

P.O. Box 1980, Hubbs, NM

District II

P.O. Drawer DD, Artesia, NM 86202

District III

1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico

Energy, Minerals and Natural Resources Department

SUBMIT 1 COPY TO

APPROPRIATE

DISTRICT OFFICE

AND 1 COPY TO

SANTA FE OFFICE

SEP 26 1997

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

~~PIE KEY~~ PIT REMEDIATION AND CLOSURE REPORT

Operator: Phillips Petroleum Company Telephone: (505) 599-3462

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

Facility Or: San Juan 29 - 6 Unit # 48-35

Well Name

Location: Unit or Qtr/Qtr Sec **NENE** Sec 35 T 29N R 6W County Rio Arriba

Pit Type: Separator ☒ Dehydrator ☐ Other Production Tank

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

Pit Location: _____ Pit dimensions: Length 39 ft, width 39 ft, depth 12 ft (avg)
(Attach diagram)

Reference-, wellhead X other_____

Footage from reference: 40 ft

Direction from reference: 20 Degrees X East of North X
West South

Depth to Ground Water:	<u>45 ft</u>	<u>X</u>	Less than 50 feet	(20 points)	
(vertical distance from			50 ft to 99 feet	(10 points)	
contaminants to seasonal			Greater than 100 feet	(0 points)	<u>20</u>
highwater elevation of					
ground water)					

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

RECEIVED
JUL 24 1997

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

Distance to Surface Water: _____ Less than 200 feet (20 points)
 (Horizontal distance to perennial _____ 200 feet to 1000 feet (10 points)
 lakes, ponds, rivers, streams, creeks, _____ X Greater than 1000 feet (0 points) 0
 irrigation canals and ditches.)

Date Remediation Started: 6/29/93 Dated Completed: 8/16/95

Excavation X Approx. cubic yards 676

Landfarmed X Insitu Bioremediation _____

Other _____

Remediation Method: Onsite X Offsite _____

(Check all appropriate
sections)

General Description of Remedial Action- The site was assessed on 6/29/93. The pit was excavated on 5/9/95 and tested below NMOCD and BLM guidelines. The landfarm was determined to be within guidelines on 8/16/95

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 Center of pit

Sample depth 12' below ground level

Sample date 5/9/95 Sample time NA

Sample Results

Benzene(ppm) _____

Total BTEX (PPM) _____

Field Headspace (ppm) 0.0

TPH 29 ppm

Ground Water Sample: Yes No X (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 7/22/97 PRINTED NAME Bob Wirtanen

SIGNATURE RA Wirtanen and TITLE Sr. Safety & Environmental Specialist

ENVIROTECH Inc.

5796 US HWY 64, FARMINGTON, NM 87401
(505) 632-0815

PIT NO: PA005

C.D.C. NO: _____

FIELD REPORT: SITE ASSESSMENT

JOB No: 93163
PAGE No: 1 of 1

PROJECT: PIT ASSESSMENT
CLIENT: PHILLIPS PETROLEUM
CONTRACTOR: ENVIROTECH INC. / CIMARRON
EQUIPMENT USED: BACKHOE

DATE STARTED: 6-29-93
DATE FINISHED: 6-29-93
ENVIRO. SPCLT: REO
OPERATOR: Cimarron
ASSISTANT: _____

LOCATION: LEASE: San Juan 29-6 WELL: #48-35 QD: 990' FNL, 990' FEL (A)
SEC: 35 TWP: 29N RNG: 6W PM: NM CNTY: R.A. ST: NM PIT: Sep.

LAND USE: Range - Fec

SURFACE CONDITIONS: Earthen pit - Dry

PIT CENTER IS LOCATED APPROXIMATELY 40 FEET N 20 E. OF WELLHEAD.

CLOSURE STD: 100 ppm T1 : Moist layers of silty, sandy, clay - very stiff
RANKING SCORE: 20 @ 9' below ground surface

Pit classified as 100 ppm TPH limit - per Ed Hasley of Phillips Petroleum

Field TPH 1:10 Dilution = $640 \times 2 = 1280 \times 10 = 12,800$
(GAC0081)

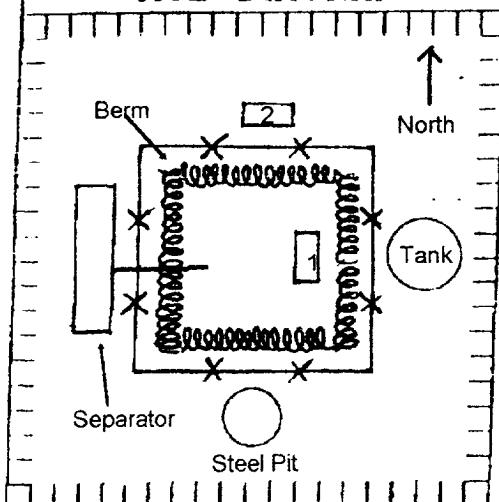
TEST HOLE LOGS

SAMPLE INVENTORY		
SAMPL ID	SAMPL TYPE	LABORATORY ANALYSIS
T1@12.5	Soil	12,800



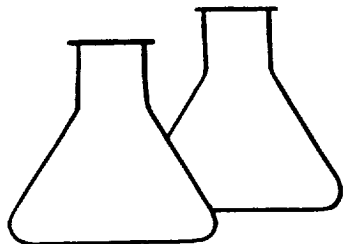
0 5 10 FEET

SITE DIAGRAM



TH#	1	2	TH#	3	TH#	4
GD	SOIL TYPE	SAMPL TYPE	QNM/TPH	SOIL TYPE	SAMPL TYPE	QNM/TPH
1						
2						
3	Pit bottom			CL	No odor	
4						
5	CA	ODOR		CL	GRB 67.2	
6	CL					
7	SP	ODOR				
8						
9				CL	GRB 122.6	
10					TD	
11	CL	GRB 442				
12						
13	SM	GRB 323				
14		TD				

