State of New Mexico

Charge, Minerals and Natural Resources Department

OFFIT OIL & GAS INSPECTOR

Submit 1 copy to
Appropriate District
and 1 copy to

**OIL CONSERVATION DIVISION** 

2040 S. PACHECO Santa Fe, New Mexico 87505 Santa Fe Office .....

JAN 27 1999

# PIT REMEDIATION AND CLOSURE REPORT

DECEIVED AUG 2 4 1998

	11/200 CC 11	<u> </u>					2 4 1998	
Operator: A	pache Corporation \ MW Pet	roleum		Telephone	:	99925	AN. DI	IV.
Address: 28	355 Southside River Road, S	uite A, Farm	nington, NN	A 87401		, ,		
Facility or We	ell Name:	Jic Apach	e Tribal 39	6 #2 Pit #1	·			
Location: Ui	nit or Qtr/Qtr Sec	P	Sec 8	T 23 N	R 3W	County	Rio Arriba	
Pit Type: Se	eparator:	_ Dehydrato	r	Other_	Blow Pit			
Land Type:	Jicarilla Tribal					•		
	Beginning Pit Dimensions:	Length	30'	_ Width	30	Depth	1 4'	
Pit Location:	Ending Pit Dimensions:	Length	40	_ Width	45	_ Depth	18'	
(Attach diagra	Reference:	Wellhead	XX	Other	Separator			
	Footage from reference:		100	· · · · · · · · · · · · · · · · · · ·	_			
	Direction from reference:		280	Degrees		_East	North	х
					xx	o _West	f South	
Depth To Gr	oundwater:			Less than	50 feet		(20 points)	
(vertical distance contaminants to				50 feet to 9	99 feet an 100 feet		(10 points) ( 0 points)	0
high water eleva groundwater)		ob		Greater th	an 100 leet		( o points)	
Wellhead Pr	otection Area:					Yes	(20 points)	
i '	00 feet from a private ter source, or; less than					No	( 0 points)	0
1000 feet from	m all other water sources)							!
Distance To	Surface Water:			Less than	200 feet		(20 points)	
	istance to perennial				1000 feet		(10 points)	
	, rivers, streams, creeks, als and ditches)			Greater th	an 1000 fee	et	( 0 points)	0
angulon odn	and anomosy			RANKING	SCORE (T	OTAL POII	NTS)	0

Date Remediation Sta	rted:	5/6/97		_Date Comp	eleted:	5/12/97
Remediation Method: (Check all appropriate		Excavation	XXX	_Approx. cul	bic yards	700
sections)	Landfarmed		XX	_Insitu Biore	mediation	
		Other				
Remediation Location (i.e. landfarmed onsite, name and location of offsite facility)	:	Onsite	XX	_Offsite		
General Description o	f Remedial Action:		Excavate	pit to 14' be	elow pit bottom,	12' off pit sides.
Lay soil ou	t on location in six o	dirt farm ce	lls.			
		· ·		- ··· · · · · · · · · · · · · · · · · ·		
Groundwater Encoun	tered:	No	X	X Yes		Depth
Final Pit:	Sample location	•	4 point con	nposite sample	taken 8 to 10 " into	pit sidewalls,
Closure Sampling: (in multiple samples,		grab samı	ple taken '	10" into pit k	oottom center.	
attach sample results and diagram of sample	Sample depth	18'			walls 10" into pit	hottom
locations and depths)		10			•	
	Sample Date Sample results		5/12/9	<u> </u>	Sample Time	12:30 PM
	Benzene		(ppm)	ND	-	
	Total BTEX	٨	(ppm)	ND	-	
	Field Headspace		(ppm)	16.14	_	
	TPH			302\Sides	_	
Groundwater Sample		Yes	***	ND\BTM No		es attach sample results)
I HEREBY CERTIFY T KNOWLEDGE AND B		TION ABO	VE IS TRU	E AND CON	IPLETE TO THE	BEST OF MY
DATE	August 10,1998		_PRINTE	NAME	Jeff Cross	
SIGNATURE Je	flion		_AND TIT	LE	Project Manage	er

τ

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
and 1 copy to
Santa Fe Office

# **OIL CONSERVATION DIVISION**

2040 S. PACHECO Santa Fe, New Mexico 87505

# PIT REMEDIATION AND CLOSURE REPORT

Operator:	Apache Corporation \ MW Petroleum				Telephone	<b>e</b> :		505-325-0		
Address:	2855 South	side River Road, S	uite A, Farm	ington, NN	87401					
Facility or \	Well Name:		Jic Apach	e Tribal 39	6 #2 Pit #2	2				
Location:	Unit or Qtr/0	Qtr Sec	P	Sec 8	T 23 N	R	3W	County	Rio Arriba	
Pit Type:	Separator:	XXX	_Dehydrato		Other					
Land Type	:	Jicarilla Tribal								
	Beginni	ng Pit Dimensions:	Length	10	Width	າ	10'	Depth	3'	
Pit Location:		ng Pit Dimensions:	Length	12	Width	١	12'	Depth		
(Attach dia	Refere	nce:	Wellhead	XX	_Other	Sep	arator		······	
	Footag	e from reference:		100	·	_				
	Direction	on from reference:		350	Degrees			East	North	XX
							X	-West	South	
Depth To	Groundwate	er:			Less than	50 fe	et		(20 points)	
(vertical dista	ance from				50 feet to				(10 points)	
contaminants	s to seasonal				Greater th	nan 10	00 feet		( 0 points)	0
high water el groundwater			ïa							
	Protection /							Yes	(20 points)	
,	200 feet fro	•						No	( 0 points)	0
		, or; less than r water sources)								
Distance	To Surface \	Water:			Less than				(20 points)	
I '	al distance to	•		•	200 feet t				(10 points)	
	akes, ponds, rivers, streams, creeks,				Greater than 1000 feet ( 0 points)			0		
irrigation o	canals and di	icnes)			RANKING	sco	ORE (T	OTAL POI	NTS)	0

Date Remediation St	arted:	5/9/97	·	_Date Com	npleted:	5/12/97
Remediation Method (Check all appropriate		Excavation .	XXX	_Approx. c	ubic yards	21
sections)	Landfarmed	d .	XX	Insitu Bior	emediation	
		Other				
Remediation Location (i.e. landfarmed onsited name and location of		Onsite <sub>_</sub>	XX	_Offsite		
offsite facility)					······································	
General Description o	of Remedial Action:	<u>_</u>	Excavate	pit to 4' be	low pit bottom, 2'	off pit sides.
Lay soil ou	ut on location in six o					-
-						
-						
		<u> </u>				
Groundwater Encoun	tered:	No_	XX	. Yes	D	Pepth
Final Pit: Closure Sampling:	Sample location		1 point comp	oosite sample	e taken 8 to 10 " into p	oit sidewalls,
(in multiple samples, attach sample results		grab sampl	e taken 10	)" into pit t	oottom center.	
and diagram of sample locations and depths)	Sample depth	7' 8	3 to 10" in	to pit sidev	walls 10" into pit l	bottom
locations and depute,	Sample Date Sample results	_	5/12/97		Sample Time	1:10PM
	Benzene	(	ppm)	ND		
	Total BTEX	(1	ppm)	ND		
	Field Headspace	()	ppm)	77.04		
	ТРН		-	1000\Sides		
Groundwater Sample:		Yes_		1600\BTM No		attach sample results)
I HEREBY CERTIFY TH KNOWLEDGE AND BE	HAT THE INFORMAT	ION ABOVE	IS TRUE	AND COM	PLETE TO THE B	EST OF MY
<b>-</b>						
	August 10,1998	P	PRINTED N	NAME .	Jeff Cross	
SIGNATURE	leff lon	A	ND TITLE		Project Manager	
<del></del>						

