DEC 0 2 1997 District III 1000 Rin Branes Rd, Aziec, NM 87410

State of New Mexico y, Milerals and Natural Resources Department SUBMIT I COPY TO APPROPRIATE DISTRICT OFFICE AND I COPY TO SANTA FE OFFICE

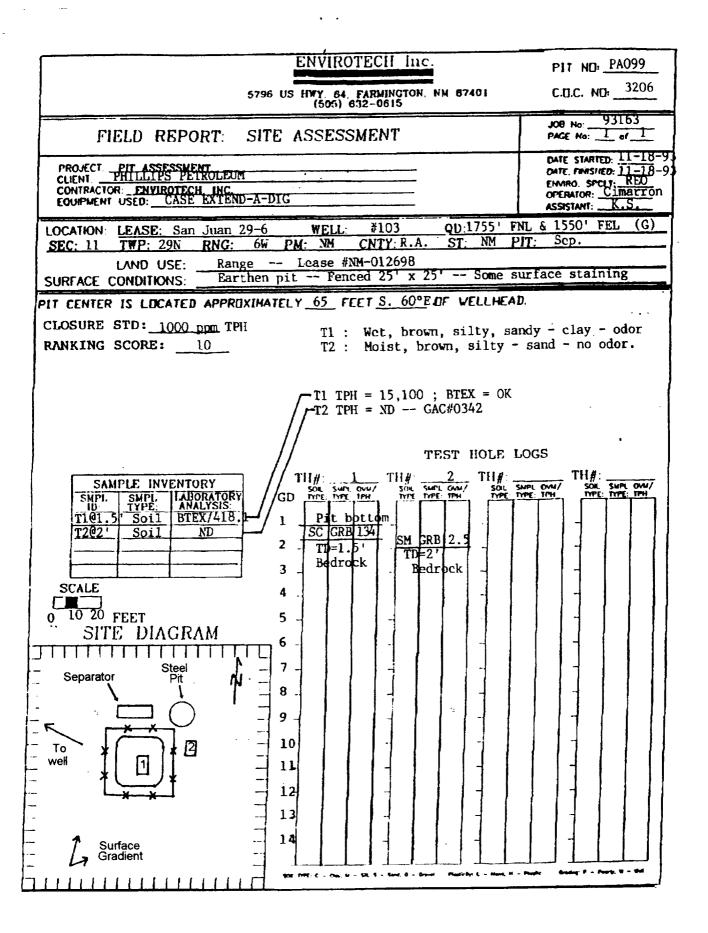
OI CONSERVATION DIVISION P.O. Box 2088

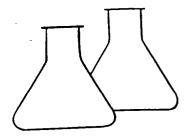
Salta Fe, New Mexico 87504-2088

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: Pit dimensions: Length 15 ft , width 15 ft , depth 3 ft Attach diagram) Reference: wellhead X , other Footage from reference: 65 ft Direction from reference: 60 Degrees X East North of West South X
Depth to Ground Water: 80 ft Less than 50 feet (20 points) vertical distance from X 50 ft to 99 feet (10 points) contaminants to seasonal Greater than 100 feet (0 points) 10 injehwater elevation of pround water)
Nellhead Protection Area: Protection Area: Pro
Distance to Surface Water. (Horizontal distance to perennial akes, ponds, rivers, streams, creeks, rigation canals and ditches.) Less than 200 feet (20 points) 200 feet to 1000 feet (10 points) X Greater than 1000 feet (0 points)
P. (P. (P. (P. (P. (P. (P. (P. (P. (P. (

