



November 22, 1996

(can do a lot of overexc  
re-sample ; if low levels left,  
the close case w/o SW meeting)

96 NOV 25 AM 9:56  
ENVIRONMENTAL PROTECTION

Ms. Eva Chu  
Hazardous Materials Specialist  
Alameda County Health Care Services Agency  
Environmental Health Services  
Environmental Protection (LOP)  
1131 Harbor Bay Parkway, Second Floor  
Alameda, California, 94502

Subject: Underground Storage Tank Removal Report  
Parks RFTA  
POL Point, Building 888  
Dublin, California  
Project No. ORHZ005

Dear Ms. Chu:

Woodward-Clyde Federal Services (Woodward-Clyde) has been contracted by HAZWRAP/Lockheed Martin Energy Systems, Inc. (HAZWRAP) to conduct underground storage tank (UST) closure activities at the inactive POL Point Building 888, Parks Reserve Forces Training Area (PRFTA) in Dublin, California (Figure 1). The tank removal activities were conducted in accordance with the Tank Closure Plan submitted to Alameda County, Environmental Health Services (ACEHS) on June 25, 1996, and approved by ACEHS on June 26, 1996. This letter report describes tank removal and soil sampling activities at Building 888 that were conducted on July 2, 1996, and is divided into the following sections: Background (Site Location, Site Description, and Site History); Tank Removal Activities; Soil Sampling Procedures, Sample Collection and Analysis; Stockpile Sampling and Analysis; and Conclusions.

## BACKGROUND

PRFTA is located within the northeast quadrant of the intersection of Interstates 580 and 680 in Dublin, California (Figure 1), in Townships 2 and 3 South, Range 1 East on the Dublin 7.5 minute topographic quadrangle in Alameda and Contra Costa Counties. PRFTA occupies approximately 2800 acres and is bounded by multiple entities. PRFTA's neighbors include Federal Correctional Institutions, Santa Rita Rehabilitation Center, Alameda County Santa Rita Jail, Tassajara Creek Regional Park, local businesses, and residential districts. Tenant organizations who lease buildings or space at PRFTA include Federal entities, private

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companies, and private and public organizations. The Building 888 site is located along the east-central border of PRFTA at the intersection of Monroe and 4th streets (Figure 2). The site is an inactive fuel distribution station consisting of two pump dispenser islands, an oil-water separator, two 10,000-gallon USTs and one 500-gallon UST, and Building 888 (Figure 3). The site is enclosed within a chain-link fence with two access gates.

### **TANK REMOVAL ACTIVITIES**

On July 2, 1996, Woodward-Clyde observed the removal of two 10,000-gallon, and one 500-gallon steel USTs that were reportedly installed in 1951, from POL Point-Building 888. The two 10,000-gallon USTs reportedly contained diesel and leaded gasoline, and the 500-gallon UST contained waste oil. The tank removal and soil sampling activities were directed by ACEHS. The tank removal was performed by IT Corporation of San Jose, California, under contract with Woodward-Clyde. The USTs were transported by Erickson Trucking to their Richmond, California facility under uniform hazardous waste manifest numbers 95780703 and 95780704.

Tank product piping and two pump dispensers were located just west of the two 10,000-gallon USTs. The 500-gallon waste oil UST was located adjacent to the northwest corner of Building 888. No visible holes were observed in the two-inch diameter product piping, that were connected to the existing pump dispensers. The pump dispensers were operated by suction. An older set of fuel product piping that was previously connected to one of the existing pump dispensers was also discovered. Several holes measuring up to 0.25-inch in diameter were observed in this older piping. A segment of the older product lines appeared to be connected to a former pump dispenser which is no longer present. No cathodic protection devices were observed for the tanks or their appurtenances. Approximately 30 cubic yards of soil was removed from the older set of fuel product piping excavation and stockpiled in front of Building 888. Soil excavated from the active product pipeline was placed with the stockpile from the fuel USTs excavation.

Both 10,000-gallon tanks had a diameter of 8-feet and a length of 28-feet. The waste oil tank had a diameter of 4-feet and a length of 6-feet. Approximately 400-gallons of waste-oil and water were removed from the 500-gallon UST and 300-gallons of product were removed from the fuel tanks prior to triple-rinse cleaning. The rinseate was transported by Universal Engineering of Benicia, California to PRC in Patterson, California, under non-hazardous

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waste manifest number 1258. Copies of the tank and rinseate manifests are provided in Appendix A.

The USTs were inerted with dry ice prior to their removal from the excavation. The tanks were measured for percent Lower Explosivity Limit (LEL) and percent oxygen using a combustible gas indicator. The LEL values and percent oxygen readings were evaluated by ACEHS and PRFTA Fire Department personnel. Authorization for the removal of the USTs from their excavations was granted by ACEHS.

Discolored soil was observed around the fill pipe during excavation activities around the fill end of the diesel tank. Upon removal of the three USTs, the tanks were inspected for holes and condition. All three USTs appeared to be in good condition with no apparent holes or corrosion. The fuel tank bottoms were located at a depth of approximately 12-feet below ground surface (bgs). No groundwater was observed in the excavation. Approximately 150 cubic yards of soil was removed from the fuel USTs excavation and stockpiled east of Building 888. The waste oil UST bottom was located at a depth of 6-feet bgs. Approximately 20 cubic yards of soil was excavated from the waste oil UST excavation and stockpiled to the south and north.

## **SOIL SAMPLING PROCEDURES**

The general soil sampling procedures were conducted in the following manner. Soil samples were collected by Woodward-Clyde at the direction of Ms. Eva Chu of ACEHS after the tank removal activities. A backhoe was used to collect the soil samples from the bottom of the fuel USTs excavation below the former location of each tank end. One soil sample was collected from below the center of the waste oil UST. Soil samples were collected by scraping away 1 to 2 feet in the area of the backhoe teeth, at a chosen "most representative" sample point. Samples were collected by pushing a clean brass liner into the sample point area until full, then placing a Teflon sheeting and plastic endcap over each end, labeling it with sample number, time and date, then placing on blue ice in an ice chest until the samples could be transported under chain of custody procedures to a HAZWRAP and California certified analytical laboratory.

Two soil samples were collected from below each of the two fuel USTs. Samples collected from below the diesel UST were analyzed for Total Petroleum Hydrocarbons (TPH) as diesel

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using modified EPA Method 8015 and benzene, toluene, ethylbenzene, xylenes (BTEX) using EPA Method 8020. Samples collected below the gasoline UST were analyzed for TPH as gasoline using modified EPA Method 8015, BTEX, and lead using EPA Method 6010. One soil sample was collected from below the waste oil tank and analyzed for TPH as diesel, TPH as gasoline, BTEX, Oil and Grease using SM 503E/5520F, Volatile Halocarbons using EPA Method 8010, Extractable Organics using EPA Method 8270B, and Leaking Underground Fuel Tank (LUFT) metals: cadmium, chromium, lead, nickel and zinc using EPA Method 6010. Four soil samples were collected from below the existing product piping lines and three additional samples were collected from below the older set of product lines. The product piping soil samples were analyzed for TPH as gasoline, TPH as diesel, BTEX, and lead. Sample locations are shown in Figure 4.

### **SAMPLE COLLECTION AND ANALYSIS**

Soil sample CPD-1 was collected beneath the south end of the former location of the diesel UST at a depth of 14.5 feet bgs. Laboratory analysis of sample CPD-1 showed concentrations of benzene and toluene were not detected above the analytical laboratory reporting limit. Detectable concentrations of 2.94 mg/Kg (parts per million-ppm) ethylbenzene, 16.3 mg/Kg xylenes, and 937 mg/Kg TPH as diesel were reported in sample CPD-1. Soil sample CPD-2 was collected from beneath the north end of the former location of the diesel UST at a depth of 16 feet bgs. Laboratory analysis of sample CPD-2 showed concentrations of TPH as diesel and BTEX were not detected above the analytical laboratory reporting limit. Analytical results of soil samples collected from below the fuel USTs and fuel product piping are shown in Table 1. The analytical laboratory reports are provided in Appendix B.

Soil sample CPG-1 was collected from beneath the south end of the former location of the gasoline UST at a depth of 16 feet bgs. Laboratory analysis of sample CPG-1 showed concentrations of TPH as diesel and BTEX were not detected above the analytical laboratory reporting limit. Detectable concentrations of 0.071 mg/Kg TPH as gasoline and 7 mg/Kg lead were reported in sample CPG-1. Soil sample CPG-2 was collected from beneath the north end of the former location of gasoline UST at a depth of 16 feet bgs. Laboratory analysis of sample CPG-2 showed concentrations of TPH as diesel and BTEX were not detected above the analytical laboratory reporting limit. Detectable concentrations of 0.141 mg/Kg TPH as gasoline and 8 mg/Kg lead were reported in sample CPG-2 (Table 1).

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Soil samples MOP-1 and MOP-2 were collected from beneath the existing fuel product piping of the gasoline pump dispenser at a depth of 1.5 feet bgs. Sample MOP-1 was collected from the west end of the excavated trench, and MOP-2 was collected from the east end (Figure 4). Laboratory analysis of samples MOP-1 and MOP-2 showed concentrations of TPH as diesel, TPH as gasoline, and BTEX were not detected above the analytical laboratory reporting limit. Detectable concentrations of 7.1 mg/Kg and 10.4 mg/Kg lead were reported in samples MOP-1 and MOP-2 respectively.

Soil samples DP-1 and DP-2 were collected from beneath the existing fuel product piping of the diesel pump dispenser at a depth of 2 feet bgs. Sample DP-1 was collected from the west end of the excavated trench, and DP-2 was collected from the east end (Figure 4). Sample DP-1 contained detectable concentrations of 1510 mg/Kg TPH as diesel, 40.2 mg/Kg TPH as gasoline, 0.173 mg/Kg toluene, 0.207 mg/Kg ethylbenzene, 0.857 mg/Kg xylenes, 11.3 mg/Kg lead. Laboratory analysis of sample DP-1 showed concentrations of benzene were not detected above the analytical laboratory reporting limit. Laboratory analysis of sample DP-2 showed concentrations of TPH as diesel and BTEX were not detected above the analytical laboratory reporting limit. Detectable concentrations of 0.14 mg/Kg TPH as gasoline, and 5.8 mg/Kg lead were reported in sample DP-2 .

Soil samples OGP-1, OGP-2, and OGP-3 were collected from below the older set of fuel product lines that were discovered when exposing the north end of the gasoline UST. The excavation trench of the older piping located in the center of the pump island concrete pad , extended from the west edge of the concrete pad to the UST excavation. Discolored soil was observed within the west end of the old piping trench excavation. Sample OGP-1 collected at a depth of 4 feet bgs from the west end of the trench excavation, exhibited a dark green discoloration and slight petroleum hydrocarbon-like odor. Sample OGP-1 contained detectable concentrations of 20.6 mg/Kg TPH as gasoline, 0.055 mg/Kg toluene, 0.0775 mg/Kg ethylbenzene, 0.192 mg/Kg xylenes, and 10.1 mg/Kg lead. Laboratory analysis of sample OGP-1 showed concentrations of TPH as diesel and benzene were not detected above the analytical laboratory reporting limit.

Soil sample OGP-2 collected at a depth of 4 feet bgs from the center of the old piping trench excavation, exhibited a green discoloration and slight petroleum hydrocarbon-like odor. Sample OGP-2 contained detectable concentrations of 87.6 mg/Kg TPH as diesel, 211 mg/Kg

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TPH as gasoline, 0.164 mg/Kg benzene, 0.695 mg/Kg toluene, 1.73 mg/Kg ethylbenzene, 2.6 mg/Kg xylenes, and 11 mg/Kg lead. Soil sample OGP-3 collected at a depth of 4 feet bgs from the east end of the trench excavation contained detectable concentration of 9.7 mg/Kg lead. Laboratory analysis of sample OGP-3 showed concentrations of TPH as diesel, TPH as gasoline, and BTEX were not detected above the analytical laboratory reporting limit.

Soil sample WO-1 was collected from beneath the center of the waste oil UST at a depth of 8.5 feet bgs. Laboratory analysis of sample WO-1 showed concentrations of volatile halocarbons, extractable organics, TPH as diesel, TPH as gasoline, BTEX, and lead were not detected above the analytical laboratory reporting limit. Detectable concentrations of 28 mg/Kg oil and grease, 7.51 mg/Kg cadmium, 35.9 mg/Kg chromium, 38.4 mg/Kg nickel, and 48.7 mg/Kg zinc were reported in sample WO-1. Analytical results of WO-1 are summarized in Table 2.

#### **STOCKPILE SAMPLING AND ANALYSIS**

A total of approximately 150 cubic yards of soil was removed from the fuel USTs excavation. Approximately 25 cubic yards of the 150 appeared to be contaminated with petroleum hydrocarbons based on olfactory odors and stained soil. Soil sample DSTP-1 was collected from the petroleum hydrocarbon contaminated soil removed from the fuel UST excavation. Approximately 30 cubic yards of soil was excavated from the older set of fuel product piping that was discovered during tank excavation activities. Samples GPSTP-1 and GPSTP-2 were collected from the old pipeline excavation stockpile.

Laboratory analysis of sample DSTP-1 showed concentrations of BTEX were not detected above the analytical laboratory reporting limit. Detectable concentration of 76.8 mg/Kg TPH as diesel was reported in sample DSTP-1. Sample GPSTP-1 contained detectable concentrations of 35.7 mg/Kg TPH as diesel, 1.38 mg/Kg TPH as gasoline, 0.0173 mg/Kg toluene, 0.0317 mg/Kg xylenes, and 10.1 mg/Kg lead. Laboratory analysis of sample GPSTP-1 showed concentrations of benzene and ethylbenzene were not detected above the analytical laboratory reporting limit. Laboratory analysis of sample GPSTP-2 showed concentrations of TPH as diesel, TPH as gasoline, and BTEX were not detected above the analytical laboratory reporting limit. Detectable concentration of 11 mg/Kg lead was reported in sample GPSTP-2.

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## **CONCLUSIONS**

Based on the analytical laboratory results of the four soil samples collected below the fuel USTs, an area of diesel contaminated soil remains at the bottom of the south end of the tank excavation at a depth of 14.5 feet bgs near the former location of the diesel UST. Laboratory results also indicate that oil and grease contaminated soil remains in the waste oil UST excavation at a depth of 8.5 feet bgs. Areas of petroleum hydrocarbon contamination exist in the piping trench excavations. Two areas (west and central) are within the older set of product pipeline trench at a depth of 4 feet bgs. One additional area is the west end of the diesel pipeline trench at a depth of 2 feet bgs.

Woodward-Clyde requests from ACEHS appropriate action and clean-up levels for the Building 888 site. If you have any questions regarding this letter report, please call William Loskutoff at (916) 368-0988 or Joe Morgan at (510) 874-3201.

Very truly yours,

### **WOODWARD-CLYDE**



William Loskutoff  
Project Geologist

cc: James Wilkins (HAZWRAP-Oakridge)  
Marshall Marik (Parks RFTA)  
Joe Morgan (WC-Oakland)  
Rich Beyak (WC-Oakridge)

Attachments: Table 1 - Analytical Results Fuel USTs, Piping, Stockpiles  
Table 2 - Analytical Results Waste Oil UST Sample  
Figure 1 - Location Map  
Figure 2 - Site Location Map  
Figure 3 - Site Map

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**Figure 4 - Sample Location Map**

Appendix A - Copies of USTs and Tank Rinseate Manifests  
Appendix B - Copies of Analytical Laboratory Reports

**TABLES**

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Table 1 Analytical Results of Soil Samples Collected During Tank Removal Activities, July 2, 1996, POL Point Building 888, Parks RFTA, Dublin, California. All results are in mg/Kg (parts per million-ppm).

Sample Number	Location	Depth in Feet (bgs)	TPH as Diesel (1)	TPH as gasoline (1)	Benzene (2)	Toluene (2)	Ethylbenzene (2)	Xylenes (2)	Lead (3)
CPD-1	South end Diesel UST	14.5	937 (4)	NA	<0.1 (5)	<0.1	2.94	16.3	NA
CPD-2	North end Diesel UST	15	<10	NA	<0.002	<0.002	<0.002	<0.002	NA
CPG-1	South end Gasoline UST	16	<10	0.071	<0.002	<0.002	<0.002	<0.002	7
CPG-2	North end Gasoline UST	16	<10	0.141	<0.002	<0.002	<0.002	<0.002	8
MOP-1	West end gas pipeline	1.5	<10	<0.05	<0.002	<0.002	<0.002	<0.002	7.1
MOP-2	East end gas pipeline	1.5	<10	<0.05	<0.002	<0.002	<0.002	<0.002	10.4
DP-1	West end diesel pipeline	2	1510	40.2	<0.01	0.173	0.207	0.857	11.3
DP-2	East end diesel pipeline	2	<10	0.14	<0.002	<0.002	<0.002	<0.002	5.8
OGP-1	West end old gas pipeline	4	<10	20.6	<0.002	0.055	0.0775	0.192	10.1
OGP-2	Center of old gas pipeline	4	87.6	211	0.164	0.695	1.73	2.6	11
OGP-3	East end of old gas pipeline	4	<10	<0.05	<0.002	<0.002	<0.002	<0.002	9.7
DSTP-1	Diesel Stockpile		76.8	NA	<0.002	<0.002	<0.002	<0.002	NA
GPSTP-1	Old gas pipeline Stockpile		35.7	1.38	<0.002	0.0173	<0.002	0.0317	10.1
GPSTP-2	"		<10	<0.05	<0.002	<0.002	<0.002	<0.002	11

Notes:

- 1) Total Petroleum Hydrocarbons (TPH) as diesel and as gasoline using modified EPA Method 8015.
- 2) Benzene, Toluene, Ethylbenzene, Xylenes (BTEX) using EPA Method 8020.
- 3) Total Lead using EPA Method 6010.
- 4) Shaded cells highlight concentrations detected at or above the analytical laboratory reporting limit.
- 5) <0.1 = Not detected at or above analytical laboratory reporting limit.

Table 2 Analytical Results of Soil Sample WO-1 Collected Below Waste Oil UST (8.5 feet bgs), July 2, 1996,  
POL Point Building 888, Parks RFTA, Dublin, California. All results are in mg/Kg (parts per million-ppm).

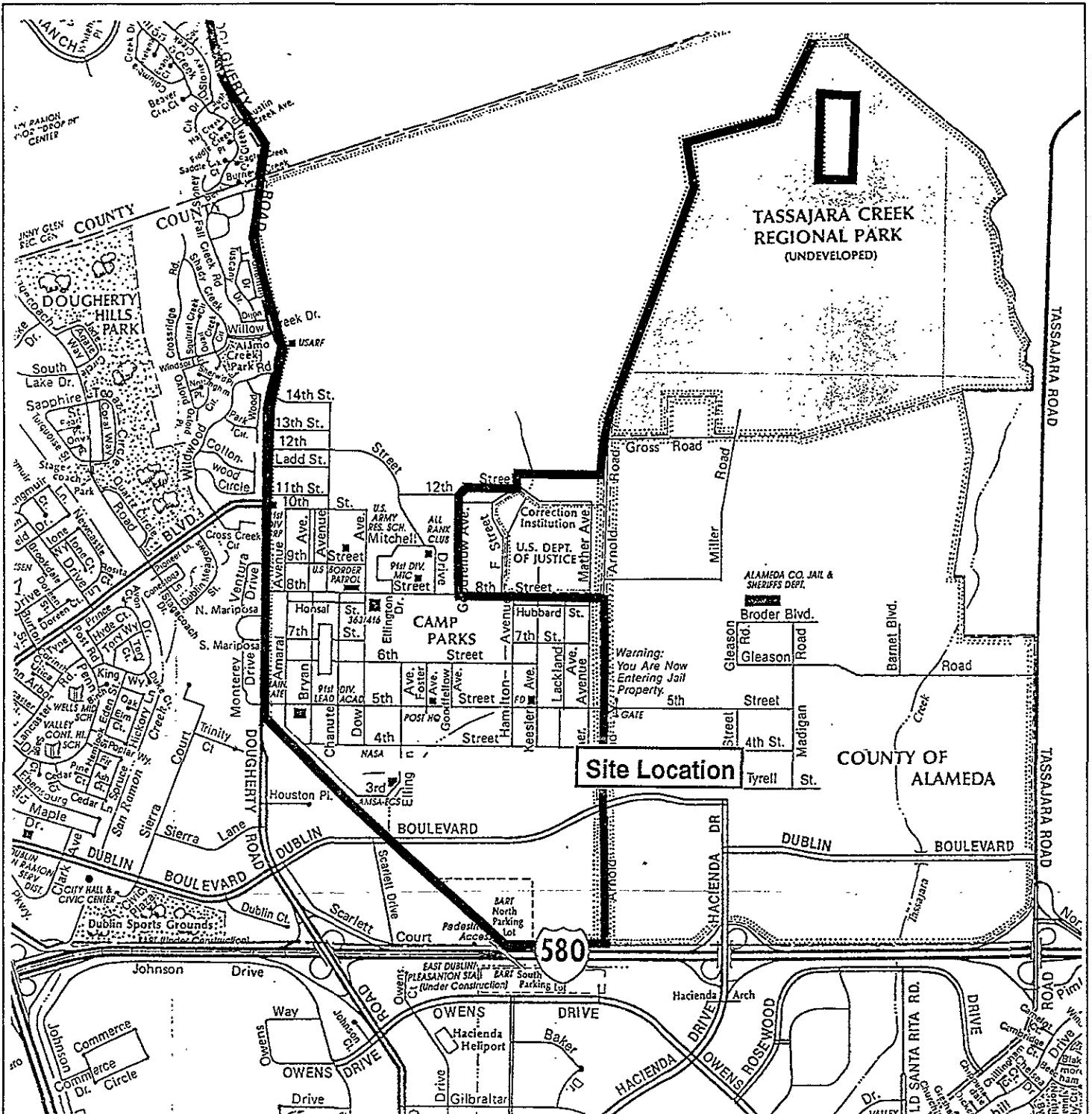
Volatile Halocarbons (1)	Extractable Organics (2)	Oil and Grease (3)	TPH as Diesel (4)	TPH as gasoline (4)	BTEX (5) Compounds	Cadmium	LUFT Chromium	Metals (6) Lead	Nickel	Zinc
ND (8)	ND	28 (7)	<10 (9)	<0.05	ND	7.51	35.9	<10	38.4	48.7

Notes:

- 1) Volatile Halocarbons using EPA Method 8010
- 2) Acid/Base-Neutral Extractable Organics using EPA Method 8270B
- 3) Extractable Hydrocarbons (Oil and Grease) using SM 503E/5520F.
- 4) Total Petroleum Hydrocarbons (TPH) as diesel and as gasoline using modified EPA Method 8015.
- 5) Benzene, Toluene, Ethylbenzene, Xylenes (BTEX) using EPA Method 8020.
- 6) LUFT Metals using EPA Method 6010.
- 7) Shaded cells highlight concentrations detected at or above the analytical laboratory reporting limit.
- 8) ND = Not detected at or above analytical laboratory reporting limit for all analytes reported.
- 9) <10 = Not detected at or above analytical laboratory reporting limit.

**FIGURES**

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#### LEGEND

— Facility Boundary

Source: Livermore/Pleasanton Area  
Compass Maps Inc., 1993

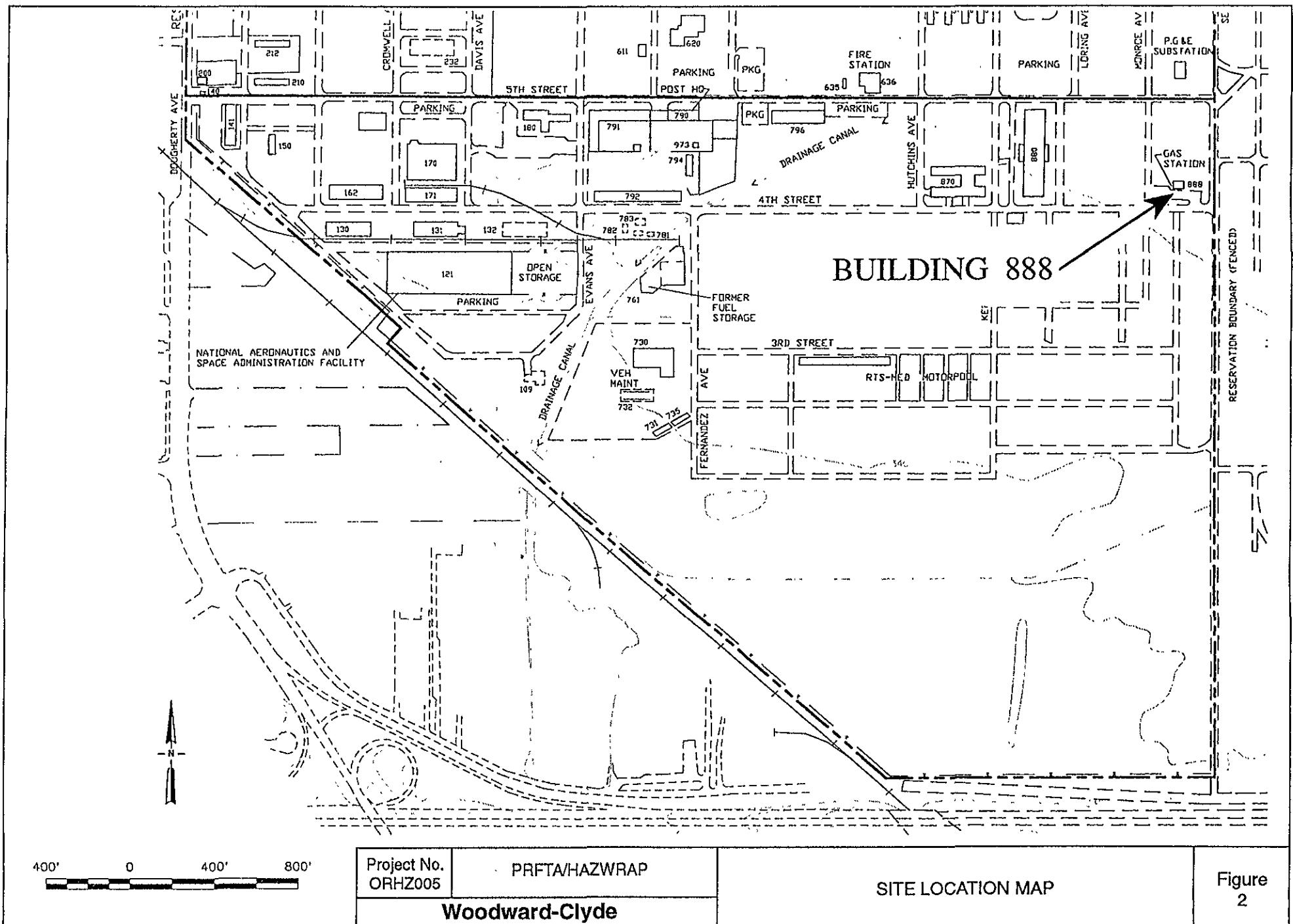
0

1

LOCATION MAP

Figure  
1

Project No. ORHZ005	PRFTA/HAZWRAP
Woodward-Clyde	



Project No.  
ORHZ005

PRFTA/HAZWRAP

Woodward-Clyde

## SITE LOCATION MAP

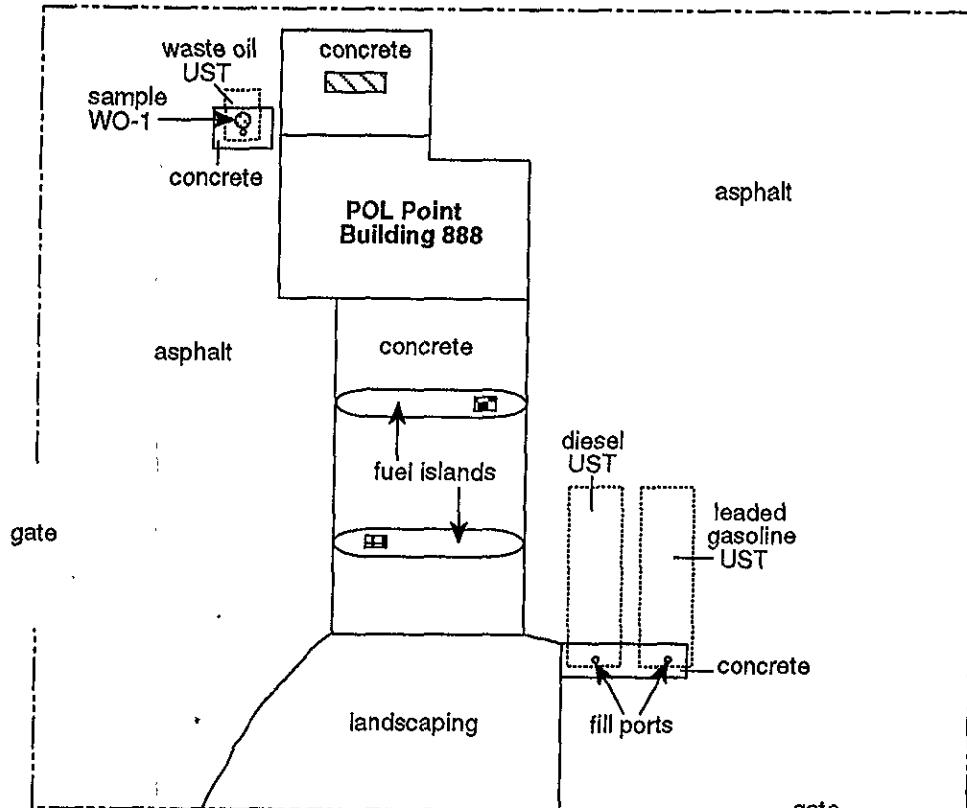
**Figure**  
**2**

**APPENDIX A  
UST AND TANK RINSEATE MANIFESTS**

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Monroe  
Avenue

4th Street



LEGEND

- [Dashed box] underground storage tank
- [Hatched box] oil-water separator
- [Diesel dispenser icon] diesel dispenser
- [Gasoline dispenser icon] gasoline dispenser
- [Circle with dot] soil sample WO-1 location
- [Dashed line] chain-link fence