Submit 1 copy to Natural Resource Dept. and Oil & Gas Administration

# PIT REMEDIATION AND CLOSURE REPORT

Operator:	MV	/ PETROLEUM	1		_Telephone	505-3	25-0318		
Address:	304	N. BEHREND,	FARMINGT	ON, N.M.	84701				
Facility or We	ell Naı	me:	JIC. TRIBA	L 396#2	PIT#1				
Location:	Unit	or Qtr/Qtr Sec	Р	SEC 8	T 23N	R 3W	County	RIO ARRIBA	
Pit Type:	Sepa	arator:	Dehydrator	r	_Other	BLOW PI	<u>T</u>		
Land Type:		JIC. TRI	BAL						
Pit Location:		Pit Dimensions	s: Length	40'	Width	45'	_ Dept	h 18'	
(Attach diagr	am)	Reference:	Wellhead	XXX	_Other				
		Footage from	reference:	100'		_			
		Direction from	reference:	280	_Degrees		East	North	x
						XX	_West	of South	
Depth To G	round	lwater:			Less than	50 feet		(20 points)	
(vertical distance		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			50 feet to			(10 points)	
contaminants to		al			Greater th	an 100 fee	et	( 0 points)	0
high water elevat groundwater)	tion of								
Distance to	an Fr	phemeral Strea	am:		Less than	100 feet		(10 points)	
	nt dry	wash greater t				nan 100 fee	et	( 0 points)	0
Distance to	Near	est Lake, Playa	a. or Waterin	a Pond:	Less than	100 feet		(10 points)	
(Downgradie	ent lak	es, playas and e watering pond		_		nan 100 fee	et	( 0 points)	0
  Wellhead P	rotect	tion Area:				Υe	es	(20 points)	
		et from a private	е				lo	( 0 points)	0
		ource, or less the other water sou							
Distance To	Surf	iace Water			Less than	100 feet		(20 points)	
B		ce to perennial				o 1000 fee	t	(10 points)_	
lakes, ponds	s, rive	rs, streams, cre	eks,			han 1000 fe		( 0 points)	0
irrigation car	nals a	nd ditches)			RANKING	SCORE (	TOTAL PO	DINTS) _	0

Date Remedi	iation Star	ted: 5/6/9 <sup>-</sup>	7	_Date Com	pleted: _		5/12/97	
Remediation		Excavation	XXX	_Approx. cu	ıbic yards		700	
(Check all ap sections)	propriate	Landfarmed	XXX	_Insitu Bior	emediation _			
		Other						
Remediation (i.e. landfarm name and loc offsite facility	ed onsite, ation of	: Onsite	e <u>XXX</u>	_Offsite				
General Des	cription of	Remedial Action: E	x <u>cavate pit</u>	to 14' belo	w pit botton	1,12' off բ	oit sides.	
1	Lay soil o	out on location in six	dirt farm o	ells.				
Groundwate	r Encount	ered: No	<u> </u>	_ Yes		Depth	1	•
Final Pit: Closure Sam (in multiple sa	amples,	Sample location  GRAB SA			E SAMPLE T			SIDEWALL
attach sample and diagram	of sample	Sample depth 18'	8" to 10" ii	nto pit side v	valls ,10" into	pit botto	m.	
locations and	depths) Sample Description		5/12/97	7	Sample Tim	е	12:30PM	
	Soil:	Benzene	(ppm)	ND	. Water: E	Benzene	(ppb)	NA
		Total BTEX	(ppm)	ND	. 7	Toluene	(ppb)	NA
		Field Headspace	(ppm)	16.14	Ethyl	benzene	(ppb)	NA
		TPH	(ppm)	320\SIDE ND\BTM	Total	Xylenes	(ppb)	NA
Groundwate	r Sample:	Yes	S		XXX(	lf yes atta	ich sample i	results)
I HEREBY CE KNOWLEDG		IAT THE INFORMATION	ON ABOVE	IS TRUE A	ND COMPLE	TE TO T	HE BEST (	OF MY
DATE		7/9/97	PRINTED	NAME	J	EFF CR	oss	
SIGNATURE	<u>Je</u>	ff Cum	_AND TITL	E	P	ROJECT	MANAGER	₹
AFTER REVI	EW OF TH LA APACI	E PIT CLOSURE INFO	ORMATION JRE ORDIN	I, PIT CLOS ANCE.	URE IS APP	ROVED	IN ACCORE	DANCE TO
APPROVED:	YES	NO		_(REASON)	· · · · · · · · · · · · · · · · · · ·			
SIGNED:	Kere	C-Mam	D	DATE:	7-30	<u> </u>		

Submit 1 copy to Natural Resource Dept. and Oil & Gas Administration

# PIT REMEDIATION AND CLOSURE REPORT

Operator:	M W	/ PETROLE	UM			Telephone		505-32	5-0318		
Address:	304	N. BEHREN	ID, F	ARMINGT	ON, N.M.	84701					
Facility or We	ell Na	me:		JIC. TRIBA	AL 396#2	PIT #2					
Location:	Unit	or Qtr/Qtr S	Sec _	Р	SEC 8	T 23N	R 3	BW	County	RIO ARRIBA	
Pit Type:	Sepa	arator: X	(X	Dehydrato	r	_Other					
Land Type:		JIC.	TRIBA	L		···					
Pit Location: (Attach diagra	am)	Pit Dimensi		Length Wellhead	12' XXX	_ Width _Other		12'	Dep	th 7'	
		Footage fro	m ref	erence:	100'		_				
		Direction fr	om rei	ference:	350	_Degrees		<u></u>	East	North _	XX
								X	West	of South _	
Depth To Gr	round	lwater:	-			Less than	50 fe	eet		(20 points)	
(vertical distance						50 feet to				(10 points)	
contaminants to shigh water elevat groundwater)		al				Greater th	an 1	00 feet		( 0 points) _	0
Distance to	an Fr	nhamaral Si	roam	•		Less than	100	feet		(10 points)	
(Downgradie ten feet in wi	nt dry					Greater th				( 0 points)	0
Distance to	Near	estiake Pi	ava o	or Waterin	a Pond.	Less than	100	feet		(10 points)	
(Downgradie livestock or v	nt lak	es, playas a	nd		-	Greater th				( 0 points)	0
Wellhead Pr								Yes		(20 points)_	
(Less than 20 domestic wa 1000 feet fro	ter so	urce, or less	than	es)				No	•	( 0 points) _	0
Distance To	Surf	ace Water:				Less than	100	feet		(20 points)	!
(Horizontal d			ial			100 feet to				(10 points)	
lakes, ponds	s, rive	rs, streams,		s,		Greater th	nan 1	000 fee	et	( 0 points)	0
irrigation car	nais a	na aitches)				RANKING	SC	ORE (T	OTAL PO	DINTS) _	0

Date Remed	liation Sta	rted:	5/9/97	Date Com	pleted:	5/12/97
Remediation		Excav	ration XXX	_Approx. cı	ıbic yards	21
(Check all ap sections)	propriate	Landfa	rmed XXX	Insitu Bior	emediation	
		Othe	er			
Remediation (i.e. landfarm name and loo offsite facility	ned onsite, cation of	: (	Onsite XXX	_Offsite		
General Des	cription of	f Remedial Action	n: Excavate pit	to 4' below	pit bottom,2' off pi	t sides.
		out on location i				
Groundwate	r Encount	ered:	No xxx	_ Yes	Dep	th
Final Pit: Closure San (in multiple sa		Sample location			E SAMPLE TAKEN 1	0" INTO PIT SIDEWAL
attach sample and diagram	e results					
locations and		ate	5/12/97		valls ,10" into pit bott Sample Time	1:10PM
	Soil:	Benzene	(ppm)	ND	Water: Benzene	(nah) NA
		Total BTEX		ND	•	
		Field Headspace	(ppm)		Toluene	(ppb) NA
		TPH	41 /	77.04	Ethylbenzene	
Croundwata	- Committee	IPH	(ppm)	4000\SIDE 1600\BTM	•	
Groundwate	•		Yes	_ No	( )	ach sample results)
KNOWLEDG	ERTIFY THE	IAT THE INFORM LIEF.	MATION ABOVE	IS TRUE A	ND COMPLETE TO	THE BEST OF MY
DATE		7/9/97	PRINTED	NAME	JEFF CF	ROSS
SIGNATURE	Jeg	flion	AND TITL	.E .	PROJEC	T MANAGER
AFTER REVI	EW OF TH	E PIT CLOSURE IE TRIBE PIT CL	INFORMATION OSURE ORDIN	I, PIT CLOS ANCE.	URE IS APPROVED	IN ACCORDANCE TO
APPROVED:	YES		NO	_(REASON)		
	./_	0 m	M			
SIGNED: -	(rece)	Mam	УЧ	_DATE:	7-30-9	フ