Date Remedia	ition Started:	11/18/93			Dated Completed:	8/15/97	
		Excavation	Χ	Approx. cub	ic yards	25	
		Landfarmed	Χ	Insitu Biorem	ediation		
		Other	Risk Ass	sessment		·	
Remediation & (Check all appr sections)		Onsite X	Offsite				
General Descr	iption of Rem	nedial Action:	Based or	n the initial asse	essment, soils we	re excavated to a	_
depth of 1 f	oot below th	ne original pit b	ottom where	e bedrock was	encountered. As	sample was	
tested and	provided a c	oncentration a	bove OCD a	and BLM guidel	ines. The pit is e	ncased in	
bedrock. T	he soils wer	e landfarmed	on location.	The landfarm	tested clean on 1	1/22/95.	
A risk asse	ssment was	performed or	n 8/15/97, ba	ased on this inf	ormation and the	physical	
		No X			_		
Gloding Water	LINCOINCI CO.	<u></u>					
Firsal Pit: Closure Sampling: if multiple samples, stack sample results and diagram of sample	Sample loc	ation B	ottom of pit			· · · · · · · · · · · · · · · · · · ·	
ocations and depths)	Sample dat	te 5/19	/94		Sample time	N/A	
	Sample Re	suits					
	Ber	zene (ppm)					
	Tota	al BTEX (PPM)					
	Fiel	d Headspace (p	pm)	91			
	TPI	4.4740	· · · · · · · · · · · · · · · · · · ·				
Ground Water			No	(If yes, attack	n sample results)		
HEREBY CERTI			ON ABOVE IS	TRUE AND C	OMPLETED TO T	HE BEST	
	SOL AND GO	26/97	ε	RINTED NAME	Rob Wirtanen		
GIGNATURE	RA. W	ala a		and TITLE		ironmental Specialist	
	V *** V - *	·					





5796 US Highway 64-3014 • FARMINGTON, NEW MEXICO 87401 PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

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

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

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

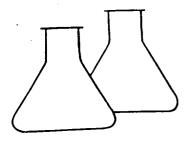
Method:

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



5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401 PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client: Sample ID: Laboratory Number: Sample Matrix: Preservative: Condition:	Phillips T 1 @ 1.5' 6525 Soil Cool Cool & Intact		93163 11-19-93 11-18-93 11-18-93 11-19-93
		Analysis Requested:	BTEX

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

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

Method:

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

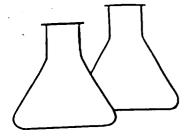
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

ND - Parameter not detected at the stated detection limit.

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

Analyst L. Cojecce

Review Journa



5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401 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 11-22-93

Project Location:

San Juan 29-6, #103

Date Reported:

. . . <u>.</u>

Laboratory Number:

GAC0342

Sample Matrix:

Soil

Parameter

Result, mg/kg

Detection Limit, mg/kg

Total Recoverable

Petroleum Hydrocarbons

ND

10

ð

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'Vell Analyst

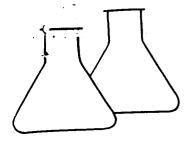
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					ا ر	H	ENVIROTECH INC	.				
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		3		· •	(Signatu	Received by: (Signature)	R		-			Relinquished by: (Signature)
13			it it	1	7 9	Down (Signature)	100	5.8-81-11		9	ignatura) $E \subset Multi$	Relinquished by: (Signature) $\mathcal{R}_{\cdot} \in \mathcal{E}_{\cdot}$
Date Time				-	ic							
				-								
		-										
RUSH		ta .		7	<		Soll	S	6525	1326	11-18-93	TI@ 1.5'
				 	 	No Cont	Sample Matrix		Lab Number	Sample Time	Sample Date	Sample No./ Identification
Remarks				8.1	ΙΕΥ	o. of ainers		No.	Chain of Custody Tape No.		oher	A. E. C
	AMETERS	ANALYSIS/PARAMETERS	ANAL	1			# 103	I '	9-62 AME MS		4918 b #	
PAO99					•		Set. 117	-	Project Location			Dient/Project Name
			i İ	RD	RECO)DY F	CHAIN OF CUSTODY RECO	CHAIN				