0  
30 feet  
approximate scale

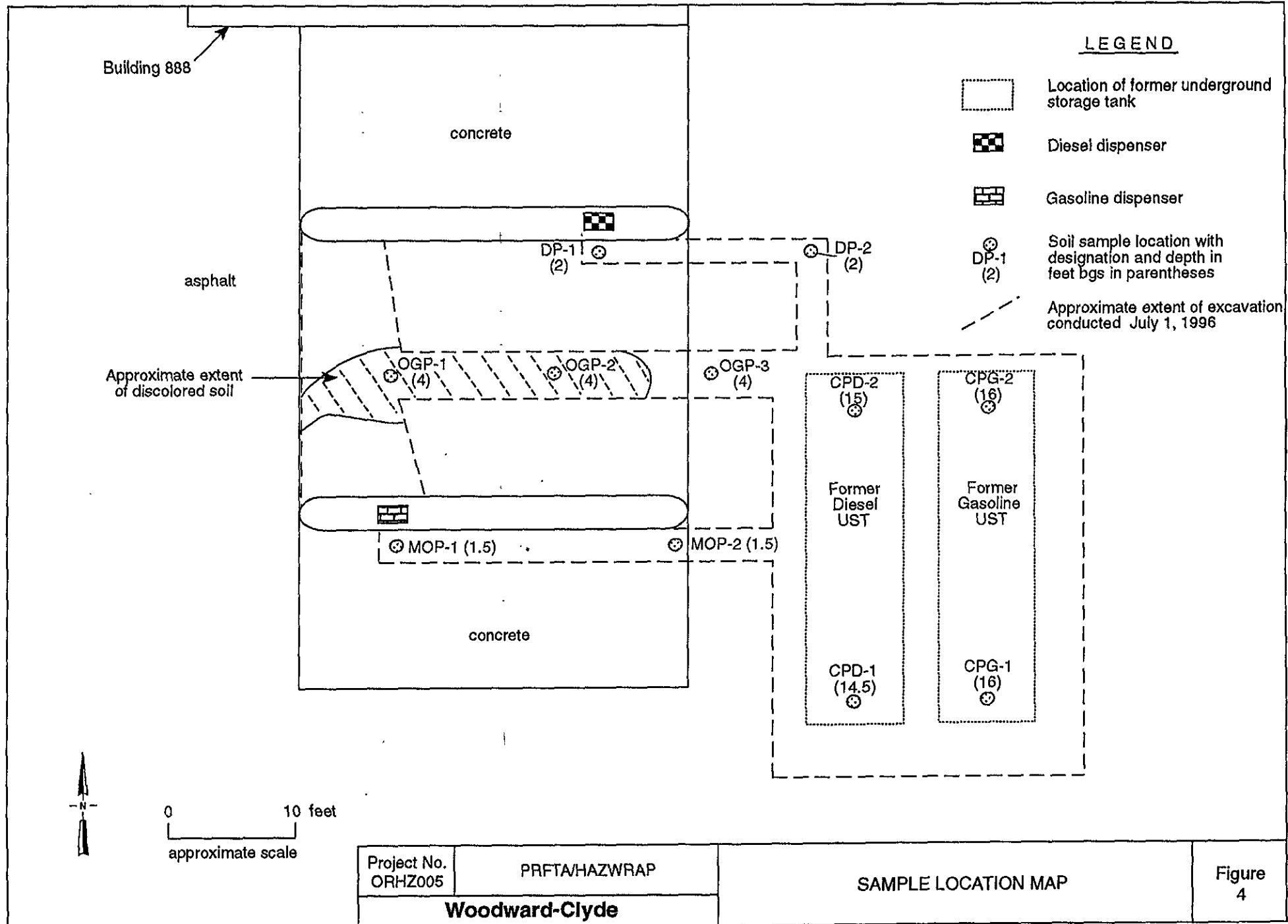
Project No.  
ORHZ005

PRFTA/HAZWRAP

Woodward-Clyde

SITE PLAN MAP

Figure  
3



P.O. BOX 996, BENICIA, CA 94510. (707) 747-6699

## NON-HAZARDOUS SPECIAL WASTE MANIFEST

## GENERATOR

Generator Name T-T Corp. Generating Location Clayton, Calif.Address MARIN CO Address Dublin, Calif.Phone No.                 -                 Phone No.                 -                

## Description of Waste

WASTE OIL/WATER, -, DrumNon-Haz waste consisting of oil  
per California Health  
(415 G.)

Containers				Type
Quantity	Units	No.	Type	
<u>00700</u>	<u>6</u>	<u>01</u>	<u>T</u>	
<u>                </u>	<u>                </u>	<u>                </u>	<u>                </u>	
<u>                </u>	<u>                </u>	<u>                </u>	<u>                </u>	

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Robert R. Decker Robert R. Decker 07/01/96  
Generator Authorized Agent Name Signature Shipment Date

## TRANSPORTER

Truck No. 1164 Phone No. (707) 747-1699Transporter Name UNIVERSAL ENVIRONMENTAL Driver Name (Print) Glenn O. OlsonAddress 1878 Park Rd. Vehicle License No./State CA CP2892BENICIA, CA Vehicle Certification V.A.

I hereby certify that the above named material was picked up at the generator site listed above.

Glenn O. Olson 07/01/96 Jim W. Doss 07/01/96  
Driver Signature Shipment Date Driver Signature Delivery Date

## DESTINATION

Site Name JRC Patterson Phone No. 800-874-4444Address 12331 N Hwy 33 Patterfield 95363

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

J.M. Arredondo J.M. Arredondo 07/01/96  
Name of Authorized Agent Signature Receipt Date

certificate number 0649

## Certificate of Recycling

This is to certify that the non hazardous waste transported to  
the Enviropur West Corporation, PRC Patterson Inc. facility,  
Patterson, California on document number 1258  
was recycled in accordance with the provisions of 40 CFR 261.6  
and 40 CFR 264 pursuant to 40CFR 261.3(c) (2)  
and CCR Chapter 16 Articles 1-5

generator IT CORPORATION

address 4585 PACHECO BLVD.

MARTINEZ, CA. 94553

SITE: CAMP PARKS

by RON FERRARIO

signature Ron Ferrario

title COMPLIANCE MANAGER

**ERICKSON Tank Processing JOB #:768614**  
**TANK CERTIFICATION**

\*\*\*\*\* PART 1 - To be completed by the Customer \*\*\*\*\*

CUSTOMER: I.T. Corp.  
CAMP PARKS  
LOCATION: DURKIN, CA  
TRANSPORTER: ERICKSON, INC

GENERATOR: Parks RFTA State Waste Codes: 512  
EPA I.D.#: CAL000121364 EPA Waste Codes:  
MANIFEST #: 04 95280703  None  
 See Attached

	TANK 1	TANK 2	TANK 3	TANK 4	TANK 5	TANK 6
TANK #:	<u>10012</u>	<u>18223</u>	<u>18204</u>	_____	_____	_____
CAPACITY:	<u>10 K</u>	<u>10 K</u>	<u>500</u>	_____	_____	_____
DIAMETER:	<u>8'</u>	<u>8'</u>	<u>4'</u>	_____	_____	_____
LENGTH:	<u>27'</u>	<u>27'</u>	<u>6'</u>	_____	_____	_____
STEEGLASS:	<u>S</u>	<u>S</u>	<u>S</u>	_____	_____	_____
LAST CONTAINED:	<u>D</u>	<u>UG</u>	<u>UO</u>	_____	_____	_____

LG = Leaded Gas, UG = Unleaded Gas, D = Diesel, UO = Used Oil, FO = Fuel Oil  
Specify the material Last Contained if other than above.

**ERICKSON, INC. TANK PROCESSING FACILITY  
LAND DISPOSAL RESTRICTION NOTIFICATION FORM**

The waste represented on this manifest is not generated by a chemical manufacturing plant, coke-by-product recovery plant or aromatics refinery. As such, it is not regulated under 40 CFR Part 61, Subpart FF (NESHAPS for Benzene Operations).

Pursuant to 40 CFR 268.7 I am notifying Erickson, Inc. that the material described by the above manifest is a nonwastewater, non-CRA hazardous waste and not currently subject to EPA Land Disposal Restrictions.

Pursuant to CCR 22 66268.7 I am notifying Erickson, Inc. that the material described by the manifest is a metal containing non-CRA solid hazardous waste (66268.29(g)), and an organics containing Non-RCRA solid hazardous waste (66268.29 (k)). The treatment standards for these wastes have been repealed. This waste is no longer subject to land disposal restrictions.

I, an authorized agent/representative of the generator. I certify that all information submitted in this and associated documents is complete and accurate to the best of my knowledge. The tanks on the transport equipment have been numbered to correspond with the information provided above. In the event that the tanks do not correspond to the form, I will pay any and all costs incurred in correcting the discrepancy(ies) between the tank(s) and the form. In the event that the tank(s) contain excessive solids or liquids, I agree to pay the cost of preparation, transportation and disposal/recycling of the excess material according to the schedule of charges effect at the time of receipt of the tank(s). Further, I will not hold Erickson, Inc. responsible for any damage to tanks which occurs once the tanks are removed from the ground.

AUTHORIZED REPRESENTATIVE

SIGNATURE: Mark J. Duff  
PRINT NAME: MARSHALL MARSHALL

DATE: 7/2/96  
TITLE: ENV. MANAGER

For assistance in completing this form, please contact Karen Russin at (510) 970-7463.

IN CASE OF EMERGENCY OR SPILL CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

TRANSPORTER

FACILITY

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. <b>CAL00012136480704</b>	Manifest Document No. <b>1</b>	2. Page 1 <b>1</b>	Information in the shaded areas is not required by Federal law.
3. Generator's Name and Mailing Address <b>PARKS RPTA BLDG 790 DUBLIN CA 94568-5201</b>		4. Generator's Phone ( ) <b>510 - 803 - 5638</b>			
5. Transporter 1 Company Name <b>Erickson Inc.</b>		6. US EPA ID Number <b>CAD009468392</b>			
7. Transporter 2 Company Name		8. US EPA ID Number			
9. Designated Facility Name and Site Address <b>ERICKSON, INC. 255 Parr Blvd. Richmond, CA. 94801</b>		10. US EPA ID Number <b>9AD009466392</b>			
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No. <b>a.</b>	Type <b>T/F</b>	13. Total Quantity <b>100000</b>	14. Unit Wt/Vol <b>F</b>
a. NON-RCRA Hazardous Waste Solid Waste Empty Storage Tank.		<b>0012 T/F 100000 F</b>			
b.					
c.					
d.					
Additional instructions for Manifest 12136480704					
15. Special Handling Instructions and Additional Information Keep away from sources of ignition. Always wear hardhats when working around U.G.S.T.'s 24 Hr. Contact Name <b>MARSHALL MARLIK</b> & Phone <b>510-803-5638</b> - 5612					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.					
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.					
Printed/Typed Name <b>MARSHALL MARLIK</b>		Signature 		Month <b>07</b> Day <b>02</b> Year <b>96</b>	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <b>Steve Fleming</b>		Signature 		Month <b>07</b> Day <b>02</b> Year <b>96</b>	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Month Day Year	
19. Discrepancy Indication Space					
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name					

DO NOT WRITE BELOW THIS LINE.

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1	Information in the shaded areas is not required by Federal law.	
		<b>CALD0012136480703</b>				
3. Generator's Name and Mailing Address <b>PARKS RFTA</b> <b>BLDG 730</b> <b>DUBLIN, CA 94568-5201</b>		4. Generator's Phone <b>510-803-5639</b>				
5. Transporter 1 Company Name <b>TRIDENT TRUCKLINE</b>		6. US EPA ID Number <b>CA D00946639</b>				
7. Transporter 2 Company Name		8. US EPA ID Number				
9. Designated Facility Name and Site Address <b>ERICKSON, INC.</b> <b>255 Parr Blvd.</b> <b>Richmond, CA. 94801</b>		10. US EPA ID Number <b>CA D00946639</b>				
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	
a. NCR-RCRA Hazardous Waste Solid Waste Empty Storage Tank.		001	T P	100000	2	
b.						
c.						
d.						
15. Special Handling Instructions and Additional Information Keep away from sources of ignition. Always wear hardhats when working around U.G.S.T.'s 24 Hr. Contact Name: <b>MARSHALL</b> & Phone <b>510-803-5612</b> <b>MALIK</b>		16. Generator's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.  If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.				
Printed/Typed Name <b>Marshall Malik</b>		Signature 		Month	Day	Year
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <b>Roger Dayton</b>		Signature 		Month	Day	Year
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature 		Month	Day	Year
19. Discrepancy Indication Space						
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name		Signature		Month	Day	Year

**DO NOT WRITE BELOW THIS LINE**

**APPENDIX B**  
**ANALYTICAL LABORATORY REPORTS**

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# Inchcape Testing Services

Environmental Laboratories

1089 E. Collins Blvd.  
Richardson, TX 75081  
Tel. 214-238-5591  
Fax. 214-238-5592

RECEIVED  
AUG 19 1996  
WOODWARD CLYDE CONSULTANTS

**CUSTOMER: WOODWARD CLYDE CONSULTANTS  
PROJECT: ORHZ005-0002**

**REPORT NUMBER: D96-7327  
SAMPLES RECEIVED: 3-July-1996**



# Inchcape Testing Services

Environmental Laboratories

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Tel. 214-238-5591  
Fax. 214-238-5592

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Inchcape Testing Services  
Environmental Laboratories

## **SDG NARRATIVE**



DATE RECEIVED: 3-JUL-1996

REPORT NUMBER: D96-7327

REPORT DATE: 17-JUL-1996

SAMPLE SUBMITTED BY : Woodward-Clyde Consultants  
ADDRESS : 10370 Old Placerville Rd. #104  
Sacramento, CA 95827  
ATTENTION : Mr. Bill Loskutoff  
DATE SAMPLED : 2-July-1996

SAMPLE NUMBERS : WO-1, CPD-1, CPD-2, CPG-1, CPG-2, MOP-1, MOP-2,  
DP-1, DP-2, OGP-1, OGP-2, OGP-3, DSTP-1, GPSTP-1,  
GPSTP-2, Trip Blank

SDG NUMBER: D96-7327  
CONTRACT NUMBER: N/A

## SDG NARRATIVE

This is a Level IV data package, containing CLP and CLP-like forms for the analysis of organic and inorganic parameters by EPA methodologies.

### EPA Method 8270 Semivolatile Organics Analysis

#### Calibration

For the continuing calibration of instrument ITS3, the following compounds were outside of the QC warning limits of  $\leq 20\%$ :

ITS4 07/02/96 09:11      N-nitrosodi-n-propylamine (21.2%)  
                                  3,3'-dichlorobenzidine (23.1%)  
                                  indeno(1,2,3-cd)pyrene (38.3%)  
                                  dibenz(a,h)anthracene (36.6%)  
                                  benzo(g,h,i)perylene (43.9%)  
                                  m,p-cresol (45.7%)

Since all calibration check compounds (CCCs) were within the QC control limit of  $< 30\%$ , the calibration was accepted.

### EPA Method 8010 Volatile Halocarbons Analysis

No observations were made concerning the analysis for volatile halocarbons.

### EPA Method 8020 Volatile Aromatics Analysis

#### Sample Dilutions

Samples D96-7327-2 and -11 required 1:50 dilutions, due to high levels of target analytes. Similarly, sample D96-7327-8 required a 1:5 dilution. All surrogate recoveries were within QC limits for this dilution.



Woodward-Clyde Consultants  
page 2

#### Internal Standard Areas

In the original analyses of samples D96-7327-3, -7 and -14, the areas of the internal standard fluorobenzene were outside of QC limits, due to matrix interference. The samples were reanalyzed with similar results, verifying the matrix interference. Therefore, the results of the original analyses were accepted, and are reported in this data package.

#### Surrogate Recoveries

For soil sample D96-7327-3, the recovery of the surrogate bromofluorobenzene was outside of QC limits. Therefore, the sample was reanalyzed, yielding a surrogate recovery within QC limits. The results of the second analysis were accepted, and are included in this data package.

#### Matrix Spike Analysis

Since the soil samples were analyzed over two days, two QC sets of method blank, matrix spike/matrix spike duplicate and blank spike/blank spike duplicate were analyzed. For both QC sets, the spiked sample was sample D96-7327-1, and the unspiked sample was analyzed for both sets, yielding set sets of results for sample D96-7327-1. Both sets of results are included in this data package.

### EPA Method 8015 mod. Total Volatile Petroleum Hydrocarbons Analysis

#### Sample Dilutions

Samples D96-7327-8 and -10 required 1:25 dilutions, due to high levels of target analytes. Similarly, sample D96-7327-11 required a 1:500 dilution. All surrogate recoveries were within QC limits for this dilution.

#### Internal Standard Areas

In the original analysis of samples D96-7327-7, the area of the internal standard fluorobenzene was outside of QC limits, due to matrix interference. The sample was reanalyzed with similar results, verifying the matrix interference. Therefore, the results of the original analysis were accepted, and are reported in this data package.

#### Matrix Spike Analysis

Since the soil samples were analyzed over two days, two QC sets of method blank, matrix spike/matrix spike duplicate and blank spike/blank spike duplicate were analyzed. For both QC sets, the spiked sample was sample D96-7327-1, and the unspiked sample was analyzed for both sets, yielding set sets of results for sample D96-7327-1. Both sets of results are included in this data package.



Woodward-Clyde Consultants  
page 3

EPA Method 8015 mod. Total Extractable Petroleum Hydrocarbons Analysis

**Surrogate Recoveries**

For the original analysis of sample D96-7327-2, the recovery of the surrogate triacontane was outside of QC limits. Therefore, the sample was re-extracted and reanalyzed within holding time, yielding surrogate recovery within QC limits. The results of the reanalysis are reported in this data package.

**Sample Dilutions**

Samples D96-7327-2 and -8 required 1:10 dilutions, due to high levels of target analytes. The recoveries of the surrogate triacontane were within QC limits for this dilution.

Metals Analysis

**Sample Duplicate Analysis**

In the sample duplicate analysis of sample D96-7327-1 by ICP, the relative percent differences were not considered for cadmium and lead, because the levels of these elements were less than five times the contract required detection limit (5xCRDL.)

**ICP Serial Dilutions**

Since the matrix spike/matrix spike duplicate analyses were within QC limits for all ICP metals, an ICP serial dilution analysis was not conducted.

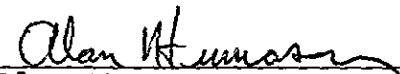
General Chemistry Parameters

No problems were encountered during the analysis of hexavalent chromium.

No further issues were encountered during the sample analysis for this task.

Please refer to the attached Case Narrative Summary for sample identifications and analytical requests.

If there are any questions, feel free to contact Mr. John (J.T.) Todd, at (214) 238-5591.

  
\_\_\_\_\_  
Alan Humason  
QA Coordinator



# Inchcape Testing Services

## Environmental Laboratories

1089 E. Collins Blvd.  
 Richardson, TX 75081  
 Tel. 214-238-5591  
 Fax. 214-238-5592

JOB ID : D96-7327
CUSTOMER : Woodward-Clyde Consultants
PROJECT : ORHZ005-0002

SAMPLE ID : D96-7327-1		DATE SAMPLED : 2-JUL-1996			
ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
8010_S /1			JCH	9-JUL-1996	4-070996
8270_ABNS /1	PSS	8-JUL-1996	WSW	9-JUL-1996	AB815-22
ABN_TIC /1			WSW	9-JUL-1996	AB815-22
BTX_8020US /1			MKS	10-JUL-1996	27-070996A
M_CD_TS_I /1	HMR	10-JUL-1996	GGD	10-JUL-1996	14016
M_CR_TS_I /1	HMR	10-JUL-1996	LSS	12-JUL-1996	14016
M_NI_TS_I /1	HMR	10-JUL-1996	LSS	12-JUL-1996	14016
M_PB_TS_I /1	HMR	10-JUL-1996	GGD	10-JUL-1996	14016
M_ZN_TS_I /1	HMR	10-JUL-1996	GGD	10-JUL-1996	14016
OG_503E_S /1	PSS	10-JUL-1996	MTR	11-JUL-1996	AB815-49
SOLID_TPER /1			SAB	15-JUL-1996	804022F
TPH_8015ES /1	PSS	8-JUL-1996	T_L	10-JUL-1996	AB815-23 .
TPH_8015_S /1			MKS	10-JUL-1996	28-070996A

SAMPLE ID : D96-7327-2		DATE SAMPLED : 2-JUL-1996			
ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
BTX_8020US /1			MKS	10-JUL-1996	27-070996A
SOLID_TPER /1			SAB	15-JUL-1996	804022F
TPH_8015ES /1	PSS	8-JUL-1996	VHL	15-JUL-1996	AB815-23

SAMPLE ID : D96-7327-3		DATE SAMPLED : 2-JUL-1996			
ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
BTX_8020US /1			MKS	10-JUL-1996	27-070996A



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SAMPLE ID : D96-7327-3		DATE SAMPLED : 2-JUL-1996			
ID MARKS : CPD-2					
ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
SOLID_TPER /1			SAB	15-JUL-1996	804022F
TPH_8015ES /1	PSS	8-JUL-1996	T_L	10-JUL-1996	AB815-23

SAMPLE ID : D96-7327-4		DATE SAMPLED : 2-JUL-1996			
ID MARKS : CPG-1					
ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
BTX_8020US /1			MKS	10-JUL-1996	27-070996A
SOLID_TPER /1			SAB	15-JUL-1996	804022F
TPH_8015ES /1	PSS	8-JUL-1996	T_L	10-JUL-1996	AB815-23
TPH_8015_S /1			MKS	10-JUL-1996	28-070996A

SAMPLE ID : D96-7327-5		DATE SAMPLED : 2-JUL-1996			
ID MARKS : CPG-2					
ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
BTX_8020US /1			MKS	10-JUL-1996	27-070996A
SOLID_TPER /1			SAB	15-JUL-1996	804023G .
TPH_8015ES /1	PSS	8-JUL-1996	T_L	10-JUL-1996	AB815-23
TPH_8015_S /1			MKS	10-JUL-1996	28-070996A

SAMPLE ID : D96-7327-6		DATE SAMPLED : 2-JUL-1996			
ID MARKS : MOP-1					
ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
BTX_8020US /1			MKS	10-JUL-1996	27-070996A
M_PB_T_S_F /1	HMR	10-JUL-1996	AH	11-JUL-1996	14016F
SOLID_TPER /1			SAB	15-JUL-1996	804023G
TPH_8015ES /1	PSS	8-JUL-1996	T_L	10-JUL-1996	AB815-23
TPH_8015_S /1			MKS	10-JUL-1996	28-070996A



# Inchcape Testing Services

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JOB ID : D96-7327
CUSTOMER : Woodward-Clyde Consultants
PROJECT : ORH2005-0002

SAMPLE ID : D96-7327-7		DATE SAMPLED : 2-JUL-1996			
ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
BTX_8020US /1			MKS	10-JUL-1996	27-070996A
M_PB_T_S_F /1	CEL	10-JUL-1996	AH	11-JUL-1996	14016F
SOLID_TPER /1			SAB	15-JUL-1996	804023G
TPH_8015ES /1	PSS	8-JUL-1996	T_L	10-JUL-1996	AB815-23
TPH_8015_S /1			MKS	10-JUL-1996	28-070996A

SAMPLE ID : D96-7327-8		DATE SAMPLED : 2-JUL-1996			
ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
BTX_8020US /1			MKS	11-JUL-1996	27-071096
M_PB_T_S_F /1	CEL	10-JUL-1996	AH	11-JUL-1996	14016F
SOLID_TPER /1			SAB	15-JUL-1996	804023G
TPH_8015ES /1	PSS	8-JUL-1996	VHL	11-JUL-1996	AB815-23
TPH_8015_S /1			MKS	10-JUL-1996	28-070996A

SAMPLE ID : D96-7327-9		DATE SAMPLED : 2-JUL-1996			
ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
BTX_8020US /1			MKS	10-JUL-1996	27-070996A
M_PB_T_S_F /1	CEL	10-JUL-1996	AH	11-JUL-1996	14016F
SOLID_TPER /1			SAB	15-JUL-1996	804023G
TPH_8015ES /1	PSS	8-JUL-1996	T_L	10-JUL-1996	AB815-23
TPH_8015_S /1			MKS	10-JUL-1996	28-070996A



# Inchcape Testing Services

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Fax. 214-238-5592

JOB ID : D96-7327
CUSTOMER : Woodward-Clyde Consultants
PROJECT : ORH2005-0002

SAMPLE ID : D96-7327-10		DATE SAMPLED : 2-JUL-1996			
ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
BTX_8020US /1			MKS	10-JUL-1996	27-070996A
M_PB_T_S_F /1	CEL	10-JUL-1996	AH	11-JUL-1996	14016F
SOLID_TPER /1			SAB	15-JUL-1996	804023G
TPH_8015ES /1	PSS	8-JUL-1996	T_L	10-JUL-1996	AB815-23
TPH_8015_S /1			MKS	10-JUL-1996	28-070996A

SAMPLE ID : D96-7327-11		DATE SAMPLED : 2-JUL-1996			
ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
BTX_8020US /1			MKS	10-JUL-1996	27-070996A
M_PB_T_S_F /1	HMR	10-JUL-1996	AH	11-JUL-1996	14016F
SOLID_TPER /1			SAB	15-JUL-1996	804023G
TPH_8015ES /1	PSS	8-JUL-1996	T_L	10-JUL-1996	AB815-23
TPH_8015_S /1			MKS	11-JUL-1996	28-071096

SAMPLE ID : D96-7327-12		DATE SAMPLED : 2-JUL-1996			
ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
BTX_8020US /1			MKS	10-JUL-1996	27-070996A
M_PB_T_S_F /1	CEL	10-JUL-1996	AH	11-JUL-1996	14016F
SOLID_TPER /1			SAB	15-JUL-1996	804023G
TPH_8015ES /1	PSS	9-JUL-1996	VHL	11-JUL-1996	AB815-38
TPH_8015_S /1			MKS	10-JUL-1996	28-070996A



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Richardson, TX 75081  
Tel. 214-238-5591  
Fax. 214-238-5592