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# M W PETROLEUM/FARMINGTON DISTRICT PIT EXCAVATION AND CLOSURE REPORT

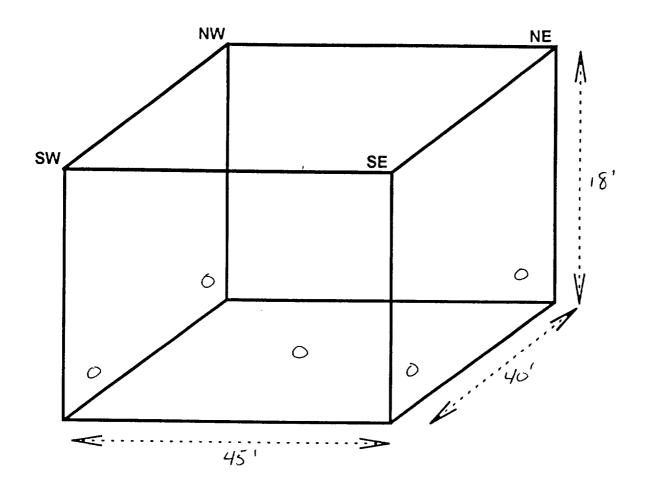
LOCATION

JIC TRIBAL 396#2

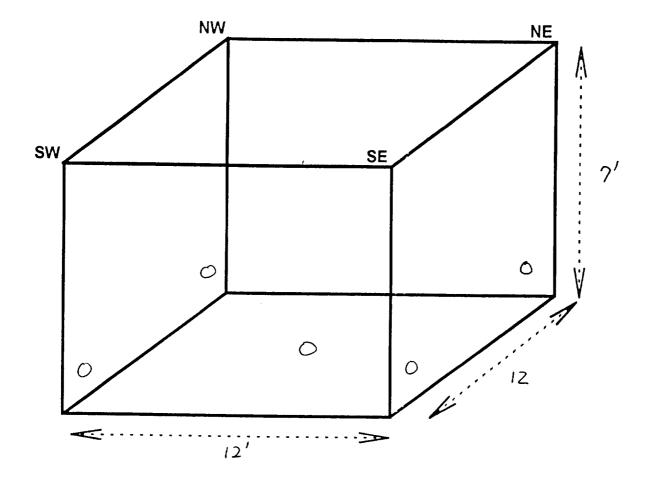
Review and Approval
OCD-BLM

EPO Representative
Date of Review

						Date of Revie	ew		
					Excava	ion		7	
DIMEN	ISIONS	START:PIT	#1 5/6/97 PI	T #2 5/9/97		: PIT #1 5/10/9	7 PIT #2 5/10	)/97	<del></del>
	W	L	D			W	1L	lD	CU YDS
Pit 1	30'	30'	4'	Pit 1		40'	45'	18'	700
Pit 2	10'	10'	3'	Pit 2		12'	12'	7'	21
Pit 3			†	Pit 3			<u> </u>	<del>                                     </del>	
DATE:		Pit 1 @ 4'	Pit 1 @ 7'	Pit 2 @ 6'	Date:	_1	Pit 1 @ 18'	Pit 2 @ 7'	Pit 3 @
	Center	2500+	880	256		Center	55.3	79.4	1
P	NW Corner	2500+	980	200	P	NW Corner	16.2	87.5	-
- 1	NE Corner	2500+	650	220	1 .	NE Corner	86.4	98.2	<del>                                     </del>
D	SW Corner	2500+	800	300	D	SW Corner	11.5	90.1	<del></del>
	SE Corner	2500+	760	210	1	SE Corner	84.7	93	<del></del>
OTES	S:						0 1.7	- 00	1
	5/6/97 STAF	RT EXCAVATI	NG PIT#1	HEAVY STAINI	NG AND	ODOR @ 4' B	I OW PIT BO	TTOM HIGH	DID BEADI
	5/7/97 CONT	INUE EXCAV	ATING @10	HEAVY STAIN	ING @1	IS'LIGHT STA	INING @ 18' B	OTTOM: THOM	MED LIB
	OBTAINED P	ID READINGS	 ടത18'	HEAVI GIAIN	., w	U LIGHT STA	11 11 10 E	OTTOM CLEA	אואבט טץ.
			<u> </u>	S.E./S.W.COR	NEDO F	OM POTTON	TO SUBEAS	<del></del>	
								=	
	BENCH DOV	VIN TO 9 ON I	NORTH AND	WEST WALLS	AND CHA	SED OUT STA	AINING.		
	FIDIOZ STAD	T EVOALATI	IO DIT IIO EX						
	3/9/9/ STAR	DEADINGS	NG PH #2. EX	XCAVATE DOW	N TO 6'	PID READING	S A LITTLE H	IGH. EXCAVA	TE DOWN
		READINGS(C							
	5/10/97 EXC	AVATE STAIN	ING OFF SI	DE WALLS, TAP	(E PID RI	EADINGS - GO	OOD.		
	ALL SOIL FR	OM PITS #1 A	ND #2 WER	E LAID OUT ON	LOCATI	ON FOR LAND	FARMING RI	EMEDIATION	
	5/12/97 SOIL	SAMPLES TA	AKEN FROM	BOTH PITS AN	D SENT	TO ASSAIGAI	LABS.		
							·	<del>, ,,</del>	
ATE:		5/12/97	5/12/97	SOIL SAMPL	ING			·.·	
		Pit 1 @ 18'	Pit 2 @ 7'	Pit 3 @	ANALYS	SIS RESULTS		PER LAB	ASSAIGAI
	Center	20.5	65.3		PIT	TPH	BETEX	WITNESS	DATE
P	NW Corner	5	68		NO	SIDE/BTM	SIDE/BTM		DATE
1	NE Corner	20.4	83.2		1	320/ND	ND	JEFF C.	5/15/97
Ð	SW Corner	10.5	84.7	á	2	4000/1600	ND	JEFF C.	
	SE Corner	24.3	84	<del></del>	3	4000/1000	ND	JEFF C.	5/16/97
		2	1 07	RE-SAMPLE		(C) CAMPLE	l	l	
ATE:		Pit 1 @	Pit 2 @			SIS RESULTS		DEDIAD	
<u>-</u> .	Center		11120	Pit 3 @		<del>,</del>		PER LAB	
P	NW Corner		ļ	<del> </del>	PIT	TPH	BETEX	WITNESS	DATE
T .			ļ	<del>                                     </del>	NO	SIDE/BTM	SIDE/BTM		
	NE Corner		<u> </u>	<b>-</b>	1				
D	SW Corner				2				
	SE Corner				3				
				RE-SAMPLE	OR CELL	(S) SAMPLE			
ATE:		Pit 1 @	Pit 2 @	Pit 3 @	ANALYS	IS RESULTS		PER LAB	
	Center				PIT	TPH	BETEX	WITNESS	DATE
P	NW Corner				NO	SIDE/BTM	SIDE/BTM		-
1	NE Corner				1	1			
D	SW Corner				2		<u> </u>		<del>                                     </del>
	SE Corner				3				<del>                                     </del>
		<u></u>				•			



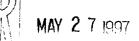
					= SAMPLE AREA
WELL NA	ME	JAT 346#2	(Blow Pit)	P.+ #7	
SAMPLE	DATE	5-12-97			
NOTES	4 POIN	T COMPOSITE SA	MPLE TAKEN	8" TO 10" IN	ITO PIT
	SIDEW	/ALL			
	1 POIN	T GRAB SAMPLE	TAKEN 10" TO	) 12" INTO B	BOTTOM CENTER
		`			THE CONTRACTOR OF THE CONTRACT
			- M. S		
			· · · · · · · · · · · · · · · · · · ·		



