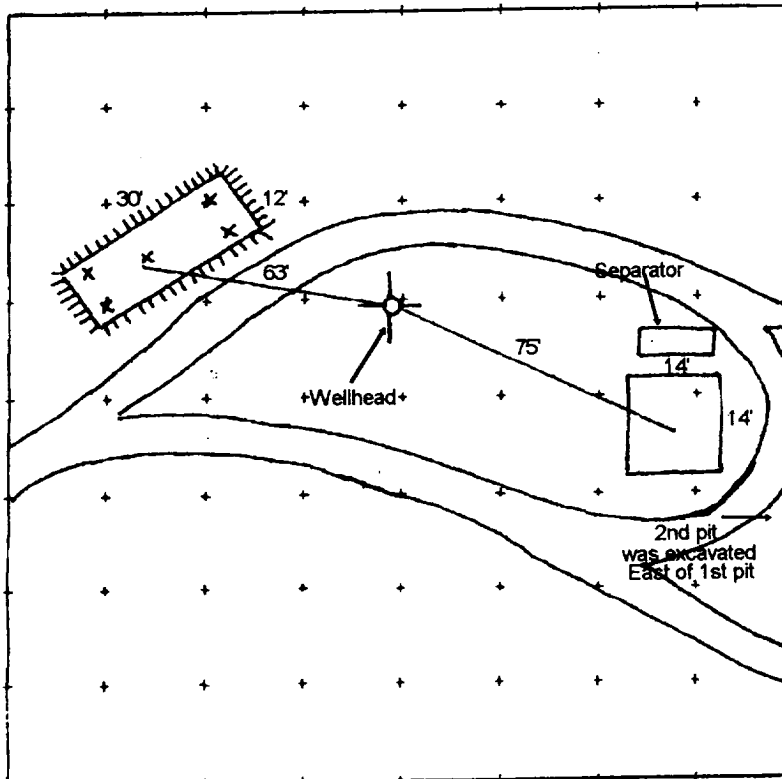
DEPTH TO GROUNDWATER: 80'
NEAREST WATER SOURCE/TYPE: >1000'
NEAREST SURFACE WATER: >1000'
MAX TPH PER NMOC: 1000 ppm

Light petroleum odor.

No. OF 5-POINT
COMPOSITE SAMPLES:
YARDAGE - #
0-200=1
201-400=2
401-1000=3
>1000=5

FACILITY DIAGRAM

GRID SCALE:

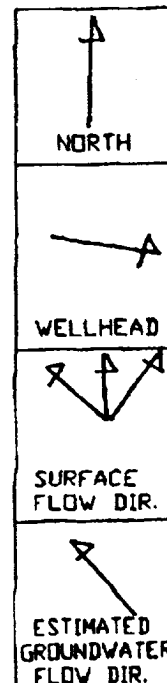


OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
C1	215.9

LAB RESULTS

SAMPLE ID	ANALYSIS REQUESTED	RESULTS PPM
C1	TPH	1130
C1	BTEX ND, 172	



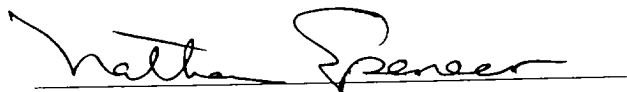
Client:	Phillips Petroleum	Project #:	93163
Sample ID:	San Juan 29-6 #103 DK	Date Reported:	08-16-95
Laboratory Number:	8793	Date Sampled:	08-15-95
Chain of Custody No:	4340	Date Received:	08-15-95
Sample Matrix:	Soil	Date Extracted:	08-16-95
Preservative:	Cool	Date Analyzed:	08-16-95
Condition:	Cool and Intact	Analysis Needed:	TPH

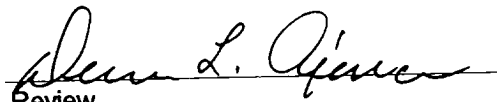
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	1,130	10

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: PA099. Various Landfarms.