JOB ID : D96-7327
CUSTOMER : Woodward-Clyde Consultants
PROJECT : ORH2005-0002

SAMPLE ID : D96-7327-13	DATE SAMPLED : 2-JUL-1996
ID MARKS : DSTP-1	

ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
BTX_8020US /1			MKS	10-JUL-1996	27-070996A
SOLID_TPER /1			SAB	15-JUL-1996	804023G
TPH_8015ES /1	PSS	9-JUL-1996	VHL	11-JUL-1996	A8815-38

SAMPLE ID : D96-7327-14	DATE SAMPLED : 2-JUL-1996
ID MARKS : GPSTP-1	

ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
BTX_8020US /1			MKS	10-JUL-1996	27-070996A
M_PB_T_S_F /1	CEL	10-JUL-1996	AH	11-JUL-1996	14016F
SOLID_TPER /1			SAB	15-JUL-1996	804023G
TPH_8015ES /1	PSS	9-JUL-1996	VHL	11-JUL-1996	A8815-38
TPH_8015_S /1			MKS	10-JUL-1996	28-070996A

SAMPLE ID : D96-7327-15	DATE SAMPLED : 2-JUL-1996
ID MARKS : GPSTP-2	

ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
BTX_8020US /1			MKS	10-JUL-1996	27-070996A
M_PB_T_S_F /1	CEL	10-JUL-1996	AH	11-JUL-1996	14016F
SOLID_TPER /1			SAB	15-JUL-1996	804024H
TPH_8015ES /1	PSS	9-JUL-1996	VHL	11-JUL-1996	A8815-38
TPH_8015_S /1			MKS	10-JUL-1996	28-070996A

SAMPLE ID : D96-7327-16	DATE SAMPLED : 2-JUL-1996
ID MARKS : Trip Blank	

ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
BTX_8020UL /1			VHT	9-JUL-1996	30-070996



# Inchcape Testing Services

## Environmental Laboratories

1089 E. Collins Blvd.  
Richardson, TX 75081  
Tel. 214-238-5591  
Fax. 214-238-5592

JOB ID : D96-7327
CUSTOMER : Woodward-Clyde Consultants
PROJECT : ORRZ005-0002

SAMPLE ID : D96-7327-17	DATE SAMPLED : 2-JUL-1996
ID MARKS : Method Blank	

ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
8010_S /1			JCH	9-JUL-1996	4-070996
8270_ABNS /1	PSS	8-JUL-1996	WSW	9-JUL-1996	AB815-22
ABN_TIC /1			WSW	9-JUL-1996	AB815-22
BTX_8020US /1			MKS	10-JUL-1996	27-070996A
BTX_8020US /2			MKS	11-JUL-1996	27-071096
M_CD_T_S_I /1	HMR	10-JUL-1996	GGD	10-JUL-1996	14016
M_CR_T_S_I /1	HMR	10-JUL-1996	LSS	12-JUL-1996	14016
M_NI_T_S_I /1	HMR	10-JUL-1996	LSS	12-JUL-1996	14016
M_PB_T_S_I /1	HMR	10-JUL-1996	GGD	10-JUL-1996	14016
M_ZN_T_S_I /1	HMR	10-JUL-1996	GGD	10-JUL-1996	14016
OG_503E_S /1	PSS	10-JUL-1996	MTR	11-JUL-1996	AB815-49
TPH_8015ES /1	PSS	9-JUL-1996	VHL	11-JUL-1996	AB815-38
TPH_8015ES /2	PSS	8-JUL-1996	VHL	9-JUL-1996	AB815-23
TPH_8015_S /1			MKS	10-JUL-1996	28-070996A
TPH_8015_S /2			MKS	11-JUL-1996	28-071096

SAMPLE ID : D96-7327-18	DATE SAMPLED : 2-JUL-1996
ID MARKS : MS WO-1	

ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
8010_S /1			JCH	9-JUL-1996	4-070996#7327-1
8270_ABNS /1	PSS	8-JUL-1996	WSW	9-JUL-1996	AB815-22
BTX_8020US /1			MKS	10-JUL-1996	27-070996A
BTX_8020US /2			MKS	11-JUL-1996	27-071096
M_CD_T_S_I /1	HMR	10-JUL-1996	GGD	10-JUL-1996	14016



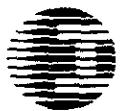
# Inchcape Testing Services

## Environmental Laboratories

1089 E. Collins Blvd.  
 Richardson, TX 75081  
 Tel. 214-238-5591  
 Fax. 214-238-5592

SAMPLE ID : D96-7327-18		DATE SAMPLED : 2-JUL-1996			
ID MARKS : MS WO-1					
ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
M_CR_T_S_I /1	HMR	10-JUL-1996	GGD	10-JUL-1996	14016
M_NI_T_S_I /1	HMR	10-JUL-1996	LSS	12-JUL-1996	14016
M_PB_T_S_I /1	HMR	10-JUL-1996	GGD	10-JUL-1996	14016
M_ZN_T_S_I /1	HMR	10-JUL-1996	GGD	10-JUL-1996	14016
OG_503E_S /1	PSS	10-JUL-1996	MTR	11-JUL-1996	AB815-49
TPH_8015ES /1	PSS	9-JUL-1996	VHL	9-JUL-1996	AB815-38
TPH_8015_S /1			MKS	10-JUL-1996	28-070996A
TPH_8015_S /2			MKS	11-JUL-1996	28-071096

SAMPLE ID : D96-7327-19		DATE SAMPLED : 2-JUL-1996			
ID MARKS : MSD WO-1					
ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
8010_S /1			JCH	9-JUL-1996	4-070996
8270_ABNS /1	PSS	8-JUL-1996	WSW	9-JUL-1996	AB815-22
BTX_8020US /1			MKS	10-JUL-1996	27-070996A
BTX_8020US /2			MKS	11-JUL-1996	27-071096
M_CD_T_S_I /1	HMR	10-JUL-1996	GGD	10-JUL-1996	14016
M_CR_T_S_I /1	HMR	10-JUL-1996	LSS	12-JUL-1996	14016
M_NI_T_S_I /1	HMR	10-JUL-1996	LSS	12-JUL-1996	14016
M_PB_T_S_I /1	HMR	10-JUL-1996	GGD	10-JUL-1996	14016
M_ZN_T_S_I /1	HMR	10-JUL-1996	GGD	10-JUL-1996	14016
OG_503E_S /1	PSS	10-JUL-1996	MTR	11-JUL-1996	AB815-49
TPH_8015ES /1	PSS	9-JUL-1996	VHL	9-JUL-1996	AB815-38
TPH_8015_S /1			MKS	10-JUL-1996	28-070996A
TPH_8015_S /2			MKS	11-JUL-1996	28-071096



# Inchcape Testing Services

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 Fax. 214-238-5592

JOB ID : D96-7327
CUSTOMER : Woodward-Clyde Consultants
PROJECT : ORHZ005-0002

SAMPLE ID : D96-7327-20		DATE SAMPLED : 2-JUL-1996			
ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
8010_S /1			JCH	9-JUL-1996	4-070996
8270_ABNS /1	PSS	8-JUL-1996	WSW	9-JUL-1996	AB815-22
BTX_8020US /1			MKS	10-JUL-1996	27-070996A
BTX_8020US /2			MKS	10-JUL-1996	27-071096
M_CD_T_S_I /1	HMR	10-JUL-1996	GGD	10-JUL-1996	14016
M_CR_T_S_I /1	HMR	10-JUL-1996	LSS	12-JUL-1996	14016
M_NI_T_S_I /1	HMR	10-JUL-1996	LSS	12-JUL-1996	14016
M_PB_T_S_I /1	HMR	10-JUL-1996	GGD	10-JUL-1996	14016
M_ZN_T_S_I /1	HMR	10-JUL-1996	GGD	10-JUL-1996	14016
OG_503E_S /1	PSS	10-JUL-1996	MTR	11-JUL-1996	AB815-49
TPH_8015ES /1	PSS	9-JUL-1996	VHL	9-JUL-1996	AB815-38
TPH_8015_S /1			MKS	10-JUL-1996	28-070996A
TPH_8015_S /2			MKS	10-JUL-1996	28-071096

SAMPLE ID : D96-7327-22		DATE SAMPLED : 2-JUL-1996			
ID MARKS : MS MOP-1					
ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
M_PB_T_S_F /1	CEL	10-JUL-1996	AH	11-JUL-1996	14016F

SAMPLE ID : D96-7327-23		DATE SAMPLED : 2-JUL-1996			
ID MARKS : MSD MOP-2					
ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
M_PB_T_S_F /1	CEL	10-JUL-1996	AH	11-JUL-1996	14016F



# Inchcape Testing Services

## Environmental Laboratories

1089 E. Collins Blvd.  
Richardson, TX 75081  
Tel 214-258-5591  
Fax. 214-258-5592

JOB ID : D96-7327
CUSTOMER : Woodward-Clyde Consultants
PROJECT : ORHZ005-0002

SAMPLE ID : D96-7327-24	DATE SAMPLED : 2-JUL-1996
ID MARKS : Method Blank	

ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
BTX_8020UL /1			VHT	9-JUL-1996	30-070996

SAMPLE ID : D96-7327-25	DATE SAMPLED : 2-JUL-1996
ID MARKS : MS	

ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
BTX_8020UL /1			VHT	9-JUL-1996	30-070996

SAMPLE ID : D96-7327-26	DATE SAMPLED : 2-JUL-1996
ID MARKS : MSD	

ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
BTX_8020UL /1			VHT	9-JUL-1996	30-070996

SAMPLE ID : D96-7327-27	DATE SAMPLED : 2-JUL-1996
ID MARKS : LCS	

ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
BTX_8020UL /1			VHT	9-JUL-1996	30-070996



# Inchcape Testing Services

## Environmental Laboratories

1089 E. Collins Blvd.  
Richardson, TX 75081  
Tel. 214-238-5591  
Fax. 214-238-5592

JOB ID : D96-7327
CUSTOMER : Woodward-Clyde Consultants
PROJECT : ORH2005-0002

ANALYSIS	DESCRIPTION
8010_S	Purgeable Halocarbons, Solid Matrix
8270_ABN_S	ABN, Full List, Solid
ABN_TIC	Tentatively Identified Compounds - ABN
BTX_8020US	BTEX, Solid in µg/Kg
M_CD_T_S_I	Cadmium, Total, Solid, by ICP
M_CR_T_S_I	Chromium, Total, Solid, by ICP
M_NI_T_S_I	Nickel, Total, Solid, by ICP
M_PB_T_S_I	Lead, Total, Solid, by ICP
M_ZN_T_S_I	Zinc, Total, Solid, by ICP
OG_503E_S	Hydrocarbons - SM 503E, Solid
SOLID_TPER	Total Solids, Soil/Sludge, %
TPH_8015ES	Extractable TPH by GC, Solid, as EPA 8015
TPH_8015_S	Volatile TPH by GC, Solid, µg/Kg
M_PB_T_S_F	Lead, Total, Solid, by GFAA
BTX_8020UL	BTEX, Liquid in µg/L



**Inchcape Testing Services**  
Environmental Laboratories

## **SEMIVOLATILES DATA**



**Inchcape Testing Services**  
Environmental Laboratories

## **QUALITY CONTROL SUMMARY**

FORM 2  
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Contract: WOODWARD/CLYDE  
 Lab Code: Case No.: SAS No.: SDG No.: SV7327  
 Level: (low/med) LOW

	WOODWARD/CLY SAMPLE NO.	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	BLANK	34	52	74	66	43	94			0
02	BLANK BS	70	70	84	92	72	114			0
03	BLANK BSD	68	67	79	90	70	115			0
04	7327-1 MS	67	50	64	93	72	103			0
05	7327-1 MSD	71	53	67	94	75	110			0
06	WO-1	67	51	59	84	69	89			0
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		QC LIMITS
S1	= Nitrobenzene-d5 (SS)	(23-120)
S2	= 2-Fluorobiphenyl (SS)	(30-115)
S3	= Terphenyl-d14 (SS)	(18-137)
S4	= Phenol-d6 (SS)	(24-113)
S5	= 2-Fluorophenol (SS)	(25-121)
S6	= 2,4,6-Tribromophenol (	(19-122)

# Column to be used to flag recovery values  
 \* Values outside of contract required QC limits  
 D Surrogate diluted out

FORM 3  
SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Contract: WOODWARD/CLYDE

Lab Code: Case No.: SAS No.: SDG No.: SV7327

Matrix Spike - WOODWARD/CL Sample No.: 7327 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	3.33	0.000	3.21	96	5-112
2-Chlorophenol	3.33	0.000	2.85	86	23-134
1,4-Dichlorobenzene	3.33	0.000	2.92	88	20-124
N-Nitrosodi-n-propylami	3.33	0.000	4.27	128	10-230
1,2,4-Trichlorobenzene	3.33	0.000	3.02	91	44-142
4-Chloro-3-methylphenol	3.33	0.000	3.48	104	22-147
Acenaphthene	3.33	0.000	3.20	96	47-145
4-Nitrophenol	3.33	0.000	3.93	118	10-132
2,4-Dinitrotoluene	3.33	0.000	3.71	111	39-139
Pentachlorophenol	3.33	0.000	2.41	72	14-176
Pyrene	3.33	0.000	2.93	88	52-115

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
Phenol	3.33	3.45	104	8	23	5-112
2-Chlorophenol	3.33	2.95	88	2	29	23-134
1,4-Dichlorobenzene	3.33	3.08	92	4	32	20-124
N-Nitrosodi-n-propylami	3.33	4.43	133	4	55	10-230
1,2,4-Trichlorobenzene	3.33	3.10	93	2	28	44-142
4-Chloro-3-methylphenol	3.33	3.65	110	6	37	22-147
Acenaphthene	3.33	3.34	100	4	28	47-145
4-Nitrophenol	3.33	3.93	118	0	47	10-132
2,4-Dinitrotoluene	3.33	3.98	120	8	22	39-139
Pentachlorophenol	3.33	2.55	76	5	49	14-176
Pyrene	3.33	3.03	91	3	25	52-115

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

RPD: 0 out of 11 outside limits

Spike Recovery: 0 out of 22 outside limits

COMMENTS: \_\_\_\_\_

FORM 3  
SOIL SEMIVOLATILE BLANK SPIKE RECOVERY

Lab Name: Contract: WOODWARD/CLYDE  
 Lab Code: Case No.: SAS No.: SDG No.: SV7327  
 Matrix Spike - Sample No.: BLANK Level: (low/med) LOW

COMPOUND	SPIKE ADDED (mg/Kg)	BLANK CONCENTRATION (mg/Kg)	BS CONCENTRATION (mg/Kg)	BS % REC #	QC. LIMITS REC.
Phenol	3.33	0.000	3.33	100	5-112
2-Chlorophenol	3.33	0.000	2.97	89	23-134
1,4-Dichlorobenzene	3.33	0.000	3.01	90	20-124
N-Nitrosodi-n-propylami	3.33	0.000	4.31	129	10-230
1,2,4-Trichlorobenzene	3.33	0.000	3.17	95	44-142
4-Chloro-3-methylphenol	3.33	0.000	3.62	109	22-147
Acenaphthene	3.33	0.000	3.30	99	47-145
4-Nitrophenol	3.33	0.000	3.69	111	10-132
2,4-Dinitrotoluene	3.33	0.000	3.82	115	39-139
Pentachlorophenol	3.33	0.000	2.40	72	14-176
Pyrene	3.33	0.000	3.11	93	52-115

COMPOUND	SPIKE ADDED (mg/Kg)	BSD CONCENTRATION (mg/Kg)	BSD % REC #	% RPD #	QC LIMITS RPD	REC.
Phenol	3.33	3.41	102	2	23	5-112
2-Chlorophenol	3.33	2.96	89	0	29	23-134
1,4-Dichlorobenzene	3.33	3.03	91	1	32	20-124
N-Nitrosodi-n-propylami	3.33	4.32	130	1	55	10-230
1,2,4-Trichlorobenzene	3.33	3.12	94	1	28	44-142
4-Chloro-3-methylphenol	3.33	3.67	110	1	37	22-147
Acenaphthene	3.33	3.28	98	1	28	47-145
4-Nitrophenol	3.33	4.00	120	8	47	10-132
2,4-Dinitrotoluene	3.33	4.08	122	6	22	39-139
Pentachlorophenol	3.33	2.49	75	4	49	14-176
Pyrene	3.33	3.10	93	0	25	52-115

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

RPD: 0 out of 11 outside limits  
 Spike Recovery: 0 out of 22 outside limits

COMMENTS: \_\_\_\_\_

FORM 4  
SEMICVOLATILE METHOD BLANK SUMMARY

WOODWARD/CLYDE SAMPLE NO.

Lab Name:

Contract:

BLANK

Lab Code:

Case No.:

SAS No.:

SDG No.: SV7327

Lab File ID: FC348

Lab Sample ID: 7327-17

Instrument ID: ITS3

Date Extracted: 07/08/96

Matrix: (soil/water) SOIL

Date Analyzed: 07/09/96

Level: (low/med) LOW

Time Analyzed: 1015

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	WOODWARD/CLY SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	BLANK BS	7327-20	FC349	07/09/96
02	BLANK BSD	BLANK BSD	FC350	07/09/96
03	7327-1 MS	7327-18	FC351	07/09/96
04	7327-1 MSD	7327-19	FC352	07/09/96
05	WO-1	7327-1	FC353	07/09/96
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COMMENTS:

FORM 5  
SEMICVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name:

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: SV7327

Lab File ID: FB985

DFTPP Injection Date: 06/17/96

Instrument ID: ITS3

DFTPP Injection Time: 1006

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	46.1
68	Less than 2.0% of mass 69	0.3 ( 0.5)1
69	Mass 69 relative abundance	63.3
70	Less than 2.0% of mass 69	0.8 ( 1.3)1
127	40.0 - 60.0% of mass 198	53.6
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.0
275	10.0 - 30.0% of mass 198	17.5
365	Greater than 1.0% of mass 198	1.19
441	Present, but less than mass 443	3.4
442	40.0 - 110.0% of mass 198	47.0
443	17.0 - 23.0% of mass 442	9.0 ( 19.2)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	FB986	06/17/96	1023
02	SSTD160	SSTD160	FB987	06/17/96	1109
03	SSTD120	SSTD120	FB988	06/17/96	1411
04	SSTD080	SSTD080	FB989	06/17/96	1446
05	SSTD020	SSTD020	FB990	06/17/96	1521
06	ANLN160	ANLN160	FB991	06/17/96	1556
07	ANLN120	ANLN120	FB992	06/17/96	1631
08	ANLN080	ANLN080	FB993	06/17/96	1706
09	ANLN050	ANLN050	FB994	06/17/96	1741
10	ANLN020	ANLN020	FB995	06/17/96	1816
11	TCLP160	AB3	TCLP160 AB396	FB996	06/17/96
12	TCLP120	AB3	TCLP120 AB396	FB997	06/17/96
13	TCLP080	AB3	TCLP080 AB396	FB998	06/17/96
14	TCLP050	AB3	TCLP050 AB396	FB999	06/17/96
15	TCLP020	AB3	TCLP020 AB396	FC000	06/17/96
16					
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22					

FORM 5  
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name:

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: SV7327

Lab File ID: FC343

DFTPP Injection Date: 07/09/96

Instrument ID: ITS3

DFTPP Injection Time: 0739

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	49.6
68	Less than 2.0% of mass 69	0.7 ( 1.0)1
69	Mass 69 relative abundance	65.2
70	Less than 2.0% of mass 69	0.0 ( 0.0)1
127	40.0 - 60.0% of mass 198	55.6
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.3
275	10.0 - 30.0% of mass 198	19.3
365	Greater than 1.0% of mass 198	1.08
441	Present, but less than mass 443	7.9
442	40.0 - 110.0% of mass 198	56.6
443	17.0 - 23.0% of mass 442	10.8 ( 19.1)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050 AB3	SSTD050 AB396	FC344	07/09/96	0755
02	ANLN050 AB3	ANLN050 AB396	FC345	07/09/96	0830
03	BLANK	7327-17	FC348	07/09/96	1015
04	BLANK BS	7327-20	FC349	07/09/96	1049
05	BLANK BSD	BLANK BSD	FC350	07/09/96	1124
06	7327-1 MS	7327-18	FC351	07/09/96	1159
07	7327-1 MSD	7327-19	FC352	07/09/96	1234
08	WO-1	7327-1	FC353	07/09/96	1309
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FORM 8  
SEMVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name:

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: SV7327

Lab File ID (Standard): FC344

Date Analyzed: 07/09/96

Instrument ID: ITS3

Time Analyzed: 0755

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	244609	5.91	861663	8.23	418594	11.77
UPPER LIMIT	489218	6.41	1723326	8.73	837188	12.27
LOWER LIMIT	122304	5.41	430832	7.73	209297	11.27
CLIENT SAMPLE NO.						
01 BLANK	140547	5.90	532361	8.23	279142	11.77
02 BLANK BS	134520	5.90	520895	8.22	291056	11.77
03 BLANK BSD	150826	5.90	586217	8.22	334364	11.76
04 7327-1 MS	184861	5.90	724936	8.22	381907	11.76
05 7327-1 MSD	191083	5.90	745042	8.22	402190	11.76
06 7327-1	179253	5.90	648213	8.22	335273	11.76
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IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

FORM 8  
SEMOVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name:

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: SV7327

Lab File ID (Standard): FC344

Date Analyzed: 07/09/96

Instrument ID: ITS3

Time Analyzed: 0755

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	576572	14.83	507431	20.30	552055	23.09
UPPER LIMIT	1153144	15.33	1014862	20.80	1104110	23.59
LOWER LIMIT	288286	14.33	253716	19.80	276028	22.59
CLIENT SAMPLE NO.						
01 BLANK	488220	14.83	396637	20.29	400429	23.08
02 BLANK BS	538341	14.83	397473	20.30	355469	23.09
03 BLANK BSD	646596	14.83	508300	20.30	492564	23.09
04 7327-1 MS	678515	14.83	525310	20.30	526257	23.08
05 7327-1 MSD	720999	14.84	584549	20.30	590002	23.09
06 7327-1	559616	14.82	488716	20.28	528313	23.07
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IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.



Inchcape Testing Services  
Environmental Laboratories

## SAMPLE DATA

FORM 1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

WOODWARD/CLYDE SAMPLE NO.

Lab Name:

Contract:

WO-1

Lab Code:

Case No.:

SAS No.:

SDG No.: SV7327

Matrix: (soil/water) SOIL

Lab Sample ID: 7327-1

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: FC353

Level: (low/med) LOW

Date Received: 07/03/96

% Moisture: 0 decanted: (Y/N) N

Date Extracted: 07/08/96

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 07/09/96

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) MG/KG

Q

62-75-9-----N-Nitrosodimethylamine	0.333	U
62-53-3-----Aniline	0.333	U
108-95-2-----Phenol	0.333	U
111-44-4-----Bis(2-chloroethyl)ether	0.333	U
95-57-8-----2-Chlorophenol	0.333	U
541-73-1-----1,3-Dichlorobenzene	0.333	U
106-46-7-----1,4-Dichlorobenzene	0.333	U
100-51-6-----Benzyl alcohol	0.333	U
95-50-1-----1,2-Dichlorobenzene	0.333	U
95-48-7-----2-Methylphenol	0.333	U
39638-32-9-----Bis(2-chloroisopropyl)ether	0.333	U
106-44-5-----4-Methylphenol	0.333	U
621-64-7-----N-Nitrosodi-n-propylamine	0.333	U
67-72-1-----Hexachloroethane	0.333	U
98-95-3-----Nitrobenzene	0.333	U
78-59-1-----Isophorone	0.333	U
88-75-5-----2-Nitrophenol	0.333	U
105-67-9-----2,4-Dimethylphenol	0.300	U
111-91-1-----Bis(2-chloroethoxy)methane	0.700	U
65-85-0-----Benzoic acid	1.60	U
120-83-2-----2,4-Dichlorophenol	0.300	U
120-82-1-----1,2,4-Trichlorobenzene	0.700	U
91-20-3-----Naphthalene	0.700	U
106-47-8-----4-Chloroaniline	1.30	U
87-68-3-----Hexachlorobutadiene	0.700	U
59-50-7-----4-Chloro-3-methylphenol	1.30	U
91-57-6-----2-Methylnaphthalene	0.700	U
77-47-4-----Hexachlorocyclopentadiene	0.700	U
88-06-2-----2,4,6-Trichlorophenol	0.700	U
95-95-4-----2,4,5-Trichlorophenol	3.30	U
91-58-7-----2-Chloronaphthalene	0.700	U
88-74-4-----2-Nitroaniline	3.30	U
131-11-3-----Dimethylphthalate	0.700	U

FORM 1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

WOODWARD/CLYDE SAMPLE NO.

WO-1

Lab Name:	Contract:	
Lab Code:	Case No.:	SAS No.: SDG No.: SV7327
Matrix: (soil/water) SOIL		Lab Sample ID: 7327-1
Sample wt/vol:	30.0 (g/mL) G	Lab File ID: FC353
Level: (low/med)	LOW	Date Received: 07/03/96
% Moisture: 0	decanted: (Y/N) N	Date Extracted: 07/08/96
Concentrated Extract Volume: 1000 (uL)		Date Analyzed: 07/09/96
Injection Volume: 1.0 (uL)		Dilution Factor: 1.0
GPC Cleanup: (Y/N) N	pH: _____	

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
---------	----------	---	---

208-96-8-----	Acenaphthylene	0.700	U
606-20-2-----	2,6-Dinitrotoluene	0.700	U
99-09-2-----	3-Nitroaniline	3.30	U
83-32-9-----	Acenaphthene	0.700	U
51-28-5-----	2,4-Dinitrophenol	3.30	U
132-64-9-----	Dibenzofuran	0.700	U
100-02-7-----	4-Nitrophenol	1.60	U
121-14-2-----	2,4-Dinitrotoluene	0.700	U
84-66-2-----	Diethylphthalate	0.700	U
86-73-7-----	Fluorene	0.700	U
7005-72-3-----	4-Chlorophenyl phenyl ether	0.700	U
100-01-6-----	4-Nitroaniline	3.30	U
534-52-1-----	4,6-Dinitro-2-methylphenol	3.30	U
86-30-6-----	N-Nitrosodiphenylamine (1)	0.700	U
103-33-3-----	1,2-Diphenylhydrazine	0.333	U
101-55-3-----	4-Bromophenyl phenyl ether	0.700	U
118-74-1-----	Hexachlorobenzene	0.700	U
87-86-5-----	Pentachlorophenol	3.30	U
92875-----	Benzidine	1.67	U
85-01-8-----	Phenanthrene	0.700	U
120-12-7-----	Anthracene	0.700	U
86-74-8-----	Carbazole	0.333	U
84-74-2-----	Di-n-butylphthalate	0.0368	J
206-44-0-----	Fluoranthene	0.700	U
129-00-0-----	Pyrene	0.700	U
85-68-7-----	Butyl benzyl phthalate	0.700	U
56-55-3-----	Benzo(a)anthracene	0.330	U
91-94-1-----	3,3'-Dichlorobenzidine	1.30	U
218-01-9-----	Chrysene	0.330	U
117-81-7-----	Bis(2-ethylhexyl)phthalate	0.700	U
117-84-0-----	Di-n-octylphthalate	0.700	U
205-99-2-----	Benzo(b)fluoranthene	0.330	U
207-08-9-----	Benzo(k)fluoranthene	0.330	U

(1) - Cannot be separated from Diphenylamine  
FORM I SV

FORM 1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

WOODWARD/CLYDE SAMPLE NO.

