

Denny E. Faust  
District III  
DEPUTY OIL & GAS INSPECTOR  
Energy, Minerals and Natural Resources Department  
Aztec, NM 87410

FEB 08 1999

State of New Mexico

OIL CONSERVATION DIVISION  
2040 S. PACHECO  
Santa Fe, New Mexico 87505

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

**PIT REMEDIATION AND CLOSURE REPORT**

RECEIVED  
DEC - 3 1993  
OIL CON. DIV.  
DIST. 3

Operator: Apache Corporation Telephone: 505-325-0318

Address: 2855 Southside River Road, Suite A, Farmington, NM 87401

Facility or Well Name: APACHE 129

Location: Unit or Qtr/Qtr Sec P Sec 14 T 24 N R 4W County Rio Arriba

Pit Type: Separator: \_\_\_\_\_ Dehydrator \_\_\_\_\_ Other Separator/Tank Drain

Land Type: Jicarilla Tribal

Beginning Pit Dimensions: Length 30' Width 30' Depth 5'

Pit Location: Ending Pit Dimensions: Length 30' Width 30' Depth 11'

(Attach diagram)

Reference: Wellhead XXX Other \_\_\_\_\_

Footage from reference: 125'

Direction from reference: 170 Degrees X East North  
of  
West South XX

**Depth To Groundwater:**  
(vertical distance from  
contaminants to seasonal  
high water elevation of  
groundwater)

Less than 50 feet	(20 points)	_____
50 feet to 99 feet	(10 points)	_____
Greater than 100 feet	(0 points)	<u>0</u>

**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)	<u>0</u>

**Distance To Surface Water:**  
(Horizontal distance to perennial  
lakes, ponds, rivers, streams, creeks,  
irrigation canals and ditches)

Less than 200 feet	(20 points)	_____
200 feet to 1000 feet	(10 points)	_____
Greater than 1000 feet	(0 points)	<u>0</u>

RANKING SCORE (TOTAL POINTS) 0

<b>Date Remediation Started:</b>		<u>11/2/95</u>	<b>Date Completed:</b>		<u>11/30/95</u>
<b>Remediation Method:</b> (Check all appropriate sections)		Excavation <u>XXX</u>	Approx. cubic yards	<u>200</u>	
		Landfarmed <u>XX</u>	Insitu Bioremediation		
		Other			
<b>Remediation Location:</b> (i.e. landfarmed onsite, name and location of offsite facility)		Onsite <u>XX</u>	Offsite		
<b>General Description of Remedial Action:</b>		<u>Excavate pit to 11', took PID readings. Backfill pit with clean soil. Remediated soil to be spread on location. Spread soil on location for remediation.</u>			
		<u>Took soil samples</u>			
<b>Groundwater Encountered:</b>		No <u>XX</u>	Yes	Depth	
<b>Final Pit:</b>	Sample location	<u>5 point composite sample taken from pit sidewalls and pit bottom center.</u>			
<b>Closure Sampling:</b> (in multiple samples, attach sample results and diagram of sample locations and depths)	Sample depth <u>11'</u>	<u>8 to 10" into pit sidewalls 10" into pit bottom</u>			
	Sample Date	<u>11/30/95</u>	Sample Time	<u>1:15 PM</u>	
	Sample results				
	Benzene	(ppm)	<u>ND</u>		
	Total BTEX	(ppm)	<u>4.56</u>		
	Field Headspace	(ppm)	<u>ND</u>		
	TPH		<u>2500</u>		
<b>Groundwater Sample:</b>		Yes	No <u>XX</u>	(If yes attach sample results)	
<b>I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.</b>					
<b>DATE</b>		<u>December 1, 1998</u>	<b>PRINTED NAME</b>	<u>Jeff Cross</u>	
<b>SIGNATURE</b>		<u>Jeff Cross</u>	<b>AND TITLE</b>	<u>Project Manager</u>	