Analyst


Review

Client:	Phillips Petroleum	Project #:	93163
Sample ID:	San Juan 29-6 #103 DK	Date Reported:	08-17-95
Laboratory Number:	8793	Date Sampled:	08-15-95
Chain of Custody:	4340	Date Received:	08-15-95
Sample Matrix:	Soil	Date Analyzed:	08-16-95
Preservative:	Cool	Date Extracted:	08-16-95
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	29.7
Toluene	172	33.9
Ethylbenzene	ND	31.7
p,m-Xylene	ND	27.1
o-Xylene	ND	29.4

ND - Parameter not detected at the stated detection limit.

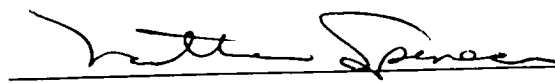
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	103 %
	Bromofluorobenzene	100 %

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments: Various Landfarms. PA099.


Analyst


Review

CHAIN OF CUSTODY RECORD

Client/Project Name		Project Location		ANALYSIS/PARAMETERS											
Phillips Petroleum.		Various Land Farms													
Sampler: (Signature)				Chain of Custody Tape No.		Sample Matrix		No. of Containers		TPH		BTEX		Remarks	
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix											
SAN Juan 30-5 #4708-15-95	8-15-95	11:48	8791	Soil						418.1				1	BTEX IF TPH > 100
SAN Juan 29-6 #89 DK	8-15-95	13:18	8792	Soil										1	BTEX IF TPH > 100
SAN Juan 29-6 #103 DK	8-15-95	14:37	8793	Soil										1	BTEX IF TPH > 1000
SAN Juan 29-5 #104 PC	8-15-95	15:53	8794	Soil										1	BTEX IF TPH > 1000
SAN Juan 29-5 #87 PC	8-15-95	18:57	8795	Soil										1	No BTEX
SAN Juan 29-5 #75 DK	8-15-95	17:03	8796	Soil										1	BTEX IF TPH > 1000
SAN Juan 29-5 #75 DK	8-15-95	17:15	8797	Soil										1	BTEX IF TPH > 1000
SAN Juan 29-5 #57 PC	8-15-95	19:13	8798	Soil										1	BTEX IF TPH > 100
SAN Juan 29-5 #87 PC	8-15-95	19:26	8799	Soil										1	No BTEX
Relinquished by: (Signature)				Date	Time	Received by: (Signature)		Date	Time						
Harden M Brown				8-15-95	21:20	Nathan Spencer		8-15-95	21:20						
Relinquished by: (Signature)						Received by: (Signature)									
Relinquished by: (Signature)						Received by: (Signature)									

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ENVIROTECH Inc!5798 US HWY. 64, FARMINGTON, NM 87401
(505) 632-0615PIT No: PA099
C.O.C #: 4546**FIELD REPORT: REMEDIATION FACILITY
CLOSURE VERIFICATION**JOB No: 93163
PAGE No: 1 of 1FACILITY LOCATION: San Juan 29-6 # 103DATE STARTED: 11-22-95
DATE FINISHED: 11-22-95