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

san juan repro Form 578-81

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CLIENT: PHILLIPS PETROLEUM ENVIROTECH Inc.	PIT NO: PA099
5798 US HWY. 64, FARMINGTON, NM 87401 (505) 632-0615	C.D.C. NO:
FIELD REPORT: CLOSURE VERIFICATION	JOB No: 93163 PAGE No: 1 or 1
LOCATION: NAME: San Juan 29-6 WELL #: 103 PIT: Sep.	DATE STARTED: 5/19/94 DATE FINISHED: 5/19/94
QUAD/UNIT: G SEC: 11 TWP: 29N RNG: 6W BM: NM CNTY: R.AST: NM QTR/FUDTAGE:1755' FNL & 1550' FEL CONTRACTOR:	ENVIRONMENTAL TH
SOIL REMEDIATION: EXCAVATION APPROX. 15 FT. x 15 FT. x DISPOSAL FACILITY: On-site Landfarm CUBIC YARI	DAGE:
LAND USE: Range LEASE: #NM-01269	
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 65 FEET S. DEPTH TO GROUNDWATER 80' NEAREST WATER SOURCE >1000' NEAREST SURFACE	E VATER: >1000 '
NMOCD RANKING SCORE: 10 NMOCD TPH CLOSURE STD: 1000 PPH	
SOIL AND EXCAVATION DESCRIPTION: North side and bottom in bedrock	
FIELD 4181 CALCULATIONS	·——
SAMPLE I.D. LAB No: WEIGHT (g) mL. FREON DILUTION READING CALL	
T5 @ 3' GAC517 10 20 10 737 14	740
SCALE	
O FEET OVM PIT PERIMETER RESULTS PIT	PROFILE
SAMPLE FELD PENDSPACE	
A Steel C 2 649	
- 3 6 2 2 25	
5 0 3 91 A	A'
To A	
Well Gradient 1 3'	5 3 -
LAB SAMPLES	
A'	
TRAVEL NOTES: CALLOUT: ONSITE: 5/19/94	



ENJIROTECH LALS

5796 US Highway 64-3014 • Farmington, New Mexico 87401 PHONE: (505) 632-0615 • Fax: (505) 632-1865

FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:

Sample ID:

Project Location: Laboratory Number: Phillips Petroleum

CB @ 3'

San Juan 29-6 #103

GAC0517

Project #:

Date Analyzed:

Date Reported:

5-19-94 5-23-94

93163

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 -----7,860 Duplicate
TPH mg/kg
---5,200

% *Diff.

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

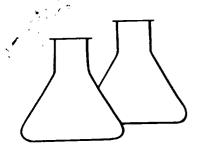
PA099

Analyst

Review Joung

-			•		
		ENVII	ROTECH Inc.	•	
		5796 US HWY (34. FARMINGTON. 5) 632-0615	NM 87401	PIT No: PA099 C.O.C #: 4151
FIELD	REPORT:		ON FACILIT VERIFICATIO		JOB No: 93163 PAGE No: 1 of 1
FACILITY LOCATION: -	San Juan 29	-6 # 103			DATE STARTED: 4-11-95 DATE FINISHED: 4-11-95
SOURCE LOCATION: - SOURCE LOCATION: - SOURCE LOCATION: -			27. 205	Sep.	ENVIRONMENTAL CJC
FACILITY CLASSIFICAT	ION:UII-SIT	e Landfarm	PIT TYPE:		F COMP. SAMPLES: 1
SOIL REMEDIATION	DIMENSION	S: 30' x	12' x .5' deep	2	
VISIBLE SAMPLING		1 5-p	oint composite		
FIELD NOTES &	REMARKS: FA	CILITY CENTER	LOCATED APPRO	JX <u>19</u> YARDS	NW FROM WELLHEAD.
DEPTH TO C NEAREST WATER : NEAREST SUF MAX TPI NO. D COMPOS! YAF	ROUNDWATER:	80' 1000' 1000' 1000 ppm	SCALE: 5'	OVN	1
+	+ +	+ +	+ +	RESUL	
					1.0
+	+ +	+ +	+ +		NORTH
					
	X	CI	X		
	+ +	X +	+ 1	LAB RESUI	
	X ₊ +	+ +	. X	SAMPLE ANALISI	
				C1 TPI	H 9370 SURFACE
+	+ +	+ +	+ +		FLOW DIR.
	+ +	+ +	+ +		# / /
,					ESTIMATED GROUNDWATER FLOW DIR.

,



5796 US Highway 64-3014 • FARMINGTON, NEW MEXICO 87401 PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: Sample ID: Laboratory Number: Chain of Custody No: Sample Matrix: Preservative: Condition:	Phillips S.J.29-6 #103 Cl 8341 4151 Soil Cool Cool and Intact	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed: Analysis Needed:	93163 04-13-95 04-11-95 04-12-95 04-12-95 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 418.1, Petroleum Hydrocarbons, Total Method:

Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978.