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

Operator: <u>APACHE CORPORATION</u>		Telephone <u>505-325-0318</u>	
Address: <u>2855 Southside River Road, Suite A, Farmington, NM 87401</u>			
Facility or Well Name: <u>APACHE # 129</u>			
Location:	Unit or Qtr/Qtr Sec	<u>P</u> <u>SEC 14</u> <u>T 24 N</u> <u>R 4 W</u>	County <u>Rio Arriba</u>
Pit Type:	Separator: _____	Dehydrator _____	Other <u>SEPARATOR \ TANK DRAIN</u>
Land Type: <u>Jicarilla Tribal</u>			
Pit Location: (Attach diagram)		Pit Dimensions: Length <u>30'</u> Width <u>30'</u> Depth <u>11'</u>	
Reference:		Wellhead <u>XX</u> Other _____	
Footage from reference:		<u>125'</u>	
Direction from reference:		<u>170</u> Degrees <u>X</u> East North of South <u>XX</u>	
Depth To Groundwater:		(vertical distance from contaminants to seasonal high water elevation of groundwater)	
		Less than 50 feet	(20 points) _____
		50 feet to 99 feet	(10 points) _____
		Greater than 100 feet	(0 points) <u>0</u>
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) <u>0</u>
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) <u>0</u>
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) <u>0</u>
Distance To Surface Water:		(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) <u>0</u>
RANKING SCORE (TOTAL POINTS)		<u>0</u>	

<b>Date Remediation Started:</b>		<u>11/2/95</u>		<b>Date Completed:</b>		<u>11/30/95</u>	
<b>Remediation Method:</b> (Check all appropriate sections)		Excavation <u>XXX</u>		Approx. cubic yards		<u>200</u>	
		Landfarmed <u>XX</u>		Insitu Bioremediation			
		Other _____					
<b>Remediation Location:</b> (i.e. landfarmed onsite, name and location of offsite facility)		Onsite <u>XX</u>		Offsite _____			
<b>General Description of Remedial Action:</b> <u>EXCAVATE PIT TO 11', TOOK PID READINGS.</u> <u>BACK FILL PIT WITH CLEAN SOIL. REMEDIATED SOIL TO BE SPREAD ON LOCATION.</u> <u>SPREAD SOIL ON LOCATION FOR REMEDIATION. TOOK SOIL SAMPLES .</u>							
<b>Groundwater Encountered:</b>		No <u>X</u>		Yes _____		Depth _____	
<b>Final Pit:</b>		Sample location <u>5 point composite taken from pit sidewalls , and pit bottom center.</u>					
<b>Closure Sampling:</b> (in multiple samples, attach sample results and diagram of sample locations and depths)							
Sample depth		<u>11'</u>					
Sample Date		<u>11/30/95</u>		Sample Time		<u>1:15PM</u>	
Sample results							
Soil:	Benzene	(ppm)	<u>ND</u>	Water:	Benzene	(ppb)	<u>NA</u>
	Total BTEX	(ppm)	<u>4.56</u>		Toluene	(ppb)	<u>NA</u>
	Field Headspace	(ppm)	<u>ND</u>		Ethylbenzene	(ppb)	<u>NA</u>
	TPH	(ppm)	<u>2500</u>		Total Xylenes	(ppb)	<u>NA</u>
<b>Groundwater Sample:</b>		Yes _____		No <u>X</u>		(If yes attach sample results)	
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.							
DATE		<u>9/30/98</u>		PRINTED NAME		<u>JEFF CROSS</u>	
SIGNATURE		<u>Jeff Cross</u>		AND TITLE		<u>Project Manager</u>	
AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.							
APPROVED:		YES <u>X</u>		NO _____		(REASON) _____	
SIGNED:		<u>Kent M. M...</u>		DATE:		<u>11-13-98</u>	

APACHE CORPORATION FARMINGTON DISTRICT  
PIT EXCAVATION AND CLOSURE REPORT

LOCATION: APACHE 129

PIT COUNT: 1

JICARILLA APACHE TRIBAL EPO  
REVIEW AND APPROVAL

EPO REPRESENTATIVE \_\_\_\_\_

DATE OF REVIEW: \_\_\_\_\_

EXCAVATION								
DIMENSIONS			START			FINISH		
	W	L	D		W	L	D	CU.YDS.
PIT 1	30'	30'	5'	PIT 1	30'	30'	11'	200
PIT 2				PIT 2				
PIT 3				PIT 3				
DATE:11/02/95			PIT1@11'	PIT2@	PIT3@	DATE:11/30/95		
P. I. D.	CENTER	87.8				P. I. D.	CENTER	0.0
	NW CORNER	72.4					NW CORNER	0.0
	NE CORNER	143.0					NE CORNER	0.0
	SW CORNER	38.4					SW CORNER	0.0
	SE CORNER	5.1					SE CORNER	0.0

NOTES:

11/02/95 Sandstone w/lt. gray staining to 9'

SOIL SAMPLING

DATE:11/02/95		PIT1@ 11'	PIT2@	PIT3@	ANALYSIS RESULTS		PER LAB:	ASSAIGAI
P. I. D.	CENTER	87.8			PIT	TPH	BETEX	WITNESS
	NW CORNER	72.4			NO.			DATE
	NE CORNER	143.0			1	2400.0	0.196	IF&S
	SW CORNER	38.4			2			
	SE CORNER	5.1			3			

