JICARILLA APACHE TRIBE ENVIRONMENTAL PROTECTION OFFICE P.O. BOX 507

DULCE, NEW MEXICO 87528

OBJ656 NATURAL RESOURCE DEPT

PIT REMEDIATION AND CLOSURE REPO

	Telephone: (505)326-9200
Operator: AMOCO PRODUCTION COMPANY	· ·
200 Amogo Court, Farmington, NI	M 87401
Tracility or Wall Name: JICARILLA APACIT	× # 107 - 15H
Sor 9 TZ	60 R 4w County RIO ARRIBA
Pit Type: Separator Dehydrator Other_ /s	3,04)
Pit Type: Separator Dehydrator Other_~	
Land Type:	
langth	22', width23', depth//
Pit Location: Pit dimensions: length	•
Reference: wellhead X,	other
Footage from reference:	Y Fact North X
Direction from reference:	B Degrees X East North X of West South
	West South
Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 points)
groundwater) Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)	Less than 100 feet (10 points) Greater than 100 feet (0 points)
Distance to Nearest Lake, Playa, or Watering Pond (Downgradient lakes, playas and livestock or wildlife watering ponds)	Less than 100 feet (10 points) Greater than 100 feet (0 points)
Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or: less than 1000 feet from all other water sources)	Yes (20 points) No (0 points)
Distance To SurfaceWater: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 100 feet (20 points) 100 feet to 1000 feet (10 points) Greater than 1000 feet (0 points)
1 .	RANKING SCORE (TOTAL POINTS):

BT656	BLOW	PIT

	Date Completed:
Date Remediation Started:	Approx. cubic yards
Remediation Method: Excavation	Insitu Bioremediation
sections) Landfarmed	Insiti Dioreniediation
Other	
(i.e. landfarmed onsite, name and location of offsite facility)	
General Description of Remedial Action: Excava	tion, BEDROCK BOTTOM.
Groundwater Encountered: No X Yes	Depth
Final Pit: Sample location see Attac Closure Sampling: (if multiple samples,	hed Documents
attach sample results and diagram of sample Sample depth	ST SIDEWALL)
locations and depths) Sample date	the control of the co
Sample Results	
) Water: Benzene (ppb)
	Toluene (ppb)
Field Headspace (ppm	
TPH (ppm)	Total Xylenes (ppb)
Groundwater Sample: Yes No	_ (If yes, attach sample results)
I HEREBY CERTIFY THAT THE INFORMATION AT KNOWLEGE AND BELIEF	BOVE IS TRUE AND COMPLETE TO THE BEST OF MY
DATE 10/7/98 PRINTE	D NAME Buddy D. Shaw
	TITLE Environmental Coordinator
	TION, PIT CLOSURE IS APPROVED IN ACCORDANCE
APPROVED: YES X NO (REASON)	
ISIGNED: Kor Mandon DAT	re: 11-18-98

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CLIENT: AMOCO BOX 87 BLOOMFIELD, NM 87413	CATION NO: 87656
FIELD REPORT: CLOSURE VERIFICATION PAR	GE No: _/_ of _/_
LOCATION NAME TICA AD 102 WELL #: 15A PIT: BLOW DAT	E STARTED:
QUAD/UNIT: L SEC: 9 TWP: ZEN RNG: TW PM: NIX CNIT: NI ST: 1000 FWL CONTRACTOR: PLS	CIALIST:
EXCAVATION APPROX. ZZ FT. x Z3 FT. x U FT. DEEP. CUBIC YA DISPOSAL FACILITY: 0~-577E REMEDIATION METHOD:	LANDFINE
LAND USE: RANGE LEASE: JIE 182 FORM	FROM WELLHEAD.
DEPTH TO GROUNDWATER: 3700' NEAREST WATER SOURCE: NEAREST SOURCE	ATERI
SOIL AND EXCAVATION DESCRIPTION:	EEL TANK INSTALLED BERGLASS TANK INSTALLED
SUBLIALIS - DUSKY RED LT. GLAY ELRY PROSTIC, SUGHTLY MOIST, STIFF, NO NOTICEABLE STAINING OR HE ODOR OBSERVE	STIFF TO LERY D) DETECTED W(IN) OUT SAMPLES
EXCAUTION, HE OBOX IN HOLITIES TO SHOULY.	
BOTTOM - BEDROCK (SHALE) DUSKY RED/ET. GAT & MOD. YELL DRE HARD, NO APPARENT HE ODOR IN OUM SAMPLE	ance in covor,
BEDROCK BOTTOM TIME SAMPLE I.D. LAB NO: WEIGHT (g) ML. FREON DILUT	
SCALE 1400 (266) TPH-2050 5 20 1:	
I PIT PERIMETEN	PROFILE
OVM RESULTS OIRECTION SAMPLE FIELD HEADSPACE	A '
1 @ 6 0.0 2 @ 6 0.0 3 @ 2 0.0	22'
T A' 4 @ \$' 0.0 5 @ 11' 18.3	
231 A 9 3 8 EN	b)
LAB SAMPLES SAMPLE ANALYSIS TIME ID ANALYSIS TIME	
ZHEAD CASHY	
TRAVEL NOTES: ONSITE:O/7/98 _ AF	er P