WO-1

Lab Name:

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: SV7327

Matrix: (soil/water) SOIL

Lab Sample ID: 7327-1

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: FC353

Level: (low/med) LOW

Date Received: 07/03/96

% Moisture: 0 decanted: (Y/N) N

Date Extracted: 07/08/96

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 07/09/96

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) MG/KG

Q

50-32-8-----	Benzo(a)pyrene	0.330	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	0.330	U
53-70-3-----	Dibenz(a,h)anthracene	0.330	U
191-24-2-----	Benzo(g,h,i)perylene	0.330	U

Inchcape Testing Services - Dallas

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem2/ITS3.i/09Jul1996.b/fc353.d  
Lab Smp Id: D96-7327-1 Client Smp ID: D96-7327-1  
Inj Date : 09-JUL-1996 13:09  
Operator : WSW Inst ID: ITS3.i  
Emp Info : 8270\_ABNS;;AB815-22;1  
Misc Info : 30/1 07-08-96 WOODWARD CLYDE  
Comment :  
Method : /chem2/ITS3.i/09Jul1996.b/abn3.m  
Inj Date : 12-Jul-1996 15:51 target Quant Type: ISTD  
Cal Date : 17-JUN-1996 20:00 Cal File: fb998.d  
Als bottle: 11  
Fil Factor: 1.000  
Integrator: HP RTE Compound Sublist: all.sub  
Target Version: 3.10

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	( ng)
\$ 3 2-Fluorophenol (SS)	112.00	3.940	3.972 (0.668)	542946	68.7	2.29	
\$ 4 Phenol-d6 (SS)	99.00	5.297	5.318 (0.898)	767884	84.2	2.81	
10 1,4-Dichlorobenzene-d4	152.00	5.899	5.910 (1.000)	179253	40.0		
19 Nitrobenzene-d5 (SS)	82.00	6.861	6.898 (0.835)	252454	33.3	1.11	
* 29 Naphthalene-d8	136.00	8.217	8.226 (1.000)	648213	40.0		
38 2-Fluorobiphenyl (SS)	172.00	10.415	10.430 (0.886)	309519	25.5	0.850	
45 Acenaphthene-d10	164.00	11.760	11.768 (1.000)	335273	40.0		
\$ 58 2,4,6-Tribromophenol (SS)	329.90	13.401	13.394 (1.139)	118374	88.7	2.96	
* 62 Phenanthrene-d10	188.00	14.822	14.830 (1.000)	559616	40.0		
66 Di-n-butylphthalate	149.00	16.145	16.145 (1.089)	26015	1.10	0.0368(a)	
70 Terphenyl-d14 (SS)	244.00	18.169	18.172 (0.896)	389407	29.6	0.988	
* 74 Chrysene-d12	240.00	20.281	20.298 (1.000)	488716	40.0		
* 81 Perylene-d12	264.00	23.075	23.079 (1.000)	528313	40.0		

QC Flag Legend

- Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Inchcape Testing Services - Dallas

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: ITS3.i  
Lab File ID: fc353.d  
Lab Smp Id: D96-7327-1  
Analysis Type: SV  
Quant Type: ISTD  
Operator: WSW

Calibration Date: 07/09/96  
Calibration Time: 0755  
Client Smp ID: D96-7327-1  
Level: LOW  
Sample Type: SOIL

Method File: /chem2/ITS3.i/09Jul1996.b/abn3.m  
Misc Info: 30/1 07-08-96 WOODWARD CLYDE

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	% DIFF
		LOWER	UPPER		
10 1,4-Dichlorobenzene-	244609	122304	489218	179253	-26.72
29 Naphthalene-d8	861663	430832	1723326	648213	-24.77
45 Acenaphthene-d10	418594	209297	837188	335273	-19.90
62 Phenanthrene-d10	576572	288286	1153144	559616	-2.94
74 Chrysene-d12	507431	253716	1014862	488716	-3.69
81 Perylene-d12	552055	276028	1104110	528313	-4.30

COMPOUND	STANDARD	RT LIMIT		SAMPLE	% DIFF
		LOWER	UPPER		
10 1,4-Dichlorobenzene-	5.91	5.41	6.41	5.90	-0.17
29 Naphthalene-d8	8.23	7.73	8.73	8.22	-0.17
45 Acenaphthene-d10	11.77	11.27	12.27	11.76	-0.06
62 Phenanthrene-d10	14.83	14.33	15.33	14.82	-0.08
74 Chrysene-d12	20.30	19.80	20.80	20.28	-0.11
81 Perylene-d12	23.09	22.59	23.59	23.07	-0.08

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT.

RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Inchcape Testing Services - Dallas

RECOVERY REPORT

Client Name:  
Sample Matrix: SOLID  
Lab Smp Id: D96-7327-1  
Level: LOW  
Data Type: MS DATA  
SpikeList File: 8270\_100.spk  
Method File: /chem2/ITS3.i/09Jul1996.b/abn3.m  
Misc Info: 30/1 07-08-96 WOODWARD CLYDE

Client SDG: 09Jul1996  
Fraction: SV  
Client Smp ID: D96-7327-1  
Operator: WSW  
SampleType: SAMPLE  
Quant Type: ISTD

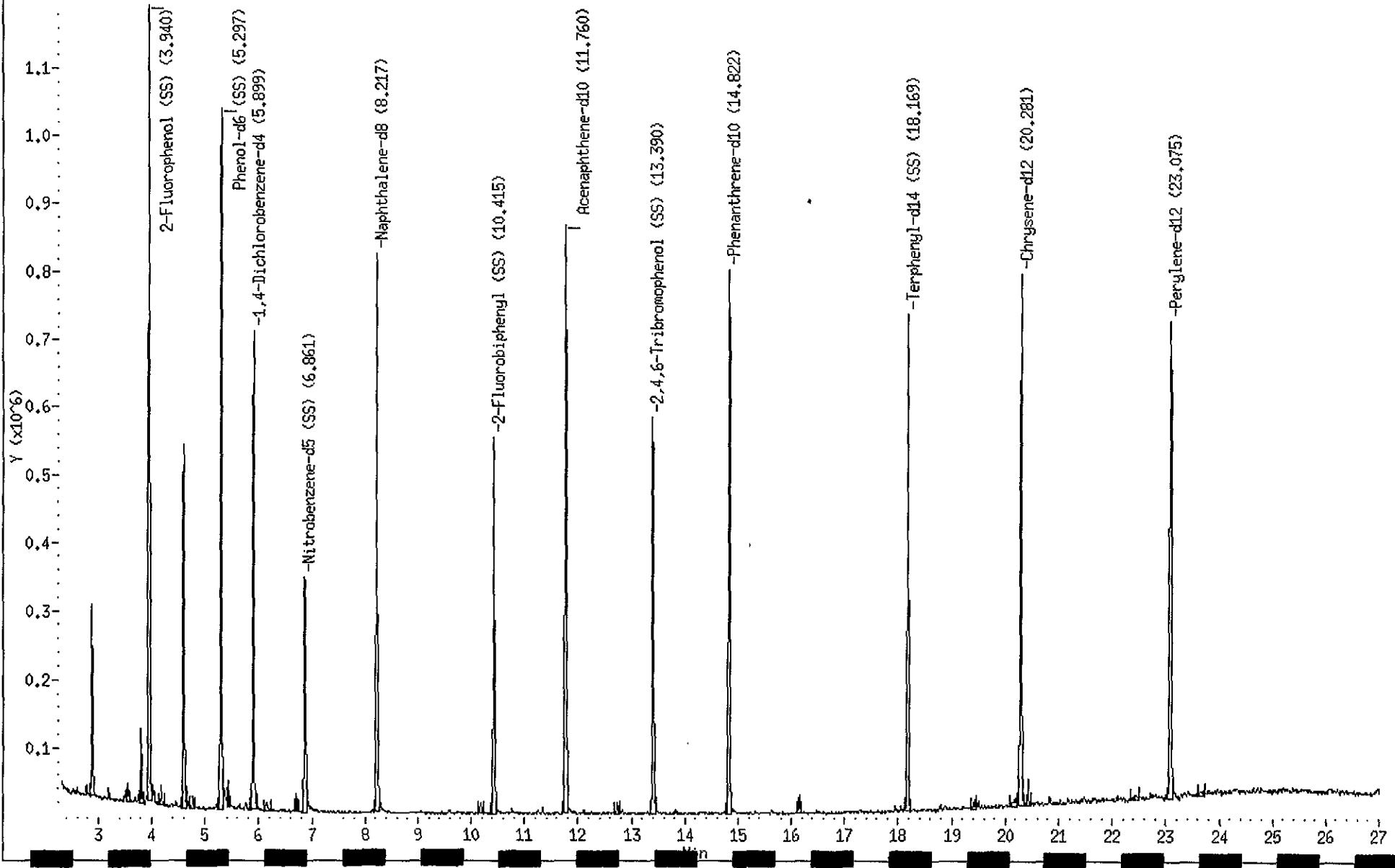
SURROGATE COMPOUND	CONC ADDED mg/Kg	CONC RECOVERED mg/Kg	% RECOVERED	LIMITS
\$ 3 2-Fluorophenol (SS)	3.33	2.29	68.71	25-121
\$ 4 Phenol-d6 (SS)	3.33	2.81	84.20	24-113
\$ 19 Nitrobenzene-d5 (S)	1.67	1.11	66.66	23-120
\$ 38 2-Fluorobiphenyl (	1.67	0.850	51.02	30-115
\$ 58 2,4,6-Tribromophen	3.33	2.96	88.68	19-122
\$ 70 Terphenyl-d14 (SS)	1.67	0.988	59.25	18-137

Data File: /chem2/ITS3.i/09Jul1996.b/fc353.d  
Date : 09-JUL-1996 13:09  
Client ID: D96-7327-1  
Sample Info: 8270\_ABN\_S;AB815-22:1  
Volume Injected (uL): 1.0  
Column phase: DB-5

Instrument: ITS3.i  
Operator: WSW  
Column diameter: 0.25

Page 4

/chem2/ITS3.i/09Jul1996.b/fc353.d



Data File: /chem2/ITS3.i/09Jul1996.b/fc353.d

Page 5

Date : 09-JUL-1996 13:09

Instrument: ITS3.i

Client ID: D96-7327-1

Sample Info: 8270\_ABM\_S;;AB815-22;1

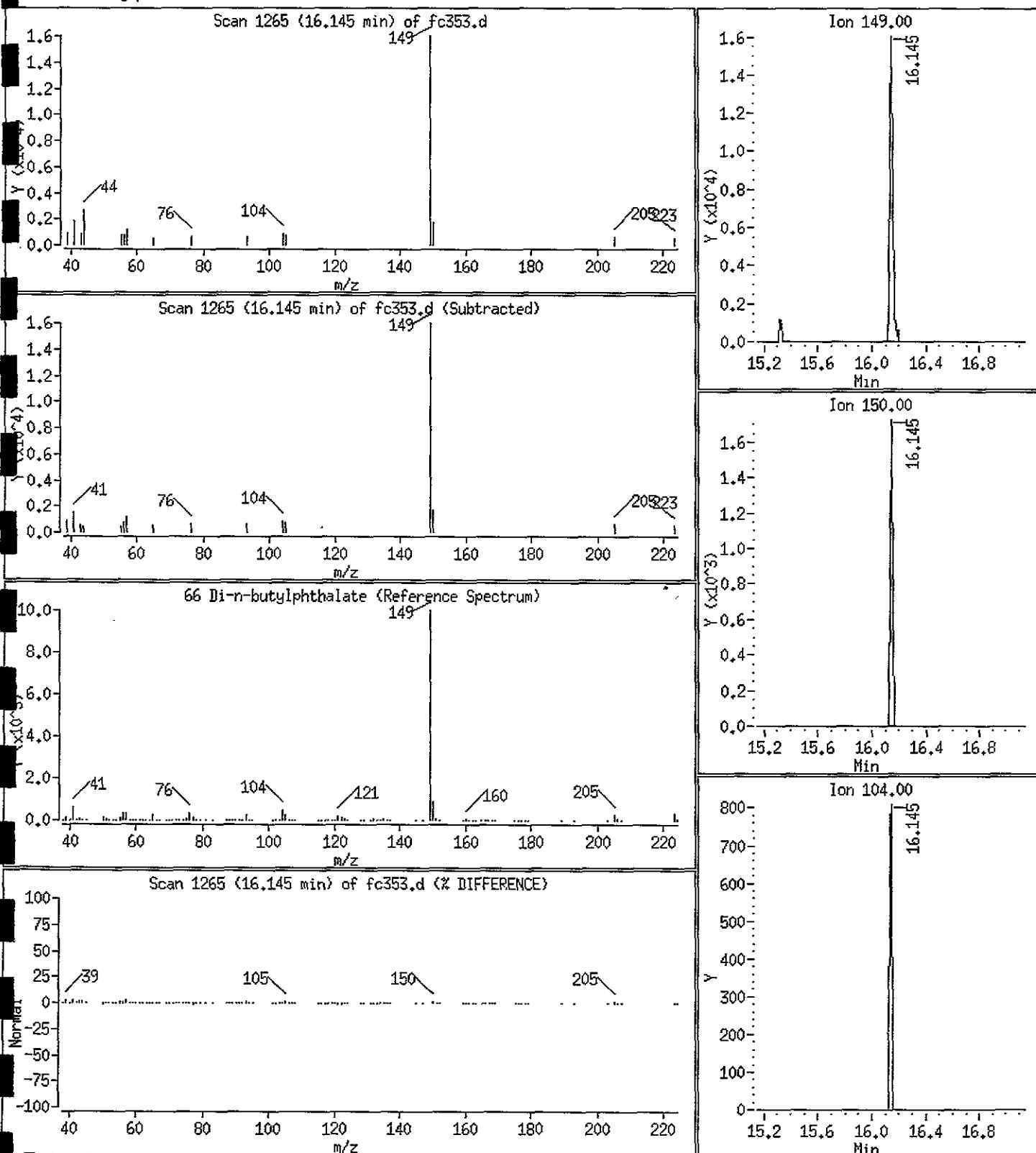
Volume Injected (uL): 1.0

Operator: WSW

Column phase: DB-5

Column diameter: 0.25

### 66 Di-n-butylphthalate





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## **VOLATILE HALOCARBONS DATA**



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## **QUALITY CONTROL SUMMARY**

FORM 2  
SOIL 8010 SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: DALLAS Case No.: SAS No.: SDG No.: 8010-7327

Level: (low/med) LOW

WWC SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	OTHER	TOT OUT
01 PBLKLCs	104				0
02 WO-1MS	103				0
03 WO-1MSD	101				0
04 PBLK	103				0
05 WO-1	106				0
06 PBLKLCSD	106				0
07					
08					
09					
10					
11					
12					
13					
14					
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26					
27					
28					
29					
30					

QC LIMITS

SMC1 = 4-BROMOFLUOROBENZENE (70-130)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 3  
SOIL 8010 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: DALLAS Case No.: SAS No.: SDG No.: 8010-7327

Matrix Spike - Client Sample ID: W0-1 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Vinyl Chloride	100.00	0.00	107.48	107	68-132
Chloroform	100.00	0.00	92.59	92	75-125
Bromodichloromethane	100.00	0.00	79.60	80	76-124
Chlorobenzene	100.00	0.00	88.66	89	72-128
1,2-Dichlorobenzene	100.00	0.00	90.19	90	70-130

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	MSD % RPD #	QC RPD	LIMITS REC.
Vinyl Chloride	100.00	124.15	124	15	25	68-132
Chloroform	100.00	98.92	99	7	25	75-125
Bromodichloromethane	100.00	82.75	83	4	25	76-124
Chlorobenzene	100.00	94.53	94	5	25	72-128
1,2-Dichlorobenzene	100.00	95.20	95	5	25	70-130

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: \_\_\_\_\_

FORM 3  
SOIL 8010 LAB CONTROL SAMPLE

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: DALLAS Case No.: SAS No.: SDG No.: 8010-7327

Matrix Spike - Client Sample ID: PBLK Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Vinyl Chloride	20.00	0.00	19.58	98	68-132
Chloroform	20.00	0.00	19.58	98	75-125
Bromodichloromethane	20.00	0.00	18.74	94	76-124
Chlorobenzene	20.00	0.00	18.81	94	72-128
1,2-Dichlorobenzene	20.00	0.00	19.24	96	70-130

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC #	% RPD #	QC RPD	LIMITS REC.
Vinyl Chloride	20.00	19.18	96	2	25	68-132
Chloroform	20.00	20.53	103	5	25	75-125
Bromodichloromethane	20.00	20.10	100	6	25	76-124
Chlorobenzene	20.00	19.81	99	5	25	72-128
1,2-Dichlorobenzene	20.00	20.32	102	6	25	70-130

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: \_\_\_\_\_

FORM 4  
8010 METHOD BLANK SUMMARY

WWC SAMPLE NO.

Lab Name: INCHCAPE TESTING SERVICES Contract:

PBLK

Lab Code: DALLAS Case No.: SAS No.: SDG No.: 8010-7327

Lab File ID: 09JUL1943099 Lab Sample ID: PBLK

Date Analyzed: 07/09/96 Time Analyzed: 1943

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: MULTI19

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

WWC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01 PBLKLCS	PBLKLCS	09JUL1420099	1420
02 WO-1MS	7327-1MS	09JUL1607099	1607
03 WO-1MSD	7327-1MSD	09JUL1729099	1729
04 WO-1	7327-1	09JUL2050099	2050
05 PBLKLCS	PBLKLCS	09JUL2157099	2157
06			
07			
08			
09			
10			
11			
12			
13			
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28			
29			
30			

COMMENTS:



**Inchcape Testing Services**  
Environmental Laboratories

## **SAMPLE DATA**

FORM 1  
8010 ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

WO-1

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: DALLAS Case No.: SAS No.: SDG No.: 8010-7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 09JUL2050099

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: not dec. 18 Date Analyzed: 07/09/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

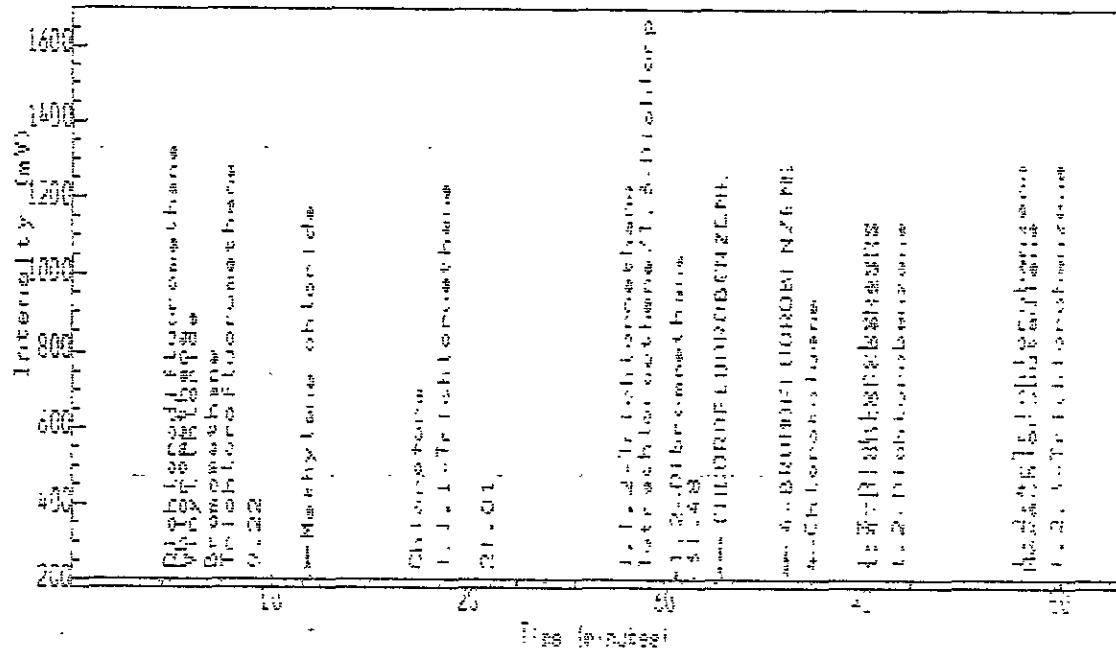
CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
74-87-3-----	Chloromethane	6.08	U	
75-01-4-----	Vinyl Chloride	6.08	U	
74-83-9-----	Bromomethane	14.60	U	
75-00-3-----	Chloroethane	7.30	U	
75-69-4-----	Trichlorofluoromethane	6.08	U	
75-35-4-----	1,1-Dichloroethene	2.43	U	
75-09-2-----	Methylene chloride	6.08	U	
156-60-5-----	trans-1,2-Dichloroethene	1.22	U	
75-34-3-----	1,1-Dichloroethane	1.22	U	
156-59-4-----	cis-1,2-Dichloroethylene	1.22	U	
67-66-3-----	Chloroform	1.22	U	
71-55-6-----	1,1,1-Trichloroethane	1.22	U	
56-23-5-----	Carbontetrachloride	2.43	U	
107-06-2-----	1,2-Dichloroethane	3.65	U	
79-01-6-----	Trichloroethene	1.22	U	
78-87-5-----	1,2-Dichloropropane	1.22	U	
75-27-4-----	Bromodichloromethane	1.22	U	
10061-01-5-----	cis-1,3-Dichloropropene	2.43	U	
10061-02-6-----	trans-1,3-Dichloropropene	2.43	U	
79-00-5-----	1,1,2-Trichloroethane	1.22	U	
127-18-4-----	Tetrachloroethene/1,3-Dichlo	1.22	U	
124-48-1-----	Dibromochloromethane	1.22	U	
108-90-7-----	Chlorobenzene	3.65	U	
75-25-2-----	Bromoform	2.43	U	
79-34-5-----	1,1,2,2 Tetrachloroethane	1.22	U	
541-73-1-----	1,3-Dichlorobenzene	4.87	U	
106-46-7-----	1,4-Dichlorobenzene	3.65	U	
95-50-1-----	1,2-Dichlorobenzene	2.43	U	

[070896] 4 VOA070996,9,1  
Reported on 9-JUL-1996 at 21:44

7-3-96

## Instrument Report

Acquired on 9-JUL-1996 at 20:50



Innoscape Testing Services - Dallas

Analyst Name:   
Line Id:   
Comment:   
Method Title: METHOD 601-8010 VARIAN 3400 LSC 2000 4.100   
Sample Name: 7327-1 507 8010\_6   
Sample Id:   
Sample Type: Sample Amount=0.1000   
Bottle #: 9

JCH 7-10-96

### PEAK INFORMATION

RT mins	RT Corr	RT Err	Area (uV)	ug/l	Peak name	RT slope	RF intercept
4.957	4.957	5.070	10081	0.13	Dichlorodifluoromethane	0.1082	0.0000
5.548	5.548	5.580	10325	0.22	Chloromethane	0.0637	0.0000
6.023	6.023	5.900	31267	0.31	Vinyl Chloride	0.1322	0.0000
7.001	7.001	6.910	66011	1.77	Bromomethane BDL	0.0497	0.0000
7.854	7.854	7.840	43017	0.28	Trichlorofluoromethane	0.2064	0.0000
11.832	11.832	11.850	707798	4.14	Methylene chloride Value	0.2220	0.0000
12.837	12.837	12.860	1487	9.96E-3	trans-1,2-Dichloroethene	0.1987	0.0000
17.366	17.366	17.380	2340	0.04	Chloroform	0.2522	0.0000
18.010	18.010	18.050	1148	0.01	Bromochloromethane	0.1402	0.0000
18.717	18.717	18.770	7405	0.04	1,1,1-Trichloroethane	0.2339	0.0000
22.343	22.343	22.380	562	3.75E-3	Isobutane	0.1929	0.0000

19.014

3589

0.02 Tetrachloroethane 1,3-Diene

0.02%

1,000

[070896] 4 VOA070996,9,1

Reported on 9-JUL-1996 at 21:44

Page 2

RT mins	RT Corr	RT Exp	Area UVs	ug/L	Peak name	RF slope	RF intercept
30.552	30.552	30.550	118934	1.96	1,1-Dibromoethane NL	0.0803	0.0000
31.966	31.966	31.958	943	0.01	Chlorobenzene	1.0862	0.0000
32.792	32.792	32.880	750732		CHLOROFUOROBENZENE	1.0410	0.0000
36.170	36.170	36.200	682453	10.55	4-BromoFLUOROBENZENE 106010	0.7459	0.3061
37.294	37.294	37.320	3805	0.07	2-Chlorotoluene	0.0763	0.0000
37.463	37.463	37.520	16650	0.27	4-Chlorotoluene	0.0763	0.0000
40.108	40.108	40.160	2237	0.08	1,2-Dichlorobenzene	0.1204	0.0000
40.521	40.521	40.530	12275	0.13	1,4-Dichlorobenzene	0.1257	0.0000
41.854	41.654	41.910	7683	0.02	1,2-Dichlorobenzene	0.1212	0.0000
47.979	47.979	48.040	22713	0.22	1,2,4-Trichlorobenzene	0.1588	0.0000
48.457	48.457	48.560	8265	0.04	Heptachloropentadiene	0.2057	0.0000
49.872	49.872	49.880	20466	0.22	1,2,3-Triamino benzene	0.1232	0.0000

Totals

Unknowns	111041	N/A
Quantified	2549327	20.70
Grand Total	2659368	20.70

MISSING PEAKSRT mins Peak name

7.240	Chloroethane
7.960	1,1-Dichloroethane
14.550	1,1-Dichloroethane
15.540	2,2-Dichloropropane
16.620	cis-1,2-Dichloroethylene
19.230	1,1-Dichloropropene
19.540	Carbontetrachloride
20.310	1,2-Dichloroethene
23.030	1,2-Dichloropropene
25.230	cis-1,3-Dichloropropene
29.900	Dibromochloromethane
32.190	1,1,1,2-Tetrachloroethane
35.400	Bromiform
35.970	1,1,2,2-Tetrachloroethane
36.500	1,2,3-Trichloropropane
36.560	Bromobenzene
44.940	1,2-Dibromo-3-chloropropane

PEAK GROUP INFORMATIONArea UVs ug/L Peak name

[070896] 4 VOA070896,9,1  
Reported on 9-JUL-1996 at 21:44

Page 3

6425 0.04 TRIHALOMETHANES

ANALYSIS SUMMARY

Method..... HPLC  
Run sequence..... VOA  
Calibration..... 80100530  
Internal standard calibration using area  
Calibration last modified on 31-MAY-1996 at 14:34  
Uncalibrated peaks use user factor (0.0000)



**Inchcape Testing Services**  
Environmental Laboratories

## **VOLATILE AROMATICS DATA**



**Inchcape Testing Services**  
Environmental Laboratories

## **QUALITY CONTROL SUMMARY**

FORM 2  
SOIL 8020 SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTX7327

Level: (low/med) LOW

WWC SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	OTHER	TOT OUT
01 BLANKLCS		101			0
02 BLANKLCSD		101			0
03 WO-1MS		102			0
04 WO-1MSD		102			0
05 BLANK		101			0
06 WO-1		97.0			0
07 MOP-1		94.1			0
08 OGP-1		92.6			0
09 DP-2		93.5			0
10 MOP-2		95.6			0
11 CPG-2		106			0
12 GPSTP-2		101			0
13 CPG-1		105			0
14 DSTP-1		99.1			0
15 CPD-2		97.1			0
16 OGP-3		97.3			0
17 GPSTP-1		109			0
18 OGP-2		98.7			0
19 CPD-1		114			0
20 DP-1		D			1 *
21					
22					
23					
24					
25					
26			.		
27					
28					
29					

ADVISORY  
QC LIMITS

S1= BROMOFLUOROBENZENE (SS (70-130)  
# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 2  
SOIL 8020 SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTEX7327

Level: (low/med) LOW

WWC SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	OTHER	TOT OUT
01 PBLK1LCS	100				0
02 PBLK1LCSD	101				0
03 WO-1MS	101				0
04 WO-1MSD	101				0
05 PBLK1	95				0
06 WO-1	101				0
07 DP-1	102				0
08					
09					
10					
11					
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29					
30					

QC LIMITS

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 2  
LIQUID 8020 SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTX7327

Level: (low/med) LOW

WWC SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	OTHER	TOT OUT
01 BLANKLCS		98.3			0
02 BLANKLCSD		98.2			0
03 PBLK		104			0
04 TRIPBLKMS		97.2			0
05 TRIPBLKMSD		98.8			0
06 TRIPBLK		104			0
07					
08					
09					
10					
11					
12					
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29					

ADVISORY  
QC LIMITS

S2= BROMOFLUOROBENZENE (SS (70-130)  
# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 3  
SOIL 8020 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTX7327

Matrix Spike - Client Sample ID: W0-1 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Benzene	250	0.000	210	84	75-125
Toluene	250	0.000	204	82	75-125
Ethyl benzene	250	0.000	197	79	75-125
Xylenes	750	0.000	615	82	75-125

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC RPD	LIMITS REC.
Benzene	250	213	85	1	20	75-125
Toluene	250	208	83	1	20	75-125
Ethyl benzene	250	201	80	1	20	75-125
O-Xylenes	750	625	83	1	20	75-125

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: \_\_\_\_\_

FORM 3  
SOIL 8020 LAB CONTROL SAMPLE

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTX7327

Matrix Spike - Client Sample ID: PBLK Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Benzene	50	0.0000	40.1	80.3	75-125
Toluene	50	0.0000	39.3	78.7	75-125
Ethyl benzene	50	0.0000	38.9	77.8	75-125
<i>o</i> -Xylenes	50	0.0000	38.4	76.8	75-125

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC #	% RPD #	QC RPD	LIMITS REC.
Benzene	50	37.6	75.2	6	20	75-125
Toluene	50	37.0	74.0	6	20	75-125
Ethyl benzene	50	36.8	73.7	5	20	75-125
<i>o</i> -Xylenes	50	36.3	72.6	5	20	75-125

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 3 out of 10 outside limits

COMMENTS: \_\_\_\_\_

FORM 3  
SOIL 8020 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTEX7327

Matrix Spike - Client Sample ID: W0-1 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Benzene	250.0	0.00	208	83	70-130
Toluene	250.0	0.00	206	82	70-130
Ethyl benzene	250.0	0.00	203	81	70-130
Xylenes	750.0	0.00	635	85	70-130

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC RPD	LIMITS REC.
Benzene	250.0	212	85	2	25	70-130
Toluene	250.0	210	84	2	25	70-130
Ethyl benzene	250.0	207	83	2	25	70-130
Xylenes	750.0	645	86	1	25	70-130

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 10 out of 10 outside limits

COMMENTS: \_\_\_\_\_

FORM 3  
SOIL 8020 LAB CONTROL SAMPLE

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTEX7327

Matrix Spike - Client Sample ID: PBLK Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Benzene	50.0	0.00	39.53	79	75-125
Toluene	50.0	0.00	39.04	78	75-125
Ethyl benzene	50.0	0.00	38.66	77	75-125
Xylenes	150.0	0.00	121.48	81	75-125

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC #	% RPD #	QC RPD	LIMITS REC.
Benzene	50.0	39.26	78	1	20	75-125
Toluene	50.0	38.64	77	1	20	75-125
Ethyl benzene	50.0	38.30	76	1	20	75-125
Xylenes	150.0	120.19	80	1	20	75-125

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: \_\_\_\_\_

FORM 3  
8020 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTX7327L

Matrix Spike - Client Sample ID: TRIPBLK Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Benzene	500	0.000	486	101	75-125
Toluene	500	0.000	488	97.6	75-125
Ethyl benzene	500	0.000	480	96.0	75-125
Xylenes	500	0.000	518	103	75-125

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC RPD	LIMITS REC.
Benzene	500	518	104	3	20	75-125
Toluene	500	523	105	7	20	75-125
Ethyl benzene	500	525	105	8	20	75-125
Xylenes	500	558	112	8	20	75-125

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: \_\_\_\_\_

FORM 3  
8020 LAB CONTROL SAMPLE

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTX7327L

Matrix Spike - Client Sample ID: PBLK

Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Benzene	50	0.0000	48.6	97.2	75-125
Toluene	50	0.0000	48.8	97.6	75-125
Ethyl benzene	50	0.0000	48.0	96.2	75-125
Xylenes	50	0.0000	51.8	104	75-125

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	REC.
Benzene	50	51.8	104	7	20	75-125
Toluene	50	52.4	105	7	20	75-125
Ethyl benzene	50	52.5	105	8	20	75-125
Xylenes	50	55.8	112	8	20	75-125

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: \_\_\_\_\_

FORM 4  
8020 METHOD BLANK SUMMARY

WWC SAMPLE NO.