RE-SAMPLE OR CELL(S) SAMPLE

DATE:11/30/95		PIT1@11'	PIT2@	PIT3@	ANALYSIS RESULTS		PER LAB:	ASSAIGAI
P. I. D.	CENTER	0.0			PIT	TPH	BETEX	WITNESS
	NW CORNER	0.0			NO.			DATE
	NE CORNER	0.0			1	2500.0	4.6	JDT
	SW CORNER	0.0			2			
	SE CORNER	0.0			3			

RE-SAMPLE OR CELL(S) SAMPLE

DATE:		PIT 1	PIT 2	PIT 3	ANALYSIS RESULTS		PER LAB:	
P. I. D.	CENTER				PIT	TPH	BETEX	WITNESS
	NW CORNER				NO.			DATE
	NE CORNER				1			
	SW CORNER				2			
	SE CORNER				3			

[illegible]

Lab ID: 9512029-16A  
Sample ID: AP #129

Collected: 11/30/95 13:15:00  
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A						
Ethylbenzene	1.3	mg/Kg	0.0010	500	12/06/95	SBTXME093
P-&m-Xylene	2.7	mg/Kg	0.0010	500	12/06/95	SBTXME093
O-Xylene	0.56	mg/Kg	0.0010	500	12/06/95	SBTXME093

Lab ID: 9512029-16B  
Sample ID: AP #129

Collected: 11/30/95 13:15:00  
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
HCs DIESEL/CAL DHS 8015M						
Diesel	2500	mg/Kg	5.0	250	12/07/95	SLFTD053
HCs DSL XT/CAL DHS 8015M	12/05/95	N/A				

Lab ID: 9512029-17A  
Sample ID: AP #26-H

Collected: 11/30/95 13:32:00  
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A						
Benzene	ND	mg/Kg	0.0010	500	12/06/95	SBTXME093
Toluene	ND	mg/Kg	0.0010	500	12/06/95	SBTXME093
Ethylbenzene	ND	mg/Kg	0.0010	500	12/06/95	SBTXME093
P-&m-Xylene	ND	mg/Kg	0.0010	500	12/06/95	SBTXME093
O-Xylene	ND	mg/Kg	0.0010	500	12/06/95	SBTXME093

Lab ID: 9512029-17B  
Sample ID: AP #26-H

Collected: 11/30/95 13:32:00  
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
HCs DIESEL/CAL DHS 8015M						
Diesel	55	mg/Kg	5.0	5.0	12/06/95	SLFTD053
HCs DSL XT/CAL DHS 8015M	12/05/95	N/A				

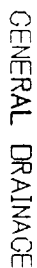
Lab ID: 9512029-18A  
Sample ID: AP #149-H

Collected: 11/30/95 14:00:00  
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A						
Benzene	ND	mg/Kg	0.0010	500	12/06/95	SBTXME093
Toluene	ND	mg/Kg	0.0010	500	12/06/95	SBTXME093
Ethylbenzene	ND	mg/Kg	0.0010	500	12/06/95	SBTXME093
P-&m-Xylene	ND	mg/Kg	0.0010	500	12/06/95	SBTXME093

## GENERAL DRAINAGE

## GENERAL DRAINAGE





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

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

**ON-SITE SOIL REMEDIATION REPORT**

Operator: <u>APACHE CORPORATION</u>		Telephone <u>505-325-0318</u>	
Address: <u>2855 SOUTHSIDE RIVER ROAD/SUITE A/ FARMINGTON N.M. 87401-7947</u>			
Facility or Well Name: <u>APACHE # 129</u>			
Location:	Unit or Qtr/Qtr	Sec	<u>P SEC 14 T 24 N R 4 W</u> County <u>RIO ARRIBA</u>
Land Type	<u>JIC. TRIBAL</u>		
Date Remediation Started: <u>11/2/95</u>		Date Completed: <u>8/17/98</u>	
Remediation Method:	Landfarmed	<u>XXX</u>	Approx. cubic yards <u>200</u>
	Composted	<u>          </u>	
	Other	<u>REMEDIATED SOIL TO BE SPREAD ON LOCATION.</u>	
Depth to Groundwater:		(pts)	<u>0</u>
Distance to an Ephemeral Stream:		(pts)	<u>0</u>
Distance to Nearest Lake, Playa, or Watering Pond:		(pts)	<u>0</u>
Wellhead Protection Area:		(pts)	<u>0</u>
Distance To Surface Water:		(pts)	<u>0</u>
RANKING SCORE (TOTAL POINTS)			<u>0</u>
<b>Final Closure Sampling</b>			
Sampling Date:		<u>8/17/98</u>	Time: <u>9:00AM</u>
Sample Results:			
Field Headspace (ppm)		<u>0</u>	
TPH	(ppm)	<u>2400</u>	Method <u>M8015</u>
Other <u>BTEX \ SW846 , 8020A ( ND )</u>			
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF			
DATE: <u>9/30/98</u>		PRINTED NAME <u>JEFF CROSS</u>	
SIGNATURE <u>Jeff Cross</u>		TITLE <u>PROJECT MANAGER</u>	
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION. ON-SITE REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.			
APPROVED: YES <u>X</u> NO <u>          </u> (REASON) <u>          </u>			
SIGNED: <u>Kurt M...</u>		DATE: <u>11-13-98</u>	