Comments:

Analyst

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Client/Project Name Ph. // Sc / 02/3/6	22		Project Location				Ä	ANALYSIS/PARAMETERS	METERS	* ** .	
. 1	Ž					-			}		
Sampler: (Signature)			Chain of Custody Tape No.	No.	1	/ '	X =			Remarks	
1. Jung Local	7				10	3					
Sample No./ Identification	Sample Date	Sample	Lab Number	Sample Matrix	oN MnoO	II.	TG .				
5.3.29-6 #103 C1 4-1/55	41/5	106	1758	Sort		*					
5.3.4-6#14 ACI		1001		<u></u>	~	>=					
5.3.196# 89 CI		2011	8343		_	×					
5.) 295#106 Cl		1626	8344			X					
53.30-5#476)		1357	J\\$28		_	У					
51,317 # 500KC	5	1258	8346		_	۲					
5) 305# 730XC1	-	1444	8347	,	1	X					
53 29-2 # 54 61		hesi	848		-	. ×					
53 29-5-#87 C1		1707	8349		4 -	4	*	·			
Relinquished by: (Signature)	Sb-11-6	17	8380	Date Time	Received by: (Signature)	Signature)	(Date	Time
O. John Call	. }			425-0713	7/2		0	J		4-12-55	107/3
Relinquished by: (Signature)					Received by: (Signature)	Signature)	4				
Relinquished by: (Signature)					Received by: (Signature)	Signature)					
,				ENVIRC 57% U.S.: Farmington, 1	ENVIROTECH INC. 57% U.S. Highway 64-3014 Farmington, New Mexico 87401 (505) 632-0615	4401				ร์	ne juan repro Form 578-41
											~

CLIENT: PHILLIPS PETROLEUM	ENVIROTECH Inc.	PIT NO: PA099
5798 US	HWY 84, FARMINGTON, NM 87401 (505) 832-0815	
FIELD REPORT: CLOS	URE VERIFICATION	JOB No: 93163 PAGE No: 1 of 1
		DATE STARTED: 5-11-95
LOCATION: NAME: San Juan 29-6 QUAD/UNIT: G SEC: 11 TWP: 29N	PNG 6W RM NM CNTY:R.A.ST:NM	DATE FINISHED: 3-11-93
QTR/FOOTAGE: 1755' FNL & 1550' FEL COL	NIRACIOR: Envirotech Case 580	ENVIRONMENTAL CJC
SOIL REMEDIATION: EXCAVATION APPI		2 FT. DEEP.
DISPOSAL FACILITY: On-	site Landfarm CUBIC YAR	DAGE:
	LEASE:#NM-0126	
TITLD NOTES & PEMARKS PIT LICEAT	FR APPROXIMATELY 65 FEET S	. 60° EFROM WELLHEAD.
DEPTH TO GROUNDWATER 80' NEAREST WA	TER SOURCE: >1000' NEAREST SURFAC	E VATER:
NHOCD RANKING SCORE: 10 NHOCD TPH C	CLOSURE STD 1000 PPM	
SOIL AND EXCAVATION DESCRIPTION:		
	Fail : TPH	
	IELD 418.1 CALCULATIONS	C 000
SAMPLE I.D. LAB No: WE	EIGHT (g) ml. FREON DILUTION READING CAL	G. ppin
1" = SCALE		
	0.771	
o 10 FEET PIT PERIMETER	OVM RESULTS PIT	PROFILE
	SAMPLE FELD HEADSPACE PID (ppm)	TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
	1 Btm(d2' 88.5	Ė
To Well	3	
F	5	7
F 1 1 1		1 1
West 1 East		
		4
	Btm@2' TPH 3600ppm Hard Sand	stone —
<u> </u>		
TRAVEL NOTES: CALLOUT:	ONSITE:	



EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Sample ID: Laboratory Number: Chain of Custody No: Sample Matrix: Preservative:	Soil	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed: Analysis Needed:	93163 05-12-95 05-11-95 05-11-95 05-12-95 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'.