			= SAMPLE AREA
WELL NAME		JAT 396 #2 PI+ #2	
SAMPLE D	ATE .	5-12-97	
NOTES	4 POINT	COMPOSITE SAMPLE TAKEN 8" TO 10"	INTO PIT
	SIDEW	ALL	
_	1 POIN	T GRAB SAMPLE TAKEN 10" TO 12" INTO	BOTTOM CENTER
•			
•			
•			
-			
_			
-	·····		



# **ASSAIGAI ANALYTICAL** LABORATORIES, INC.



7300 Jefferson, N.E. • Albuquerque, New Mexico 87109 • (505) 345-8964 • FAX (505) 345-7259

3332 Wedgewood, E-5 • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820

Report Generated: May 21, 1997 14:45

# **CERTIFICATE OF ANALYSIS RESULTS BY SAMPLE**

SENT APACHE CORPORATION

TO: 304 N. BEHREND

FARMINGTON, NM 87401

WORKORDER # : 9705143

WORK ID

: JICARILLA PIT CLOSURES

: APA01 CLIENT CODE

DATE RECEIVED : 05/14/97

ATTN: JEFF CROSS

Page: 1

**Lab ID:** 9705143-01A Sample ID: JAT 396 #2 BLOWPIT SIDES

b'+ #1

Collected: 05/12/97 12:30:00

Matrix: SOIL

•						
TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A Benzene Toluene Ethylbenzene P-&m-Xylene O-Xylene	ND ND ND ND ND	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	0.0010 0.0010 0.0010 0.0020 0.0010	500 500 500 500 500	05/15/97 05/15/97 05/15/97 05/15/97 05/15/97	SBTXME162 SBTXME162 SBTXME162 SBTXME162 SBTXME162

**Lab ID:** 9705143-01B

P.+ #1

Sample ID: JAT 396 #2 BLOWPIT SIDES

Collected: 05/12/97 12:30:00

Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
Diesel Range OG Soil/M8015 Diesel Range OG in Soil	320	mg/Kg	50	1.0	05/16/97	SDRO26

Lab ID: 9705143-02A

Sample ID: JAT 396 #2 BLOWPIT BOTTOM

Collected: 05/12/97 12:45:00

Matrix: SOIL

	DEGITE M	UNITS	LIMIT	DF	DATE	BATCH ID
TEST / METHOD	RESULT UNI	UNITS	TITMITI	<i>D_</i> F	ANAL	BATCH_ID
BTEX/SW846 8020A Benzene Toluene	ND ND ND	mg/Kg mg/Kg mg/Kg mg/Kg	0.0010 0.0010 0.0010	500 500 500	05/15/97 05/15/97 05/15/97	SBTXME162 SBTXME162 SBTXME162
Ethylbenzene P-&m-Xylene O-Xylene	ND ND ND	mg/Kg mg/Kg mg/Kg	0.0010 0.0020 0.0010	500 500	05/15/97 05/15/97	SBTXME162 SBTXME162



MAY 2 7 1997
Page: 2

PITTI

**D**: 9705143-02B

Sample ID: JAT 396 #2 BLOWPIT BOTTOM

Collected: 05/12/97 12:45:00....

Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE	BATCH_ID
Diesel Range OG Soil/M8015 Diesel Range OG in Soil	ND	mg/Kg	50	1.0	05/16/97	SDRO26

**Lab ID:** 9705143-03A

Sample ID: JAT 396 #2 PIT 2 SIDES

**Collected:** 05/12/97 13:10:00

Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A Benzene Toluene Ethylbenzene P-&m-Xylene O-Xylene	ND	mg/Kg	0.0010	5000	05/16/97	SBTXME162
	ND	mg/Kg	0.0010	5000	05/16/97	SBTXME162
	ND	mg/Kg	0.0010	5000	05/16/97	SBTXME162
	ND	mg/Kg	0.0020	5000	05/16/97	SBTXME162
	ND	mg/Kg	0.0010	5000	05/16/97	SBTXME162

**Lab ID:** 9705143-03B

Sample ID: JAT 396 #2 PIT 2 SIDES

**Collected:** 05/12/97 13:10:00

Matrix: SOIL

TI / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
Diesel Range OG Soil/M8015 Diesel Range OG in Soil	4000	mg/Kg	50	5.0	05/16/97	SDRO26

**Lab ID:** 9705143-04A

Sample ID: JAT 396 #2 PIT 2 BOTTOM

**Collected:** 05/12/97 13:30:00

Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_ <b>F</b>	DATE ANAL	BATCH_ID
BTEX/SW846 8020A Benzene Toluene Ethylbenzene P-&m-Xylene O-Xylene	ND &	mg/Kg	0.0010	1250	05/16/97	SBTXME162
	ND	mg/Kg	0.0010	1250	05/16/97	SBTXME162
	ND	mg/Kg	0.0010	1250	05/16/97	SBTXME162
	ND	mg/Kg	0.0020	1250	05/16/97	SBTXME162
	ND	mg/Kg	0.0010	1250	05/16/97	SBTXME162

**Lab ID:** 9705143-04B

Sample ID: JAT 396 #2 PIT 2 BOTTOM

**Collected:** 05/12/97 13:30:00

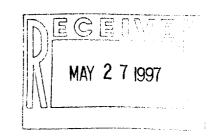
Matrix: SOIL

Sample ID. UKI 350 #2 1.	II Z BOITON	THAT IN				·
TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
Dies Pange OG Soil/M8015 D Range OG in Soil	1600	mg/Kg	50	5.0	05/16/97	SDRO26

DECEUVED.

William P. Biava

President



### **WORKORDER COMMENTS**

DATE : 05/21/97

WORKORDER:

### **DEFINITIONS/DATA QUALIFIERS**

The following are definitions, abbreviations, and data qualifiers which may have been utilized in your report:

ND = Analyte "not detected" in analysis at the sample specific
 detection limit.

D F = Sample "dilution factor"

NT = Analyte "not tested" per client request.

B = Analyte was also detected in laboratory method QC blank.

E = Analyte concentration (result) is an estimated value or exceeds analysis calibration range.

LIMIT = The minimum amount of the analyte that AAL can detect utilizing the specified analysis.

Please Note: Multiply the "Limit" value (AAL's Detection Limit) by Dilution Factor (D\_F) to obtain the sample specific Detection Limit.

### REPORT COMMENTS

# Chain of Custoc Record

Project Manager / Contact \_Jeff - Gross

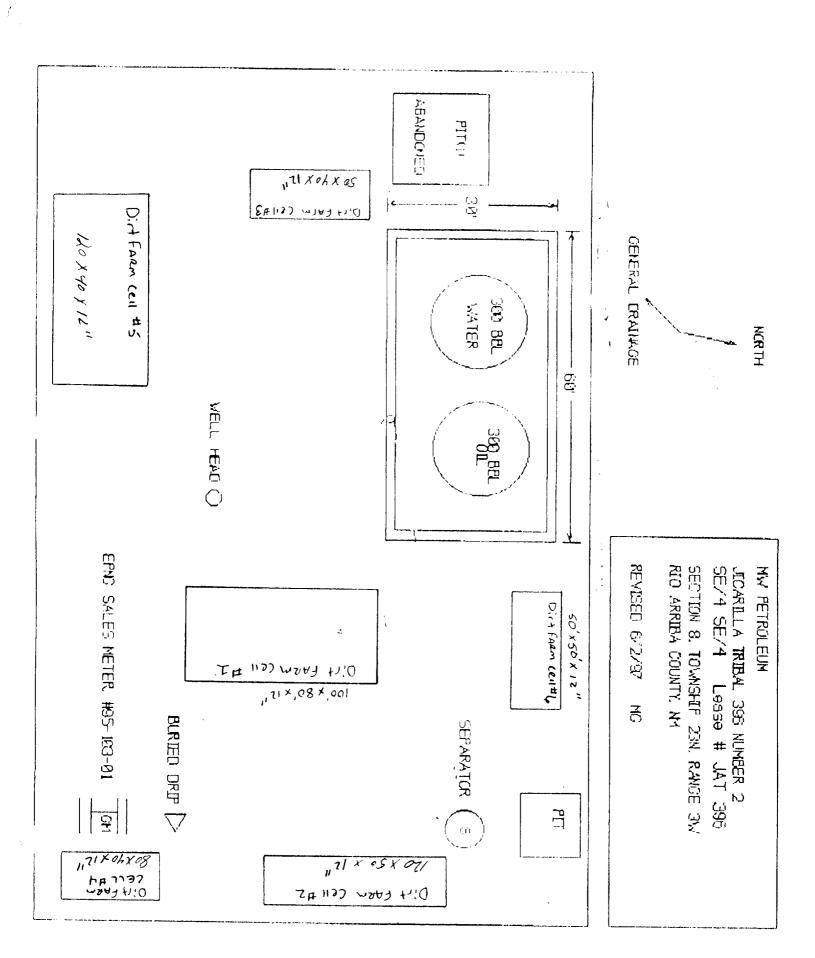
EG NWEN	7 1997
UEROUE, NEW MENGORN OF	MIDLAND, TEXAS 7PTOS C
7300 JEFFEJ ALBUQUEROUE, N (503) 34	EL PASO, TEXAS 7925