SOIL TYPE: C - Clay, M - Silt, S - Sand, G - Gravel, Plasticity: L - Low, H - High, B - Plastic, Shrinkage: P - Plastic, W - Wet



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FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Phillips	Project #:	93163
Sample ID:	T1 @ 12.5' bgs	Date Analyzed:	06-29-93
Project Location:	San Juan 29-6 Unit 48-35	Date Reported:	07-06-93
Laboratory Number:	GAC0081	Sample Matrix:	Soil

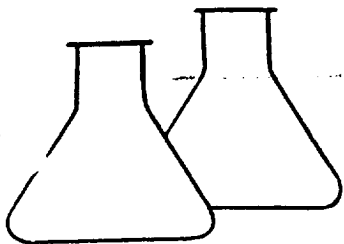
Parameter -----	Result, mg/kg -----	Detection Limit, mg/kg -----
Petroleum Hydrocarbons	12800	100

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

Comments: Separator Pit PA005

R. E. O'Neil
Analyst

Maria D. Young
Review



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

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Phillips Petroleum	Project #:	93163
Sample ID:	Pit Bottom 4'	Date Sampled:	08-03-93
Laboratory Number:	5822	Date Received:	08-03-93
Sample Matrix:	Soil	Date Analyzed:	08-04-93
Preservative:	Cool	Date Reported:	08-04-93
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----	-----	-----
Total Petroleum Hydrocarbons	21.3	5.0

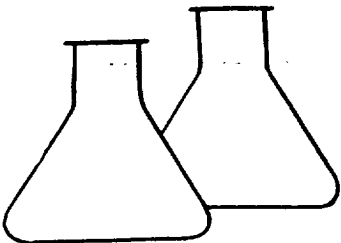
ND = Parameter not detected at the stated detection limit.
N/A = Not applicable

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

Comments: Pit bottom 4', 11' below bottom pit, SJ 29-6 #48.

Ar Chahar
Analyst

Morris D Young
Review



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EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Phillips Pet	Project #:	93163
Sample ID:	Pit Bottom 4'	Date Reported:	08-04-93
Laboratory Number:	5822	Date Sampled:	08-03-93
Sample Matrix:	Soil	Date Received:	08-03-93
Preservative:	Cool	Date Extracted:	08-04-93
Condition:	Cool & Intact	Date Analyzed:	08-04-93
		Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	13.2
Toluene	600	26.5
Ethylbenzene	94	13.2
p,m-Xylene	1,860	19.8
o-Xylene	412	19.8

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	96 %
	Bromofluorobenzene	96 %

Method: Method 5030, Purge-and-Trap, Test Methods for
Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

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.

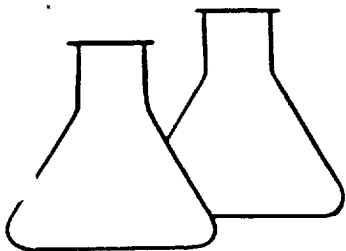
Comments: SJ - 29-6 - #48 Pit Bottom 4' - 11' Below Bottom Pit

Kevin L. Grewer
Analyst

Marion D. Young
Review

San Juan Metro Form 879-01

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



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

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Phillips Petroleum	Project #:	93163
Sample ID:	Grab @2'@8'@16'	Date Sampled:	08-24-93
Laboratory Number:	5953	Date Received:	08-24-93
Sample Matrix:	Soil	Date Analyzed:	08-25-93
Preservative:	Cool	Date Reported:	08-25-93
Condition:	Cool & Intact	Analysis Needed:	TPH

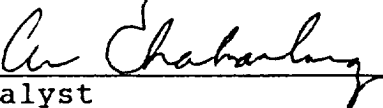
Parameter -----	Concentration (mg/kg) -----	Det. Limit (mg/kg) -----
Total Petroleum Hydrocarbons	8.6	5.0

ND = Parameter not detected at the stated detection limit.

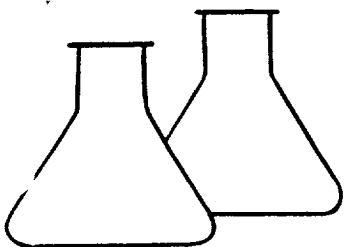
N/A = Not applicable

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

Comments: Sample ID actually a composite. SJ-29-6 #48, Separator Pit.