PBLK

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTX7327

Lab File ID: 10JUL0616099 Lab Sample ID: 7327-17

Date Analyzed: 07/10/96 Time Analyzed: 0616

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: MULTI15

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	WWC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	PBLKLCS	7327-20	10JUL0441	0441
02	PBLKLCS	PBLKLCS	10JUL0505	0505
03	WO-1MS	7327-1MS	10JUL0529	0529
04	WO-1MSD	7327-1MSD	10JUL0552	0552
05	WO-1	7327-1	10JUL0640	0640
06	MOP-1	7327-6	10JUL0708	0708
07	OGP-1	7327-10	10JUL0732	0732
08	DP-2	7327-9	10JUL0822	0822
09	MOP-2	7327-7	10JUL1237	1237
10	CPG-2	7327-5	10JUL1302	1302
11	GPDTP-2	7327-15	10JUL1327	1327
12	CPG-1	7327-4	10JUL1352	1352
13	DSTP-1	7327-13	10JUL1619	1619
14	CPD-2	7327-3	10JUL1706	1706
15	OGP-3	7327-12	10JUL1731	1731
16	GPSTP-1	7327-14	10JUL1755	1755
17	OGP-2	7327-11	10JUL2021	2021
18	CPD-1	7327-2	10JUL2133	2133
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28				
29				
30				

COMMENTS:

FORM 4  
8020 METHOD BLANK SUMMARY

WWC SAMPLE NO.

PBLK1

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTEX7327

Lab File ID: 11JUL0108710 Lab Sample ID: PBLK1

Date Analyzed: 07/11/96 Time Analyzed: 0108

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: MULTI15

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	KLEINFELDER SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	PBLK1LCS	PBLK1LCS	10JUL2332710	2332
02	PBLK1LCSD	PBLK1LCSD	10JUL2356710	2356
03	WO-1MS	7327-1MS	11JUL0020710	0020
04	WO-1MSD	7327-1MSD	11JUL0044710	0044
05	WO-1	7327-1	11JUL0132710	0132
06	DP-1	7327-8	11JUL1106710	1106
07				
08				
09				
10				
11				
12				
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30				

COMMENTS:

FORM 4  
8020 METHOD BLANK SUMMARY

WWC SAMPLE NO.

PBLK

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTX7327L

Lab File ID: 09JUL1241070 Lab Sample ID: PBLK

Date Analyzed: 07/09/96 Time Analyzed: 1241

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: MULTI9

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	WWC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	BLANKLCS	BLANKLCS	09JUL1057070	1057
02	BLANKLCSD	BLANKLCSD	09JUL1118070	1118
03	PBLK	PBLK	09JUL1241070	1241
04	TRIPBLKMS	7327-16MS	09JUL1301070	1301
05	TRIPBLKMSD	7327-16MSD	09JUL1322070	1322
06	TRIPBLK	7327-16	09JUL1343070	1343
07				
08				
09				
10				
11				
12				
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COMMENTS:

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**Inchcape Testing Services**  
Environmental Laboratories

## **SAMPLE DATA**

FORM 1  
8020 ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

WO-1

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTX7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 10JUL0640

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: not dec. 18 Date Analyzed: 07/10/96

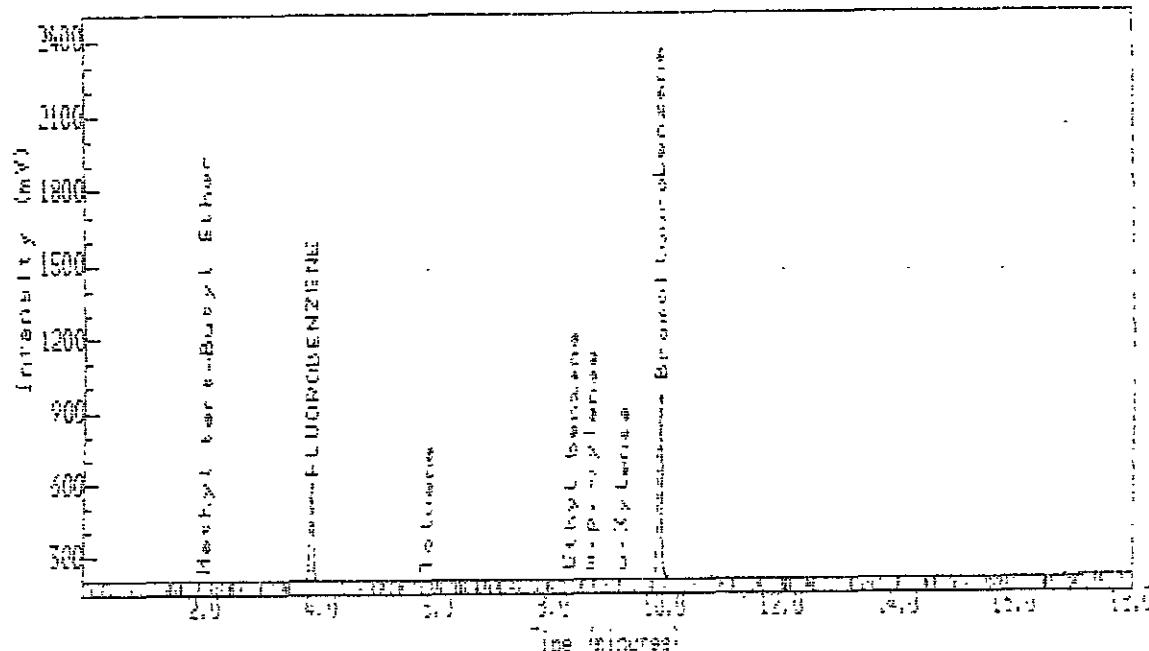
GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2-----	Benzene	2.4	U
108-88-3-----	Toluene	2.4	U
100-41-4-----	Ethyl benzene	2.4	U
108-38-3-----	m.p.-xlenes	2.4	U
95-47-6-----	o-Xlenes	2.4	U

## INJECTION REPORT

Acquired on 10-JUL-1996 at 06:59



Inchcape Testing Services - LabNet

Analyst Name :  
Line Id :  
Comment :  
Method Title :  
Sample Name : 7327-1 59 8020/8015  
Sample Id :  
Sample Type : Sample Amount(0.1000)  
Bottle No : 36

### PEAK INFORMATION

Cal Peaks RT mins ST Comp RT Sec	Area uV	uV/Lug/kg	Peak name	RF slope	RF intercept
2.099 2.099 2.260	3255	0.58	methyl tert-Butyl Ether	0.0034	0.0000
3.917 3.917 4.006	1533259		FLUOROBENZENE	1.0000	0.0000
5.899 5.899 5.975	11783	0.28	Toluene	0.0034	0.0000
6.389 6.398 6.304	37044	1.00	Ethyl benzene	0.0034	0.0000
8.690 8.690 8.560	2191	0.05	m,p-Xylenes	0.0034	0.0000
9.894 9.894 10.020	3142701	48.64	Bromofluorobenzene	0.0034	0.0000
<b>Totals</b>					
Unknowns	552715	N/A			
Quantified	4820333	50.56			
<b>Grand Total</b>	<b>5383049</b>	<b>50.56</b>			

Mr 7-1096

MISSING PEAKS

RT mins Peak name

3.748 Benzene

PEAK GROUP INFORMATION

Area uVs ug/l-ug/kg Peak name

2338 0.00 Ethylenes

ANALYSTS SUMMARY

Method: VOA01 VOA01

Run sequence: VU2

Calibration: BTX0703

Internal standard % calibration using area

Calibration list modified on 9-JUL-1996 at 18:13

Uncalibrated peaks use user factor (0.00%)

FORM 1  
8020 ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

WO-1

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTEX7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 11JUL0132

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: not dec. Date Analyzed: 07/11/96

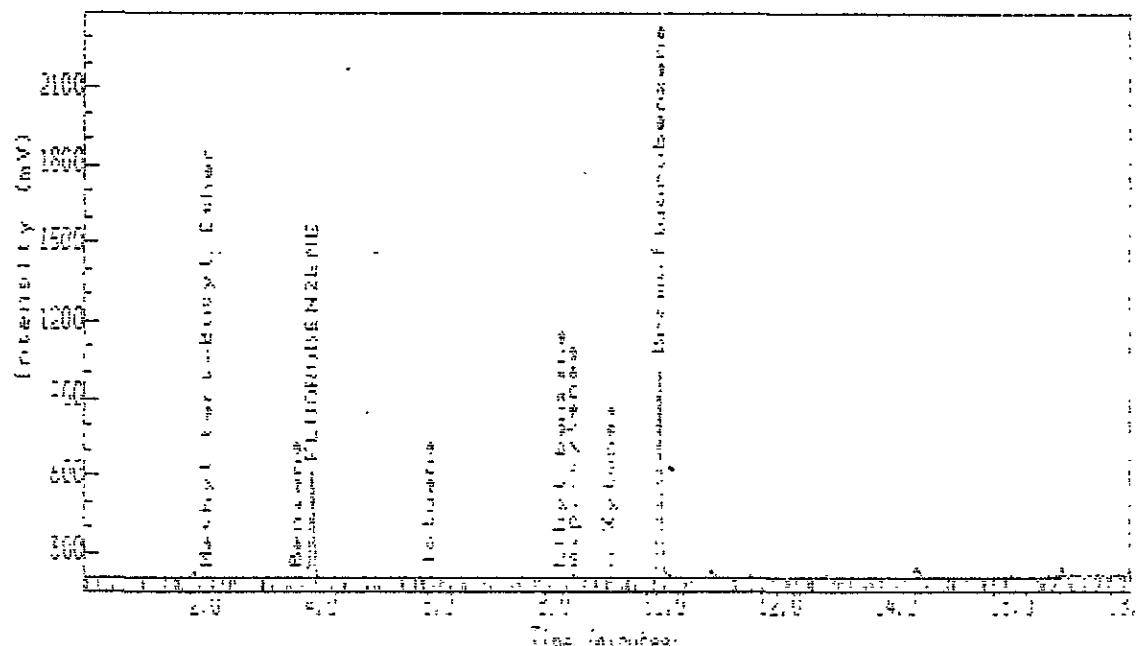
GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2-----	Benzene _____	2.4	U
108-88-3-----	Toluene _____	2.4	U
100-41-4-----	Ethyl benzene _____	2.4	U
108-38-3-----	m.p.-xlenes _____	2.4	U
95-47-6-----	o-Xlenes _____	2.4	U

## Inspection Report

Acquired on 11-JUL-1996 at 01:32



Indcape Testing Services - Mobile

Analyst Name :  
Lims Id :  
Comment : PURGEABLE AROMATICS & o,p-DIOXID  
Method Title :  
Sample Name : 7327-1 5G-8020/8015-01-ONLY  
Sample Id :  
Sample Type : Sample Amount=0.00000  
Bottle No : 7

### PEAK INFORMATION

Cal Flags	RT (min)	RT Err	Sec	Area (mV)	Conc (ug/kg)	Peak name	RF (ppm)	PC intercept
	3.112	3.112	2.150	3296	0.52	Propyl tert-Butyl Ether	0.0034	0.0000
	3.672	3.672	3.745	553	0.14	Benzene	0.0159	0.0000
	3.939	3.939	4.006	1627558		FLUOROBENZENE	0.0000	0.0000
	5.121	5.121	5.901	13400	0.31	Toluene	0.0154	0.0000
	9.201	9.201	8.292	11706	0.37	Ethyl benzene	0.0221	0.0000
	9.410	9.410	8.407	40567	0.93	<i>o,o'-mylene</i>	0.0258	0.0000
	9.050	9.050	9.080	10291	0.27	<i>o-ylenes</i>	0.0223	0.0000
	9.912	9.912	10.950	3406020	51.12	Perfluorobiphenyl	0.0345	0.0000
<b>Totals</b>								
Unknowns				966841	N/A			
Quantified				5179180	53.51			
Grand Total				6138122	53.51			

MISSING PEAKS

No missing peaks.

PEAK GROUP INFORMATION

Area (uV)	ppm	Peak name
-----------	-----	-----------

50958	1.21	Xylenes
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ANALYSIS SUMMARY

Method..... VDAOA1

Run sequence..... VDA1

Calibration..... BTX0703

Internal standard % calibration using area

Calibration last modified on 10-JUL-1995 at 04:54

Uncalibrated peaks use user factor (0.0000)

FORM 1  
8020 ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

CPD-1

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTX7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-2

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 10JUL2133

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 19 Date Analyzed: 07/10/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 50.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

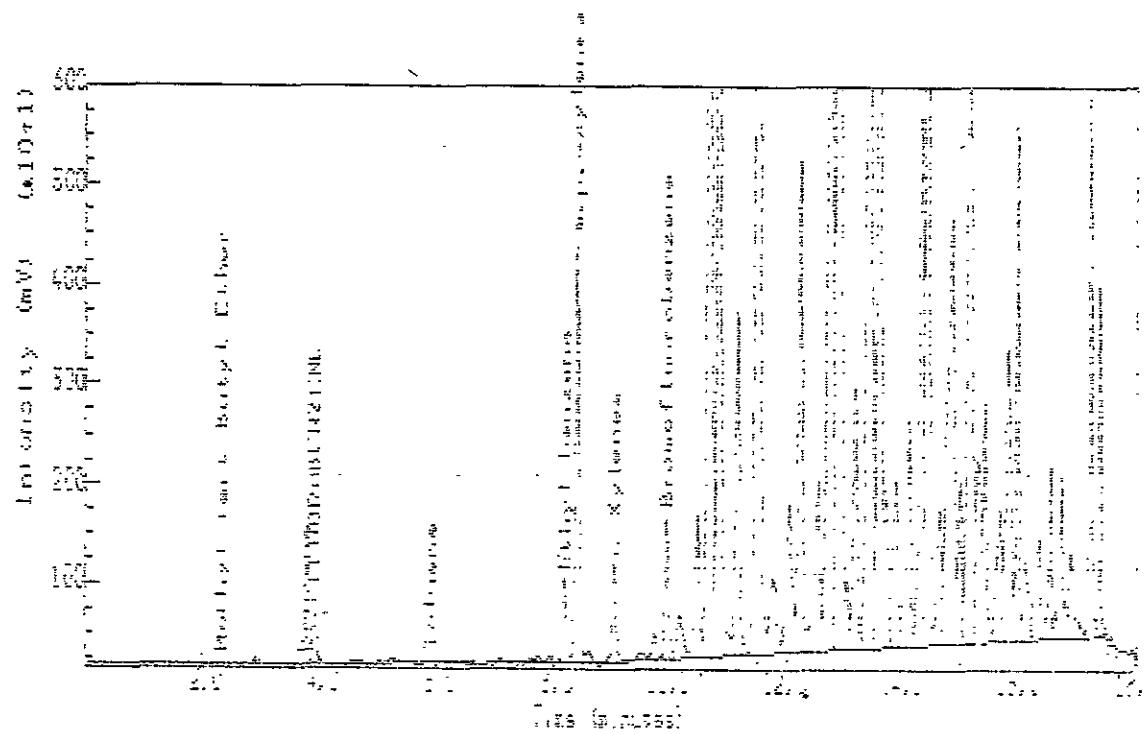
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Q	
		UG/KG	Q
71-43-2-----	Benzene	124.0	U
108-88-3-----	Toluene	124.0	U
100-41-4-----	Ethyl benzene	3630.0	
108-38-3-----	m.p.-xylanes	15665.0	
95-47-6-----	o-Xylenes	4482.0	

[070896] 27 VOA070896A,70,1  
Reported on 11-JUL-1996 at 07:12

Page 1

Instrumental Data File

Acquired on 10 JUL 1996 at 21:35



Instrumental Parameters = Default

Analyst Name =  
Time Id =  
Comment =  
Method Title =  
Sample Name = 7027-1 1/30 8070, 8016  
Sample Id =  
Sample Type = Sample      Analysis ID: 000000  
Bottle No = 8016

Mr 7-11-96

PEAK INFORMATION

Ret. Time RT	RT Err	Area (%)	ppm/Kg	Peak Name	R Slope	R Intercept	
2.048	2.348	2.260	326	1.67	Methyl tert-Butyl Ether	0.0034	0.0000
3.768	3.768	3.748	10052	0.45	Benzene	0.0030	0.0006
4.313	3.943	4.000	2848.00		FLUOROBENZENE	1.0000	0.0000
5.934	5.934	5.901	69381	61.75	Toluene j. Value	0.0074	0.0006
6.219	6.219	6.202	3793897	2915.10	Ethyl benzene	0.021e	0.0006
8.428	8.428	8.407	13666248	12658.67	m,p-xylene	0.0255	0.0000
9.068	9.068	9.050	4620121	0.020-50	e-Xylenes	0.0222	0.0000
9.551	9.532	10.020	4436411	2244.05	Bromoetherbenzene	0.0056	0.0000

307

[070896] 27 VDAJ70996A,70,1  
Reported on 11-JUL-1996 at 07:12

卷之三

Unknowns	787038288	N/A
Quantified	36439540	22178.48
Grand Total	823478520	22178.48

## MEETING PEAKS

20 朝鮮民族の歴史と文化

Right: 500 μm. Left: 100 μm.

$\tau_{\text{max}} = 100$  s,  $\omega_0/2\pi = 100$  Hz,  $K_0 = 1000$

Z328 or 70 1000-1100 400-1000

ENGLISH EDITION

Method of calibration of the spectrometer  
Spectral range measured in nm ..... 350-700  
Calibration wavelength used ..... 546.1 nm  
Instrument resolution used ..... 0.01 nm  
Calibration used to obtain the linear relationship

FORM 1  
8020 ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

Lab Name: INCHCAPE TESTING SERVICES Contract:

CPD-2

Lab Code: Case No.: SAS No.: SDG No.: BTX7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-3

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 10JUL1706

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 18 Date Analyzed: 07/10/96

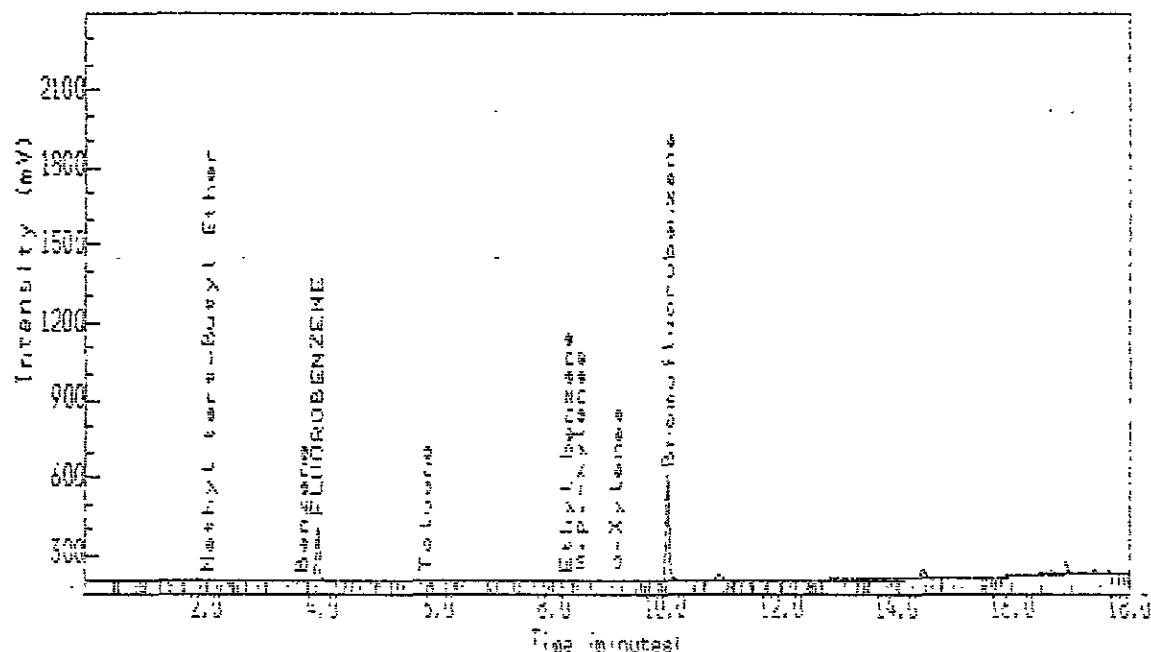
GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
71-43-2-----	Benzene	2.4	U	
108-88-3-----	Toluene	2.4	U	
100-41-4-----	Ethyl benzene	2.4	U	
108-38-3-----	m.p.-xlenes	2.4	U	
95-47-6-----	o-Xlenes	2.4	U	

### Indication Report

Acquired on 10-JUL-1996 at 17:06



Inchcape Testing Services - Dallas

Analyst Name :

Line Id :

Comment :

Method Title :

Sample Name : 7227-3R SG-SO20/SO21

Sample Id :

Sample Type : Sample Amount=0.00000

Bottle No : 52

Rept w/CSN  
Low purge  
(Conf of by #53)  
Mes 7-10-96

#### PEAK INFORMATION

Cal Flags	RT min	RT Corr	RT Exp	Area UVs	ug/L-ug/kg	Peak name	RF slope	RF intercept
	2.148	2.148	3.260	1972	0.57	Methyl tert-Butyl Ether	0.0034	0.0000
	3.748	3.748	3.748	1804	0.08	Benzene	0.0280	0.0000
I	4.019	4.019	4.006	257372		FLUOROBENZENE	1.0000	0.0000
	8.317	8.317	8.202	2773	0.14	Ethyl benzene	0.0224	0.0000
	8.526	8.526	8.407	6843	0.21	m,p-Xylenes	0.0258	0.0000
	9.170	9.170	9.080	2118	0.11	o-Xylenes	0.0223	0.0000
O	10.032	10.032	10.020	1e47220	49.57	Brodifluorobenzene	0.0036	0.0000
<hr/>								
Totals								
Unknowns								
Quantified								
Grand Total								
112768 N/A								
2520101 49.56								
3702869 49.56								

MISSING PEAKS

No missing peaks.

PEAK GROUP INFORMATION

Area uvs	ug/L-ug/kg	Peak name
5961	0.42	Xylenes

ANALYSIS SUMMARY

Method..... VOA01

Run sequence..... VOA

Calibration..... STX0703

Internal standard % calibration using area

Calibration last modified on 10-JUL-1996 at 09:58

Uncalibrated peaks use user factor (0.0000)

FORM 1  
8020 ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

CPG-1

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTX7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-4

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 10JUL1352

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 20 Date Analyzed: 07/10/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

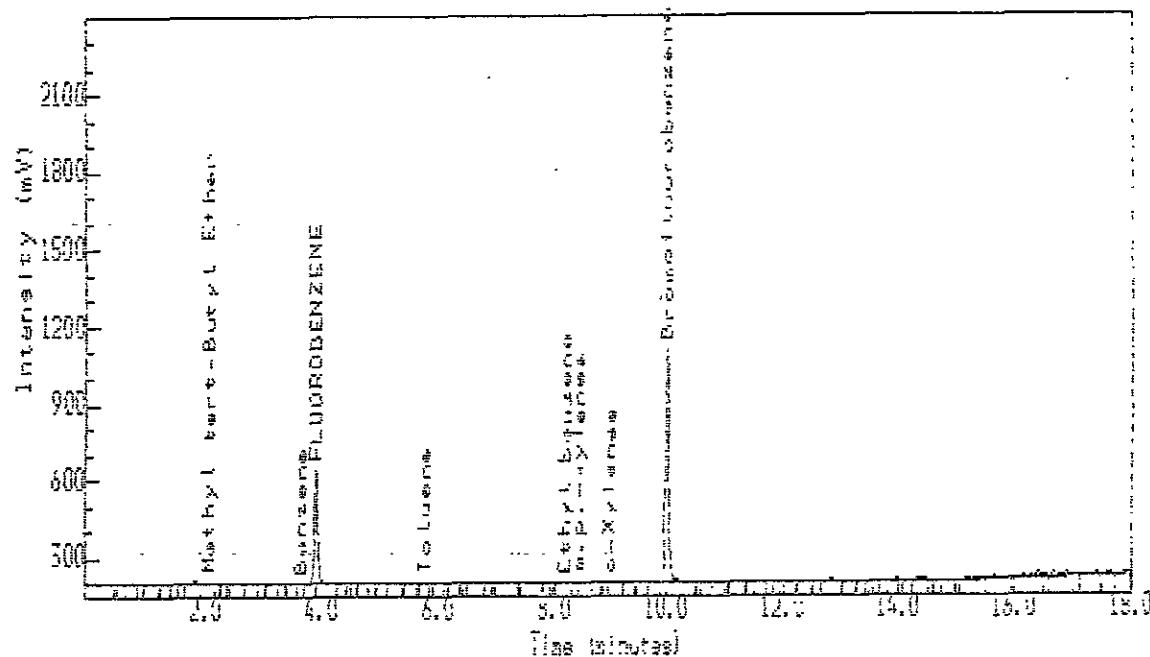
(ug/L or ug/Kg) UG/KG

Q

71-43-2-----Benzene	2.5	U
108-88-3-----Toluene	2.5	U
100-41-4-----Ethyl benzene	2.5	U
108-38-3-----m.p.-xlenes	2.5	U
95-47-6-----o-Xlenes	2.5	U

## Injection Report

Acquired on 10-JUL-1996 at 13:52



Inchcape Testing Services - Dallas

Analyst Name :  
Lims Id :  
Comment :  
Method Title :  
Sample Name : 7327-4 SG B020/B015  
Sample Id :  
Sample Type : Sample Amount:0.00000  
Bottle No : 47

### PEAK INFORMATION

Cal Flags	RT min	RT Corr	RT Exp	Area uVs	ug/L-ug/kg	Peak name	RF slope	RF intercept
	2.137	2.139	2.260	9374	1.55	Methyl tert-Butyl Ether	0.0034	0.1000
I	3.725	3.726	3.748	1497	0.03	Benzene	0.0280	0.0000
	3.997	3.997	4.006	1766102		FLUOROBENZENE	1.0000	0.0000
	5.854	5.854	5.901	2527	0.06	Toluene	0.0254	0.0000
	8.272	8.272	8.202	3533	0.05	Ethyl benzene	0.0226	0.0000
	8.503	8.503	8.407	18913	0.41	m,p-Xylenes	0.0258	0.0000
	9.023	9.023	9.080	6452	0.16	o-Xylenes	0.0223	0.0000
D	10.001	10.001	10.020	3654447	52.31	Bromofluorobenzene	0.036	0.0000
<b>Totals</b>								
Unknowns				1214689	N/A			
Quantified				5462844	54.61			

[070896] 27 VOA070996A,52,1  
Reported on 10-JUL-1996 at 15:19

Page

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Grand Total 2677543 54.61

MISSING PEAKS

No missing peaks.