TEXAS PING 2 7 1997

MELQUIADES ALANIS
6415 LOCAL UNO
6415 LOCAL UNO
CIUDAD JUAREZ, CHHUAHUA MEGICO 32320

College Abache Corporation	Project Manes	Project Manager / Contact _Jeff_Cross		
	4	(505) 774-6643	Analyse Pespical	
a Address 304 N. Behrend	i elephone no			
City/State/ZipRarmington, NM 87401	Fax No. (50	(505) 774-5624	•	
Project Name / Number JICARILLA PIT CLOSURES	OSURES Samplers: (Signature)		Pou	
Contract / Purchase Order / Quote		OR ON	يحر	
MAN TO THE PARTY OF THE PARTY O	The Sample	Type / Blue of Contailnet Tenga Chembosi	30	
	/0.6%			
14736 the Showport 725,000	10000	7/12)	\ \ \	
21-5 11 11 610	5-12-57 12:30 (			
11 marks 11 11 420	(3:17)	-		
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Kit 201 # 0.43	13:10	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		
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said.	Remained by:	Relinquished by:	Date Received by:	/
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46/000	Time (All S)	Printed	Time	
0010 1000	١ ١	Company	Company	
CS.C		Reson	Reason	
Classon			After anatysis, samples are to be:	
. 0	Comments.		Disposed of (additional fee)	Î
Tigethod of Shipment:			Bloned (30 days mixt)	
Giripment No.			Stored over 30 days (additional fee)	(town) (se)
Bpecial Instructions:			Returned to sustament	
			1	

LABORATORY



Submit 1 copy to

Natural Resource Dept.

and Oil & Gas Administration

	-							
Operator: <u>M W PE</u>	TROLUEM			Telephon	e	505-325-0	318	
Address:	2855 SOUTH	SIDE RI	VER ROAD	/SUITE A	VFARMING	TON, N.M.	87401-7947	7
Facility or Well Name:	JA	T 396#	2 CELL # 1					
Location: Unit or 0	Qtr/Qtr Sec	Р	Sec 8	T 23N	R 3W	County	RIO ARR	IBA
Land Type	JIC. TRIBAL							
Date Remediation Sta	rted:	5/6/97		_Date Con	npleted:		6/10/98	
Remediation Method:	Landfarmed		XXX	_Approx. c	cubic yards		210	
	Composted			_				
	Other			SOIL TO	BE SPREA	D ON LOCA	ATION.	
Depth to Groundwater	;	(pts)	0		Final Clo	sure Samp	ling	
Distance to an Ephem	eral Stream:	(pts)	0	Sampling	p Date:	6/10/98	_Time:	12:00PM
Distance to Nearest La or Watering Pond:	ake, Playa,	(pts)	0	Sample F				
Wellhead Protection A	Area:	(pts)	0		space (ppm)	0		****
Distance To Surface V	Water:	(pts)	0		(ppm		_	M8015
RANKING SCORE (T	OTAL POINTS)		0	Other BTEX \ SW846 , 8020A (ND)				
I HEREBY CERTIFY KNOWLEDGE AND E		RMATIC	N ABOVE	IS TRUE	AND COMP	LETE TO T	HE BEST (	OF MY
DATE:	7/13/98		PRINTED	NAME		JEFF CR	oss	
SIGNATURE	eff Cwn		TITLE		PROJEC	T MANAGE	R	
AFTER REVIEW OF ACCORDANCE TO T							N IS APPRO	OVED IN
APPROVED: YI	ES	NO		_(REASO	N)			_
SIGNED:	C Ma	0	_DATE:	7	-29-9	8		_

Submit 1 copy to Natural Resource Dept. and Oil & Gas Administration

Operator:	M W PETF	ROLUEM			Telephone	e	505-325-0	318	
Address:		2855 SOUTHS	DE RIV	/ER ROAD	/SUITE A/	/FARMING	TON, N.M. 8	37401-7947	
Facility or W	'ell Name:	JAT	396#	2 CELL # 2					
Location:	Unit or Qtr	/Qtr Sec	Р	Sec 8	T 23N	R 3W	_County	RIO ARRI	ВА
Land Type	<u></u>	JIC. TRIBAL							
Date Remed	liation Starte	ed: 5/	6/97		Date Com	npleted:		6/10/98	
Remediation	Method:	Landfarmed		XXX	Approx. c	ubic yards		180	
		Composted			_				!
		Other			SOIL TO	BE PUT BA	ACK IN PIT.		
Depth to Gro	oundwater:		(pts)	0		Final Clo	sure Samp	ling	
Distance to	an Ephemer	al Stream:	(pts)	0	Sampling	Date:	6/10/98	_Time:	12:10PM
Distance to or Watering		e, Playa,	(pts)	0	Sample R		•		
Wellhead P	rotection Are	ea:	(pts)	00		pace (ppm) (ppm	0 n) ND	– Method	M8015
Distance To	Surface Wa	ater:	(pts)	0			SW846 , 802	_	
RANKING S	SCORE (TO	TAL POINTS)		0	- 01116	BILK (C	344040,002		
I HEREBY (		AT THE INFOR LIEF	RMATIC	ON ABOVE	IS TRUE A	AND COMP	PLETE TO T	HE BEST (	OF MY
DATE:		7/13/98		PRINTED	NAME		JEFF CF	ROSS	
SIGNATUR	E <u>Je</u>	ff Cum		TITLE		PROJEC	T MANAGE	ER	
		HE SOIL REMEI E JICARILLA AF						N IS APPRO	OVED IN
APPROVE	D: YES	s_ <u>X</u>	NC	)	_(REASOI	N)			<u> </u>
SIGNED:	Koo	CMa_	l	_DATE:	1-	29-98			_

Submit 1 copy to Natural Resource Dept. and Oil & Gas Administration

Operator: MWP	ETROLUEM		Telephone	505-325-0318
Address:	2855 SOUTHSI	DE RIVER ROA	D /SUITE A/FARMING	TON, N.M. 87401-7947
Facility or Well Name	e: JAT	396 # 2 CELL #	3	
Location: Unit or	Qtr/Qtr Sec	P Sec 8	T 23N R 3W	County RIO ARRIBA
Land Type	JIC. TRIBAL			
Date Remediation St	arted: 5/	6/97	Date Completed:	6/10/98
Remediation Method		-	Approx. cubic yards	
Remediation Method				
	Composted	<u> </u>		-1411.017
	Other		SOIL TO BE PUT BA	ACK IN PIT.
Depth to Groundwate	er:	(pts)0	Final Clo	sure Sampling
Distance to an Epher	meral Stream:	(pts)0	Sampling Date:	6/10/98 Time: 12:20PM
Distance to Nearest I	_ake, Playa,	(pts)	Sample Results:	
or Watering Pond:		0	Field Headspace (ppm)	0
Wellhead Protection	Area:	(pts)0	 TPH (ppm	) ND Method M8015
Distance To Surface	Water:	(pts) 0	Other BTEX \S	SW846 , 8020A (ND)
RANKING SCORE (	TOTAL POINTS)	0	_	
I HEREBY CERTIFY KNOWLEDGE AND		MATION ABOVI	E IS TRUE AND COMP	LETE TO THE BEST OF MY
DATE:	7/13/98	PRINTE	D NAME	JEFF CROSS
SIGNATURE	Jeff Con	TITLE	PROJEC	T MANAGER
			MATION. ON-SITE RE IT CLOSURE ORDINA!	MEDIATION IS APPROVED IN NCE.
APPROVED:	YES_X	NO	(REASON)	
SIGNED:	-C Man	DATE:	7-29-98	,