Analyst


Review



ENVIROTECH LABS

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

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Phillips Pet.	Project #:	93163
Sample ID:	Grab @ 2', 8', 16'	Date Reported:	08-25-93
Laboratory Number:	5953	Date Sampled:	08-24-93
Sample Matrix:	Soil	Date Received:	08-24-93
Preservative:	Cool	Date Extracted:	08-25-93
Condition:	Cool & Intact	Date Analyzed:	08-25-93
		Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	13.0
Toluene	257	32.6
Ethylbenzene	30.0	13.0
p,m-Xylene	143	45.7
o-Xylene	46.6	26.1

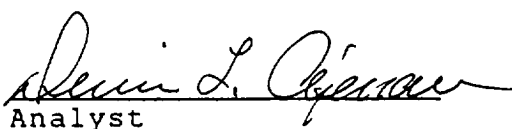
SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	104 %
	Bromofluorobenzene	106 %

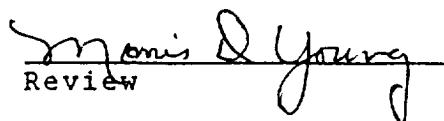
Method: Method 5030, Purge-and-Trap, Test Methods for
Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

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: S.J. 29-6 #48 Separator Pit


Analyst


Review

CHAIN OF CUSTODY RECORD

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

CLIENT: PHILLIPS PETROLEUM**ENVIROTECH Inc.**PIT NO: PA0055796 US HWY. 84, FARMINGTON, NM 87401
(505) 832-0815

C.D.C. NO: _____

FIELD REPORT: CLOSURE VERIFICATIONJOB No: 93163PAGE No: 1 of 1LOCATION: NAME: San Juan 29-6 WELL #: 48-35 PIT: Sep

DATE STARTED: _____

DATE FINISHED: 11 Aug 94QUAD/UNIT: A SEC: 35 TWP: 29N RNG: 6W BM: NM CNTY: R.A. ST: NMENVIRONMENTAL
SPECIALIST: FMQTR/FOOTAGE: 990' ENL. 990' FRI/CONTRACTOR: CimarronSOIL REMEDIATION: EXCAVATION APPROX. 35 FT. x 20 FT. x 14 FT. DEEP.DISPOSAL FACILITY: Landfarm On Site CUBIC YARDAGE: _____LAND USE: Range LEASE: FeeFIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 40 FEET N 20 E FROM WELLHEAD.DEPTH TO GROUNDWATER: 45' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'NMDCD RANKING SCORE: 20 NMDCD TPH CLOSURE STD 100 PPM

SOIL AND EXCAVATION DESCRIPTION: Soil is silty sand-clayey sand, yellow-brown, slightly moist

832 x 2 => Dilution x 10 =

FIELD 418.1 CALCULATIONS

SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
3 @ 13'	GAC652	10	20	10	147	2940

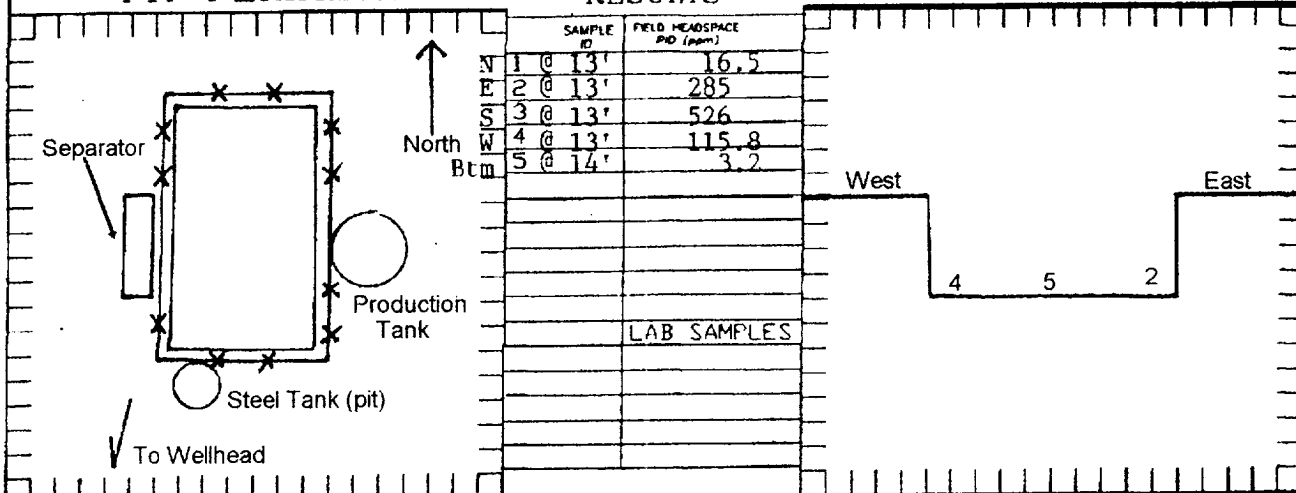
1 cm = 10'

SCALE

0

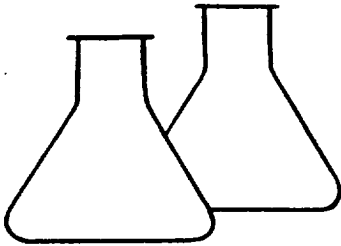
FEET
PIT PERIMETEROVM
RESULTS

PIT PROFILE



TRAVEL NOTES:

CALLOUT: _____ ONSITE: _____



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
Sample ID: 3 @ 13'
Project Location: San Juan 29-6 #48-35
Laboratory Number: GAC0652

Project #: 93163
Date Analyzed: 8-11-94
Date Reported: 8-11-94
Sample Matrix: Soil

Parameter -----	Result, mg/kg -----	Detection Limit, mg/kg -----
Total Recoverable Petroleum Hydrocarbons	2,940	100

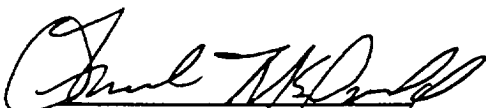
ND = Not Detectable at stated detection limits.