SOURCE LOCATION: _____

SOURCE LOCATION: _____

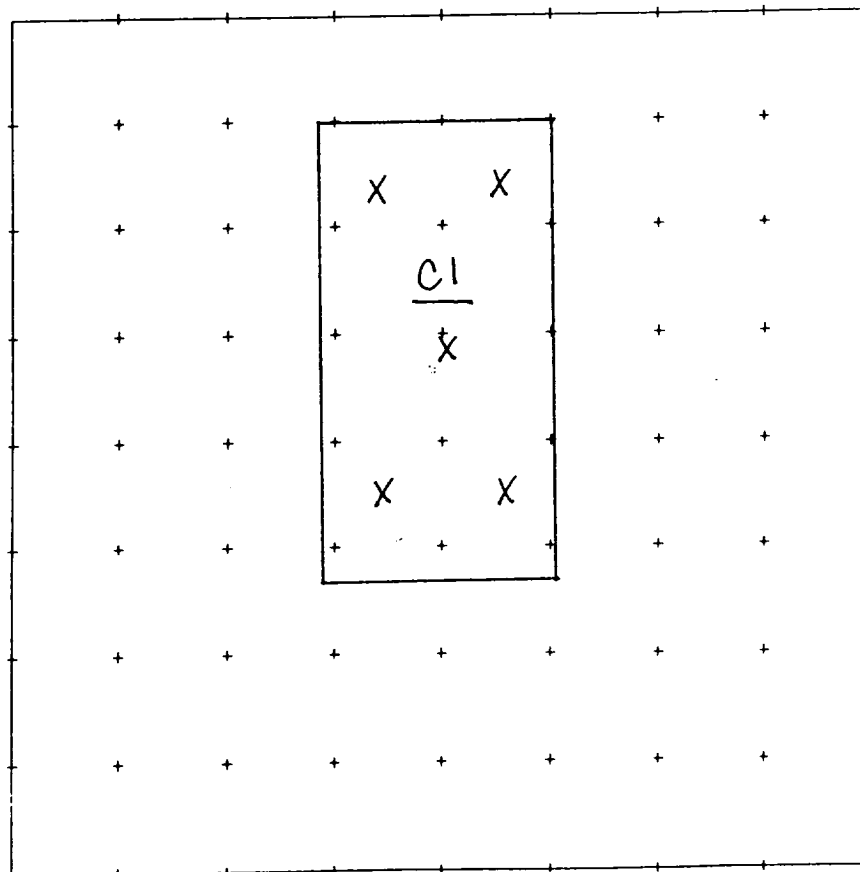
SOURCE LOCATION: _____

ENVIRONMENTAL
SPECIALIST: CJCFACILITY CLASSIFICATION: On-site Landfarm PIT TYPE: Sep.SOIL REMEDIATION: QUANTITY: ± 5 cy # OF COMP. SAMPLES: 1DIMENSIONS: 12' x 24' x .5' deepVISIBLE OBSERVATIONS: Clay/silt, dry, tan, gray-green, no odor.SAMPLING PLAN: 1 5-point compositeFIELD NOTES & REMARKS: FACILITY CENTER LOCATED APPROX 21 YARDS NW FROM WELLHEAD.DEPTH TO GROUNDWATER: 80'
NEAREST WATER SOURCE/TYPE: >1000'
NEAREST SURFACE WATER: >1000'
MAX TPH PER NMDCD: 1000 ppm

No. OF 5-POINT
COMPOSITE SAMPLES:
YARDAGE--#
0-200=1
201-400=2
401-1000=3
>1000=5

FACILITY DIAGRAM

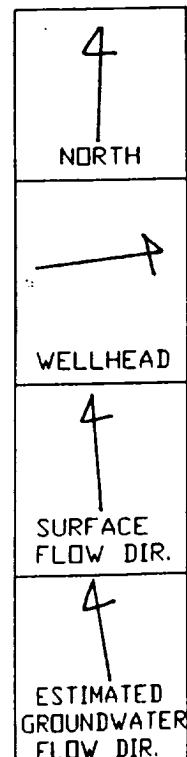
GRID SCALE: 1" = 10'

**OVM
RESULTS**

SAMPLE ID:	FIELD HEADSPACE PID (ppm)
C1	0.2

**LAB
RESULTS**

SAMPLE ID:	ANALYSIS REQUESTED:	RESULTS PPM:
C1	TPH	676



EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

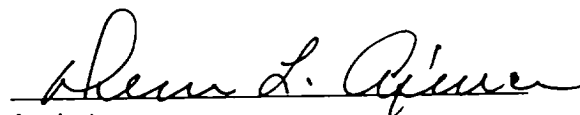
Client:	Phillips	Project #:	93163
Sample ID:	S.J. 29-6 #103 C1-LF	Date Reported:	11-28-95
Laboratory Number:	9688	Date Sampled:	11-22-95
Chain of Custody No:	4546	Date Received:	11-22-95
Sample Matrix:	Soil	Date Extracted:	11-27-95
Preservative:	Cool	Date Analyzed:	11-27-95
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

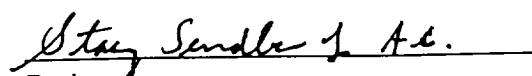
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.8
Diesel Range (C10 - C28)	676	0.5
Total Petroleum Hydrocarbons	676	0.8

ND - Parameter not detected at the stated detection limit.

