State of New Mexico

Linergy, Minerals and Natural Resources Department

OFFITT OFFICE GAS INSPECTOR

Submit 1 copy to Appropriate District and 1 copy to-Santa Fe Office

FEB 0 8 1999

2040 S. PACHECO Santa Fe, New Mexico 87505

OIL CONSERVATION DIVISION

PIT REMEDIA	TION AN	ID CLO	SURE RI	EPORT	DEG		
Operator: Apache Corporation \ MW Petro	oleum		Telephone:		505-32 5- 03	118	Mino
Address: 2855 Southside River Road, Su		ington, NM	87401		(0)(272		
Facility or Well Name:	Jic Apache	e Tribal A1	18 #15 Pit	#1			
Location: Unit or Qtr/Qtr Sec	P	Sec 25	T 26 N	R 3W	County	Rio Arriba	
Pit Type: Separator: XX	_Dehydrator		Other				
Land Type: Jicarilla Tribal							
Beginning Pit Dimensions:	Length	12'	Width	12'	Depth	5'	
Pit Location: Ending Pit Dimensions:	Length	20'	Width	20	_ Depth	10'	
(Attach diagram) Reference:	Wellhead	xx	Other		·		
Footage from reference:		100					
Direction from reference:		212	Degrees		_East	North	
				X	o _West	f South ₋	xx
Depth To Groundwater:			Less than 5			(20 points)	
(vertical distance from contaminants to seasonal			50 feet to 9 Greater tha		t .	(10 points) (0 points)	0
high water elevation of groundwater)							
Wellhead Protection Area:					Yes	(20 points)	
(Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources)					No	(0 points)	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,			Greater th	an 1000 fe	et	(0 points)	0
irrigation canals and ditches)			RANKING	SCORE (TOTAL POI	NTS)	0

Date Remediation Star	ted:	9/16/97		_Date Compl	eted:		9/18/97
Remediation Method: (Check all appropriate		Excavation	XXX	_Approx. cub	ic yards		140
sections)	Landfarmed		XX	_Insitu Biorer	nediation		· · · · · · · · · · · · · · · · · · ·
		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 10' , to	ook PID readin	ıgs. Spre	ad soil on
. location for	remediation. Took	soil sampl	es.				
<u></u>							
Groundwater Encoun	tered:	No	X	<u>K</u> Yes		Depth	
Final Pit:	Sample location		4 point con	nposite sample	taken from pit si	dewalls. Gr	ab sample
Closure Sampling: (in multiple samples,		taken from p	oit bottom ce	inter.			
attach sample results and diagram of sample	Sample depth	10'			valls 10" into p	pit bottom	1
locations and depths)						1 2011011	
	Sample Date Sample results		9/18/9	1	Sample Time	_	2:30 PM
	Benzene		(ppm)	ND			
	Total BTEX		(ppm)	ND			
	Field Headspace		(ppm)	39.34			
	ТРН			side/ND Btm/ND			
Groundwater Sample		Yes		No			n sample results)
I HEREBY CERTIFY T KNOWLEDGE AND B		TION ABO	VE IS TRU	JE AND COM	IPLETE TO TH	łe Best (DF MY
DATE	December 1, 199	В	_PRINTEI	O NAME	Jeff Cross		
SIGNATURE	Jeff Cw.	7	_ _AND TIT	'LE	Project Mana	iger	

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 Petr	Telephone	: :	505-325-	0318						
Address:	ess: 2855 Southside River Road, Suite A, Farmington, NM 87401										
Facility or	Well Name:	Jic Apach	e Tribal A1	18 #15 P	it #2						
Location:	Unit or Qtr/Qtr Sec	Р	Sec 25	T 26 N	R 3W	County	Rio Arriba				
Pit Type:	Separator:	_Dehydrato	r	Other	Tank Dra	in					
Land Type	: Jicarilla Tribal					<u> </u>					
	Beginning Pit Dimensions:	Length	12	Width	n12	<u>!</u> Dep	th 5' _				
Pit Location:		Length	20	Width	20	<u>)'</u> Dep	th15'				
(Attach dia	Reference:	Wellhead	XX	_Other							
	Footage from reference:		75		_						
	Direction from reference:		266_	_Degrees		East	North _				
					X	West	of South	XX			
Depth To	Groundwater:			Less than		<u> </u>	(20 points)				
(vertical dist				50 feet to	99 feet an 100 fee	t	(10 points)_ (0 points)	0			
high water e				Oreator ti	idii 100 100	•	(o politic) _				
groundwate	7)										
	Protection Area:					Yes	(20 points)_	0			
domestic	n 200 feet from a private water source, or; less than from all other water sources)					No	(0 points)_	U			
	To Surface Water:				200 feet		(20 points)				
	al distance to perennial				to 1000 fee han 1000 fe		(10 points) _ (0 points)	0			
	nds, rivers, streams, creeks, canals and ditches)				3 SCORE (· · · · · ·	0			

Date Remediation Star	ted:	9/18/98		_Date Comple	eted:	9/18/97
Remediation Method:		Excavation	XXX	_Approx. cubi	c yards	210
(Check all appropriate sections)	Landfarmed		XX	_Insitu Bioren	nediation	
		Other				
Remediation Location (i.e. landfarmed onsite, name and location of offsite facility)	:	Onsite	. XX	Offsite _		
General Description o				pit to 15' , to	ok PID readings	s. Spread soil on
. <u>location for</u>	remediation. Took	soil samp	oles.			
				.		
Groundwater Encoun	tered:	No	ox	<u>K</u> Yes		Depth
Final Pit:	Sample location		4 point con	nposite sample	taken from pit side	walls. Grab sample
Closure Sampling: (in multiple samples,	•	taken from	pit bottom ce			
attach sample results and diagram of sample	Sample depth	15'	8 to 10" i	nto pit sidev	alls 10" into pit	bottom
locations and depths)	Sample Date Sample results		9/18/9		Sample Time	5:00 PM
	Benzene		(ppm)	ND		
	Total BTEX		(ppm)	7.5		
	Field Headspace		(ppm)	38.8		
	TPH			side/ND Btm/1800		
Groundwater Sample		Υ€		No		es attach sample results)
I HEREBY CERTIFY I		ATION ABO	OVE IS TRU	JE AND COM	PLETE TO THE	BEST OF MY
DATE	December 1, 199	8	PRINTE	D NAME	Jeff Cross	
SIGNATURE	Lift Cwo	Σ	AND TIT	LE	Project Manag	er