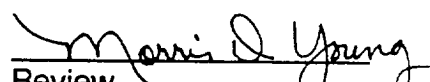
QA/QC:	QA/QC Sample TPH mg/kg -----	Duplicate TPH mg/kg -----	% *Diff. -----
	11,000	12,600	14

*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 PA005


Analyst


Review

CLIENT: PHILLIPS PETROLEUM**ENVIROTECH Inc.**PIT NO: PA0055798 US HWY. 64, FARMINGTON, NM 87401
(505) 832-0615

C.D.C. NO: _____

FIELD REPORT: CLOSURE VERIFICATIONJOB No: 93163PAGE No: 1 of 1LOCATION: NAME: San Juan 29-6 WELL #: 48-35 PIT: Sed.
QUAD/UNIT: A SEC: 35 TWP: 29N RNG: 6W BM: NM CNTY: R.A. ST. NM
DTR/FOOTAGE: 990' FNL: 990' FEI CONTRACTOR: EnvirotechDATE STARTED: 5-9-95
DATE FINISHED: _____ENVIRONMENTAL
SPECIALIST: CJCSOIL REMEDIATION: EXCAVATION APPROX. 39 FT. x 39 FT. x 12 FT. DEEP.DISPOSAL FACILITY: Landfarm - On site CUBIC YARDAGE: _____LAND USE: Range LEASE: FeeFIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 40 FEET N. 20 E FROM WELLHEAD.DEPTH TO GROUNDWATER: 45' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'NMDCD RANKING SCORE: 20 NMDCD TPH CLOSURE STD: 100 PPM

SOIL AND EXCAVATION DESCRIPTION:

FIELD 418.1 CALCULATIONS

SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
W W @ 11'	1037	10.18	20.0	1	35	69
N W @ 11'	1038	10.74	20.0	1	22	41
Btm @ 12'	1039	10.87	20.0	1	16	29
E W @ 11'	1040	10.83	20.0	1	26	48
S W @ 11'	1041	10.32	20.0	1	18	35

SCALE

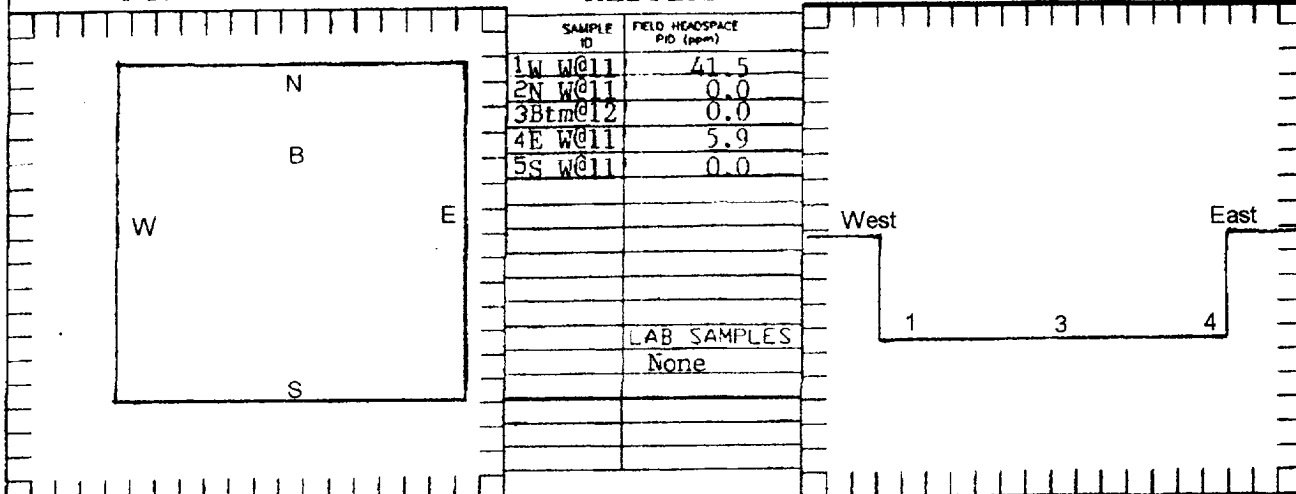


0 20 FEET

PIT PERIMETER

OVM RESULTS

PIT PROFILE



TRAVEL NOTES:

CALLOUT: _____

ONSITE: _____

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: PHILLIPS PETROLEUM
Sample ID: W. Wall @ 11'
Project Location: San Juan 29-6, 48-35
Laboratory Number: GAC1037

Project #: 93163
Date Analyzed: 05/09/95
Date Reported: 05/18/95
Sample Matrix: Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	69	10

ND = Not Detectable at stated detection limits.

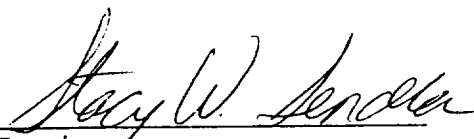
QA/QC:	Original TPH mg/kg	Duplicate TPH mg/kg	% Diff.*
	10	13	26

*Administrative Acceptance limits set at 30%.

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

Comments: Separator Pit # PA005


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: PHILLIPS PETROLEUM
Sample ID: N. Wall @ 11'
Project Location: San Juan 29-6, 48-35
Laboratory Number: GAC1038

Project #: 93163
Date Analyzed: 05/09/95
Date Reported: 05/18/95
Sample Matrix: Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	41	10

ND = Not Detectable at stated detection limits.

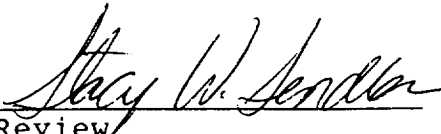
QA/QC:	Original TPH mg/kg	Duplicate TPH mg/kg	% Diff.*
	10	13	26

*Administrative Acceptance limits set at 30%.