			び	CHAIN OF CU	CUSTODY RECORD	RECO	RD					
Client/Project Name Phillips/93163	-2		Project Location			1:945		ANALYSIS	ANALYSIS/PARAMETERS	TERS		
Sample: (Signature)	- N		Chain of Custody Tape No.	No.			1:				_	Remarks
	Sample Date	Sample Time	Lab Number	Sample Matrix		Contai	Z(S	•				
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1			12									ONLH
6.3, 294#89, 5	2113	1446	(3)8	Swig		7	7				Run BTE TP# < 1	CEX 1F
				0.								
	5-1-2	1244	8420	250		7						
हूं क	3-11-8	F11-8 1355	638	Soil		7						
			<u>-</u>				, <u> </u>					,
												*,
Reinquished by: (Signature)	7		73	Date Time 5145 1730		Received by: (Signature)	ei /	(}				SL-11-5
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Relinquished by: (Signature)					Received	Received by: (Signature)	rre)					
				ENVIROTECH INC. 5796 U.S. Highway 64-3014 Farmington, New Mexico 87401	TECH Highway 64	INC. -3014 o 87401	وم و دو او					

(505) 632-0615

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	ENVIR	OTECH Inc.		DAGGG
	5798 US HWY. 6	4. FARMINGTON, NM) 632-0615	87401	PIT No: PA099 C.O.C #: 4194
FIELD REPOR	T: REMEDIATION	ON FACILITY VERIFICATION		JOB No: 93163 PAGE No: 1 of 1
	n 29-6 # 103	V DI (III I CIII C	DA	TE STARTED: 5-11-95 ATE FINISHED: 5-11-95
SOURCE LOCATION:	n-site Landfarm	SIT TYPE S		IVIRONMENTAL CJC
FACILITY CLASSIFICATION:	NTITY: 5 cy	FII 111 C.		COMP. SAMPLES: 1
DIMEN	SIONS:12' x	21' x .5' deep		
VISIBLE OBSERVA SAMPLING PLAN:	15	-point composite		
FIELD NOTES & REMARKS		LOCATED APPROX_	<u> 19 </u> YARDS <u> </u>	<u>NW</u> FROM WELLHEAD.
DEPTH TO GROUNDWAT NEAREST WATER SOURCE/TY NEAREST SURFACE WAT MAX TPH PER NME NO. OF 5-POINT COMPOSITE SAMPL YARDAGE-# 0-200=1 201-400=2 401-1000=3	ER: 80' PE:>1000' ER:>1000' CD: 1000 ppm		: ТРН	
FACILITY DIAGE	J RAM GRID	SCALE: 51		
Theibir			OVM	
			RESULT	/ / /
+ +	+ +	+ +	SAMPLE FIELD HEAD ID: PID (pr	OSPACE Dom)
	· · · · · · · · · · · · · · · · · · ·	+ +	C1 18.	6 NORTH
+ +				NURTH
+ +	X X + +	+ +		
	° CI			
+ +	+ X +	+ +	LAB	WELLHEAD
	·		RESULT	
+ +	+ +	+ +	ID- REQUESTED	
	X X	+ +	C1 TPH	1900 SURFACE FLOW DIR.
				4
+ +	+ + +			ESTIMATED GROUNDWATER FLOW DIR.

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Laboratory Number: Chain of Custody No: Sample Matrix: Preservative:	Soil Cool	Date Analyzed:	93163 05-12-95 05-11-95 05-11-95 05-12-95 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: Cl - L.F.