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

PIT REMEDIATION AND CLOSURE REPORT

Operator: M W PETROLEUM	Telephone 505-325-0318
Address: 2855 SOUTHSIDE RIVER ROAD / S	JITE A / FARMINGTON N.M. 87401-7947
Facility or Well Name:JAT_A118#	PIT#1
Location: Unit or Qtr/Qtr Sec P SE	C25 T 26N R 3 W County RIO ARRIBA
Pit Type: Separator: XX Dehydrator_	Other
Land Type: JIC. TRIBAL	
Pit Location: Pit Dimensions: Length (Attach diagram) Reference: Wellhead	20' Width 20' Depth 10' (XX Other
Footage from reference: Direction from reference:	100' 212 Degrees East North
Direction non reference.	of X West South XX
Depth To Groundwater:	Less than 50 feet (20 points)
(vertical distance from	50 feet to 99 feet (10 points)
contaminants to seasonal high water elevation of groundwater)	Greater than 100 feet (0 points) 0
Distance to an Ephemeral Stream:	Less than 100 feet (10 points)
(Downgradient dry wash greater than ten feet in width	Greater than 100 feet (0 points)
Distance to Nearest Lake, Playa, or Watering P	nd: Less than 100 feet (10 points)
(Downgradient lakes, playas and livestock or wildlife watering ponds)	
Wellhead Protection Area:	Yes (20 points)
(Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources)	No (0 points) 0
Distance To Surface Water:	Less than 100 feet (20 points)
(Horizontal distance to perennial	100 feet to 1000 feet (10 points)
lakes, ponds, rivers, streams, creeks,	Greater than 1000 feet (0 points)
irrigation canals and ditches)	RANKING SCORE (TOTAL POINTS) 0

Date Remediation Start	ted: 9/16/	/97	_Date Compl	leted:		9/18/97	
Remediation Method:	Excavation	n XXX	_Approx. cub	oic yards		140	
(Check all appropriate sections)	Landfarme	ed XX	_Insitu Biore	mediation		·	
	Other						
Remediation Location: (i.e. landfarmed onsite, name and location of offsite facility)	Ons	site XX	_Offsite _				
General Description of	Remedial Action:	Excavate pit	to10 ',took F	PID readin	gs. spread	soil on	
location f	or remidiation. To	ok soil samp	les.			· · · · · · · · · · · · · · · · · · ·	
Groundwater Encount	ered:	No xxx	Yes		_ Depth	l	
Final Pit: Closure Sampling: (in multiple samples,	Sample location	4 point co	omposite take			Grab sample	
attach sample results and diagram of sample		10'					
locations and depths) Sample D Sample re	ate	9/18/9	97	Sample T	ime	2:30PM	
Soil:	Benzene	(ppm)	ND	.Water:	Benzene	(ppb)	NA_
	Total BTEX	(ppm)	ND	_	Toluene	(ppb)	NA
	Field Headspace	(ppm)	39.34	Etl	hylbenzene	(ppb)	NA_
	TPH	(ppm)	SIDE\ND	То	tal Xylenes	(ppb)	NA
Groundwater Sample:		Yes	BTM\ND No	XXX	_(If yes atta	ach sample i	results)
I HEREBY CERTIFY TI KNOWLEDGE AND BE		ATION ABOV	E IS TRUE A	ND COMF	LETE TO	THE BEST (OF MY
i		PRINTE	D NAME		JEFF CR	coss	
DATE 9-	off lios	AND TIT	r LE		PROJEC.	T MANAGE	R
AFTER REVIEW OF TI				SURE IS A	PPROVED	IN ACCORU	DANCE TO
APPROVED: YES	s	NO	(REASON)			
SIGNED:	-C 71	09	DATE:	110	13-98	,	

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

PIT REMEDIATION AND CLOSURE REPORT

Operator: M W PETROLEUM	Telephone505-325-0318								
Address: 2855 SOUTHSIDE RIVER ROAD / SUITE	A / FARMINGTON N.M. 87401-79	947							
Facility or Well Name:JAT_A118 # 15 PIT	#2								
Location: Unit or Qtr/Qtr Sec P SEC25	T 26N R 3 W County	RIO ARRIBA							
Pit Type: Separator:DehydratorOtherTANKDRAIN									
Land Type: JIC. TRIBAL									
Pit Location: Pit Dimensions: Length 20' (Attach diagram) Reference: Wellhead XXX	Width <u>20'</u> Dep	oth15'							
Footage from reference: 75'									
Direction from reference: 266	DegreesEast	North							
	XXWest	South X							
Depth To Groundwater:	Less than 50 feet	(20 points)							
(vertical distance from	50 feet to 99 feet	(10 points)							
contaminants to seasonal	Greater than 100 feet	(0 points) 0							
high water elevation of groundwater)	Greater than 100 feet	(openie)							
Distance to an Ephemeral Stream:	Less than 100 feet	(10 points)							
(Downgradient dry wash greater than	Greater than 100 feet	(0 points) 0							
ten feet in width		-							
Distance to Nearest Lake, Playa, or Watering Pond:	Less than 100 feet	(10 points)							
(Downgradient lakes, playas and	Greater than 100 feet	(0 points)0							
livestock or wildlife watering ponds)									
Wellhead Protection Area:	Yes	(20 points)							
(Less than 200 feet from a private	No	(0 points) 0							
domestic water source, or less than 1000 feet from all other water sources)		· · /							
,	Lang Harri 400 C at	(20 paints)							
Distance To Surface Water:	Less than 100 feet	(20 points)							
(Horizontal distance to perennial	100 feet to 1000 feet Greater than 1000 feet	(10 points) 0							
lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)									
	RANKING SCORE (TOTAL PO	DINTS) 0							