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

Comments: Separator Pit # PA005


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: PHILLIPS PETROLEUM
Sample ID: Bottom @ 12'
Project Location: San Juan 29-6, 48-35
Laboratory Number: GAC1039

Project #: 93163
Date Analyzed: 05/09/95
Date Reported: 05/18/95
Sample Matrix: Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	29	10

ND = Not Detectable at stated detection limits.

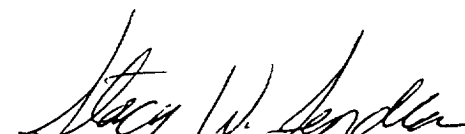
QA/QC:	Original TPH mg/kg	Duplicate TPH mg/kg	% Diff.*
	10	13	26

*Administrative Acceptance limits set at 30%.

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

Comments: Separator Pit # PA005


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: PHILLIPS PETROLEUM
Sample ID: E. Wall @ 11'
Project Location: San Juan 29-6, 48-35
Laboratory Number: GAC1040

Project #: 93163
Date Analyzed: 05/09/95
Date Reported: 05/18/95
Sample Matrix: Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	48	10

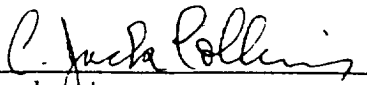
ND = Not Detectable at stated detection limits.

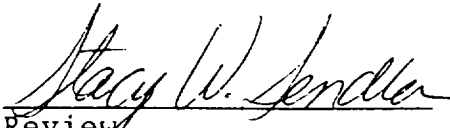
QA/QC:	Original TPH mg/kg	Duplicate TPH mg/kg	% Diff.*
	10	13	26

*Administrative Acceptance limits set at 30%.

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

Comments: Separator Pit # PA005


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: PHILLIPS PETROLEUM
Sample ID: S. Wall @ 11'
Project Location: San Juan 29-6, 48-35
Laboratory Number: GAC1041

Project #: 93163
Date Analyzed: 05/09/95
Date Reported: 05/18/95
Sample Matrix: Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	35	10

ND = Not Detectable at stated detection limits.

QA/QC:	Original TPH mg/kg	Duplicate TPH mg/kg	% Diff.*
	10	13	26

*Administrative Acceptance limits set at 30%.

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

Comments: Separator Pit # PA005

C. Jack Collins
Analyst

Harry W. Sander
Review

ENVIROTECH Inc.

5798 US HWY 84, FARMINGTON, NM 87401
(505) 632-0815

PIT No: PA005
C.O.C #

FIELD REPORT: REMEDIATION FACILITY CLOSURE VERIFICATION

JOB No: 93163
PAGE No: 1 of 1

FACILITY LOCATION: San Juan 29-6 # 48-35

SOURCE LOCATION:

SOURCE LOCATION:

SOURCE LOCATION:

FACILITY CLASSIFICATION: Landfarm

PIT TYPE: Sep.

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

ENVIRONMENTAL
SPECIALIST: CJC

SOIL REMEDIATION. QUANTITY: 191cy + 117cy + 125cy # OF COMP. SAMPLES: 3

DIMENSIONS: (55'x125'x.75')+(36'x117'x.75')+(33'x136'x.75')

VISIBLE OBSERVATIONS:

SAMPLING PLAN:

FIELD NOTES & REMARKS: FACILITY CENTER LOCATED APPROX 40 YARDS SE FROM WELLHEAD.

DEPTH TO GROUNDWATER: 45'
NEAREST WATER SOURCE/TYPE: >1000'
NEAREST SURFACE WATER: >1000'
MAX TPH PER NMCD: 100 ppm

C3 : 20 x 10 x 109 = 2,112 ppm

10.32

C1 : 20 x 1 x 86 = 165 ppm

10.43

C2 : 20 x 1 x 31 = 57 ppm

10.87

GAC#

1061

1062

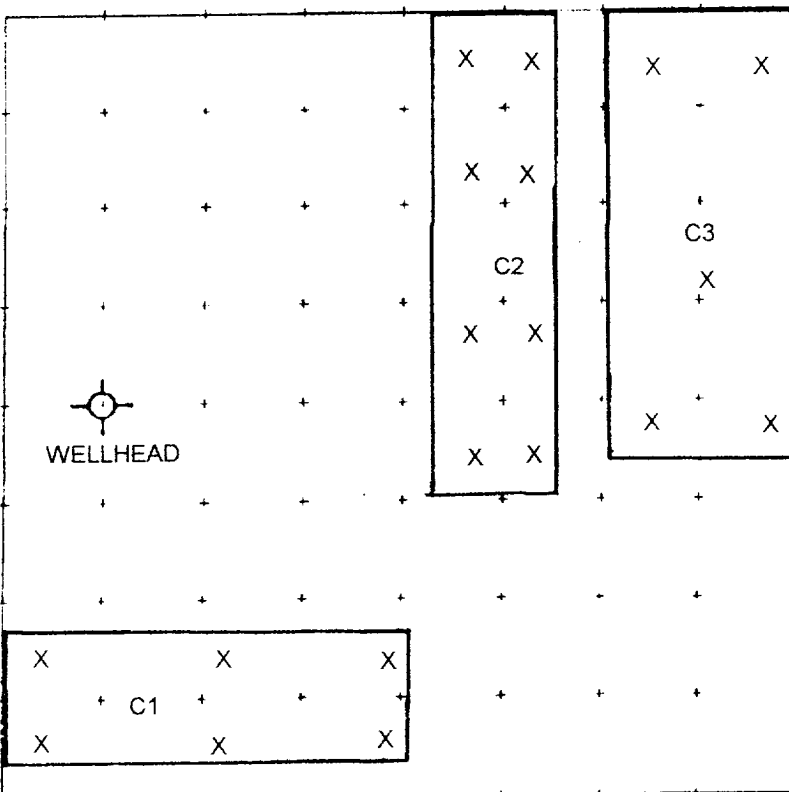
1063

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

B6 : 20.0 x 1 x 27 = 52
10.44

FACILITY DIAGRAM

GRID SCALE: 1" = 50'