Submit 1 copy to Natural Resource Dept. and Oil & Gas Administration

Operator: M	W PETR	OLUEM			Telephon	e	505-325-0	318	
Address:		2855 SOUTHS	SIDE RIV	VER ROAD	/SUITE A	/FARMING	TON, N.M.	87401-7947	<u> </u>
Facility or Well N	Name:	JA <sup>*</sup>	T 396 #	2 CELL # 4					
		'Qtr Sec		Sec 8		R 3W	_County	RIO ARRI	ВА
Land Type		JIC. TRIBAL	<del></del>	<del></del>					
Date Remediation	on Starte	d:	5/6/97		Date Con	npleted:		6/10/98	
Remediation Me	ethod:	Landfarmed		XXX	Approx. o	cubic yards		100	
		Composted			-				
		Other			SOIL TO	BE PUT BA	ACK IN PIT	•	
Depth to Ground	dwater:		(pts)	0		Final Clo	sure Sam	pling	
Distance to an E	Ephemer	al Stream:	(pts)	0	Sampling	g Date:	6/10/98	Time:	12:30PM
Distance to Nea or Watering Por		e, Playa,	(pts)	0	Sample I		0		
Wellhead Prote	ction Are	a:	(pts)	0		space (ppm) (ppm	) ND	— Method	M8015
Distance To Su	rface Wa	iter:	(pts)	0	Oth	er BTEX \S	 SW846 . 80	 )20A (NI	<b>)</b> )
RANKING SCC	ORE (TO	TAL POINTS)		0	-	. <u> </u>	,		
I HEREBY CER KNOWLEDGE			RMATIC	ON ABOVE	IS TRUE	AND COMP	PLETE TO	THE BEST (	OF MY
DATE:		7/13/98		_PRINTED	NAME		JEFF C	ROSS	<del></del>
SIGNATURE_		off Con		TITLE		PROJEC	T MANAG	ER	
AFTER REVIE	W OF THE	IE SOIL REME E JICARILLA A	DIATIC	N INFORM	ATION. (	ON-SITE RE RE ORDINA	MEDIATIC NCE.	N IS APPR	OVED IN
APPROVED:	YES	s_ <u>X</u>	NC	)	_(REASC	)N)			_
SIGNED:	Kee	CM.		DATE:	<u> </u>	29-98			<del>-</del>

Submit 1 copy to Natural Resource Dept. and Oil & Gas Administration

Operator:	M W PETF	ROLUEM			Telephon	ne	505-325-0	318	
Address:	<u> </u>	2855 SOUTH	SIDE RI\	/ER ROAD	/SUITE A	VFARMING	TON, N.M.	87401-7947	
Facility or W	ell Name:	JA	T 396#	2 CELL # 5	j				
Location:	Unit or Qtr	/Qtr Sec	Р	Sec 8	T 23N	R 3W	_County	RIO ARRI	ВА
Land Type		JIC. TRIBAL							
Date Remed	liation Starte	ed:	5/6/97		_Date Coi	mpleted:		6/10/98	
Remediation	n Method:	Landfarmed		XXX	_Approx.	cubic yards		110	
		Composted							
		Other			SOIL TO	BE PUT BA	ACK IN PIT.		
Depth to Gr	oundwater:		(pts)	0		Final Clo	sure Samp	oling	-
Distance to	an Ephemei	ral Stream:	(pts)	0	Samplin	g Date:	6/10/98	_Time:	12:40PM
Distance to or Watering	Nearest Lak Pond:	e, Playa,	(pts)	0		Results:	0		!
Wellhead P	rotection Are	ea:	(pts)	0		Ispace (ppm)		 Method	M8015
Distance To	Surface W	ater:	(pts)	0		ner BTEX \S			
RANKING S	SCORE (TO	TAL POINTS)	)	0	_	ici <u>biex is</u>	311040,00		
L	CERTIFY THE	HAT THE INFO	ORMATIC	ON ABOVE	IS TRUE	AND COMP	PLETE TO	THE BEST	OF MY
DATE:		7/13/98		PRINTED	NAME		JEFF C	ROSS	
SIGNATUR	RE	Mus		TITLE		PROJEC	T MANAG	ER	
AFTER RE ACCORDA	VIEW OF TI	HE SOIL REMIE JICARILLA	EDIATIC APACHE	N INFORM	MATION. T CLOSU	ON-SITE RE RE ORDINA	MEDIATIO NCE.	N IS APPR	OVED IN
APPROVE	D: YE	s_ <u>X</u>	NC	)	_(REAS	ON)			_
SIGNED:	Ko	5CM		DATE:	7-	29-99	8		<del>-</del>

Submit 1 copy to Natural Resource Dept. and Oil & Gas Administration

Operator:	M W PETF	ROLUEM			_Telephon	ne	505-325-0	0318	
Address:		2855 SOUTHS	SIDE RI	VER ROAL	) /SUITE A	VFARMING	TON, N.M.	87401-794	7
Facility or W	/ell Name:	JA	T 396 #	2 CELL # 6	<u> </u>				
Location:	Unit or Qtr	r/Qtr Sec	Р	Sec 8	T 23N	R 3W	_County	RIO ARR	.IBA
Land Type		JIC. TRIBAL							
Date Remed	liation Starte	ed: t	5/9/97		_Date Con	npleted:		6/10/98	
Remediation	Method:	Landfarmed		XXX	_Approx. c	cubic yards		75	
		Composted			_				
		Other			SOIL TO	BE PUT BA	CK IN PIT.	·	
Depth to Gro	oundwater:		(pts)	0		Final Clo	sure Samp	oling	
Distance to a	ın Ephemer	al Stream:	(pts)	0	Sampling	Date:	6/10/98	_Time:	12:50PM
Distance to N or Watering I		э, Playa,	(pts)	0	Sample R				
Wellhead Pro	otection Are	a:	(pts)	0	]	pace (ppm)	0	_	
Distance To	Surface Wa	ıter:	(pts)	0	TPH	<b></b> ,	) ND	_	M8015
RANKING S	CORE (TO	TAL POINTS)		0	Othe	er BTEX \S	W846 , 802	20A (NE	))
I HEREBY C KNOWLEDG	ERTIFY TH. SE AND BEI	IAT THE INFOF LIEF	RMATIO	N ABOVE	IS TRUE A	AND COMPL	ETE TO T	HE BEST C	OF MY
DATE:		7/13/98		PRINTED	NAME		JEFF CR	oss	
SIGNATURE	· Jeg	of Cwn		TITLE		PROJECT	MANAGE	<u>ER</u>	· · · · · · · · · · · · · · · · · · ·
		E SOIL REMED						IS APPRO	VED IN
APPROVED:	YES	<u>×</u>	NO		(REASON	<b>ا</b> )			_
SIGNED: 5	9 Kee	-CMa		DATE:	<u> 7-</u>	29-98	,		-