Date Remediation Star	ted: 9/18/97	7	Date Comp	oleted:		9/18/97	
Remediation Method:	Excavation	xxx	Approx. cu	bic yards		210	
(Check all appropriate sections)	Landfarmed	XX	Insitu Biore	emediation	· · · · · ·		
	Other						
Remediation Location: (i.e. landfarmed onsite, name and location of	: Onsite	e XX	Offsite				
offsite facility)							
General Description of	Remedial Action: Ex	cavate pit 1	o15 ',took l	PID reading	s. spread	soil on	
location f	or remidiation. Took	soil sample	es.	4			
Groundwater Encount	ered: No		. Yes		Depth		
Final Pit:	Sample location	4 point cor	nposite take	en from pit s	idewalls, C	Grab sample	from pit
Closure Sampling: (in multiple samples,	bottom ce	nter.	8" to 10" in	to pit side w	alls ,10" in	nto pit botton	n.
attach sample results and diagram of sample	Sample depth	15'			· · · · · · · · · · · · · · · · · · ·		
locations and depths) Sample D Sample re		9/18/97	-	Sample Tin	ne	5:00PM	
Soil:	Benzene	(ppm)	ND	Water:	Benzene	(ppb)	NA
	Total BTEX	(ppm)	7.5		Toluene	(ppb)	NA
	Field Headspace	(ppm)	38.8	Ethy	lbenzene	•	NA
	TPH	(ppm)	SIDE\ND	Tota	i Xylenes	(ppb)	NA
Groundwater Sample:	Yes	S	BTM\1800 No		(If yes atta	ich sample r	esults)
I HEREBY CERTIFY TH KNOWLEDGE AND BE		ON ABOVE	IS TRUE A	ND COMPL	ETE TO T	HE BEST C	OF MY
DATE9-	14-98	PRINTED	NAME	,	JEFF CR	oss	:
SIGNATURE	14-98 Uff lwn	_ _AND TITL	E		PROJECT	MANAGER	<u> </u>
AFTER REVIEW OF THE JICARILLA APAC	E PIT CLOSURE INF	ORMATION	, PIT CLOS				ANCE TO
APPROVED: YES	NO.		(REASON)				
SIGNED:	=CMa_	00	DATE:	-	3-9	8	

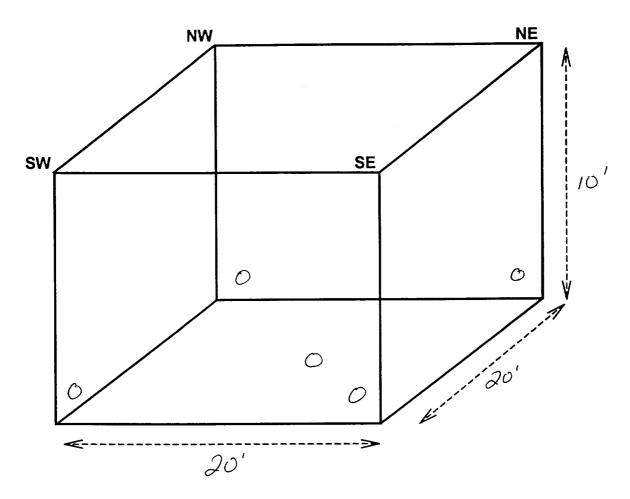
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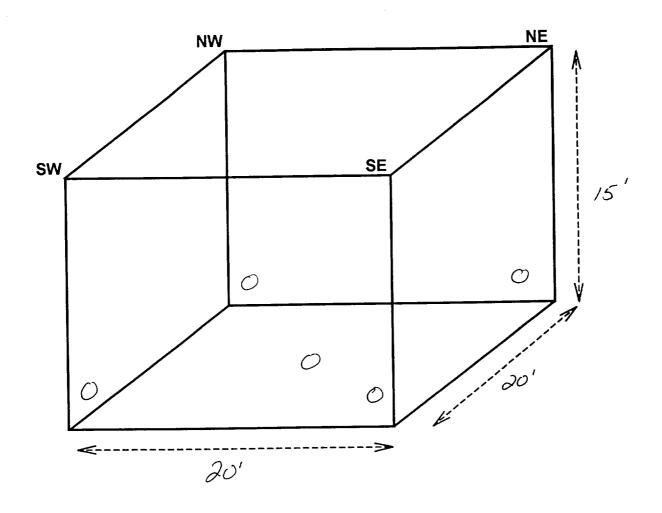
M W PETROLEUM/FARMINGTON DISTRICT PIT EXCAVATION AND CLOSURE REPORT

11 22 (4)		Jicarilla Apache Tribal EPO/OCD/BLM
OCATION	JAT A 118#15	Review and Approval
LOCATION	JA1 A 110# 10	OCD-BLM
PIT COUNT	2	EPO Representative
PIT COUNT		Date of Review