Client/Project Name Ph.	۲,		CF Project Location	CHAIN OF CUSTODY RECORD	OY RE	CORD		NALYSI	ANALYSIS/PARAMETERS	METERS	
Sarpoper. (Signature)	1-1		Chain of Custody Tape No.	Ö	sueuz	· ·	ts				
V Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. Contail	KUL	Z (0				
5,3.246#MODIL 5-1197 1.	5-145	1307	3978 505	Sort		7					i ;
17-17											
5.3, 296#89,	5-11-95	9441	6828	Swip		7	7	<u>.</u>			0XF
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Remarks

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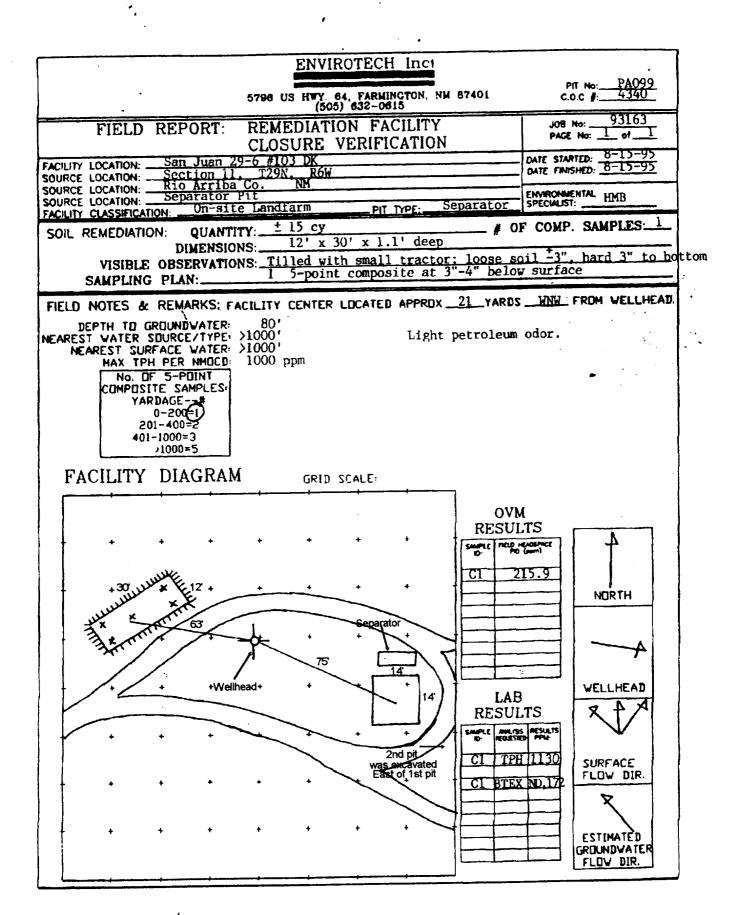
5,124-64 103

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Reinquisted 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





EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)
1 didilictor	<u>. </u>	

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



EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

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

		Det.
	Concentration	Limit
Parameter	(ug/Kg)	(ug/Kg)
Benzene	ND	29.7
Toluene 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