# M W PETROLEUM/FARMINGTON DISTRICT SOIL REMEDIATIONS STATUS REPORT

REMEDIATION SITE	<u>:</u>		JAT 396 # 2			-	
* AMOUNT OF SOIL	UNDE	RGOING	REMEDIATION		721	Yds.	
					SampDATE	TPH	BTEX
CELL No.	1	_			6/10/98	1900	ND
		4001 🗸	201 V 40"				
DIMENSIONS(LxWxH)		100 X	50 X 12			<del> </del>	
CELL LOCATION (dir. fr	om well l	head	EAST				
* DATE BEGAN:	5/6/97		_				
DATE TERMINATED (T	PH <5,0(	00 ppm/B	TEX< 50 ppm/Benzene < 1	0 ppm)	6/10/98	3	_
		<del></del>			SampDATE	TPH	BTEX
CELL No.	2				6/10/98	ND	ND
		400134	501.37.4011			<del> </del>	
DIMENSIONS(LxWxH)		120' X	50' X 12"				<u> </u>
CELL LOCATION (dir. fi	rom well	head	EAST				
						<del> </del>	<u> </u>
* DATE BEGAN:	5/6/97		<del></del>			<u> </u>	
DATE TERMINATED (T	PH <5,0	00 ppm/B	TEX< 50 ppm/Benzene < 1	10 ppm)	6/10/9	8	-
		<u> </u>		<del></del>	SampDATE	TPH	BTEX
CELL No.	3				6/10/98	ND	ND
DIMENSIONS(LxWxH)		- 50' X 4	0' X 12"			-	
CELL LOCATION (dir. f	rom well	head	WEST				
* DATE BEGAN:	5/6/97	7	<u> </u>				
DATE TERMINATED (1	ΓPH <5,0	00 ppm/E	RTEX< 50 ppm/Benzene <	10 ppm)	6/10/9	8	<b>-</b>
REMEDIATION RECOR	RD: (Date	e, Treatm	ent, Tilling)				
		ГН 46-0-0	FERTILIZER, WATER, PLO	DW AND	TILL SOIL.		
5/16/97 TILL ALL CELL		THE .			<del></del>		<del>_</del>
7/11/97 PLOW AND TIL 8/14/97 WATER ,PLOV			FILS				
4/28/98 PLOW ALL CE		ILL ALL C	LLLO.		-		
4/29/98 TILL ALL CELL							
5/3/98 WATER , PLOW		LL ALL C	ELLS.		<del></del>		
6/2/98,6/3/98 PLOW At							

From excavation reports.

# M W PETROLEUM/FARMINGTON DISTRICT SOIL REMEDIATIONS STATUS REPORT

REMEDIATION SITE	<del>-</del>	JA1 396 # 2		_	
* AMOUNT OF SOIL	. UNDERGOIN	IG REMEDIATION	721	Yds.	
CELL No.	4		SampDATE 6/10/98	TPH ND	BTEX ND
DIMENSIONS(LxWxH)	80' X 4	40' X 12"			<u> </u>
CELL LOCATION (dir. fr	om well head	EAST			
* DATE BEGAN:	5/6/97				
DATE TERMINATED (TI	PH <5,000 ppm/E	BTEX< 50 ppm/Benzene < 10 ppm)	6/10/98	3	_
CELL No.	5		SampDATE 6/10/98	TPH ND	BTEX ND
DIMENSIONS(LxWxH)	120' X	. 40' X 12"			
CELL LOCATION (dir. fr	om well head	SOUTH			
* DATE BEGAN:	5/6/97				
DATE TERMINATED (TI	PH <5,000 ppm/E	BTEX< 50 ppm/Benzene < 10 ppm)	6/10/98	3	•
			SampDATE	TPH	BTEX
CELL No.	6		6/10/98	ND	ND
DIMENSIONS(LxWxH)	50' X 5	50' X 12"			
CELL LOCATION (dir. fr	om weli head	NORTH			
* DATE BEGAN:	5/9/97				
DATE TERMINATED (TR	PH <5,000 ppm/B	BTEX< 50 ppm/Benzene < 10 ppm)	6/10/98	}	
REMEDIATION RECOR	D: (Date, Treatme	ent, Tilling)			·
				·	
				<u></u>	

From excavation reports.

NOTES: 0 ALL SAMPLES TAKEN 10" TO 12" INTO CELL. point composite 5 maple 0 O 0 0

Á:

WELL NAME: 5AT 396 #2 Cell #1

SAMPLE DATE: 6-10-98

DIMENSIONS: 156' x 80' x 12''

= SAMPLE AREA

SAMPLE DATE: 6-10-99 = S.  DIMENSIONS: 100' x 50' x 12	0		0	NOTES: ALL SAMPLES TAKEN 10" TO 12" INTO CELL.		
= SAMPLE AREA	О	0	0			

WELL NAME:

NOTES: 0 ALL SAMPLES TAKEN 10" TO 12" INTO CELL. 8 point composite sample 0 O

-

1100

WELL NAME: 50' x40' x12"

WELL NAME: 50' x40' x12"

N.

= SAMPLE AREA

SAMPLE DATE: DIMENSIONS: NOTES: 0  $\mathcal{O}$ ALL SAMPLES TAKEN 10" TO 12" INTO CELL. 10 point composity Sample 80 x40 x12" 10-10-58 0 0 0 C 0

**.** 

WELL NAME: JAT 396 #2 CELLAY

= SAMPLE AREA

0

DIMENSIONS: NOTES: ALL SAMPLES TAKEN 10" TO 12" INTO CELL. 12 point composite Striple 120' x 40' X12" () 0. G

= SAMPLE AREA

WELL NAME: SAMPLE DATE:

JAT 356#2 Cell #5

NOTES: SAMPLE DATE: DIMENSIONS: WELL NAME: 0 ALL SAMPLES TAKEN 10" TO 12" INTO CELL. JAT 356 #2 Cell #6 & point composite striple 50' X50' X 12" 88-01-0 *G*\_ = SAMPLE AREA 0



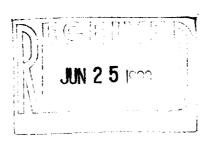


# ASSAIGAI ANALYTICAL LABORATORIES, INC.

7300 Jefferson, NE • Albuquerque, New Mexico 87109 • (505) 345-8964 • FAX (505) 345-7259

3332 Wedgewood, E-5 • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820 127 Eastgate Drive, 212-C • Los Alamos, New Mexico 87544 • (505) 662-2558

APACHE CORPORATION
attn: JEFF CROSS
2855 SOUTHSIDE RIVER RD STE A
FARMINGTON, NM 87401-7947



	* explanation of codes
3	analyte detected in Method Blank
	result is estimated
4	analyzed out of hold time
1	tentatively identified compound
	subcontracted
-9	see footnote

Assaigai Analytical Laboratories, Inc.

# Certificate of Analysis

Client:

**APACHE CORPORATION** 

Project: 9806180

JICARILLA

William P. Biava: President of Asaaigai Analytick/Laboratories, Inc.

Client Sample ID	JAT 396	6 #2 C	ELL #1		ample SOIL	_			Sample Collected	06/10/98 12:00:00
<b>-</b>						Dilution	Detection			Run
<u>Fraction</u>	QC Group	CAS#		Result	<u>Units</u>	<u>Factor</u>	<u>Limit</u>	*	Sequence	<u>Date</u>
			SW846-8010/8020 Volatiles							
9806180-01A	X98326	71-43-2	Benzene	ND ND	mg / Kg	50	0.005		XG.1998.535-12	06/15/98
	X98326	100-41-4	Ethylbenzene	ND	mg / Kg	50	0.005		XG.1998.535-12	
	X98326	95-47-6	o-Xylene	ND	mg / Kg	50	0.005		XG.1998.535-12	
	X98326	!	P/M-Xylenes	ND	mg / Kg	50	0.01		XG.1998.535-12	
	X98326	108-88-3	Toluene	ND	mg / Kg	50	0.005		XG.1998.535-12	
			SW846-8015 Modified TPH		MALK - a-					
9806180-01B	X98328		Diesel Range Organics	1900	mg / Kg	25	25		XG.1998.556-13	06/20/98
Client Sample ID	JAT 396	6 #2 C	ELL #2		mple SOIL	-			Sample Collected	06/10/98 12:10:00
						Dilution	Detection			Run
Fraction	QC Group	CAS#		Result	<u>Units</u>	<u>Factor</u>	<u>Limit</u>	*	Sequence	Date
			SW846-8010/8020 Volatiles							
9806180-02A	X98326	71-43-2	Benzene	ND	mg / Kg	50	0.005		XG.1998.535-13	06/15/98
	X98326	100-41-4	Ethylbenzene	ND	mg / Kg	50	0.005		XG.1998.535-13	
	X98326	95-47-6	o-Xylene .	ND	mg / Kg	50	0.005		XG.1998.535-13	
	X98326		P/M-Xylenes	ND	mg / Kg	50	0.01		XG.1998.535-13	
	X98326	108-88-3	Toluene	ND	mg / Kg	50	0.005		XG.1998,535-13	