S		PIT#1 9/16/97				PIT# 1 9/189/7		<u> </u>	I
MENSI	ONS	PIT#2 9/18/9		· · · · · · · · · · · · · · · · · · ·	-00000000000000000000000000000000000000	PIT#2 9/18/9	L	D	CU YDS
	W	L	D	5114		W 20'	20'	10'	140
Pit 1	12'	12'	5'	Pit 1		20'	20'	15'	210
Pit 2	12'	12'	5'	Pit 2					
Pit 3				Pit 3			Pit 1 @ 10'	Pit 2 @ 15'	Pit 3 @
		Pit 1 @ 10'	Pit 2 @ 15'	Pit 3 @	***************************************	0 1	38.7	27	-
C	Center	38.7	27			Center	42.1	51.2	
₽ N	W Corner	42.1	51.2		P	NW Corner		43.5	
1 1	NE Corner	32	43.5		1 1	NE Corner	32	43.3	+
b s	SW Corner	43.8	42		Ð	SW Corner	43.8	30.3	
- 5	SE Corner	40.1	30.3			SE Corner	40.1	30.3	
OTES:									
	9/16/97 STAF	RT EXCAVATION	ON ON PIT #1	, LIGHT STAI	NING AN	O ODOR.			
	9/18/97 PIT#	1 EXCAVATE	TO 10' , HIT B	EDROCK,NO	STAINING	OR ODOR.			
<u>`</u>	PIT #1 SPRA	YED PIT BOT	TOM WITH 46	-0-0 LIQUID F	ERTILIZE	R			
<u>'</u>	111 11 01 10								
	0/19/07 STAF	T AND FINIS	H EXCAVATIN	IG PIT#2					
	NO CTAININ	C AND VERY	LIGHT ODOR	. PID READIN	GS GOO).			
	NO STAIMIN	G AND VERT	LIGHT ODOR	. 1 10 110					
	SAMP DATE	9/18/97	9/18/97					DEDIAR	Ассаілаі
	SAMP DATE	9/18/97 Pit 1 @ 10'	9/18/97 Pit 2 @ 15'	Pit 3 @	ANALY	SIS RESULTS		PER LAB	Assaigai
				Pit 3 @	PIT	TPH	BETEX	WITNESS	
	Center	Pit 1 @ 10'	Pit 2 @ 15'	Pit 3 @			BETEX SIDE\BTM	WITNESS	DATE
P	Center NW Corner	Pit 1 @ 10' 38.7 42.1	Pit 2 @ 15'	Pit 3 @	PIT	TPH	BETEX SIDE\BTM ND\ND	WITNESS J.C.	9/24/97
P I	Center NW Corner NE Corner	Pit 1 @ 10' 38.7 42.1 32	Pit 2 @ 15' 27 51.2	Pit 3 @	PIT NO	TPH SIDE\BTM	BETEX SIDE\BTM	WITNESS	9/24/97
ρ 	Center NW Corner NE Corner SW Corner	Pit 1 @ 10' 38.7 42.1 32 43.8	Pit 2 @ 15' 27 51.2 43.5	Pit 3 @	PIT NO 1	TPH SIDE\BTM ND\ND	BETEX SIDE\BTM ND\ND	WITNESS J.C.	9/24/97
ρ 	Center NW Corner NE Corner	Pit 1 @ 10' 38.7 42.1 32	Pit 2 @ 15' 27 51.2 43.5 42	Pit 3 @	PIT NO 1 2 3	TPH SIDE\BTM ND\ND	BETEX SIDE\BTM ND\ND	J.C.	9/24/97
P I D	Center NW Corner NE Corner SW Corner	Pit 1 @ 10' 38.7 42.1 32 43.8 40.1	Pit 2 @ 15' 27 51.2 43.5 42 30.3		PIT NO 1 2 3 E	TPH SIDE\BTM ND\ND	BETEX SIDE\BTM ND\ND ND\7.5	J.C. J.C. PER LAB	9/24/97 9/24/97
P I D	Center NW Corner NE Corner SW Corner SE Corner	Pit 1 @ 10' 38.7 42.1 32 43.8	Pit 2 @ 15' 27 51.2 43.5 42	RE-SAMPL	PIT NO 1 2 3 E	TPH SIDE\BTM ND\ND ND\1800	BETEX SIDE\BTM ND\ND ND\7.5	J.C.	9/24/97 9/24/97
P I D	Center NW Corner NE Corner SW Corner SE Corner	Pit 1 @ 10' 38.7 42.1 32 43.8 40.1	Pit 2 @ 15' 27 51.2 43.5 42 30.3	RE-SAMPL	PIT NO 1 2 3 E ANALY	TPH SIDE\BTM ND\ND ND\1800 SIS RESULTS	BETEX SIDE\BTM ND\ND ND\7.5	J.C. J.C. PER LAB WITNESS	9/24/97 9/24/97
P i D DATE:	Center NW Corner NE Corner SW Corner SE Corner Center NW Corner	Pit 1 @ 10' 38.7 42.1 32 43.8 40.1	Pit 2 @ 15' 27 51.2 43.5 42 30.3	RE-SAMPL	PIT NO 1 2 3 E ANALY PIT NO	TPH SIDE\BTM ND\ND ND\1800 SIS RESULTS TPH	BETEX SIDE\BTM ND\ND ND\7.5	J.C. J.C. PER LAB WITNESS	9/24/97 9/24/97
P i D DATE:	Center NW Corner SW Corner SE Corner Center NW Corner NE Corner	Pit 1 @ 10' 38.7 42.1 32 43.8 40.1	Pit 2 @ 15' 27 51.2 43.5 42 30.3	RE-SAMPL	PIT NO 1 2 3 E ANALY PIT NO 1	TPH SIDE\BTM ND\ND ND\1800 SIS RESULTS TPH	BETEX SIDE\BTM ND\ND ND\7.5	J.C. J.C. PER LAB WITNESS	9/24/97 9/24/97
P I D DATE:	Center NW Corner SW Corner SE Corner Center NW Corner NE Corner SW Corner	Pit 1 @ 10' 38.7 42.1 32 43.8 40.1	Pit 2 @ 15' 27 51.2 43.5 42 30.3	RE-SAMPL	PIT NO 1 2 3 E ANALY PIT NO 1 2	TPH SIDE\BTM ND\ND ND\1800 SIS RESULTS TPH	BETEX SIDE\BTM ND\ND ND\7.5	J.C. J.C. PER LAB WITNESS	9/24/97 9/24/97
P i D DATE:	Center NW Corner SW Corner SE Corner Center NW Corner NE Corner	Pit 1 @ 10' 38.7 42.1 32 43.8 40.1	Pit 2 @ 15' 27 51.2 43.5 42 30.3	RE-SAMPLI Pit 3 @	PIT NO 1 2 3 SE PIT NO 1 2 3 3 SE 3 SE	TPH SIDE\BTM ND\ND ND\1800 SIS RESULTS TPH	BETEX SIDE\BTM ND\ND ND\7.5	J.C. J.C. PER LAB WITNESS	9/24/97 9/24/97
P I D DATE:	Center NW Corner SW Corner SE Corner Center NW Corner NE Corner SW Corner	Pit 1 @ 10' 38.7 42.1 32 43.8 40.1	Pit 2 @ 15' 27 51.2 43.5 42 30.3	RE-SAMPLI Pit 3 @	PIT NO 1 2 3 1 NO 1 2 3 3 E	TPH SIDE\BTM ND\ND ND\1800 SIS RESULTS TPH SIDE\BTM	BETEX SIDE\BTM ND\ND ND\7.5 BETEX SIDE\BTM	J.C. J.C. PER LAB WITNESS	9/24/97 9/24/97
P I D DATE:	Center NW Corner SW Corner SE Corner Center NW Corner NE Corner SW Corner SW Corner	Pit 1 @ 10' 38.7 42.1 32 43.8 40.1	Pit 2 @ 15' 27 51.2 43.5 42 30.3	RE-SAMPLI Pit 3 @	PIT NO 1 2 3 E ANALY 2 3 E ANALY ANA	TPH SIDE\BTM ND\ND ND\1800 SIS RESULTS TPH SIDE\BTM	BETEX SIDE\BTM ND\ND ND\7.5 BETEX SIDE\BTM	J.C. J.C. PER LAB WITNESS	9/24/97 9/24/97 DATE
P I D D D D D D D D D D D D D D D D D D	Center NW Corner SW Corner SE Corner Center NW Corner NE Corner SW Corner SW Corner SC Corner	Pit 1 @ 10' 38.7 42.1 32 43.8 40.1 Pit 1 @	Pit 2 @ 15' 27 51.2 43.5 42 30.3	RE-SAMPLI Pit 3 @	PIT NO 1 2 3 E ANALY A PIT ANALY PIT	TPH SIDE\BTM ND\ND ND\1800 SIS RESULTS TPH SIDE\BTM	BETEX SIDE\BTM ND\ND ND\7.5 BETEX SIDE\BTM SIDE\BTM SIDE\BTM	PER LAB PER LAB WITNESS WITNESS WITNESS	9/24/97 9/24/97 DATE
P i D DATE:	Center NW Corner SW Corner SE Corner NE Corner NW Corner NE Corner SW Corner SE Corner Center NE Corner Center NW Corner NE Corner	Pit 1 @ 10' 38.7 42.1 32 43.8 40.1 Pit 1 @	Pit 2 @ 15' 27 51.2 43.5 42 30.3	RE-SAMPLI Pit 3 @	PIT NO 1 2 3 E ANALY PIT NO 1	TPH SIDE\BTM ND\ND ND\1800 SIS RESULTS TPH SIDE\BTM	BETEX SIDE\BTM ND\ND ND\7.5 BETEX SIDE\BTM SIDE\BTM SIDE\BTM	PER LAB PER LAB WITNESS WITNESS WITNESS	9/24/97 9/24/97 DATE
P I D D D D D D D D D D D D D D D D D D	Center NW Corner SW Corner SE Corner Center NW Corner NE Corner SW Corner SW Corner SC Corner	Pit 1 @ 10' 38.7 42.1 32 43.8 40.1 Pit 1 @	Pit 2 @ 15' 27 51.2 43.5 42 30.3	RE-SAMPLI Pit 3 @	PIT NO 1 2 3 E ANALY PIT NO 1 2 3 .E ANAL NO 1 1	TPH SIDE\BTM ND\ND ND\1800 SIS RESULTS TPH SIDE\BTM	BETEX SIDE\BTM ND\ND ND\7.5 BETEX SIDE\BTM SIDE\BTM SIDE\BTM	PER LAB PER LAB WITNESS WITNESS WITNESS	9/24/97 9/24/97 DATE
P I D D D D D D D D D D D D D D D D D D	Center NW Corner SW Corner SE Corner NE Corner NW Corner NE Corner SW Corner SE Corner Center NE Corner Center NW Corner NE Corner	Pit 1 @ 10' 38.7 42.1 32 43.8 40.1 Pit 1 @	Pit 2 @ 15' 27 51.2 43.5 42 30.3	RE-SAMPLI Pit 3 @	PIT NO 1 2 3 E ANALY PIT NO 1	TPH SIDE\BTM ND\ND ND\1800 SIS RESULTS TPH SIDE\BTM	BETEX SIDE\BTM ND\ND ND\7.5 BETEX SIDE\BTM SIDE\BTM SIDE\BTM	PER LAB PER LAB WITNESS WITNESS WITNESS	9/24/97 9/24/97 DATE