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			J	CHAIN OF CUS	CUSTODY	RECORD					
Client/Project Name	93163		Project Location				YIANA	ANAI YSIS/PARAMETERS	TERS		
Phillips Patrola	rolam		VARIOUS LO	LANDFARMS							
Sampler: (Signature)			Chain of Custody Tape No	No.	<u> </u>					Remarks	
The Contraction	M. Brown	Λ			to .	1.8	०र	· · · · · · · · · · · · · · · · · · ·			
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix		101.	≥18 80				
SANJUM 30-5 #470K8-15-45	8-15-45	1148	1648	Soil	-	7			ВТЕК	ر ۲۹۲ کا	> 10 0
Sex Item 29-6 Repr	6-15-40	13:18	2028	Soil		7				V 297 71	7 (0 0
A K. 17 Juan 29-6 103 DK 8-15-95	8-15-95	7:3	2640	Soil		7			13 TEX		000
544 Juny 29-5104 PC 8-15-45	8-15-45	(5:53	7648	Soil	-	7			BTEX	(f TP# 7	21000
SAN Juan 29-5#870# 8-15-95	8-15-8	18:57	2648	50:11	-	7			NOBTEX		
SAN JUAL 24-5 75 DK 8-15-95	8-15-95		ļ	Seil	_	7			BTEW 1	*	7 1000
5 SAH Juan 29-5 75 DK 8-15-95	8-15-45	17:15	7.648	Se i (7			BTEX	if TP#	71000
SAHJun 29-5#87 PC	8-15-95	.1	8448	Soil		7			おてほと	in 10th	7 (00
\$ 5.000 Juan 21-5 257 PC	8-15-4C	14:24	6648	N -i &)	7			N. J.	BTEX	
Relinquished by: (Signature)		_1	⊣ .	Date Time	Received by: (Signature)	: (Signature)				Date	Time
Jab Tu Ziewi	Const.			8.15.98 21:20	7	othe	nock.	aer		8-2-8	21:20
Relinquished by: (Signature)					Received by	Received by: (Signature)		·			
Relinquished by: (Signature)					Received by	Received by: (Signature)					
				ENVIROTECH INC. 5796 U.S. Highway 64-3014 Farmington, New Mexico 874((505) 632-0615	VIROTECH INC. 5 U.S. Highway 64:3014 gton, New Mexico 87401 (505) 632-0615						
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	5798 US HWY	ROTECH Inc. 84. FARMINGTON, NM 6) 632-0615	87401		PA099 .c /: 4546
FIELD REPOR	T: REMEDIATI	ON FACILITY VERIFICATION		JOB N PAGE	
FACILITY LOCATION:San_Ju	an29-6 # 103			DATE START	TED: 11-22-95 HED: 11-22-95
SOURCE LOCATION:	n-site Landfarm	PIT TYPE:	Sep.	ENVIRONME SPECIALIST:	
SOIL REMEDIATION: QUA	ANTITY: ± ISIONS: 12' ATIONS: Clay/silt	5 cy x 24' x .5' dee	green, no		SAMPLES: 1
FIELD NOTES & REMARKS DEPTH TO GROUNDWAT NEAREST WATER SOURCE/TY NEAREST SURFACE WAT MAX TPH PER NMO NO. OF 5-POINT COMPOSITE SAMPLE YARDAGE# 0-200(1) 201-400=2 401-1000=3 >1000=5	ER: 80' PE: >1000' ER: >1000' CD: 1000 ppm				•
FACILITY DIAGR	CAM GRID	SCALE: 1" = 10'	ו		
			OVM RESUL		
+ + +	X X	+ +		EADSPACE (ppm)	4 NORTH
+ + +	<u>x</u>	+ +			
+ + +	X X	+ +	LAB RESUL	TS	WELLHEAD 4
+ + +	+ +	+ +	8015 C1 TPH		SURFACE FLOW DIR.
+ + +	+ +	+ +			ESTIMATED GROUNDWATER FLOW DIR.

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EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

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

Dem L. ajene

Stay Sendle J. A.L.

		Remarks										Date Tim	11/22/95 16			
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1.9	ANALYSIS/PARAMETERS		·							V 43			\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	made a const	angan Dil	Salar de man
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STODY		10	.0N	_		7		7				Received	- 2	Received	Received	ENVIROTECH INC. 57% U.S. Highway 64:3014 umington, New Mexico 874 (505) 632-0615
CHAIN OF CUSTODY RECORD	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		Sample Matrix	50il	1:05	50;)	70,	501	Sorl			Date Time	245- 1615			ENVIROTECH INC. 5796 U.S. Highway 64-3014 Farmington, New Mexico 87401 (505) 632-0615
3	Project Location	Chain of Custody Tape No.	Lab Number	5876	9896	2876	5896	68 %	06.76	·	-				Nin in	Energy Walls and Control of the Cont
			Sample Time	L091	1424	1442	1316	8221	1142					-11		
	791	Si Si	Sample Date	Shy!	Yalg-	Mrzyg	4181822	11-22	3527				B	A. (The second section of the section
	Client/Project Name	J. J.	Sample No./ Identification	5.5,29-6#874.L	XX25-64478-35	R	525-6#103	Street B	5329-5#10H			Relinquished by: (Signature)	J. happy	Relinquished by: (Signature)	Relinquished by: (Signature)	