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments: 29-5 & 29-6, San Juan County, NM.


Analyst


Review

CHAIN OF CUSTODY RECORD

Client/Project Name		Project Location		ANALYSIS/PARAMETERS										
Phillips/93/63		29-5-229-4 NM												
Sampler: (Signature) C. Jack Collins		Chain of Custody Tape No.												
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH	8015 BTEX							Remarks
5.29-6#87-4F	11/22/95	1507	9685	soil	1	✓								
5.29-6#48-35 C1-LF	11/22/95	1429	9686	soil	1	✓	✓							
5.29-6#48-35 C2-LF	11/22/95	1445	9687	soil	1	✓								
5.29-6#103 C1-LF	11-22-95	1316	9688	soil	1	✓								
5.29-6#89 C1-LF	11-22-95	1228	9689	soil	1	✓								
5.29-5#104 C1-LF	11-22-95	1142	9690	soil	1	✓								
Relinquished by: (Signature) C. Jack Collins		Date	Time	Received by: (Signature)		Date		Time						
		11/22/95	1615	D. L. Oliver		11/22/95		1615						
Relinquished by: (Signature)				Received by: (Signature)										
Relinquished by: (Signature)				Received by: (Signature)										

ENVIROTECH INC.

5796 U.S. Highway 64-3014

Farmington, New Mexico 87401

(505) 632-0615

Cimarron Oilfield Service Company
ONE-CALL REQUEST

1-800-321-2537

Person		Company	
Calling :	Monica Rodahl	Code :	C I M O I
Contact	Eli Velasquez /		
Person :	Troy Bishop	Phone :	(505) 327 - 5049
County : Rural Rio Arriba County		Location : San Juan 29-6 # 74A	
Range : 6W	Township : 29N	Section : 20	Quarter : NE/SE
Work		For : Phillips Petroleum Company	
Done By : Cimarron Oilfield Service Co.		Nature	
Type of		of Work : Pit Remediation	
Excavation : Well Location			
Due			
Date : Wed. Aug. 13 th	Time : For 5 Working Days		
Directions to Location and Remarks :			
From Bloomfield, travel east on U.S. 64 to M.M. 95. Turn left and travel approximately .2 mile, turn left and travel approximately 1 mile, turn right and travel approximately 1 mile to location.			
Notify: Phillips Petroleum			
Williams Field Services			
Meter # :		Spot Entire Location	
Grid		Request	
Code :		Number : 97081109030188	

Person		Company	
Calling :		Code :	C I M O I
Contact	Eli Velasquez /		
Person :	Troy Bishop	Phone :	(505) 327 - 5049
County : Rural Rio Arriba County		Location : San Juan 29-6 # 103	
Range : 6W	Township : 29N	Section : 11	Quarter : SW/NE
Work		For : Phillips Petroleum Company	
Done By : Cimarron Oilfield Service Co.		Nature	
Type of		of Work : Pit Remediation	
Excavation : Well Location			
Due			
Date : Wed. Aug. 13 th	Time : For 5 Working Days		
Directions to Location and Remarks :			
From Bloomfield, travel east on U.S. 64 to M.M. 102. Turn left onto N.M. 527 and travel approximately 1 mile, turn left and travel approximately 2 miles, turn right and travel approximately 1 mile to location.			
Notify: Phillips Petroleum			
Williams Field Services			
Meter # :		Spot Entire Location	
Grid		Request	
Code :		Number : 97081109070194	

**Risk Assessment
San Juan 29-6 # 103**

Depth to Groundwater	80'
Distance to Water Source	>1000'
Distance to Surface Water	>1000'
TPH Limit (ppm)	10000

The subject pit was located in hard, well cemented sandstone at a depth of 3 feet. The initial size of the pit was 15' X 15' X 1' deep. The stained soil was a silty sand and was excavated to a final pit size of 15' X 15' X 3' deep. Excavated soil amounted to approximately 25 total cubic yards, and was landfarmed on location.