			= SAMPLE AREA
WELL NAME		JAT A118 # 15 PIT # 1	
SAMPLE D	ATE	9/18/97	
NOTES	4 POIN	T COMPOSITE SAMPLE TAKEN 8" TO	10" INTO PIT
	SIDEW	/ALL	
	1 POIN	IT GRAB SAMPLE TAKEN 10" TO 12" II	NTO BOTTOM CENTER
•			
,			
•			
•			
	 .		



				= SAMPLE AREA
WELL NAM	ΛE	JAT A118 # 15 PIT # 2		
SAMPLE D	ATE	9/18/97		
NOTES	4 POIN	IT COMPOSITE SAMPLE TA	KEN 8" TO 1 <u>0" I</u> I	NTO PIT
	SIDE			
	1 POI	NT GRAB SAMPLE TAKEN 1	0" TO 12" INTO I	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

Report Generated: October 3, 1997 10:56

CERTIFICATE OF ANALYSIS RESULTS BY SAMPLE

SENT APACHE CORPORATION

TO: 2855 SOUTHSIDE RIVER RD STE AWORK ID

FARMINGTON, NM 87401-7947

WORKORDER #

: 9709177

: JICARILLA PIT CLOSUR : APA01

CLIENT CODE DATE RECEIVED: 09/19/97

ATTN: JEFF CROSS

Page: 1

Lab ID: 9709177-01A

Sample ID: JAT A118-15 PIT 1 BOTTOM

Collected: 09/18/97 14:30:00

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	mg/kg	0.0050	100	09/24/97	SVUST007
	ND	mg/kg	0.0050	100	09/24/97	SVUST007
	ND	mg/kg	0.0050	100	09/24/97	SVUST007
	ND	mg/kg	0.010	100	09/24/97	SVUST007
	ND	mg/kg	0.0050	100	09/24/97	SVUST007

Lab ID: 9709177-01B

Sample ID: JAT A118-15 PIT 1 BOTTOM

Collected: 09/18/97 14:30:00

Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
Diesel Range OG Soil/M8015 Diesel Range OG in Soil	ND	mg/Kg	25	25	09/24/97	SDRO054

Lab ID: 9709177-02A

Sample ID: JAT A118-15 PIT 1 SIDES

Collected: 09/18/97 14:40:00

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	0.0050 0.0050 0.0050 0.010 0.0050	100 100 100 100 100	09/24/97 09/24/97 09/24/97 09/24/97 09/24/97	SVUST007 SVUST007 SVUST007 SVUST007 SVUST007