PEAK GROUP INFORMATION

Area (u)s	ug/l-ug/kg	Peak name
25364	0.58	Xylenes

ANALYSIS SUMMARY

Method..... VOA041  
Run sequence..... VOA  
Calibration..... RTX0703  
Internal standard % calibration using area  
Calibration last modified on 10-JUL-1995 at 09:58

Und calibrated peaks use user factor (0.0000)

FORM 1  
8020 ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

CPG-2

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTX7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-5

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 10JUL1302

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 22 Date Analyzed: 07/10/96

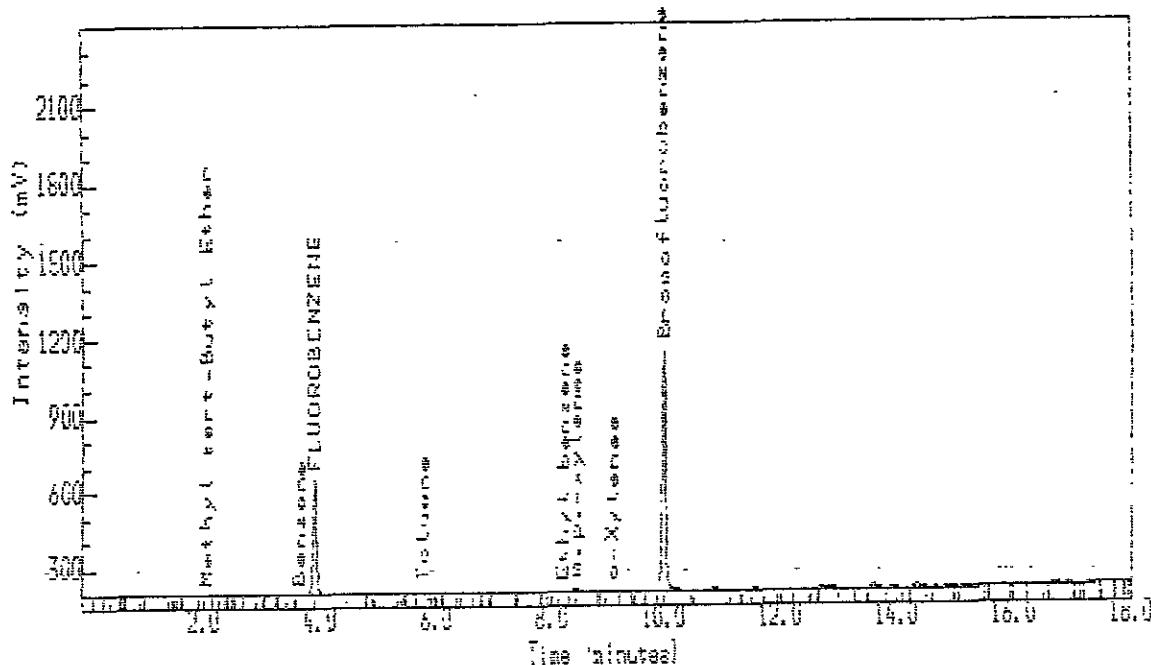
GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2-----	Benzene _____	2.6	U
108-88-3-----	Toluene _____	2.6	U
100-41-4-----	Ethyl benzene _____	2.6	U
108-38-3-----	m.p.-xylanes _____	2.6	U
95-47-6-----	o-Xylenes _____	2.6	U

## Inspection Report

Acquired on 10-JUL-1996 at 13:02



Inchcape Testing Services - Dailys

Analyst Name :  
Lims Id :  
Comment :  
Method Title :  
Sample Name : 7327-5 56 8020/8015  
Sample Id :  
Sample Type : Sample Amount=0.0000  
Bottle No : 45

### PEAK INFORMATION

Cal Flags	RT mins	RT Corr	RT Exp	Area uVs	ug/l-ug/kg	Peak name	PF slope	Rf intercept
	2.139	2.139	2.120	5421	0.86	Methyl tert-Butyl Ether	0.0034	0.0000
	3.726	3.726	3.748	3873	0.08	Benzene	0.0280	0.0000
I	3.997	3.997	4.006	1835597		FLUOROBENZENE	1.0000	0.0000
	5.859	5.859	5.801	22532	0.48	Toluene	0.0254	0.0000
	8.281	8.281	8.202	10268	0.25	Ethyl benzene	0.0223	0.0000
	9.486	9.486	8.407	82485	1.74	m,p,-xylenes <i>jvalue</i>	0.0258	0.0000
	9.130	9.130	9.380	21833	0.53	o-xylanes	0.0222	0.0000
D	10.001	10.001	10.020	3828936	53.28	Bromofluorobenzene	0.0298	0.0000
<b>Totals</b>								
Unknowns				1691581	N/A			
Quantified				5850725	57.22			

May 7-1196

[070896] 27 VOAG70996A,50,1  
Reported on 10-JUL-1996 at 15:19

Page

Grand Total 7542306 57.22

MISSING PEAKS

No missing peaks.

PEAK GROUP INFORMATION

Area (uVs)	ug/L-ug/Kc	Peak name
104098	2.27	Syntex

ANALYSIS SUMMARY

Method: VOAG1  
Run sequence: VD4  
Calibration: BTX0703  
Internal standard % calibration using area  
Calibration last modified on 10-JUL-1996 at 15:19  
Uncalibrated peaks use user factor (0.0000)

FORM 1  
8020 ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

MOP-1

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTX7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-6

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 10JUL0708

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 14 Date Analyzed: 07/10/96

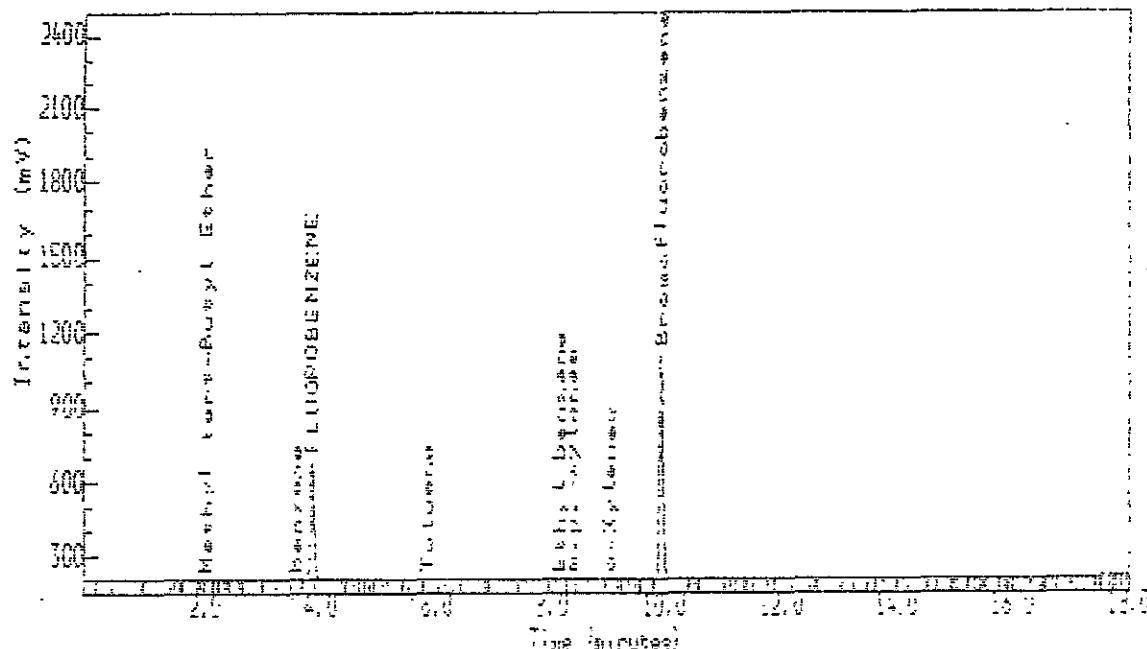
GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2-----	Benzene _____	2.3	U
108-88-3-----	Toluene _____	2.3	U
100-41-4-----	Ethyl benzene _____	2.3	U
108-38-3-----	m.p.-xlenes _____	2.3	U
95-47-6-----	o-Xlenes _____	2.3	U

## Identification Report

Acquired on 10-JUL-1996 at 07:08



Inchcape Testing Services - Halifax

Analyst Name :  
Time 10 :  
Comment :  
Method Title :  
Sample Name : 7327-a EG 8020/9015  
Sample Id :  
Sample Type : Sample Amount=0.00000  
Bottle No : 37

### PEAK INFORMATION

Cal Flag	RT mins	RT Corr	RT Exp	Area (%)	ug/L-ug/kg	Peak name	RF slope	RF intercept
	3.117	3.117	2.350	25e3	0.38	Methyl tert-Butyl Ether	0.0034	0.0000
	3.672	3.672	3.594	3229	0.06	Benzene	0.0220	0.0000
F	3.943	3.943	4.000	1995333		FLUOROBENZENE	1.0000	0.0000
	5.839	5.839	5.801	7421	0.12	Toluene	0.0224	0.0000
	8.223	8.223	8.302	2116	0.09	Ethyl benzene	0.0228	0.0000
	8.437	8.437	8.407	13365	0.20	m,p,-xylenes	0.0258	0.0000
	9.081	9.081	9.080	4637	0.10	o-xylanes	0.0223	0.0000
	9.934	9.939	10.020	3e96845	47.04	Bromofluorobenzene	0.0386	0.0000
<b>Totals</b>								
Unknowns				233520	N/A			
Quantified				5718740	48.08			
Grand Total				5952261	48.08			

[070896] 27 VOA070896A,37,1  
Reported on 10-JUL-1996 at 07:27

Page ..

MISSING PEAKS

No missing peaks.

PEAK GROUP INFORMATION

Area uvs	mg/l-ug/kg	Peak name
18022	0.37	W16ee

ANALYSIS SUMMARY

Method: VOA08AT

Run sequence: VOA08AT

Calibration: STX0703

Internal standard % calibration using area

Calibration last modified on 10-JUL-1996 at 07:07

Uncalibrated peaks use user factor (0.0000)

FORM 1  
8020 ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

MOP-2

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTX7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-7

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 10JUL1237

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 11 Date Analyzed: 07/10/96

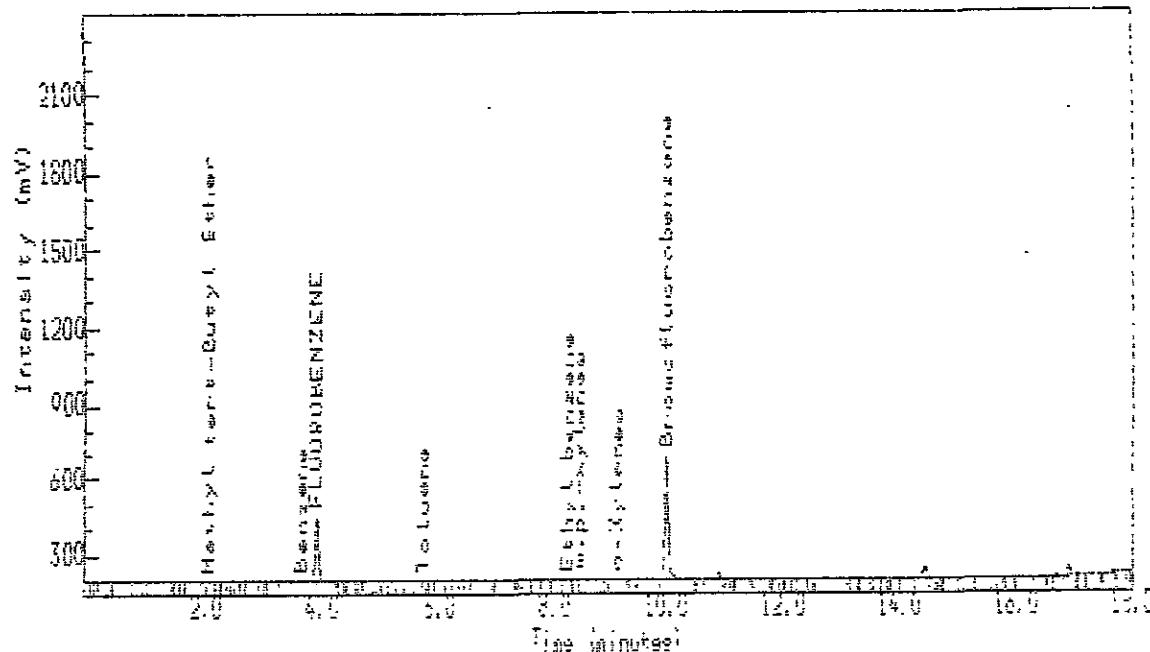
GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
71-43-2-----	Benzene _____	2.2	U	
108-88-3-----	Toluene _____	2.2	U	
100-41-4-----	Ethyl benzene _____	2.2	U	
108-38-3-----	m.p.-xylanes _____	2.2	U	
95-47-6-----	o-Xylenes _____	2.2	U	

### Infrared Report

Acquired on 10-JUL-1996 at 12:37



Inchesape Testing Services - Dallas

Analyst Name :

Line Id :

Comment :

Method Title :

Sample Name : Y327-7 59 8020/8015

Sample Id :

Sample Type : Sample Amount: 0.0000

Bottle No : 44

*Rest CSN Confid*  
*48 RT (Conf #39)*  
*RT Mar 10 96*

#### PEAK INFORMATION

Day	Start min	RT min	RT Corr	RT Exp	Ages (hrs)	ppb/L-ug/Kg	Peak name	%F since %F intercept
I	3.139	3.139	2.250		3097	0.88	Methyl tert-Butyl Ester	0.0024
	3.726	3.726	3.748		1774	0.06	Benzene	0.0260
	3.997	3.997	4.006		1029821		FLUOROBENZENE	1.0000
	8.303	8.303	8.202		2120	0.02	Ethyl benzene	0.0223
	8.494	8.494	8.407		19175	0.72	m,p-Xylenes	0.0258
	9.139	9.139	9.080		7227	0.31	o-Xylenes	0.0222
	10.006	10.006	10.020		1945528	±7.50	Bromofluorobenzene	0.0356
<b>Totals</b>								
Unknowns					843934	N/A		
Quantified					3007748	49.37		
Grand Total					3851682	49.87		

[070896] 27 VOA070896A,49,1  
Reported on 10-JUL-1996 at 15:18

Page

MISSING PEAKS

No missing peaks.

PEAK GROUP INFORMATION

Area uVs	ug/L-ug/kg	Peak name
25402	1.04	Xylenes

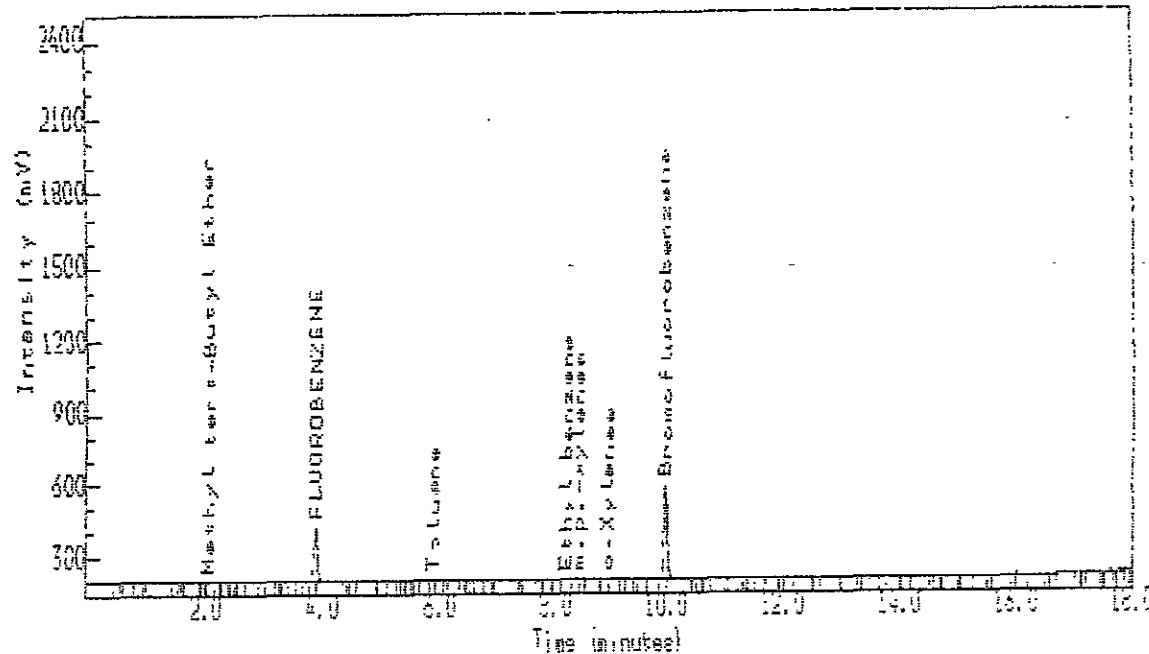
ANALYSIS SUMMARY

Method: VOA070896A,49,1  
Run sequence: VOA  
Calibration: BTX0703  
Internal standard % calibration using area  
Calibration last modified on 10-JUL-1996 at 09:58

Uncalibrated peaks use user factor (1.0000)

Indication Report

Acquired on 10-JUL-1996 at 07:59



Innoscape Testing Services - Dallas

Analyst Name :

Time Id :

Comment :

Method Title :

Sample Name : 7327-7 SG 8020/8015

Sample Id :

Sample Type : Sample Amount=0.00000

Bottle No : 20

*left CSN*  
*(L PP → set #49 for conf)*  
*MIS 7-10 96*  
*see run# 49 JCH 7-12-96*  
*for conf only*

PEAK INFORMATION

Cal Flags	RT min	RT Corr	RT Exp	Area uVs	ug/L-ug/kg	Peak name	RF slope	RF intercept
	2.134	2.134	2.280	5459	1.83	Methyl tert-Butyl Ether	0.0034	0.0000
I	3.979	3.979	4.006	878701		FLUOROBENZENE	1.0000	0.0000
	5.974	5.974	5.901	2743	0.12	Toluene	0.0254	0.0000
	8.259	8.259	8.202	3710	0.19	Ethyl benzene	0.0226	0.0000
	8.477	8.477	8.407	6894	0.30	m,p-Xylenes	0.0258	0.0000
	8.979	8.979	9.080	4755	0.24	c-Xylenes	0.0223	0.0000
	9.974	9.974	10.020	1538253	44.25	Bromoifluorobenzene	0.0396	0.0000
<b>Totals</b>								
Unknowns				531015	N/A			
Quantified				2440555	46.94			
Grand Total				2971571	46.94			

[070896] 27 VOA070996A,39,1  
Reported on 10-JUL-1996 at 08:18

MISSING PEAKS

RT mins Peak name

3.594 Benzene

PEAK GROUP INFORMATION

Area uVs ug/L-ug/Kg Peak name

11649 0.55 Xylenes

ANALYSTS SUMMARY

Method..... VOA001 VOA001

Run sequence..... VOA

Calibration..... B1X0703

Internal standard x calibration using area

Calibration last modified on 10-JUL-1996 at 07:09

Uncalibrated peaks use user factor (0.0000)

FORM 1  
8020 ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

DP-1

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTX7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-8

Sample wt/vol: 25.0 (g/mL) G Lab File ID: 11JUL1106

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 15 Date Analyzed: 07/11/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 5.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

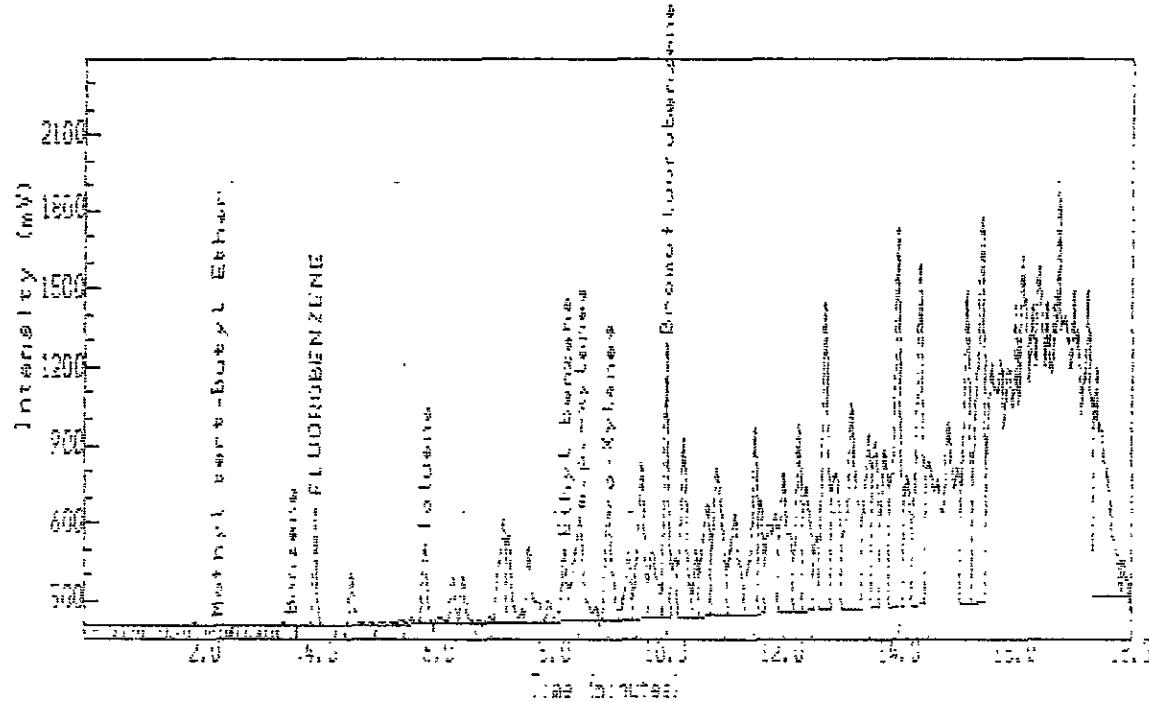
71-43-2-----	Benzene	11.8	U
108-88-3-----	Toluene	203	
100-41-4-----	Ethyl benzene	243	
108-38-3-----	m.p.-xlenes	530	
95-47-6-----	o-Xlenes	477	

070896] 27 90A071096,25,1  
Reported on 11-JUL-1996 at 15:39

Page

Instrumental Data File Report

Acquired on 11-JUL-1996 at 11:06



Inchcape Testing Services - Data

Analyst Name :  
Lims Id :  
Comment : PURGEABLE AROMATICS BY PID/FID  
Method Title :  
Sample Name : 7027-8R 1/5 8020  
Sample Id :  
Sample Type : Sample Amount<0.0000  
Bottle No : 25

PEAK INFORMATION

Cal Flags	RT min	RT Corr	RT Exp	Area uVs	ug/L-ug/kg	Peak name	RF slope	RF intercept
I	2.294	2.294	2.260	1442	1.05	Methyl tert-Butyl Ether	0.0034	0.0000
I	3.566	3.566	3.514	11380	1.02	Benzene	0.0130	0.0000
I	3.983	3.983	4.006	399379	31.95	Fluorobenzene	1.0000	0.0000
I	5.850	5.850	5.818	176064	172.77	Toluene	0.0054	0.0000
I	8.254	8.254	8.202	1974419	207.31	Ethyl benzene	0.0225	0.0000
I	8.517	8.517	8.407	4659902	461.31	m,p-xylenes	0.0258	0.0000
I	9.006	9.006	9.080	3625120	405.84	o-xylenes	0.0223	0.0000
O	9.986	9.986	10.020	518744c	326.67	Bromofluorobenzene	0.0294	0.0000

Totals

[070896] 27 VOA071096,25,1  
Reported on 11-JUL-1996 at 16:39

Page

Quantified	19099252	1566.47
Grand Total	165766592	1566.47

MISSING PEAKS

No missing peaks.