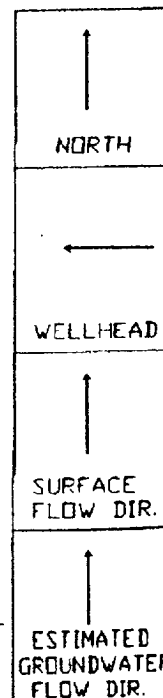


OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PPM (ppm)
C1	11.0
C2	20.0
C3	1663

LAB RESULTS

SAMPLE ID	ANALYSIS REQUESTED	RESULTS PPM
	GAC	
C1	TPH	165
C2	TPH	57
C3	TPH	2112
NONE		



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: PHILLIPS PETROLEUM
Sample ID: C1
Project Location: San Juan 29-6, 48-35
Laboratory Number: GAC1062

Project #: 93163
Date Analyzed: 05/11/95
Date Reported: 05/18/95
Sample Matrix: Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	170	10

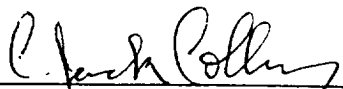
ND = Not Detectable at stated detection limits.

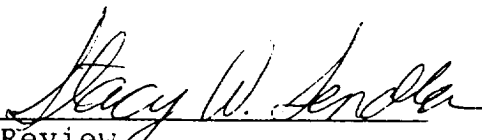
QA/QC:	Original TPH mg/kg	Duplicate TPH mg/kg	% Diff.*
	10	13	26

*Administrative Acceptance limits set at 30%.

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

Comments: Separator Pit # PA005


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: PHILLIPS PETROLEUM
Sample ID: C2
Project Location: San Juan 29-6, 48-35
Laboratory Number: GAC1063

Project #: 93163
Date Analyzed: 05/11/95
Date Reported: 05/18/95
Sample Matrix: Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	57	10

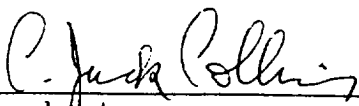
ND = Not Detectable at stated detection limits.

QA/QC:	Original TPH mg/kg	Duplicate TPH mg/kg	% Diff.*
	10	13	26

*Administrative Acceptance limits set at 30%.

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

Comments: Separator Pit # PA005


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: PHILLIPS PETROLEUM
Sample ID: C3
Project Location: San Juan 29-6, 48-35
Laboratory Number: GAC1061

Project #: 93163
Date Analyzed: 05/11/95
Date Reported: 05/18/95
Sample Matrix: Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	2,100	100

ND = Not Detectable at stated detection limits.

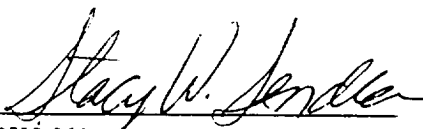
QA/QC:	Original TPH mg/kg	Duplicate TPH mg/kg	% Diff.*
	10	13	26

*Administrative Acceptance limits set at 30%.

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

Comments: Separator Pit # PA005


Analyst


Review

Note C1 = Landfarm #1

-C3 = Landfarm #3 which has composites C2 and C3 this event

ENVIROTECH Inc.

5798 US HWY 64, FARMINGTON, NM 87401
(505) 632-0815

PIT No: PA005
C.O.C #: 4342

FIELD REPORT: REMEDIATION FACILITY CLOSURE VERIFICATION

JOB No: 93163
PAGE No: 1 of 1

FACILITY LOCATION: San Juan 29-6 #48-35 MV
SOURCE LOCATION: Sec. 35, T29N, R6W, Rio Arriba Co., NM
SOURCE LOCATION: _____
SOURCE LOCATION: _____
FACILITY CLASSIFICATION: On site Landfarm PIT TYPE: Separator

DATE STARTED: 8-16-95
DATE FINISHED: 8-16-95

ENVIRONMENTAL
SPECIALIST: HMB

SOIL REMEDIATION: QUANTITY: C3 = +320 cy; C1 = 164 cy # OF COMP. SAMPLES: 3
DIMENSIONS: C3 = 60' x 144' x 1' C1 = (69'x27'x1')+(66'x39'x1')

VISIBLE OBSERVATIONS:

SAMPLING PLAN: 2 5-point composites from C3; 1 5-point composite from C1

FIELD NOTES & REMARKS: FACILITY CENTER LOCATED APPROX 33 YARDS ESE FROM WELLHEAD.