# APACHE COPORATION/FARMINGTON DISTRICT SOIL REMEDIATIONS STATUS REPORT

REMEDIATION SITE APACHE # 129

\* AMOUNT OF SOIL UNDERGOING REMEDIATION 200 Yds.

CELL No. <u>1</u>	SampDATE <b>8/17/98</b>	TPH <b>2400</b>	BTEX <b>ND</b>
DIMENSIONS(LxWxH) <u>65'x40'x18"</u>			
CELL LOCATION (dir. from well head) <u>East</u>			
* DATE BEGAN: <u>11-2-95</u>			
DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm) <u>8-17-98</u>			

CELL No. <u>2</u>	SampDATE	TPH	BTEX
DIMENSIONS(LxWxH)			
CELL LOCATION (dir. from well head)			
* DATE BEGAN:			
DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm)			

CELL No. <u>3</u>	SampDATE	TPH	BTEX
DIMENSIONS(LxWxH)			
CELL LOCATION (dir. from well head)			
* DATE BEGAN:			
DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm)			

## REMEDIATION RECORD: (Date, Treatment, Tilling)

TREAT SOIL WITH 28-4-4 FERTILIZER.

6/17/97 TREAT SOIL WITH 46-0-0 FERTILIZER, WATER, PLOW AND TILL SOIL.

6/26/97 PLOW AND TILL SOIL.

5/11/98 PLOW AND TILL SOIL.

7/3/97 PLOW AND TILL SOIL.

5/30/98 PLOW AND TILL SOIL.

7/21/97 PLOW AND TILL SOIL.

6/8/98 WATER, PLOW AND TILL SOIL.

8/5/97 WATER, PLOW AND TILL SOIL.

6/25/98 PLOW AND TILL SOIL.

8/21/97 PLOW AND TILL SOIL.

7/9/98 PLOW AND TILL SOIL.

5/5/98 WATER, PLOW AND TILL SOIL.

8/14/98 PLOW AND TILL SOIL.