PEAK GROUP INFORMATION

Area uVs	ug/L-ug Kg	Peak name
3265122	527.15	Xylenes

ANALYSTS SUMMARY

Method: VOA071096,25,1 VOA071096,25,1  
Run sequence: VUAI VUAI  
Calibration last modified on 11-JUL-1996 at 14:30  
Internal standard % calibration using area  
Calibration last modified on 11-JUL-1996 at 14:30

Uncalibrated peaks use user factor (0.0000)

FORM 1  
8020 ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

Lab Name: INCHCAPE TESTING SERVICES Contract:

DP-2

Lab Code: Case No.: SAS No.: SDG No.: BTX7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-9

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 10JUL0822

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 18 Date Analyzed: 07/10/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

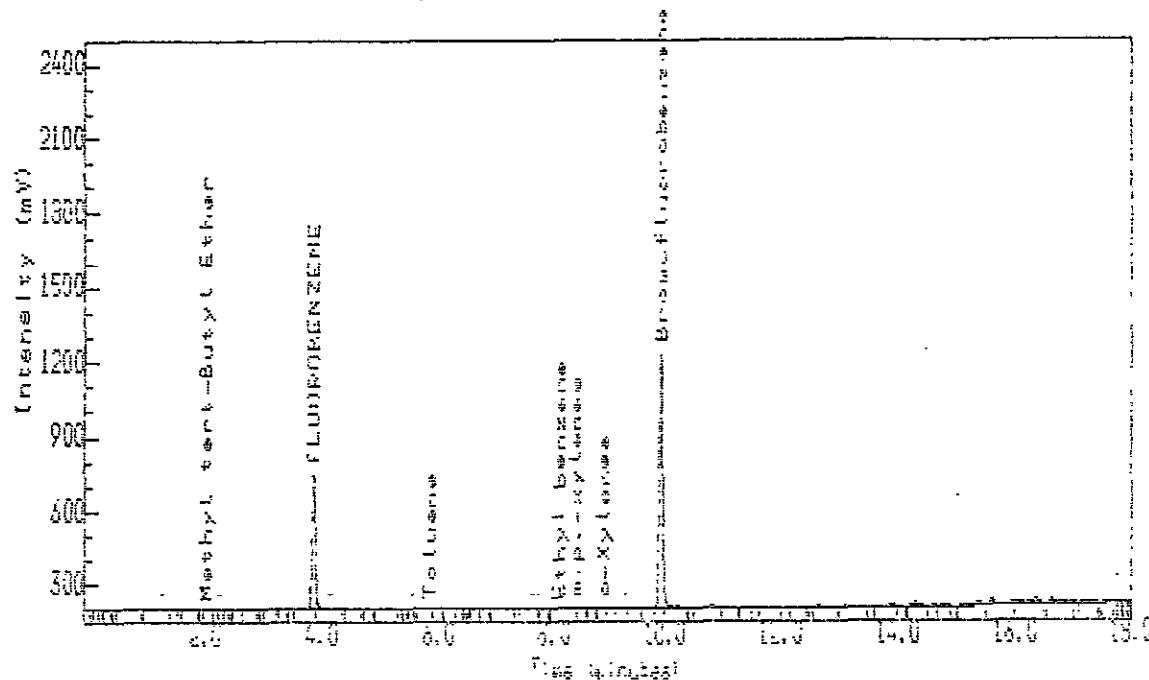
Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

71-43-2-----	Benzene	2.4	U
108-88-3-----	Toluene	2.4	U
100-41-4-----	Ethyl benzene	2.4	U
108-38-3-----	m.p.-xlenes	2.4	U
95-47-6-----	o-Xlenes	2.4	U

### Instrument Report

Acquired on 10-JUL-1996 at 08:22



Indcape Testing Services - Dallas

Analyst Name :

Line Id :

Comment :

Method Title :

Sample Name : 7327-9 5G 2020/2015

Sample Id :

Sample Type : Sample Amount:0.00000

Bottle No : 40

### PEAK INFORMATION

Cal Flags	RT mins	RT Desc	RT Exp	Area UVs	ng/L-peakg	Peak name	RF slope	RF intercept
	2.117	2.117	2.260	3610	0.46	Methyl tert-Butyl Ether	0.0034	0.0000
I	3.957	3.957	4.006	2295528		FLUOROBENZENE	1.0000	0.0000
	5.952	5.952	5.901	10560	0.18	Toluene	0.0254	0.0000
	8.206	8.206	8.202	17482	0.34	Ethyl benzene	0.0225	0.0000
	8.459	8.459	8.407	62588	1.06	o,p-xylenes ) value	0.0253	0.0000
	8.961	8.961	9.080	37781	0.74	o-xylenes	0.0223	0.0000
	9.939	9.939	10.020	4228506	45.77	Bromofluorobenzene	0.0096	0.0000

Totals

Unknowns	2020224	N/A
Quantified	5646054	49.55
Grand Total	5666278	49.55

Mar 7-1196

[070896] 27 VOA070996A,40,1  
Reported on 10-JUL-1996 at 08:41

Page

MISSING PEAKS

RT mins Peak name

3.594 Benzene

PEAK GROUP INFORMATION

Area uVs ug/l-ug/kg Peak name

100367 1.90 Xylenes

ANALYSIS SUMMARY

Method: VOA091

Run sequence: VOA

Calibration: BTX0703

Internal standard % calibration using area

Calibration last modified on 10-JUL-1996 at 07:09

Uncalibrated peaks use user factor (0.0000)

FORM 1  
8020 ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

OGP-1

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTX7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-10

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 10JUL0732

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 19 Date Analyzed: 07/10/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

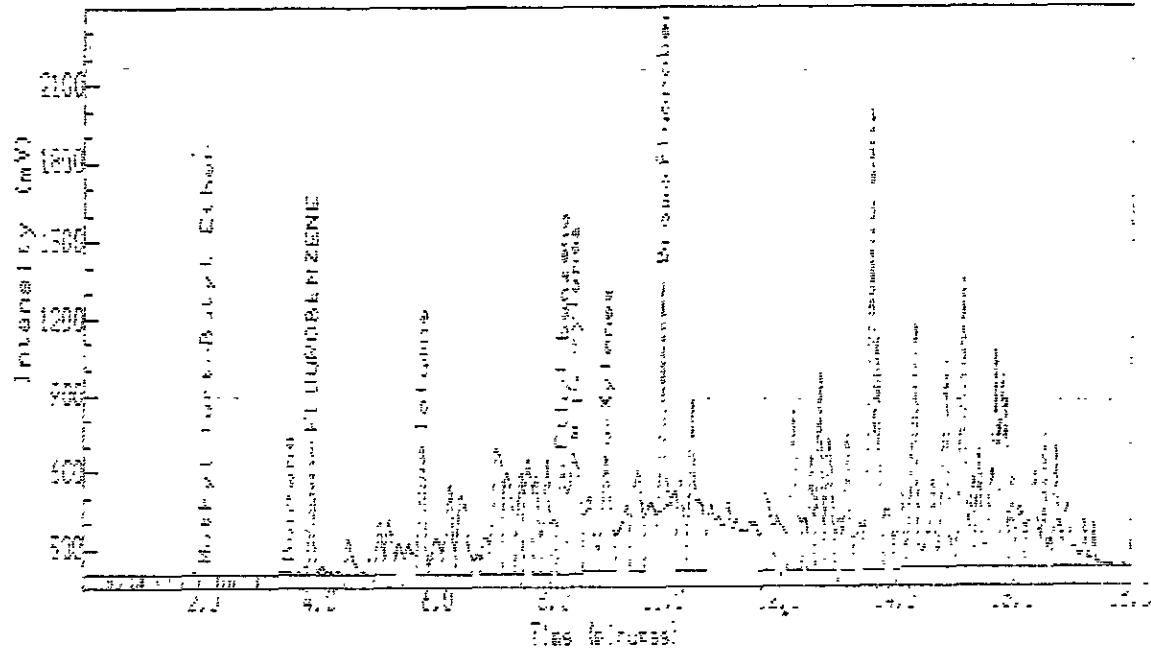
71-43-2-----	Benzene	2.5	U
108-88-3-----	Toluene	68	
100-41-4-----	Ethyl benzene	96	
108-38-3-----	m.p.-xlenes	123	
95-47-6-----	o-Xlenes	114	

[070896] 27 V0A0709#6A,38,1  
Reported on 11-JUL-1996 at 14:31

Page 1

### Instrumental Report

Acquired on 10-JUL-1996 at 07:31



Inchcape Testing Services - Institute

Analyst Name :  
Time 10 :  
Comment :  
Method Title :  
Sample Name : 7027-00 12 2020/2015  
Sample Id :  
Sample Type : Sample Amount 2.0000g  
Bottle No : 38

Mr. T-11-96

### PEAK INFORMATION

Cal Peak At Min	RT Cal	RT Exp	RT	RT	Peak name	cc slope	cc intercept
2.117	2.117	2.260	11264	1.47	Methyl tert-Butyl Ether	0.0021	0.0000
3.548	3.548	3.614	67942	1.12	Benzene	0.0250	0.0000
3.851	3.852	4.006	1224711	-	FLUORESCENE	1.0000	0.0000
5.814	5.814	5.818	3106223	54.97	Toluene	0.0254	0.0000
8.233	8.233	8.202	3896355	77.50	Ethyl benzene	0.0226	0.0000
8.406	8.406	8.407	5737807	99.56	o,p-Xylenes	0.0228	0.0000
8.574	8.574	9.050	4568145	91.52	p,p'-Xylenes	0.0253	0.0000
9.552	9.552	10.020	4073478	46.29	Bromo/fluorobiphenyl M1 - due to	0.0356	0.0000

331

[070896] 27 V0A070996A,38,1  
Reported on 11-JUL-1996 at 14:00

Page 2

Unknowns	136491472	N/A
Quantified	2269626	373.17
Grand Total	160182093	373.17

#### MISSING PEAKS

No missing peaks.

#### PEAK GROUP INFORMATION

Area (uVs) 03/1-20/80 Peak time

10205952 151.80 Xylenes

#### ANALYSIS SUMMARY

Method: GC/MS  
Run sequence: 10205952  
Calibration: 10205952  
Internal standard % calibration: 0.0000  
Calibration last updated on 11-JUL-1996 at 14:00

Uncalibrated peaks use peak factor (0.0000)

FORM 1  
8020 ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

OGP-2

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTX7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-11

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 10JUL2021

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 19 Date Analyzed: 07/10/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 50.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

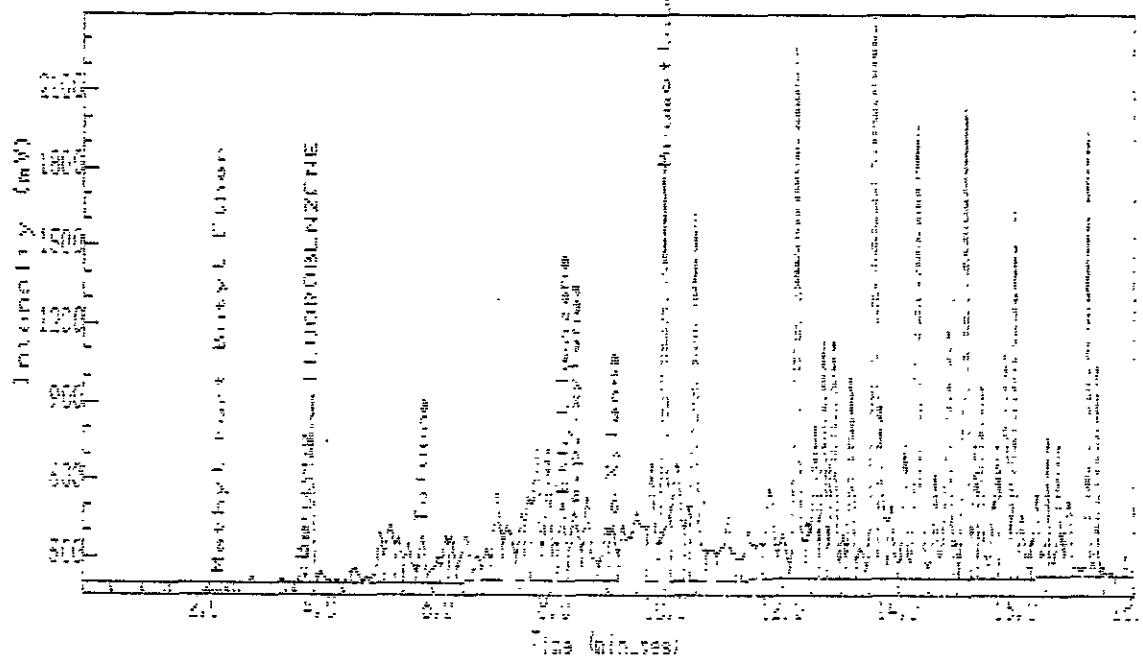
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2-----	Benzene	202	
108-88-3-----	Toluene	858	
100-41-4-----	Ethyl benzene	2140	
108-38-3-----	m.p.-xlenes	1854	
95-47-6-----	o-Xlenes	1359	

[07089a] 27 VDA070996A,67,1  
Reported on 11-JUL-1995 at 07:59

Page 1

## Instrumental Report - Sample

Acquired on 10-JUL-1995 at 20:20



Amersham Teaming Services - Bellary

Analyst Name :  
Time Id :  
Comment :  
Method Title :  
Sample Name : 7027-01 1/50 8020/8018  
Sample Id :  
Sample Type : Sample Amount<0.00000  
ottle No : 06

### PEAK INFORMATION

	Cal Peaks RT mins	RT Corr RT	Exo	Area (uVs)	ug/L-00/Kg	Peak name	SF slope	SF intercept
	2.352	1.352	2.260	253	1.17	Methyl tert-Butyl Ether	0.0034	0.0000
I	3.801	3.801	3.748	286078	183.73	Benzene	0.0280	0.0000
	3.948	3.948	4.006	5149628		FLUOROPHENZENE	1.0000	3.0000
	5.823	5.823	5.901	1112052	694.96	Toluene	0.0254	0.0000
	8.122	8.122	8.202	2468947	1733.19	Ethyl benzene	0.0226	0.0001

[070896] 27 VDA070996A,67,1  
Reported on 11-JUL-1996 at 07:58

Page 7

Cal Flags RT mins RT Calc RT Exp	Area UVs	ppm/L-ug/kg	Peak name	% elute At retention	
0 9.760 9.764 10.020	6147327	2465.65	BromoFluorobenzene M1 - due to interference w/ Surrogate.	0.00%	1.00%
<b>Totals</b>					
Unknowns	163775440	N/A			
Quantified	17160326	7663.63			
Grand Total	18550760	7650.65			

Mar 7-1991

#### MISSING PEAKS

No missing peaks.

#### PEAK PROFILE INFORMATION

Area file	ppm/L-ug/kg	Peak name
3993012	2623.41	Alyenes

#### DATAFILE SUMMARY

Method..... VDABAI  
Run sequence..... VOC  
Calibration..... BTYQ30G  
Internal standard % Calibration using area  
Calibration last modified on 10-JUL-1996 at 08:15  
Uncalibrated peaks use user factor (0.0000)

FORM 1  
8020 ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

OGP-3

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTX7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-12

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 10JUL1731

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 20 Date Analyzed: 07/10/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

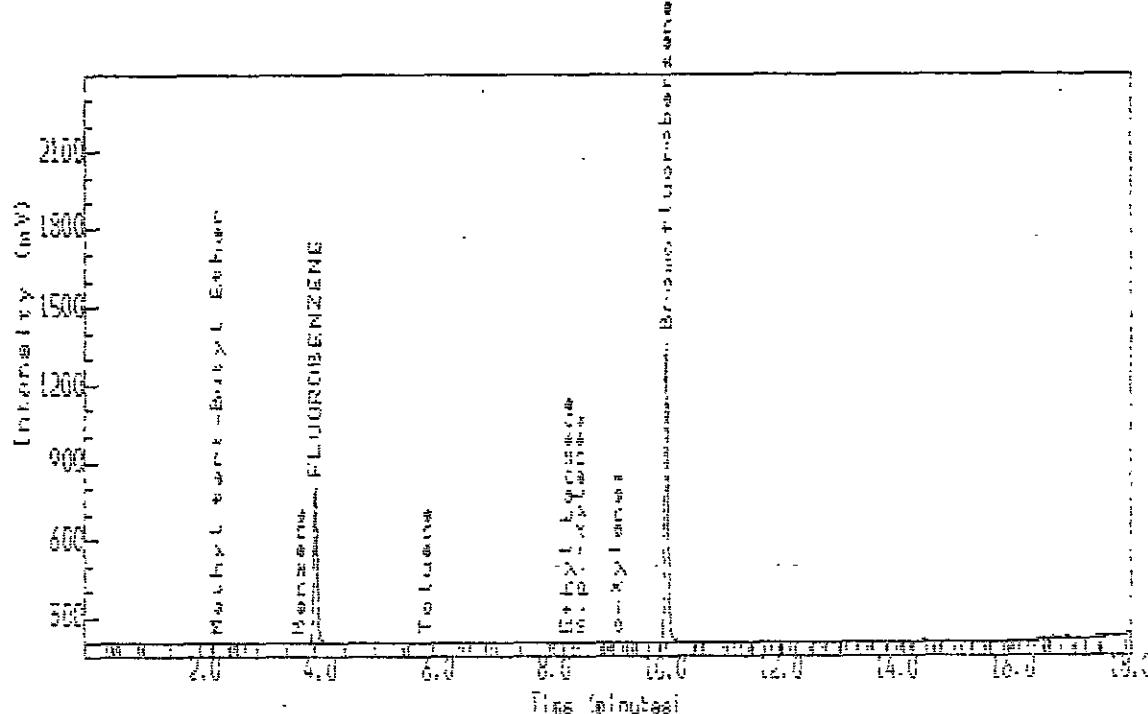
CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

71-43-2-----Benzene	2.5	U
108-88-3-----Toluene	2.5	U
100-41-4-----Ethyl benzene	2.5	U
108-38-3-----m.p.-xlenes	2.5	U
95-47-6-----o-Xlenes	2.5	U

## Injection Report

Acquired on 10-JUL-1996 at 17:31



Inchcape Testing Services - Dallas

Analyst Name :  
Lims Id :  
Comment :  
Method Title :  
Sample Name : 7327-12 56 8020/8015  
Sample Id :  
Sample Type : Sample Amount=0.00000  
Bottle No : 52

### PEAK INFORMATION

Cal Flags	RT min	RT Carr	RI Exp	Area uVs	ug/l-mg/kg	Peak Name	% slope	% intercept
	2.308	2.308	2.260	4382	0.51	Methyl tert-Butyl Ether	0.0034	0.0070
	3.734	3.734	3.748	5904	0.04	Benzene	0.0280	0.0000
I	4.010	4.010	4.006	34965d7		FLUOROBENZENE	1.0000	0.0000
	8.317	8.317	8.292	1926	0.03	Ethyl benzene	0.0225	0.0000
	9.521	9.521	9.407	10598	0.15	m,p-Xylenes	0.0258	0.0000
	9.152	9.152	9.080	2012	0.04	o-Xylenes	0.0223	0.0000
O	10.019	10.019	10.020	48054d4	48.66	Bromofluorobenzene	0.0096	0.0000
<b>Totals</b>								
Unknowns				391346	N/A			

[070896] 27 VOA070896A,60,1  
Reported on 10-JUL-1996 at 17:50

Page

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Quantified	7323844	49.45
Grand Total	7715190	49.45

MISSING PEAKS

No missing peaks.

PEAK GROUP INFORMATION

Area w/s	ug/L-ug/kg	Peak name
12610	0.30	Xylenes

ANALYSIS SUMMARY

Method..... VOA0A1  
Run sequence..... VOA  
Calibration..... BTX0703  
Internal standard % calibration using area  
Calibration last modified on 10-JUL-1996 at 17:50

Uncalibrated peaks use user factor (0.0100)

FORM 1  
8020 ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

Lab Name: INCHCAPE TESTING SERVICES Contract:

DSTP-1

Lab Code: Case No.:

SAS No.:

SDG No.: BTX7327

Matrix: (soil/water) SOIL

Lab Sample ID: 7327-13

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: 10JUL1619

Level: (low/med) LOW

Date Received: 07/03/96

% Moisture: 16

Date Analyzed: 07/10/96

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

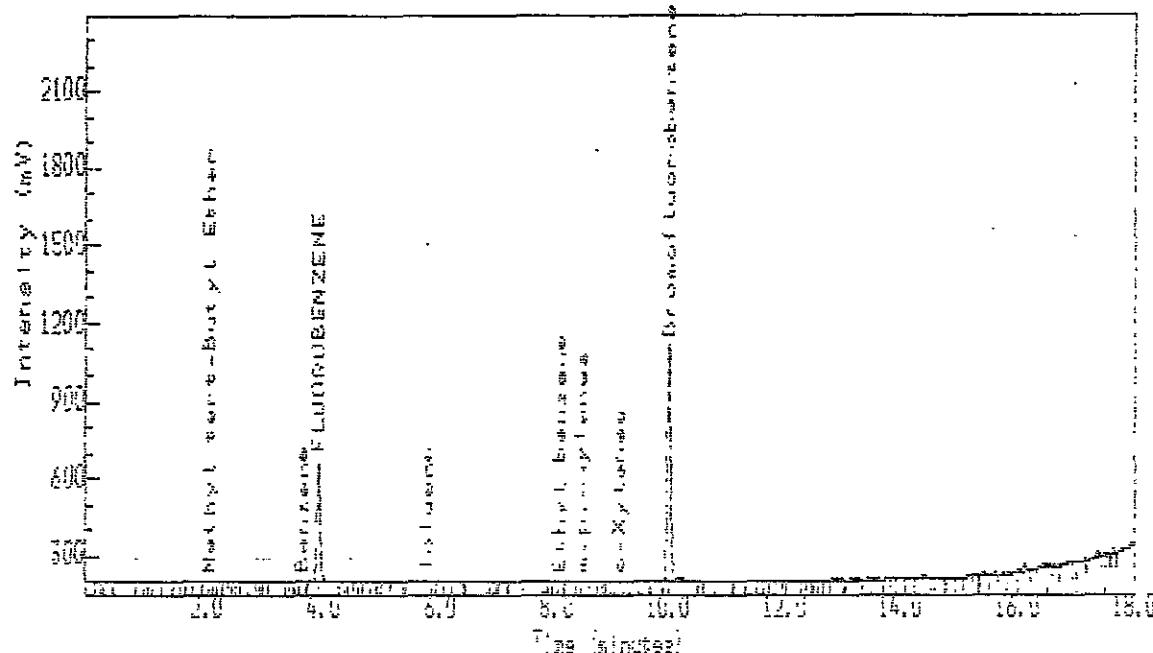
(ug/L or ug/Kg) UG/KG

Q

71-43-2-----Benzene	2.4	U
108-88-3-----Toluene	2.4	U
100-41-4-----Ethyl benzene	2.4	U
108-38-3-----m.p.-xlenes	2.4	U
95-47-6-----o-Xlenes	2.4	U

## Injection Report

Acquired on 10-JUL-1996 at 16:19



Inchcape Testing Services - Saline

Analyst Name :  
Lims Id :  
Comment :  
Method Title :  
Sample Name : 7327-13 EG B020/B411  
Sample Id :  
Sample Type : Sample Amount=0.00000  
Bottle No : 51

### PEAK INFORMATION

Cal flags	RT mins	RT Corr	RT Err	Area (mV)	ug/l-ug/kg	Peak name	RF slope	RF intercept
	3.143	3.143	2.260	1173	0.18	Methyl tert-Butyl Ether	0.0034	0.0000
	3.739	3.739	3.748	1582	0.03	Benzene	0.0290	0.0000
I	4.006	4.006	4.006	1911389		FLUOROBENZENE	1.0000	0.0000
	5.868	5.868	5.801	659	0.01	Toluene	0.0354	0.0000
	8.521	8.521	8.407	6012	0.12	m,p,-xylenes	0.0258	0.0000
	9.152	9.152	9.080	1780	0.04	o-Xylenes	0.0223	0.0000
O	10.014	10.014	10.020	374658	49.55	Bromofluorobenzene	0.0386	0.0000
<b>Totals</b>								
Unknowns				1487229	N/A			
Quantified				5689174	49.94			
Grand Total				7156393	49.94			

[070896] 27 VOA0708964,58,1  
Reported on 10-JUL-1996 at 16:38

Flag

MISSING PEAKS

No missing peaks.

PEAK GROUP INFORMATION

Area (ug) ug/L-ug/kg Peak name

7792 0.16 Styrene

ANALYSIS SUMMARY

Method: VOA0708964,58,1 VOA0708964,58,1

Run sequence: VOA

Calibration: BT70703

Internal standard % calibration using area

Calibration last modified on 10-JUL-1996 at 09:58

Uncalibrated peaks use user factor (0.0000)

FORM 1  
8020 ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

GPSTP-1

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTX7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-14

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 10JUL1755

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 16 Date Analyzed: 07/10/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

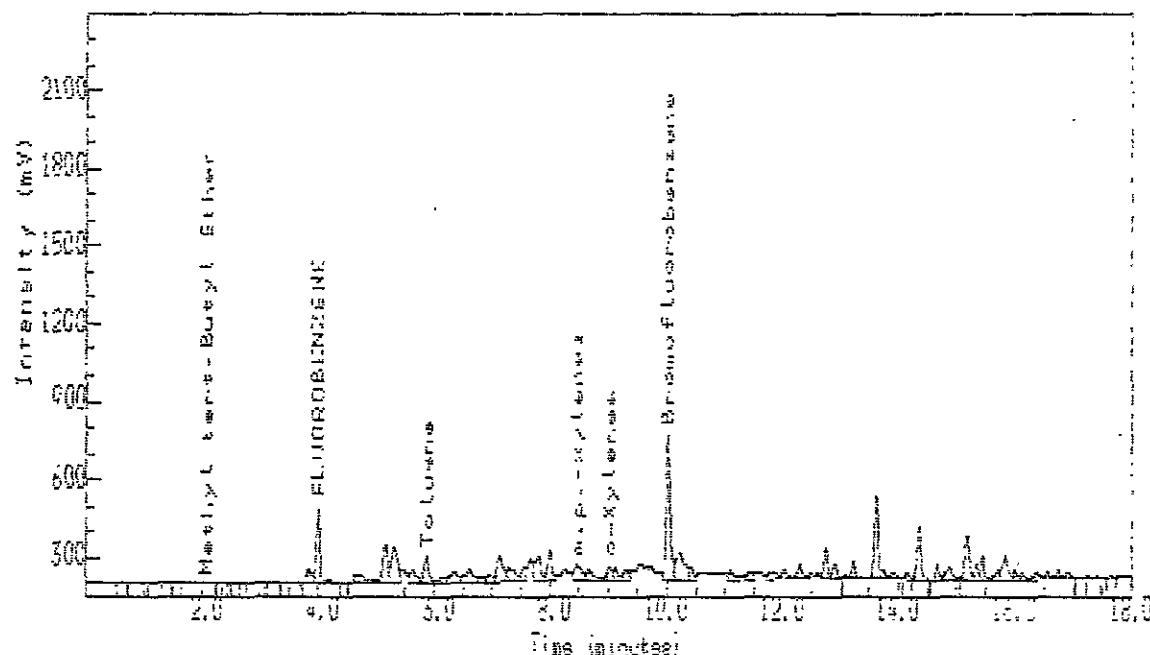
(ug/L or ug/Kg) UG/KG

Q

71-43-2-----	Benzene	2.4	U
108-88-3-----	Toluene	20.5	
100-41-4-----	Ethyl benzene	2.4	U
108-38-3-----	m.p.-xlenes	22.5	
95-47-6-----	o-Xlenes	15.2	

### Instrument Report

Acquired on 10-JUL-1996 at 17:58



### Inchcape Testing Services - Details

Analyst Name :  
Line Id :  
Comment :  
Method Title :  
Sample Name : 7327-14-56-POXW-B015  
Sample Id :  
Sample Type : Sample Amount=0.00000  
Bottle No : 52

Det w CSN  
(LP-CH-27-VOA07096,27)  
MUS+ 11-96

### PEAK INFORMATION

Cal Flags	RT mins	RT Corr	RT Exp	Area uVs	ug/l-ug/kg	Peak name	RF slope	RF intercept
I	3.090	3.090	2.250	3477	0.74	Methyl tert-Butyl Ether	0.0034	0.0000
I	4.006	4.006	4.006	1277094		FLUOROBENZENE	1.0000	0.0000
	5.877	5.877	5.701	560286	17.27	Toluene	0.0254	0.0000
	8.472	8.472	8.407	623934	18.72	m,p-xylene	0.0288	0.0000
	9.037	9.037	9.080	364109	12.76	o-xylene	0.0223	0.0000
O	10.019	10.019	10.020	2742299	54.26	Bromofluorobenzene	0.0556	0.0000
<b>Totals</b>								
Unknowns								
Quantified								
Grand Total								
26116052								
104.03								

[070896] 27 VDA070896A,61,1  
Reported on 10-JUL-1996 at 18:14

Page

MISSING PEAKS

RT mins Peak name

3.748 Benzene  
8.202 Ethyl benzene

PEAK GROUP INFORMATION

Area uvs ug/L-ug/Kg Peak name

988043 31.68 Xylenes

ANALYSIS SUMMARY

Method... VDADAI

Run sequence... VOA

Calibration... BTX0703

Internal standard & calibration using area

Calibration last modified on 10-JUL-1996 at 09:52

Uncalibrated peaks use user factor (0.0000)

FORM 1  
8020 ORGANICS ANALYSIS DATA SHEET

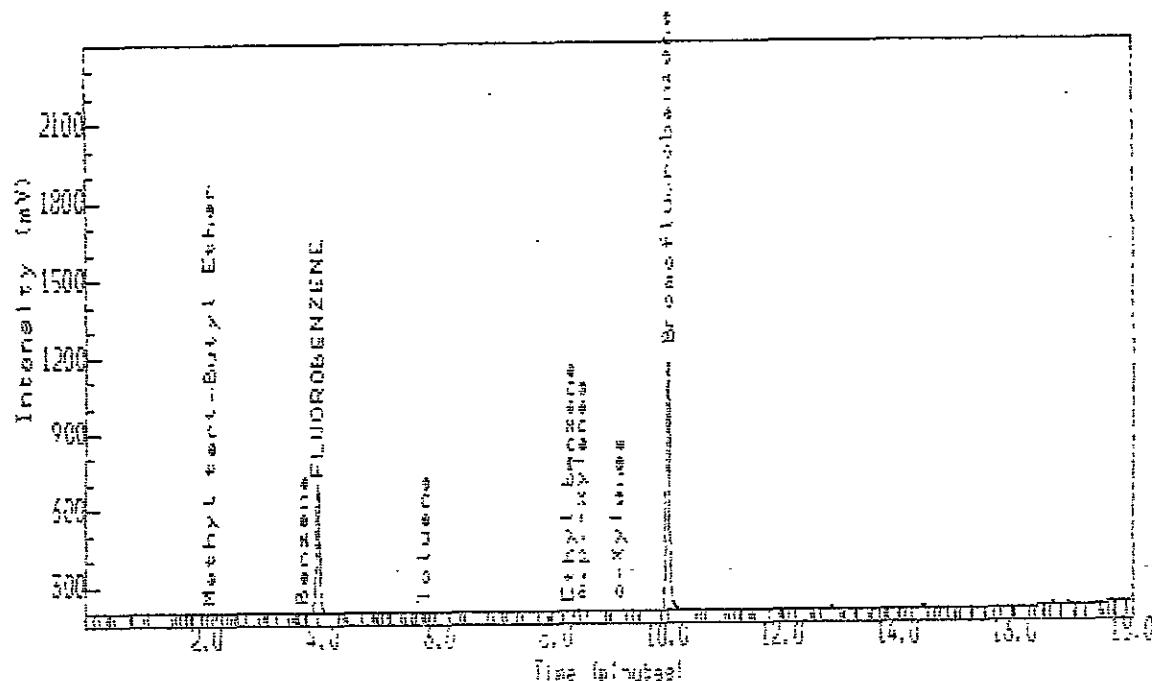
WWC SAMPLE NO.