Cimarron Oilfield Service Company ONE-CALL REQUEST

1-800-321-2537

				<u> </u>		
Person	aa sissa Dadabi		Company	CIM	0.1	
Calling :	Monica Rodahl		Code :	CTW	01	
Contact	Eli Velasquez /		Dh	(505) 327	7 - 5040	
Person :	Troy Bishop		Phone :	(303) 327	- 3049	
County: Rural Ri	o Arriba County		Location :	San Juan 29	9-6 # 74A	
Range: 6W	Township :	29N	Section :	20	Quarter :	NE/SE
Work Done By:Cimarron	Oilfield Service	Co.		lips Petrole	eum Com	pany
Type of			Nature	Pit Remed	intion	
Excavation :	Well Location		of Work :	Pit Kemed	lation	
Due Date: Wed. Au	a. 13th	Time :		For 5 Wo	orking Days	
Directions to Location	and Remarks:		05 T	I of an alternation	شيمم حمد المن	
From Bloomfield, tra	vel east on U.S. 64	to M.M	. 95. Turr	left and trav	el approxi	mately
.2 mile, turn left and	travel approximate	ly 1 mile	e, turn righ	t and travel a	approxima	tely 1
mile to location.						
0	c Dall - La					
Notify: Phillip	ns Field Ser	11:00 9		<u> </u>	<u> </u>	
Meter #:	AND LINE 20	01002		Spot E	ntire Loca	tion
Grid			Request			
Code :			Number :	97081109	1030188	3
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Person			Company	CIM	01	
Person Calling :			Company Code :	CIM	01	
.	Eli Velasquez /		Code:			
Calling :	Eli Velasquez / Troy Bishop		• •	CIM (505) 327		
Calling : Contact Person :			Code: Phone:		7 - 5049	
Calling : Contact Person : County : Rural R	Troy Bishop io Arriba County		Code: Phone: Location:	(505) 327 San Juan 2	7 - 5049 9-6 # 103	
Calling : Contact Person : County : Rural R Range : 6W	Troy Bishop	29N	Code: Phone:	(505) 327 San Juan 2	7 - 5049	SW/NE
Calling : Contact Person : County : Rural R Range : 6W Work	Troy Bishop io Arriba County Township:	29N	Phone : Location : Section :	(505) 327 San Juan 2	7 - 5049 9-6 # 103 Quarter :	SW/NE
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Calling: Contact Person: County: Rural R Range: 6W Work Done By: Cimarror	Troy Bishop io Arriba County Township: n Oilfield Service	29N	Phone: Location: Section:	(505) 327 San Juan 2	7 - 5049 9-6 # 103 Quarter : eum Con	SW/NE
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Risk Assessment San Juan 29-6 # 103

Depth to Groundwater
Distance to Water Source
Distance to Surface Water
TPH Limit (ppm)

80'
>1000'
>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.

		Overview of Pit Location and Sampling:
Location : San Juan 29-6 # 103)-6 # 103	Depth (ft) Bore # 1 Bore # 2
Quad: (G)	Section: 11	
Township: 29N	Range: 6W	North
_	Tanking Town	Gradieni
Pit: Separator	1 BH@2 0.5	
	+	
Reference:	3	
65' S 60 E	4	Bore Hole #1
	5	>\
From Wellhead	6	
		Separator)
	α	
Ptt Size :	8	
15' x 15' x 3' deep	10	
		Wellheac X Steel
	12	
Depth to Groundwater:	: 80' Soil Type : Brown, sitty clay	· ×-
Ranking Score: 10	Bedrock Encountered: Yes	Ĭ
Closure Standard: 1000	000 Groundwater Encountered: No	
Comments : Borehole	Borehole #1 Surface dry, light grey , no HC staining, no HC odor	, no HC odor
1	grey,dry, some organic material mixed with soil	50il
Bottom	8"-24" grey, sand sitt with streaks of reddish brown sandy clay Bottom at 2' coment sandstone, no HC odor, no HC staining	sandy clay staining
-		

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.

Reveiwed By



CHAIN OF CUSTODY RECORD

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516	01-49949	Route 3, Box 256 College Station, TX 77845 Telephone (409) 776-8945	ive a 59718	S, Inc. 1160 Research Drive Bozeman, Montana 59718 Telephone (ADS) 586-8450	oratorie	untain Labora	<u>/</u> 0[Inter-N 1701 Phillips Circle Gillette, Wyoming 82716	enue Spring 82801	1633 Terra Avenue Sheridan, Wyoming 82801
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