9806180-02B Page 1 of 3

Coyote Reports

SW846-8015 Modified TPH

Diesel Range Organics

ver 1.1 / 980406

mg/Kg

Report Date

6/24/98 8:29:42 AM

06/20/98

XG.1998.556-14



X98328



ND

# Certificate of Analysis

Client: APACHE CORPORATION
Project: 9806180 JICARILLA

Client Sample ID	JAT 396	6 #2 C	ELL #3		atrix SOIL	<del>-</del> 		Sample Collected	06/10/9 12:20:0
						Dilution	Detection		Run
<u>Fraction</u>	QC Group	CAS#		Result	<u>Units</u>	Factor	<u>Limit</u> *	Sequence	Date
			SW846-8010/8020 Volatiles					<del></del>	
9806180-03A	X98326	71-43-2	Benzene	ND	mg / Kg	50	0.005	XG.1998.535-14	06/15/9B
	X98326	100-41-4	Ethylbenzene	ND	mg / Kg	50	0.005	XG.1998.535-14	00/13/96
	X98326	95-47-6	o-Xylene	ND	mg / Kg	50	0.005	XG.1998.535-14	
	X98326	-	P/M-Xylenes	ND	mg / Kg	50	0.01	XG.1998,535-14	
	X98326	108-88-3	Toluene	ND	mg / Kg	50	0.005	XG.1998.535-14	
			CM040 0045 M. V.S. J. T.D.I.						
9806180-03B	X98328		SW846-8015 Modified TPH  Diesel Range Organics	ND	ma / Ka	25	25	VC 4000 550 45	00100100
3000100 002	7,00020		Dieser Kange Organics	NU	mg / Kg		25	XG.1998.556-15	06/20/98
Client	JAT 396	6 #2 C	FLL #4	Sa	mple SOIL	v.a		Sample	06/10/98
Sample ID				Ma	ntrix			Collected	12:30:00
						Dilution	Detection		Run
Fraction	QC Group	CAS#		Result	Units	Factor	Limit *	Sequence	
	<u></u>	<u> </u>		itesuit	<u>Oma</u>	1 40101	Liiiit	<u>oequence</u>	<u>Date</u>
0000400 044	V00000		SW846-8010/8020 Volatiles						
9806180-04A	X98326	71-43-2	Benzene	ND	mg / Kg	50	0.005	XG.1998.535-15	06/15/98
	X98326	100-41-4	Ethylbenzene	ND	mg/Kg	50	0.005	XG.1998.535-15	
	X98326	95-47-6	o-Xylene	ND	mg / Kg	50	0.005	XG.1998.535-15	
	X98326	. 400 00 0	P/M-Xylenes	ND	mg / Kg	50	0.01	XG.1998.535-15	
	X98326	108-88-3	Toluene	ND	mg / Kg	50	0.005	XG.1998.535-15	
			SW846-8015 Modified TPH						
9806180-04B	X98328		Diesel Range Organics	ND	mg/Kg	25	25	XG.1998.556-16	06/20/98
Client Sample ID	JAT 396	#2 C	ELL #5		mple SOIL	•		Sample Collected	06/10/98 12:40:00
						Dilution	Detection		Run
Fraction	QC Group	CAS#		Result	<u>Units</u>	<u>Factor</u>	<u>Limit</u> *	Sequence	<u>Date</u>
			SW846-8010/8020 Volatiles						
9806180-05A	X98326	71-43-2	Benzene	ND	mg / Kg	50	0.005	XG.1998.535-16	06/15/98
	X98326	100-41-4	Ethylbenzene	ND	mg / Kg	50	0.005	XG.1998.535-16	00/10/30
	X98326	95-47-6	o-Xylene	ND	mg / Kg	50	0.005	XG.1998.535-16	
	X98326		P/M-Xylenes	ND	mg / Kg	50	0.01	XG.1998.535-16	
	X98326	108-88-3	Toluene	ND	mg / Kg	50	0.005	XG.1998.535-16	
						1	<u> </u>		
9806180-05B	X98328		SW846-8015 Modified TPH  Diesel Range Organics	ND ND	malka	25	25	VC 1000 FEC 47	00/04/00
, _ 50 , 50 500	7,00020		Dieser Nange Organics	ND	mg/Kg	20	25	XG.1998.556-17	06/21/98

### Assaigai Analytical Laboratories, Inc.

# Certificate of Analysis

Client: APACHE CORPORATION
Project: 9806180 JICARILLA

Client Sample ID	JAT 396	6 #2 C	ELL #6		Sample Matrix	SOIL				Sample Collected	06/10/98 12:50:00
Fraction	QC Group	CAS#		Result	<u>!</u>	<u>Units</u>	Dilution Factor	Detection <u>Limit</u>	*	Sequence	Run <u>Date</u>
			SW846-8010/8020 Volatiles								
9806180-06A	X98326	71-43-2	Benzene	ND		mg / Kg	50	0.005		XG.1998.535-17	06/15/98
	X98326	100-41-4	Ethylbenzene	ND		mg / Kg	50	0.005		XG.1998.535-17	
	X98326	95-47-6	o-Xylene	ND		mg / Kg	50	0.005		XG.1998.535-17	
	X98326		P/M-Xylenes	ND		mg / Kg	50	0.01		XG.1998.535-17	
	X98326	108-88-3	Toluene	ND		mg / Kg	50	0.005	-	XG.1998.535-17	
			SW846-8015 Modified TPH								
9806180-06B	X98328		Diesel Range Organics	ND		mg / Kg	25	25		XG.1998.556-18	06/21/98

Page 3 of 3

<sup>\*\*\*</sup> Sample specific analytical Detection Limit is determined by multiplying the sample Dilution Factor by the listed method Detection Limit. \*\*\*

ASSAIGAI

# Chain of Custody Record

7306 JETTENSON, N.L. ALBUQUERQUE, NEW MEXICO 87109 (505) 345-8964

ANALYTICAL LABORATORIES, INC.	Lab lob no. 15 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	3332 WEDGEWOOD ' EL PASO, TEXAS 79925 (915) 593-6000
Client Apache Corporation	Project Manager/Contact Jeff Cross	
Address 2855 Southside River RD, Ste. Arelephone No. (505) 774-6643	ATelephone No. (505) 774-6643	Analysis Required
City/State/ZipEarmington, NM 87401-7947 Fax	Fax No. (505) 774-6624	
Project Name / Number	Samplers: (Signature)	Remarks
Contract / Purchase Order / Quote	· ·	

FRACTION MUMBER	Field Location : Sample Number / Location :	Date Time	Sample Type	Type / Size of Container	Temp. 1 Chemical			
<u>x</u>	JAT 346#2 CEN #1 6	1-1048 12:06 Soil	Soil	4 oz a 1858	Tee	× -		
Ø		7	-	4 oz a 1855		×		
24	547346#2 Cell#2	12:10	0	<b>D</b>		×		
262						×		
*	JAT 3910#2 Cell#3	12:20	22			X   (		
38						×		
44	JAT 396#2 Cell#4	12:30	30			×		
4		(				×		
4	34734002 Cell#5	12:40	40			×		
B		1				×		
<b>6</b> A	347 396 42 Cell #6	65:21	B			×		
9		1				×		
Relinquished by:	Oaty	Received by:	by: A	A. B. R.	Relinquished by:	6	Date Received by:	
Signature	4/2017				Signature ( 1)		G/12/99 Signature	- MINTHE
Printed	Time Time	Printed	Chin	of charge	Printed	)	Time	
Company	1+pache 60/ P 8:30	Comt		0	Company		Company	
Reason		Rea	!!	#	Resson		l / Reason	
							After analysis, samples are to be:	
Method of Shipment:	1.	Comments	13:				Disposed of (additional	· 10
Shipment No.							Stored (30 days max)	
Special Instructions:	:1	-					Stored over 30 days (ad.	id. fee)
		-					Section of Pressing of	

LABORATORY