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413 Phone: (505)632-1199 Fax: (505)632-3903

FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:

Amoco

Project #:

Sample ID:

2 @ 6'

Date Analyzed:

10-07-98

Project Location:

Jicarilla Apache # 102 - 15A

Date Reported:

10-07-98

Laboratory Number:

TPH-2050

Sample Matrix:

Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	ND	20

ND = Not Detectable at stated detection limits.

OA/OC:

QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
236	220	7.02
250		

^{*}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:

Blow Pit - BJ656

Analyst

Review

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413 Phone: (505)632-1199 Fax: (505)632-3903

Field TPH-Worksheet

Max Characters:

Client:

Amoco

Project #:

Sample ID:

2 @ 6'

Date Analyzed:

10-07-98

Project Location:

Jicarilla Apache # 102 - 15A

Date Reported:

10-07-98

Laboratory Number:

TPH-2050

Sample Matrix:

Soil

Sample Weight:

5.00 grams

Volume Freon:

20.00 mL

Dilution Factor:

1 (unitless)

TPH Reading:

4 mg/kg

TPH Result:

16.0 mg/kg

Reported TPH Result:

16 mg/kg

Actual Detection Limit:

20.0 mg/kg

Reported Detection Limit:

20 mg/kg

QA/QC:

Original TPH mg/kg

Duplicate TPH mg/kg

% Diff.

236

220

7.02

Comments:

Comments:

Blow Pit - BJ656

JICARILLA APACHE TRIBE ENVIRONMENTAL PROTECTION OFFICE P.O. BOX 507 DULCE, NEW MEXICO 87528

SUBMIT I COPY TO

NATURAL RESOURCE DEPT

AND OIL & GAS ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT

Operator: AMOCO PRODUCTION COMPANY	Telephone: (505) 326-9200
Address: 200 Amoco Court, Farmington,	NM 87401
Facility or Well Name: JICARILLA APACHE 102	- 15 A
Location: Unit or Qtr/Qtr Sec 4 Sec 9 T2	24N R 4W County RIO ARRIBA
Land Type: RANGE	
Date Remediation Started:	Date Completed: 5 13 99 Approx. cubic yards 125.
epth To Groundwater: (pts.)	Final Closure Sampling:
Distance to an Ephemeral Stream (pts.)	Sampling Date: 5.12.99 Time: 1230
Distance to Nearest Lake, Playa, or Watering Pond (pts.) Wellhead Protection Area: (pts.) Distance To SurfaceWater: (pts.)	Sample Results: Field Headspace (ppm) 8.1 TPH (ppm) 12.1 Method (8015) Other
RANKING SCORE (TOTAL POINTS):	TO WRITE AND COMPLETE TO THE REST OF MY
DATE SIGNATURE LITER THAT THE INFORMATION ABOVE THAT THE INFORMATION ABOVE PRINTED N SIGNATURE SIGNATURE	AND TITLE Environmental Coordinator
AFTER REVIEW OF THE SOIL REMEDIATION INFORM ACCORDANCE TO THE JICARILLA APACHE TRIBE PITAPPROVED: YES NO (REASON)	CLOSURE ORDINANCE.
SIGNED: Ken Manuel DATE	6-18-99