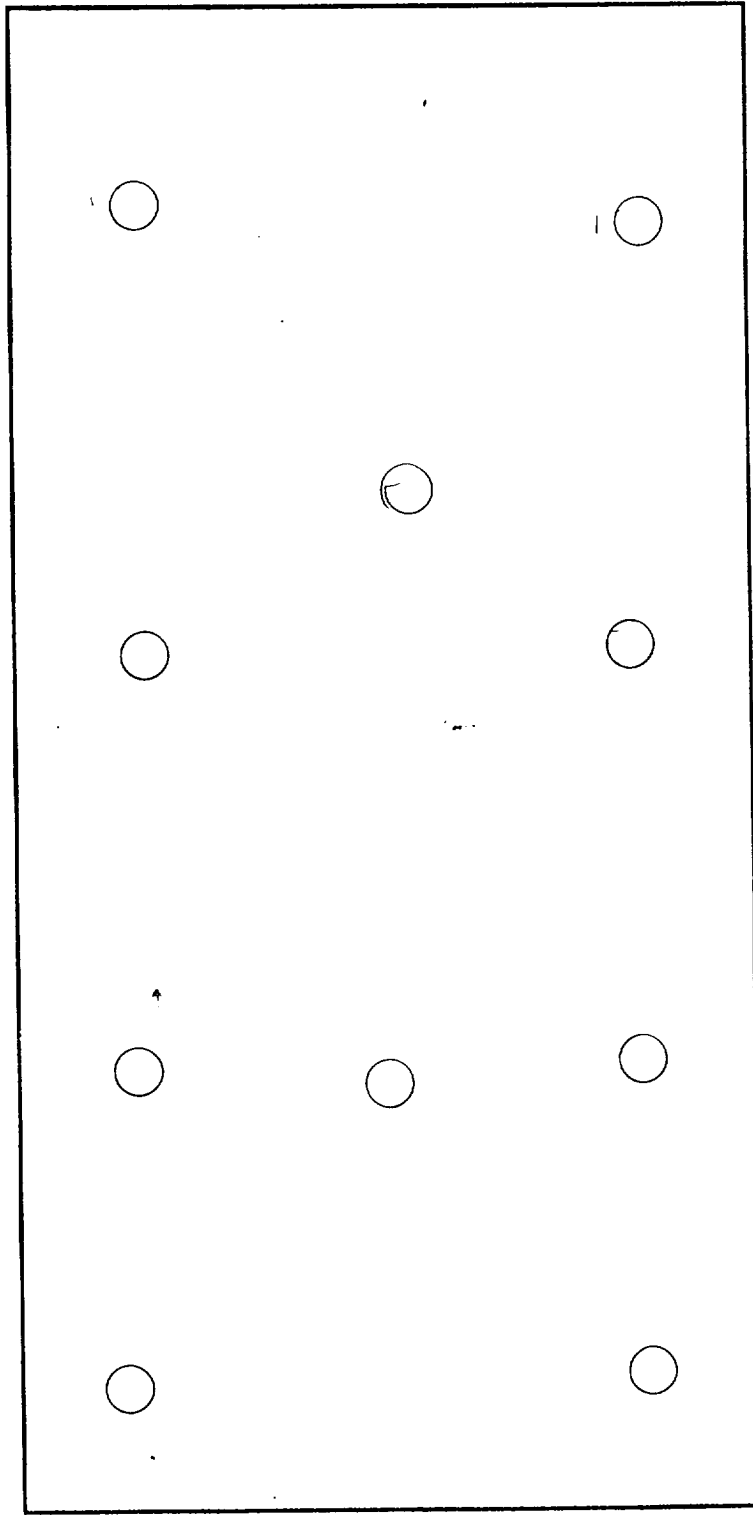
From excavation reports.

WELL NAME: Apache #129

SAMPLE DATE: 8-17-98

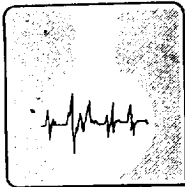
DIMENSIONS: 65' x 40' x 18"

○ = SAMPLE AREA



NOTES: ALL SAMPLES TAKEN 10" TO 12" INTO CELL.

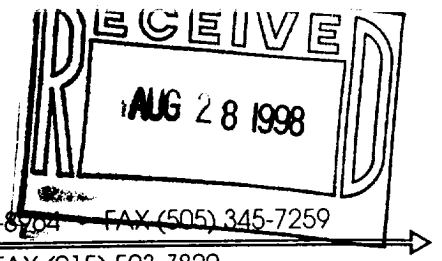
10 point composite sample



# ASSAIGAI ANALYTICAL LABORATORIES, INC.

7300 Jefferson, NE • Albuquerque, New Mexico 87109 • (505) 345-8904 • 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



## \* explanation of codes

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

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

Assaigai Analytical Laboratories, Inc.

## Certificate of Analysis

Client: APACHE CORPORATION  
Project: 9808182 JICARILLA PIT CLOSURES

*William P. Biava*  
William P. Biava: President of Assaigai Analytical Laboratories, Inc.

Client Sample ID: APACHE #129 CELL Sample Matrix: SOIL Sample Collected: 08/17/98 09:00:00

Fraction	QC Group	CAS #	Result	Units	Dilution Factor	Detection Limit	Sequence	Run Date
Test: SW846 8010B/8020A Purgeable VOCs by GC/PID-ELCD								
9808182-01A	X98390	71-43-2	Benzene	ND	mg / Kg	50	0.005	08/21/98
	X98390	100-41-4	Ethylbenzene	ND	mg / Kg	50	0.005	XG.1998.702-17
	X98390	95-47-6	o-Xylene	ND	mg / Kg	50	0.005	XG.1998.702-17
	X98390		P/M-Xylenes	ND	mg / Kg	50	0.01	XG.1998.702-17
	X98390	108-88-3	Toluene	ND	mg / Kg	50	0.005	XG.1998.702-17
Test: SW846 8015A Diesel Range Organics by GC/FID								
9808182-01B	X98389		Diesel Range Organics	2400	mg / Kg	25	25	08/21/98

\*\*\* Sample specific analytical Detection Limit is determined by multiplying the sample Dilution Factor by the listed method Detection Limit. \*\*\*  
\*\*\* Results relate only to the items tested. \*\*\*