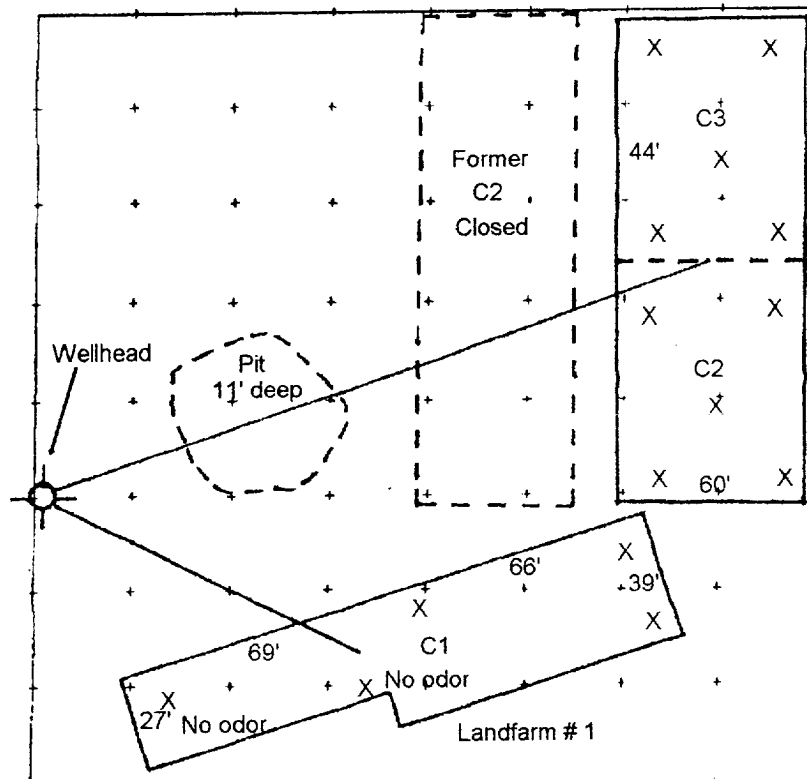
DEPTH TO GROUNDWATER: 45' Landfarm #3 = Former C3 = 72 Yards ENE from wellhead
NEAREST WATER SOURCE/TYPE: >1000'
NEAREST SURFACE WATER: >1000'
MAX TPH PER NMOC: 100 ppm

Soil loose 2"-3" deep; moist hard below 3"
Petroleum odor at all but S.E. pts in LF #1

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

FACILITY DIAGRAM

GRID SCALE:

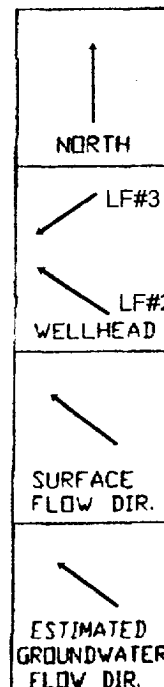


OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PPM (geom)
C1	915 ppm
C2	474 ppm
C3	626 ppm

LAB RESULTS

SAMPLE ID	ANALYSIS REQUESTED	RESULTS PPM
C1	TPH	119
C2	TPH	40
C3	TPH	109
C1	BTEX	ND, 8.091
C3	BTEX	ND, 5.313



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

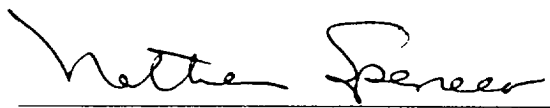
Client:	Phillips Petroleum	Project #:	93163
Sample ID:	San Juan 29-6 #48 MV C1	Date Reported:	08-18-95
Laboratory Number:	8803	Date Sampled:	08-16-95
Chain of Custody No:	4342	Date Received:	08-16-95
Sample Matrix:	Soil	Date Extracted:	08-17-95
Preservative:	Cool	Date Analyzed:	08-18-95
Condition:	Cool and Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	119	10

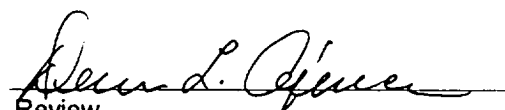
ND = Parameter not detected at the stated detection limit.

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

Comments: PA005. Various Landfarms.



Analyst



Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Phillips Petroleum	Project #:	93163
Sample ID:	San Juan 29-6 #48 MV C1	Date Reported:	08-18-95
Laboratory Number:	8803	Date Sampled:	08-16-95
Chain of Custody:	4342	Date Received:	08-16-95
Sample Matrix:	Soil	Date Analyzed:	08-18-95
Preservative:	Cool	Date Extracted:	08-18-95
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	29.7
Toluene	1,770	33.9
Ethylbenzene	181	31.7
p,m-Xylene	4,580	27.1
o-Xylene	1,560	29.4

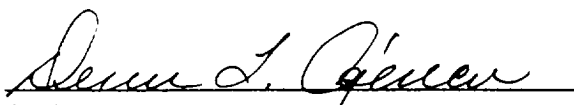
ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	96 %
	Bromofluorobenzene	98 %

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. PA005.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

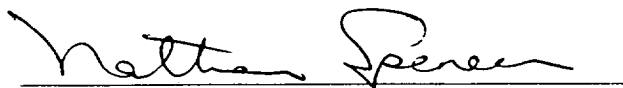
Client:	Phillips Petroleum	Project #:	93163
Sample ID:	San Juan 29-6 #48 MV C2	Date Reported:	08-18-95
Laboratory Number:	8804	Date Sampled:	08-16-95
Chain of Custody No:	4342	Date Received:	08-16-95
Sample Matrix:	Soil	Date Extracted:	08-17-95
Preservative:	Cool	Date Analyzed:	08-18-95
Condition:	Cool and Intact	Analysis Needed:	TPH

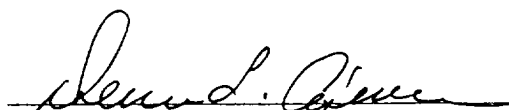
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	40	10

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: PA005. Various Landfarms.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