CLIENT: AMOCO	P.O. BOX 87,	NGINEERING, BLOOMFIELD, N 05) 632-1199		C.O.C. NO:	_
FIELD REPORT:	LANDFARM/C	COMPOST PILE	CLOSURE	VERIFICA	TION
QUAD/UNIT: L SEC: C				DATE STARTED: 5	
OTR/FOOTAGE: NW/4	SW/4 CONTRAC	CTOR: P+S		ENVIRONMENTAL SPECIALIST:	EP
SOIL REMEDIATION:					
REMEDIATION SYS	STEM: LANDFARM	APPRO	X. CUBIC Y	ARDAGE: /2	5
LAND USE:	RANGE	LIFT I	DEPTH (ft):		
FIELD NOTES & REMA					
DEPTH TO GROUNDWATER: >/6		SUIDLE > 1000° N	FAREST SURFAC	E WATER: > 100	0.
			ELINEST SOM MOI		
NMETD RANKING SCORE:	NMOCD TPH CLOSU	RE STD: 5000 PPM	LADORT TO	M	
PALE VELLOWISH BY	ZOWN SAND, NON C	OHESIVE, SLIGHILY A DETECTED. SAMP	MUISI, FIRI	,-, ₩ 5	
NO APPARENT STAN RANGE FROM 6"-	WING, NO HE OBO	CPT COMPOSITES	AMPLE FO	R	
	10", COLLECTED A	3,7			
LAB ANALYSIS.	CLOSED				
		_D 418.1 CALCULATIONS WEIGHT (g) mL. FREON [NI LITIONI PEADIN	C CALC DOM	
SAMP. TIME S	AMPLE I.D. LAB NO: N	WEIGHT (g) INL. PREON E	MEGRON READIN	G CALC. PPIII	
			-		
CIVERCIT (CVID)	LE LOCATIONS				
SKETCH/SAMP	LE LOCATIONS				
SKETCH/SAMP	LE LOCATIONS				
SKETCH/SAMP	LE LOCATIONS				
SKETCH/SAMP	•	OVM RESU		LAB SAMPL	
SKETCH/SAMP			LTS ADSPACE SAMPLE (ppm)	ANALYSIS TIME	RESULTS
	•		EADSPACE SAMPLE (ppm) ID		
	•	SAMPLE FIELD HE	EADSPACE SAMPLE (ppm) ID	ANALYSIS TIME	RESULTS
	•	SAMPLE FIELD HE	EADSPACE SAMPLE (ppm) ID	ANALYSIS TIME	RESULTS
3	•	SAMPLE FIELD HE	EADSPACE SAMPLE (ppm) ID	ANALYSIS TIME	RESULTS
3	•	SAMPLE FIELD HE	EADSPACE SAMPLE (ppm) ID	ANALYSIS TIME	RESULTS
3	•	SAMPLE FIELD HE	EADSPACE SAMPLE (ppm) ID	ANALYSIS TIME	RESULTS
3	•	SAMPLE FIELD HE	EADSPACE SAMPLE (ppm) ID	ANALYSIS TIME	RESULTS
3	•	SAMPLE FIELD ME PID 2F-1 8.	EADSPACE SAMPLE (ppm) ID	ANALYSIS TIME	RESULTS
® 78' 357° W	•	SAMPLE FIELD HE	EADSPACE SAMPLE (ppm) ID	ANALYSIS TIME	RESULTS
@ 18' 357° W	•	SAMPLE FIELD ME PID 2F-1 8.	EADSPACE (ppm) SAMPLE ID LF - 1	ANALYSIS TIME	RESULTS



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client: Sample ID: Laboratory Number: Chain of Custody No: Sample Matrix: Preservative: Condition:	Blagg / AMOCO LF - 1 F219 6923 Soil Cool Cool and Intact	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed: Analysis Requested:	403410 05-13-99 05-12-99 05-13-99 05-13-99 8015 TPH
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Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	12.1	0.1
Total Petroleum Hydrocarbons	12.1	0.2

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, December 1996.

Comments:

Jicarilla Apache 102 - 15 A Landfarm. 5 Pt. Composite.

Deur P. Office

Stacy W Sendler

CHAIN OF CUSTODY RECORD

	7	Cool - Ice/Blue Ice	-0615	(505) 632-0615				
	7	Received Intact	jhway 64 Mexico 87401	5796 U.S. Highway 64				
N N/A	~			1 1 7 7 7 7				
	ceipt	Sample Receipt	CHICC	EOVIDOTECH IO				
			Received by: (Signature)	Rece			iture)	Relinquished by: (Signature)
			Received by: (Signature)	Rece			ture)	Relinquished by: (Signature)
6:37	243.54C	243	Mecelyed by: (signature)	5.13.99 4:59 Kece	W		ture)	Relinquished by: (Signature)
Time	Date	D		1				
	\	Coor						
SERVE-	1	SAMPLE PRESERVE						
¥	BE	SPT. COMPOSITE	7	SOIL	F219	/230	5.12.99	CF-1
			· I	Sample Matrix	Lab Number	Sample Time	Sample Date	Sample No./
	neillains		lo. of tainers	0.	403410			Sampler: PEP
				SICABILLA APACHE 102-15A	JICARILLA AT		60	BLAGO/AMOCO
<u> </u>		METERS	ANALYSIS / PARAMETERS	andfolm	Project Location CANDFORM			Client / Project Name