On November 18, 1993 Envirotech Inc., performed a pit assessment. The assessment included excavation of two test holes. Test hole # 1 was established in the middle of the pit and excavated to a depth of 1.5 feet below ground level, where bedrock was encountered. A soil sample at 1.5 feet provided a Total Petroleum Hydrocarbons (TPH) concentration of 15,100 ppm, and a Headspace concentration of 134 ppm, a BTEX analysis provided a Benzene concentration of 0.316 ppm and a Total BTEX concentration of 12.52 ppm. Test hole # 2 was established down gradient of the established pit to a depth of 2.5 feet, where bedrock was encountered. A sample was extracted at this depth and provided a TPH concentration of Non-Detect and a Headspace concentration of 2.5 ppm.

Excavation and Pit Closure verification was performed by Envirotech, Inc. on May 19, 1994. The pit was excavated to a depth of 3 feet, where hard cement sandstone was encountered. A sample from the Center Bottom at a depth of 3 feet was analyzed. Results of the sample provided a TPH concentration of 14,740 ppm and a Headspace level of 91 ppm. A second sample from the North wall, at a depth of 2 feet, was analyzed using the Headspace method and provided a concentration of 649 ppm. No groundwater was encountered, and first water was not recorded at a nearby cathodic well until a depth of 80 feet. Excavated soils were landfarmed on location.

Landfarm sampling was provided by Envirotech, Inc. on November 22, 1995. A 5-point sample was extracted and analyzed. Results of the sample provided a TPH concentration of 676 ppm and a Headspace concentration of 0.2 ppm.

Using the results from the pit assessment, particularly, test hole # 2, lateral extent was established down gradient of the pit. A risk assessment was performed to establish lateral extent North of the associated pit. The risk assessment was performed August 15, 1997 by Cimarron Oilfield Services. A bore hole was established approximately 20 feet North of the associated pit to a depth of 2 feet, where a hard cemented sandstone was encountered. A sample from this depth provided a TPH concentration of Non-Detect and a Headspace concentration of 0.5 ppm.

Having determined lateral and vertical extent as well as achieving action levels below NMOCD and BLM requirements, this pit should be considered to have reached "final

closure". Phillips Petroleum has removed and remediated all soils to the extent practical. By filling the excavation, the driving force created by additional fluids will be eliminated. Based on this information and the physical location of the pit, there is little to no risk to human health or environment.

TOTAL PETROLEUM HYDROCARBONS
EPA METHOD 418.1

Client: **Phillips Petroleum**
Project: SJ 29-6 #103
Matrix: Soil
Condition: Intact/Cool

Date Reported: 08/25/97
Date Sampled: 08/15/97
Date Received: 08/15/97
Date Extracted: 08/21/97
Date Analyzed: 08/21/97

Sample ID	Lab ID	Result mg/kg	Detection Limit mg/kg
Bore Hole #1 @ 2 ft.	0397G01721	ND	19.7

ND - Analyte not detected at stated detection level.

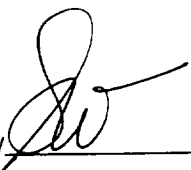
Method 418.1:

Petroleum Hydrocarbons, Total Recoverable, USEPA Chemical Analysis of Water and Waste, 1978.

Method 3550:

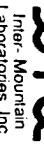
Ultrasonic Extraction of Non-Volatile and Semi-Volatile Organic Compounds from Solids, USEPA SW-846, Rev. 1, July 1992.

Reported By



Reviewed By





CHAIN OF CUSTODY RECORD

[illegible]