Collected: 09/18/97 14:40:00

EST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
esel Range OG Soil/M8015 Diesel Range OG in Soil	ND	mg/Kg	25	25	09/24/97	SDRO054
ab ID: 9709177-03A ample ID: JAT A118-15 PI	r 2 sides	Collected: Matrix: SO		7 17:	00:00	
EST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
TEX/SW846 8020A Benzene Toluene Ethylbenzene P-&m-Xylene O-Xylene	ND ND ND ND	mg/kg mg/kg mg/kg mg/kg mg/kg	0.0050 0.0050 0.0050 0.010 0.0050	100 100 100 100 100	09/24/97 09/24/97 09/24/97 09/24/97 09/24/97	SVUST007 SVUST007 SVUST007 SVUST007 SVUST007
Lab ID: 9709177-03B Sample ID: JAT A118-15 PI	T 2 SIDES	Collected: Matrix: SO		7 17	:00:00	
3T / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
Diesel Range OG Soil/M8015		nr -	25	25	09/24/97	SDRO054
Diesel Range OG in Soil	ND	mg/Kg	23	23		
Diesel Range OG in Soil Lab ID: 9709177-04A Sample ID: JAT A118-15 PI		Collected: Matrix: So	09/18/		:15:00	
Diesel Range OG in Soil Lab ID: 9709177-04A		Collected:	09/18/		:15:00 DATE ANAL	BATCH_ID
Diesel Range OG in Soil Lab ID: 9709177-04A Sample ID: JAT A118-15 PI	IT 2 BOTTOM	Collected: Matrix: So	09/18/9	97 17	DATE	
Diesel Range OG in Soil Lab ID: 9709177-04A Sample ID: JAT A118-15 PI TEST / METHOD BTEX/SW846 8020A Benzene Toluene Ethylbenzene P-&m-Xylene	RESULT ND ND 2.1 5.4 ND	Collected: Matrix: So UNITS mg/kg mg/kg mg/kg mg/kg	09/18/9 OIL LIMIT 0.0050 0.0050 0.0050 0.010 0.0050	D_F 100 100 100 100 100 100	DATE ANAL 09/24/97 09/24/97 09/24/97 09/24/97 09/24/97	BATCH_ID SVUST007 SVUST007 SVUST007 SVUST007
Lab ID: 9709177-04A Sample ID: JAT A118-15 PI TEST / METHOD BTEX/SW846 8020A Benzene Toluene Ethylbenzene P-&m-Xylene O-Xylene Lab ID: 9709177-04B	RESULT ND ND 2.1 5.4 ND	Collected: Matrix: So UNITS mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg Collected	09/18/9 OIL LIMIT 0.0050 0.0050 0.0050 0.010 0.0050	D_F 100 100 100 100 100 100 100	DATE ANAL 09/24/97 09/24/97 09/24/97 09/24/97 7:15:00	BATCH_ID SVUST007 SVUST007 SVUST007 SVUST007 SVUST007

hluage bar William P. Biava President

WORKORDER COMMENTS

DATE : 10/03/97

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

Client Apache Corporation

Address 304 N. Behrend

Chain of Custr 1y Record

Page

Project Manager / Contact _ Jeff_ Cross

Telephone No. (505) 774-6643

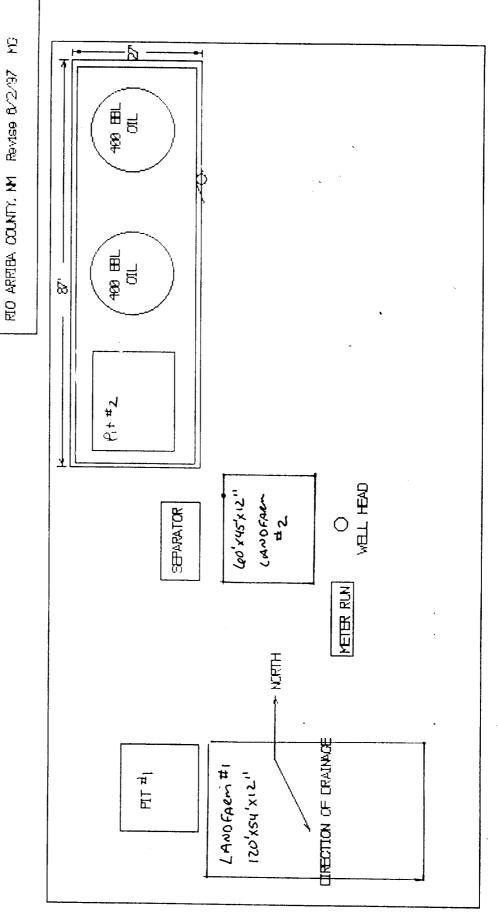
3332 WEDGEWOOD EL PASO, TEXAS 79925 (915) 593-6000

1910 N. BIG SPRING MIDLAND, TEXAS 79705 (915) 570-1116

ALBUQUERQUE, NEW MEXICO 871: (505) 345-8964

Analysis Required

City / State / 2	ciy/State/ZipEarmington, NM 87401	9	 	J. No. (Fax No. (505) 774-6624	624		_	_		<i> </i>	<u></u>	_	, 1 (¹)
Project Name	Project Name / Number JICARILLA PIT CLOSURES	CLOSU		Samplers:	(Signature)	John John	Muhr	e se vie suo	Pou	<u></u>			/ Remarks	.
Contract / Pu	Contract / Purchase Order / Quote	-						3 70 ·0W	1>				•	ŕ
AAL FRACTION HOMBER		Dete	Time Sample Type		Type / Size of Container	Pre Temp.	Preservation ip. Chemical	8	70					
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	SAT A118-15 PITION 9/	18/97	2.40 50,2		5545 20 h		£00.	×						
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									4	fter analysis,	After analysis, samples are to be:	Pe:		
Method of Shipment:	t	§ 	Comments:								Disposed of (additional fee)	ditional fee)		
Shipment No.		 									Stored (30 days max)	max)		-, . , .
Special Instructions:	,										Stored over 30 days (additional fee)	lays (additiona	al fee)	
		4									Returned to customer	tomer		