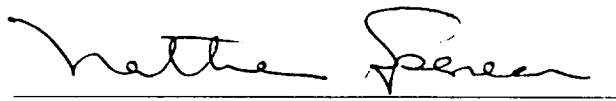
Client:	Phillips Petroleum	Project #:	93163
Sample ID:	San Juan 29-6 #48 MV C3	Date Reported:	08-18-95
Laboratory Number:	8805	Date Sampled:	08-16-95
Chain of Custody No:	4342	Date Received:	08-16-95
Sample Matrix:	Soil	Date Extracted:	08-17-95
Preservative:	Cool	Date Analyzed:	08-18-95
Condition:	Cool and Intact	Analysis Needed:	TPH

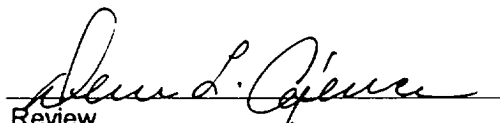
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	109	10

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: **PA005. Various Landfarms.**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Phillips Petroleum	Project #:	93163
Sample ID:	San Juan 29-6 #48 MV C3	Date Reported:	08-18-95
Laboratory Number:	8805	Date Sampled:	08-16-95
Chain of Custody:	4342	Date Received:	08-16-95
Sample Matrix:	Soil	Date Analyzed:	08-18-95
Preservative:	Cool	Date Extracted:	08-18-95
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	29.7
Toluene	1 060	33.9
Ethylbenzene	283	31.7
p,m-Xylene	2,610	27.1
o-Xylene	1,360	29.4

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	94 %
	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. PA005.


Analyst


Review

CHAIN OF CUSTODY RECORD

Client/Project Name		Project Location		ANALYSIS/PARAMETERS											
PHILLIPS Petroleum		93163		Various Landfills											
Sampler: (Signature)		Chain of Custody Tape No.													
Sample No./ Identification		Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH							Remarks	
SMT Juan 29-6#25ANV		8-16-95	11:34	8801	Soil	1	✓								
SMT Juan 29-6#100DK		8-16-95	12:37	8802	Soil	1	✓								
SMT Juan 29-6#118HV		8-16-95	13:42	8803	Soil	1	✓								IF TPH > 100ppm THEN 8020 BTEX
SMT Juan 29-6#48HV		8-16-95	13:59	8804	Soil	1	✓								IF TPH > 100ppm THEN 8020 BTEX
SMT Juan 29-6#48HV		8-16-95	14:15	8805	Soil	1	✓								IF TPH > 100ppm THEN 8020 BTEX
SMT Juan 52-#16 F/R		8-16-95	16:19	8806	Soil	1	✓								
SMT Juan 32-7#80R		8-16-95	16:55	8807	Soil	1	✓								
STEWART A Com B#3		8-16-95	18:46	8808	Soil	1	✓								
Relinquished by: (Signature)		8-16-95 19:35		Received by: (Signature)		Date		Time		Date		Time			
Harlan M Brown				Nathan Spencer		8-16-95		1935		8-16-95		1935			
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 LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL DOCUMENTATION

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	08-18-95
Laboratory Number:	0817PHMB	Date Sampled:	N/A
Sample Matrix:	Freon-113	Date Received:	N/A
Preservative:	N/A	Date Extracted:	08-17-95
Condition:	N/A	Analysis Needed:	TPH

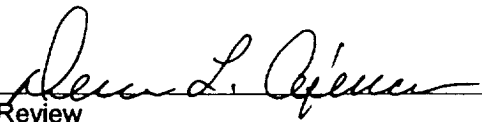
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	ND	10

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: QA/QC for samples 8801 - 8813.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS
QA/QC - MATRIX DUPLICATE

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	08-18-95
Laboratory Number:	8801	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	Cool	Date Extracted:	08-17-95
Condition:	Cool & Intact	Date Analyzed:	08-18-95
		Analysis Needed:	TPH

Parameter	Concentration (mg/Kg)		Dillution Factor	Det. Limit (mg/Kg)	Percent Difference
	Sample	Duplicate			
Total Petroleum Hydrocarbons	288	335	1	10	15.1%

ND - Parameter not detected at the stated detection limit.

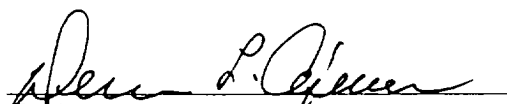
QA/QC Acceptance Criteria:

Administrative control limit set
at maximum of 30% difference.

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

Comments: QA/QC for samples 8801 - 8813.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS
QA/QC - MATRIX SPIKE**

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	08-18-95
Laboratory Number:	8801	Date Sampled::	N/A
Sample Matrix:	Soil	Date Received:	N/A
Analysis Requested:	TPH	Date Extracted:	08-17-95
		Date Analyzed:	08-18-95

Parameter	Sample Result (mg/kg)	Spike Added (mg/kg)	Spike Sample Result (mg/kg)	Det. Limit (mg/kg)	Percent Recovery
Total Petroleum Hydrocarbons	288	2,000	2,530	10	111%

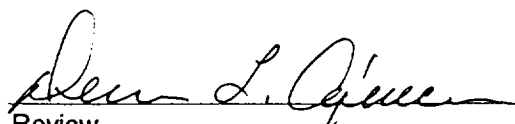
ND = Parameter not detected at the stated detection limit.

QA ACCEPTANCE CRITERIA:	Parameter	Acceptance Range
	Total Petroleum Hydrocarbons	80 - 120%

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

Comments: QA/QC for samples 8801 - 8813.


Analyst


Review