M W RETROLEUM

JICARILLA APACHE A-118-15

SE/4 SE/4 (P) L9899 #JMT A118

SECTION 25, TOWNSHIP 26N, RANCE 3W

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

ON-SITE SOIL REMEDIATION REPORT

Operator:	M W PETR	OLUEM			Telephone		505-325-0	0318	
Address:		2855 SOUTH	SIDE RI	VER ROAD	SUITE A	FARMING	TON, N.M.	87401-7947	
Facility or We	ell Name:	JA	T A118	# 15 CELL	#1		. <u> </u>		
Location:	Unit or Qtr	/Qtr Sec	Р	SEC 25	T 26N	R 3W	_County	RIO ARRI	ВА
Land Type		JIC. TRIBAL							
Date Remedi	ation Starte	d: 9	/18/97		_Date Com	pleted:		8/18/98	
Remediation	Method:	Landfarmed		XXX	_Approx. c	ubic yards		240	
		Composted							
		Other			REMEDIA	ATED SOIL	TO BE PL	IT BACK IN	PIT.
Depth to Gro	undwater:		(pts))0		Final Clo	sure Sam	pling	
Distance to a	ın Ephemer	al Stream:	(pts	00	Sampling	Date:	8/18/98	Time:	9:45AM
Distance to Nor Watering		e, Playa,	(pts	0	Sample F		0		
Wellhead Pr	otection Are	ea:	(pts)0		pace (ppm) (ppn		 Method	M8015
Distance To	Surface Wa	ater:	(pts)				020A (NI	D)
RANKING S	CORE (TO	TAL POINTS)		0	-				
I HEREBY C		HAT THE INFO	RMATI	ON ABOVE	E IS TRUE	AND COMF	LETE TO	THE BEST (OF MY
DATE:		9/14/98		_PRINTE	D NAME		JEFF C	ROSS	
SIGNATURI		floo		_TITLE		PROJEC			
AFTER REV	VIEW OF T	HE SOIL REM IE JICARILLA	EDIATION APACHI	ON INFORI	MATION. C	ON-SITE RE RE ORDINA	MEDIATION NCE.	ON IS APPR	OVED IN
APPROVED	D: YE	s_ <u>X</u>	N	o	(REASO			1 1	
SIGNED:	Le	<u> </u>		DATE:	<u> </u>	-13-	Back 98	Jell_	

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

ON-SITE SOIL REMEDIATION REPORT

Operator:	M W PETR	ROLUEM			Telephone		505-325-0	0318		
Address:		2855 SOUTH	ISIDE RIV	ER ROAD	/SUITE A/F	ARMING1	ON, N.M.	87401-7947		
		J								
Location:		/Qtr Sec _				R 3W	County	RIO ARRI	ва	
		JIC. TRIBAL								
								0/40/00		
Date Remed	liation Starte	e <u>d:</u>	9/18/97		_Date Com	pleted:		8/18/98		
Remediation	Method:	Landfarmed		XXX	_Approx. cu	ıbic yards		110		
		Composted			_					
		Other			REMEDIA	TED SOIL	TO BE PL	JT BACK IN	PIT.	
						Final Clo	sure Sam	nlina		
Depth to Gr	oundwater:		(pts)		1				40.00484	
Distance to	an Epheme	ral Stream:	(pts)	0	Sampling	Date:	8/18/98	8_Time:	10:00AM_	
•	Nearest Lak	ce, Playa,	(pts)	0	Sample R	tesults:				
or Watering			(nto		Field Heads	pace (ppm)	0			
	rotection Ar			0	TPH	(ppn	n) <u>ND</u>	Method	M8015	
Distance To	Distance To Surface Water:)0	Other BTEX \ SW846 , 8020A (ND)					
1		TAL POINTS		0						
	CERTIFY T	HAT THE INF	ORMATI	ON ABOVE	IS TRUE	AND COM	PLETE TO	THE BEST	OF MY	
DATE:		9/14/98		PRINTE	D NAME		JEFF (CROSS		
SIGNATU	RE	less lo	رم	 TITLE		PROJEC	T MANA	GER		
AFTER RE	VIEW OF T ANCE TO TH	HE SOIL REI HE JICARILLA	MEDIATION A APACHI	ON INFORI E TRIBE P	MATION. C	N-SITE RI	EMEDIATI NCE.	ON IS APPR	ROVED IN	
APPROVE	ED: YE	s <u> </u>	_ N	o	(REASO	N)		· · · · · · · · · · · · · · · · · ·		
SIGNED:	Low	CM.	<u>a </u>	DATE:	<u>use</u> 	as (3ae KJ 78	full		

M W PETROLEUM/FARMINGTON DISTRICT SOIL REMEDIATIONS STATUS REPORT

REMEDIATION SITE		JAT A118 # 15		•	
* AMOUNT OF SOIL U	JNDERGOIN	G REMEDIATION	350	Yds.	
			SampDATE	TPH	BTEX
CELL No.	1		8/18/98	ND	ND
<u></u>	·····				
DIMENSIONS(LxWxH)	120' X	54' X 12'			·
CELL LOCATION (dir. fror	n well head	NORTH			
	., ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
* DATE BEGAN: 9/	18/97	_			
DATE TERMINATED (TPI	l <5,000 ppm/B	TEX< 50 ppm/Benzene < 10 ppr	m) <u>8/18/98</u>		_
			SampDATE	TPH	BTEX
CELL No.	2		8/18/98	ND	ND
					<u> </u>
DIMENSIONS(LxWxH)	60' X 4	5' X 12"			
CELL LOCATION (dir. from	n well head	EAST			
* DATE BEGAN: 9/	/18/97				
DATE TERMINATED (TP	H <5,000 ppm/E	TEX< 50 ppm/Benzene < 10 ppr	m) 8/18/98	3	_
			SampDATE	TPH	BTEX
CELL No.	3				
DIMENSIONS(LxWxH)					
CELL LOCATION (dir. from	n well head				
* DATE BEGAN:					
DATE TERMINATED (TPI	-1 <5,000 ppm/E	BTEX< 50 ppm/Benzene < 10 pp	m)		
REMEDIATION RECORD	: (Date, Treatm	ent, Tilling)			
		RTILIZER, WATER, PLOW AND T	TILL SOIL.		
4/22/98 PLOWED SOIL C					
4/24/98 TILL SOIL CELLS					
5/19/98 PLOWED SOIL C			LOW AND TILL SOI		
5/20/98 TILLED SOIL CEL			ND TILL SOIL CELL	S	
6/12/98 WATER,PLOW A		DELLS.			
7/18/98 PLOW SOIL CEL					
7/23/98 TILL SOIL CELLS					

From excavation reports.

WELL NAME: SAMPLE DATE: DIMENSIONS:	A118#15 Cell #1 8-18-58		= SAMPLE AREA
	↓ ○		
NOTES:	ALL SAMPLES TAKEN 10" TO 12" INTO CELL.	INTO CELL.	



SAMPLE DATE: DIMENSIONS: WELL NAME: NOTES: ALL SAMPLES TAKEN 10" TO 12" INTO CELL. A118 #15 Cell #2 60' x45' x12" 8 point composite sample 8-18-48 = SAMPLE AREA

1,150



ASSAIGAI ANALYTICAL LABORATORIES, INC. 7300 Jefferson No.

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
В	analyte detected in Method Blank
E	result is estimated
Н	analyzed out of hold time
N	tentatively identified compound
S	subcontracted
1-9	see footnote

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: APACHE CORPORATION

Froject: 9808195 JICARILLA PIT CLOSURES

William P. Biava: President of Assaign Analytical Laboratories, Inc.

Client Sample ID	A118 #1	5 CEL	L #1		mple SOIL				Sample Collected	08/18/98 09:45:00
						Dilution	Detection			Run
Fraction	QC Group	CAS#		Result	<u>Units</u>	<u>Factor</u>	<u>Limit</u>	*	Sequence	<u>Date</u>
			Test: SW846 8010B/8020A Purge	able VOCs by GC	PID-ELCD					
9308195-01A	X98393	71-43-2	Benzene	ND	mg / Kg	50	0.005		XG.1998.703-8	08/21/98
	X98393	100-41-4	Ethylbenzene	ND	mg / Kg	50	0.005		XG.1998.703-8	•
	X98393	95-47-6	o-Xylene	ND	mg / Kg	50	0.005		XG.1998.703-8	
	X98393		P/M-Xylenes	ND	mg / Kg	50	0.01		XG.1998.703-8	
	X98393	108-88-3	Toluene	ND	mg / Kg	50	0.005		XG.1998.703-8	
			Test: SW846 8015A Diesel Rang	e Organics by GC	/FID					
9808195-01B	X98391	[Diesel Range Organics	ND	mg / Kg	25	25		XG.1998.700-9	08/22/98
Client Sample ID	A118 #1	5 CEL	_L #Z 		arrix SOIL				Sample Collected	10:00:00
						Dilution	Detection			Run
Fraction	QC Group	CAS#		Result	<u>Units</u>	<u>Factor</u>	<u>Limit</u>	*	Sequence	<u>Date</u>
			Test: SW846 8010B/8020A Purge	eable VOCs by GC	/PID-ELCD					
808195-02A	X98393	71-43-2	Benzene	ND	mg / Kg	50	0.005		XG.1998.703-9	08/21/98
	X98393	100-41-4	Ethylbenzene	ND	mg / Kg	50	0.005		XG.1998.703-9	.—
	X98393	95-47-6	o-Xylene	ND	mg/Kg	50	0.005		XG.1998.703-9	
	X98393		P/M-Xylenes	ND	mg / Kg	50	0.01		XG.1998.703-9	
	X98393	108-88-3	Toluene	ND	mg / Kg	50	0.005		XG.1998.703-9	
			Test: SW846 8015A Diesel Rang	ge Organics by GC	:/FID					
9808195-02B	X98391	[Diesel Range Organics	ND	mg/Kg	25	25		XG.1998.700-10	08/22/98



Client Reports

2.0

Report Date

8/25/98 10:06:50 AM





Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

*** Results relate only to the items tested. ***

Client: APACHE CORPORATION

Project: 9808195 JICARILLA PIT CLOSURES

*** Sample specific analytical Detection Limit is determined by multiplying the sample Dilution Factor by the listed method Detection Limit. ***

 Page 2 of 2
 Client Reports
 2.0
 Report Date
 8/25/98 10:06:50 AM

Unami of Custody Record

Project Manager / Contact J Of f C LOSS

nt Apache Corporation

3332 WEDGEWOOD EL PASO, TEXAS 79925 (915) 593-6000

1910 N. BIG SPRING MIDLAND, TEXAS 79705 (915) 570-1116

ALBUQUEHUIF NEW MEXICO 87109 (505) 245-8964

MELQUIADES ALANIS 6411 LOCAL UNO ' CIUDAD JUAREZ, CHIHUAHUA MEXICO 32320

ress 2855 South Sink River Rd. STE. 4 Telephone No. (505) 774-6643		Analysis	Analysis Required	_	
State/ZipEarmington, NM 87401-7947 Fax No. (505) 774-6624	3700			•	_
ect Name / Number JICARILLA PIT CLOSURES Samplers: (Signature)	POL	<u></u>		Remarks	
tract / Purchase Order / Quote					

Seid of Semans				1745 Reserved Dy: Company 221.90 08:20	After analysis, samples are to be: Disposed of (additional fee) Stored (30 days max) Stored over 30 days (additional fee) Returned to customer
Jeff Constant Streets along Temp. Chemical	TCE X	× × 		Signature Dr. B. B. B. A. Braver Company A. A. B.	
' []	9:45 soil 402 glass 9:45 soil 402 glass			Com. P. Brain Com. P. Brava Delliveny	Commentite:
ect Name / Number JICARILLA PIT CLOSURES. Samplers: (Signature) tract / Purchase Order / Quote (Company Pield Sample Type Stee of Company Type Type Stee of Company Type Type Stee of Company Type T	A118#15 Cell#1 8-19-58 9:45 Soil	A118415 Cell #2 10		Time Received by: Date Act Company Co	I of Shipment:

LABORATORY