Lab Name:	INCHCAPE TESTING SERVICES	Contract:	GPDTP-2
Lab Code:	Case No.:	SAS No.:	SDG No.: BTX7327
Matrix: (soil/water)	SOIL	Lab Sample ID:	7327-15
Sample wt/vol:	5.0 (g/mL) G	Lab File ID:	10JUL1327
Level: (low/med)	LOW	Date Received:	07/03/96
% Moisture:	18	Date Analyzed:	07/10/96
GC Column:	DB-624	ID: 0.53 (mm)	Dilution Factor: 1.0
Soil Extract Volume:	(uL)	Soil Aliquot Volume:	(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
71-43-2-----	Benzene	2.4	U	
108-88-3-----	Toluene	2.4	U	
100-41-4-----	Ethyl benzene	2.4	U	
108-38-3-----	m.p.-xlenes	2.4	U	
95-47-6-----	o-Xlenes	2.4	U	

## Indication Report

Acquired on 10-JUL-1996 at 13:27



Inchcape Testing Services - Hallgar

Analyst Name :

Line Id

Comment

Method Title :

Sample Name : 7327-15 SG 2020/8015

Sample Id

Sample Type : Sample Amount:0.00000

Bottle No : 46

### PEAK INFORMATION

Cal Flags	RT mins	RT Carr	RT Exp	Area uVs	ug/L-ug/Kg	Peak name	RF slope	RF intercept
	2.143	2.143	2.260	912	0.13	Methyl tert-Butyl Ether	0.0024	0.0000
I	3.734	3.734	3.748	2000	0.04	Benzene	0.0250	0.0000
	3.992	3.992	4.006	2015230		FLUOROBENZENE	1.0000	0.0000
	8.294	8.294	8.202	1543	0.04	Ethyl benzene	0.022e	0.0000
	8.499	8.499	8.407	8340	0.16	m,p-Xylenes	0.0250	0.0000
	9.139	9.139	9.080	3623	0.08	o-Xylenes	0.0223	0.0000
D	9.997	9.997	10.020	4013409	50.34	Bromofluorobenzene	0.0393	0.0000

### Totals

Unknowns	349669	N/A
Quantified	6045157	50.79
Grand Total	6394826	50.79

[070896] 27 VOA(709964,51,1  
Reported on 10-JUL-1996 at 15:19

Page

MISSING PEAKS

No missing peaks.

PEAK GROUP INFORMATION

Area (u)s	ug/L-ug/Kg	Peak name
11932	0.24	Xylenes

ANALYSIS SUMMARY

Method.....VOCAL VOCAL1  
Run sequence.....VOA  
Calibration.....81X0703  
Internal standard % calibration using ones  
Calibration last modified on 10-JUL-1996 at 15:19  
Uncalibrated peaks use user factor (0.0000)

FORM 1  
8020 ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

TRIPBLK

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: BTX7327L

Matrix: (soil/water) WATER Lab Sample ID: 7327-16

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 09JUL1343070

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: Date Analyzed: 07/09/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

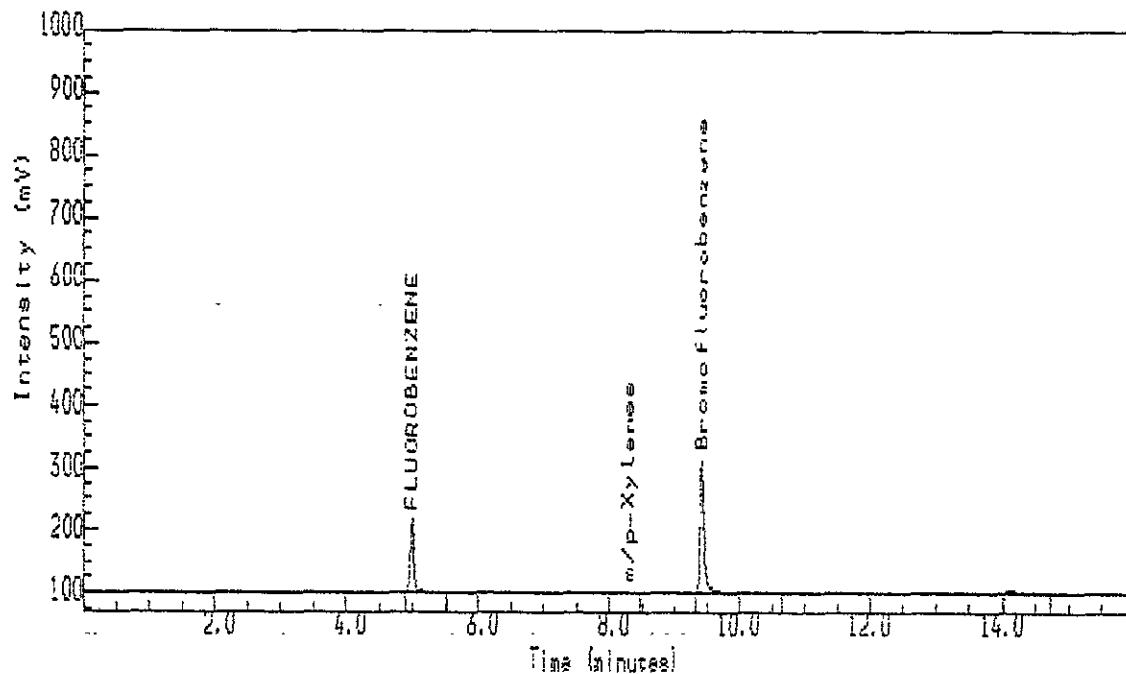
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) uG/L	Q
71-43-2-----	Benzene _____	1.0	U
108-88-3-----	Toluene _____	1.0	U
100-41-4-----	Ethyl benzene _____	1.0	U
108-38-3-----	m.p.-xlenes _____	1.0	U
95-47-6-----	o-Xlenes _____	1.0	U

[070896] 30 VOA070996.8,1  
Reported on 9-JUL-1996 at 13:59

Page 1

## Injection Report

Acquired on 9-JUL-1996 at 13:43



Inchcape Testing Services - Dallas

Analyst Name :  
Lims Id :  
Comment : PURGEABLE AROMATICS BY PID/FID,INST 10 # 3203A40698  
Method Title : METHOD 602/8020/UP11 HP 5890/LCS 2000/ALS 2050 DB524 COLUMN  
Sample Name : 7327-16 5ML <2 8020  
Sample Id :  
Sample Type : Sample Amount=0 00000  
Bottle No : 8

### PEAK INFORMATION

RT mins	RT Corr	RT Exp	Area uVs	ug/L	Peak name	RF slope	RF intercept
4.992	4.992	4.972	458377		FLUOROBENZENE	1.0000	0.0000
8.299	8.299	8.257	4377	0.38	m/p-Xylenes	0.0252	0.0000
9.423	9.423	9.390	892455	52.20	Bromofluorobenzene	0.0373	0.0000

### Totals

Unknowns	63505	N/A
Quantified	1355208	52.58
Grand Total	1418713	52.58

MISSING PEAKS

RT mins Peak name

3.431 Methyl tert-Butyl Ether  
4.768 Benzene  
6.490 Toluene  
8.099 Ethyl benzene  
8.733 O-Xylenes

PEAK GROUP INFORMATION

<u>Area uVs</u>	<u>ug/L</u>	<u>Peak name</u>
4377	0.38	Xylenes

ANALYSIS SUMMARY

Method..... VOA0A1  
Run sequence..... VOA  
Calibration..... BTX0696  
Internal standard calibration using area  
Calibration last modified on 5-JUL-1996 at 10:41

Uncalibrated peaks use user factor (0.0000)



Inchcape Testing Services  
Environmental Laboratories

## **TOTAL VOLATILE PETROLEUM HYDROCARBONS DATA**



**Inchcape Testing Services**  
Environmental Laboratories

## **QUALITY CONTROL SUMMARY**

FORM 2  
SOIL 8015 SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: GRO7327

Level: (low/med) LOW

WWC SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	OTHER	TOT OUT
01 PBLKLCSD	99				0
02 PBLKLCSD	99				0
03 WO-1MS	98				0
04 WO-1MSD	98				0
05 PBLK	99				0
06 WO-1	102				0
07 MOP-1	106				0
08 OGP-1	71				0
09 DP-2	106				0
10 MOP-2	105				0
11 CPG-2	98				0
12 GPSTP-2	99				0
13 CPG-1	95				0
14 OGP-3	102				0
15 GPSTP-1	89				0
16 DP-1	89				0
17					0
18					
19					
20					
21					
22					
23					
24					
25					
26					

ADVISORY  
QC LIMITS

S2= FLUOROBENZENE (SS (70-130)  
# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 2  
SOIL 8015 SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: GR07327

Level: (low/med) LOW

WWC SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	OTHER	TOT OUT
01 PBLKLCS		100			0
02 PBLKLCS		99			0
03 WO-1MS		97			0
04 WO-1MSD		99			0
05 PBLK		105			0
06 WO-1		99			0
07 OGP-2		88			0
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					

ADVISORY  
QC LIMITS

S2= FLUOROBENZENE (SS (70-130)  
# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 3  
8015 MATRIX SPIKE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: GR07327

Matrix Spike - Client Sample ID: W0-1

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC #	QC. LIMITS REC.
TPH	2500.0	0.000	2010	80	70-130

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
TPH	2500.0	2040	81	1	25	70-130

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS: \_\_\_\_\_

FORM 3  
8015 BLANK SPIKE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: GRO7327

Matrix Spike - Client Sample ID: PBLK

COMPOUND	SPIKE ADDED (mg/Kg)	BLANK CONCENTRATION (mg/Kg)	BS CONCENTRATION (mg/Kg)	BS % REC #	QC. LIMITS REC.
TPH	500.0	0.000	406	81.2	70-130

COMPOUND	SPIKE ADDED (mg/Kg)	BSD CONCENTRATION (mg/Kg)	BSD % REC #	% RPD #	QC RPD	LIMITS REC.
TPH	500.0	386	77.2	5	25	70-130

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS: \_\_\_\_\_

FORM 3  
8015 MATRIX SPIKE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: GRO7327

Matrix Spike - Client Sample ID: WO-1

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC #	QC. LIMITS REC.
TPH _____	2500	35	2130	84	70-130

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
TPH _____	2500	2165	85	1	25	70-130

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS: \_\_\_\_\_

FORM 3  
8015 BLANK SPIKE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: GRO7327

Matrix Spike - Client Sample ID: PBLK

COMPOUND	SPIKE ADDED (mg/Kg)	BLANK CONCENTRATION (mg/Kg)	BS CONCENTRATION (mg/Kg)	BS % REC #	QC. LIMITS REC.
TPH	500.0	0.000	421	84	70-130

COMPOUND	SPIKE ADDED (mg/Kg)	BSD CONCENTRATION (mg/Kg)	BSD % REC #	% RPD #	QC LIMITS RPD	REC.
TPH	500.0	410	82	2	25	70-130

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS: \_\_\_\_\_

FORM 4  
8015 METHOD BLANK SUMMARY

WWC SAMPLE NO.

Lab Name: INCHCAPE TESTING SERVICES Contract:

PBLK

Lab Code: Case No.: SAS No.: SDG No.: GRO7327

Lab File ID: 10JUL0616099 Lab Sample ID: 7327-17

Date Analyzed: 07/10/96 Time Analyzed: 0616

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: MULTI16

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	WWC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	PBLKLCS	7327-20	10JUL0441099	0441
02	PBLKLCS	PBLKLCS	10JUL0505099	0505
03	WO-1MS	7327-18	10JUL0529099	0529
04	WO-1MSD	7327-19	10JUL0552099	0552
05	WO-1	7327-1	10JUL0640099	0640
06	MOP-1	7327-6	10JUL0708099	0708
07	OGP-1	7327-10	10JUL0732099	0732
08	DP-2	7327-9	10JUL0822099	0822
09	MOP-2	7327-7	10JUL1237099	1237
10	CPG-2	7327-5	10JUL1302099	1302
11	GPDTP-2	7327-15	10JUL1327099	1327
12	CPG-1	7327-4	10JUL1352099	1352
13	OGP-3	7327-12	10JUL1731099	1731
14	GPSTP-1	7327-14	10JUL1755099	1755
15	DP-1	7327-8	10JUL1932099	1932
16				
17				
18				
19				
20				
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23				
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25				
26				
27				

COMMENTS:

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FORM 4  
8015 METHOD BLANK SUMMARY

WWC SAMPLE NO.

Lab Name: INCHCAPE TESTING SERVICES Contract:

PBLK1

Lab Code: Case No.: SAS No.: SDG No.: GR08270

Lab File ID: 11JUL0108 Lab Sample ID: PBLK1

Date Analyzed: 07/11/96 Time Analyzed: 0108

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: MULTI16

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

WWC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01 PBLK1LCS	PBLK1LCS	10JUL2332	2332
02 PBLK1LCSD	PBLK1LCSD	10JUL2356	2356
03 WO-1MS	7327-1MS	11JUL0020	0020
04 WO-1MSD	7327-1MSD	11JUL0044	0044
05 WO-1	7327-1	11JUL0716	0716
06 OGP-2	7327-11	11JUL0829	0829
07			
08			
09			
10			
11			
12			
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29			

COMMENTS:



**Inchcape Testing Services**  
Environmental Laboratories

## **SAMPLE DATA**

FORM 1  
8015 VOA ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

WO-1

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: GR07327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-1

Sample wt/vol: 5.000 (g/mL) g Lab File ID: 10JUL0640

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 18 Date Analyzed: 07/10/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

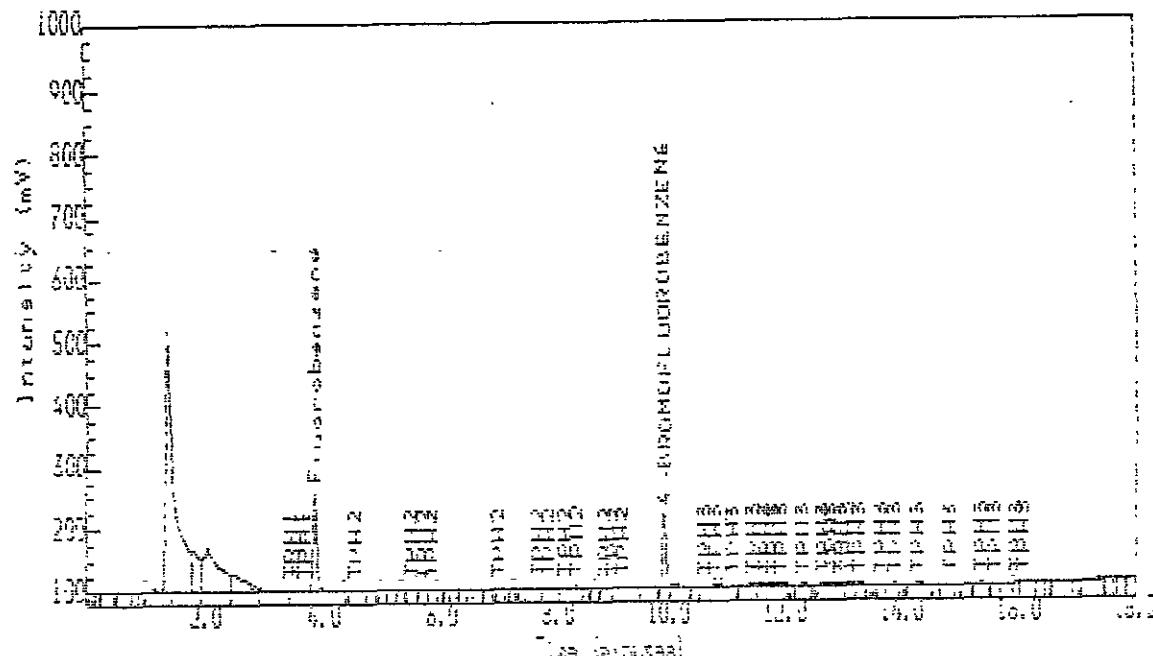
Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg Q

CAS NO.	COMPOUND	42	U
	-----TPH _____		

## Inspection Report

Acquired on 10-JUL-1996 at 06:40



Inchcape Testing Services - Dallas

Analyst Name :  
Lims Id :  
Comment :  
Method Title : METHOD 8015  
Sample Name : 7327-1 56 8020/8015  
Sample Id :  
Sample Type : Sample Amount:0.0000  
Bottle No : 36

### PEAK INFORMATION

RT mins	RT Err	SI Exp	Area uVs	ug/L-ug/kg	Peak name	RF slope	RF intercept	
1.112	1.120	0.000	5763	0.00		0.0000	0.0000	
1.193	1.192	0.000	15765	0.00		0.0000	0.0000	
1.406	1.415	0.000	4354868	0.00		0.0000	0.0000	
1.877	1.890	0.000	573673	0.00		0.0000	0.0000	
2.099	2.114	0.000	1425495	0.00		0.0000	0.0000	
2.561	2.580	0.000	473497	0.00		0.0000	0.0000	
		3.653	15698	1.45	TBP1	0.0211	0.0000	
		3.780	3.653	7121	- C1	0.0211	0.0000	
		3.950	3.950	591290	50.85	Fluorobenzene	0.0255	0.0000
			5.470	53416	4.71	TBP2	0.0345	0.0000
		8.197	8.258	5534	0.31	- C2	0.0345	0.0000
		8.401	8.464	17593	0.89	- C2	0.0345	0.0000

RT mins	RT Derr	RT Err	Area uVs	ug/L-ug/kg	Peak name	RF slope	RF intercept
9.028	9.095	6.970	7094	0.40	- C2	0.0345	0.0000
9.429	9.498	0.000	11273	0.00		0.0000	0.0000
9.594	9.968	9.968	512394		4-BROMIFLUOROBENZENE	1.0000	0.0000
		13.347	215404	25.32	1642	0.0145	0.0000
10.557	10.876	13.347	13197	1.73	- C3	0.0145	0.0000
10.798	10.868	13.347	13468	3.83	- C4	0.0145	0.0000
11.437	11.522	13.347	36159	4.75	- C5	0.0145	0.0000
11.783	11.871	13.347	13915	1.83	- C6	0.0145	0.0000
11.908	11.997	13.347	5647	1.25	- C7	0.0145	0.0000
12.294	12.386	13.347	7658	1.01	- C8	0.0145	0.0000
12.628	12.722	13.347	7121	0.35	- C9	0.0145	0.0000
12.760	12.861	13.347	30439	4.00	- C10	0.0145	0.0000
13.037	13.134	13.347	5521	0.91	- C11	0.0145	0.0000
13.850	13.954	13.347	7151	0.24	- C12	0.0145	0.0000
14.241	14.348	13.347	12695	1.67	- C13	0.0145	0.0000
15.337	15.454	13.347	7583	1.00	- C14	0.0145	0.0000
15.734	15.854	13.347	4711	0.62	- C15	0.0145	0.0000
16.592	16.717	0.000	4681	0.00		0.0000	0.0000
16.828	16.954	0.000	8099	0.00		0.0000	0.0000
17.330	17.460	0.000	6070	0.00		0.0000	0.0000
17.565	17.697	0.000	6368	0.00		0.0000	0.0000

Total

Unknowns	140481	N/A
Quantified	8405329	85.34
Grand Total	8545790	85.34

MISSING PEAKS

No missing peaks.

PEAK GROUP INFORMATION

Area uVs	ug/L-ug/kg	Peak Name
314518	34.47	TPH as Gasoline

j.value

ANALYSIS SUMMARY

Method..... VOA0A1  
 Run sequence..... VOA  
 Calibration..... BTX0703  
 Internal standard calibration using area  
 Calibration last modified on 8-JUL-1996 at 16:42

Uncalibrated peaks use user factor (0.0000)

FORM 1  
8015 VOA ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

WO-1

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: GR07327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-1

Sample wt/vol: 5.000 (g/mL) g Lab File ID: 11JUL0132

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 18 Date Analyzed: 07/11/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

Q

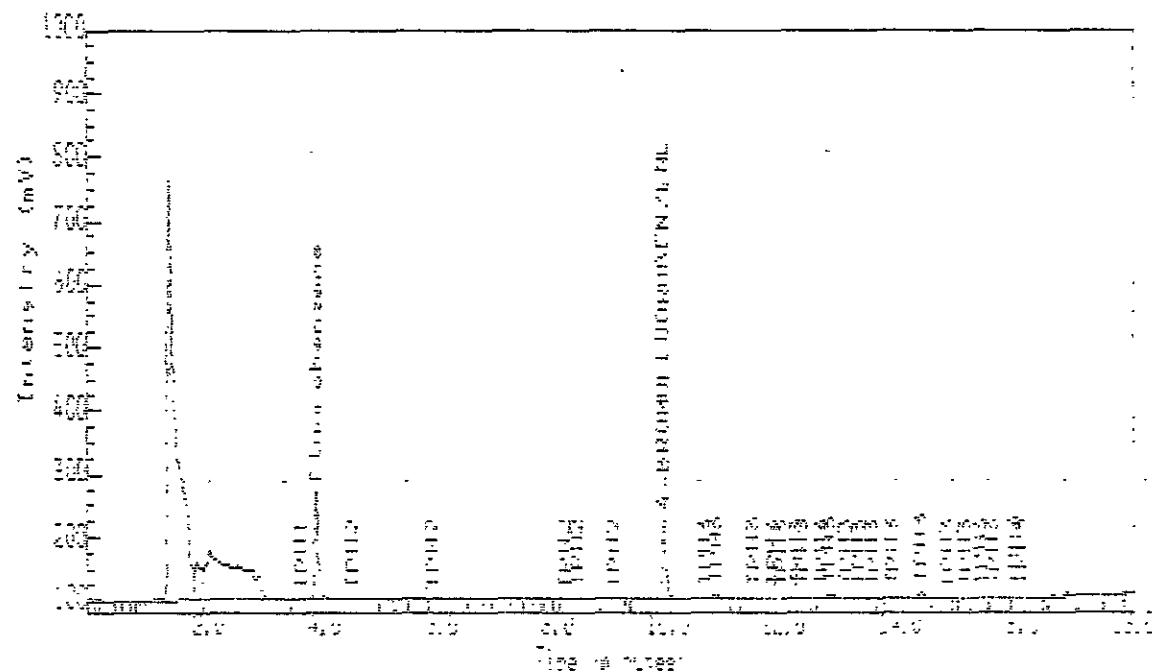
CAS NO.	COMPOUND	-----TPH	35	
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107089-1 28 V04071996,7,1  
Reported on 11-JUL-1996 at 07:15

Page 1

## INJECTION REPORT

Acquired on 11-JUL-1996 at 01:32



### Sample Testing Results - Details

Analytical Name :  
Line Id :  
Comment : HIGH-RESOLVED FLUORINATION BY TPD/EI/ID  
Method Title : METHOD\_8015  
Sample Name : 7517-1 05 07089-1996-01.DAT /  
Sample Id :  
Sample Type : Sample Acquainted-ODD00  
Buttle No : 7

### PEAK INFORMATION

RT name	RT Comp	RT Std	Area (u)s	deconvoluted	Peak name	RF Slope	RF Intercept
1.126	1.126	0.000	8011	0.00		0.0000	0.0000
1.152	1.152	0.000	11944	0.00		0.0000	0.0000
1.272	1.276	0.000	23080	0.00		0.0000	0.0000
1.414	1.416	0.000	7076389	0.00		0.0000	0.0000
1.890	1.893	0.000	476583	0.00		0.0000	0.0000
2.112	2.118	0.000	1789186	0.00		0.0000	0.0000
2.579	2.586	0.000	1348406	0.00		0.0000	0.0000
			3.653	4402	0.53 TPD	0.0011	0.0001
3.651	3.651	3.653	6462	0.53 - 01		0.0711	0.0004
3.939	3.950	3.950	752637	47.13 Fluorobenzene		0.0755	0.0005
			4.550	47469	0.01 036	0.0037	0.0000

[070896] 28 VOA071096,7,1  
Reported on 11-JUL-1996 at 07:18

Page 2

RT mins	RT Comp	RT Exp	Area (uVs)	ppm/ug/g	Peak name	R <sub>d</sub> slope	R <sub>d</sub> intercept
3.214	6.252	6.970	57.00	0.18	- C2	0.0042	0.0000
8.413	8.455	6.970	16725	0.85	- C2	0.0045	0.0000
9.050	9.100	6.970	5770	0.25	- C2	0.0045	0.0000
9.512	9.582	5.968	370255		1-HEXYL-4-CYCLOPENTENE	1.0000	0.0000
10.197	10.235	0.000	11127	0.00		0.0000	0.0000
			13.347	271545	32.18 7243	0.0142	0.0000
10.623	10.685	13.347	13811	1.63	- C3	0.0142	0.0000
10.737	10.859	13.347	43852	5.12	- C3	0.0145	0.0000
11.455	11.527	13.347	52603	0.85	- C3	0.0145	0.0000
11.806	11.874	13.347	8940	1.01	- C3	0.0148	0.0000
12.774	12.552	13.347	42762	5.05	- C3	0.0148	0.0000
13.275	13.354	13.347	7004	0.85	- C3	0.0148	0.0000
14.348	14.437	13.347	57434	6.79	- C3	0.0148	0.0000
15.352	15.449	13.347	7396	0.87	- C3	0.0149	0.0000
15.948	16.049	13.347	5038	0.00	- C3	0.0148	0.0000
16.001	16.708	0.000	6332	0.00		0.0000	0.0000
16.841	16.849	0.000	2395	0.00		0.0000	0.0000
17.197	17.308	0.000	2983	0.00		0.0000	0.0000
17.343	17.455	0.000	5830	0.00		0.0000	0.0000
17.374	17.462	0.000	4741	0.00		0.0000	0.0000

Totals

Unknowns	51102	%A
Quantified	12643855	64.75
Grand Total	12734787	64.75

MISSING PEAKS

No missing peaks.

PEAK GROUP /REFERENCE

Area (uVs)	ppm/ug/g	Peak name
325536	07.02	TBP as Gasoline

ANALYSIS SUMMARY

Method..... VOA071096,7,1  
Run sequence..... VOA1  
Calibration..... BTX0703  
Internal standard calibration using area  
Calibration last modified on 8-JUL-1996 at 16:42

Uncalibrated peaks use user factor (0.0000)

FORM 1  
8015 VOA ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

CPG-1

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: GRO7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-4

Sample wt/vol: 5.000 (g/mL) g Lab File ID: 10JUL1352

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 20 Date Analyzed: 07/10/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg Q

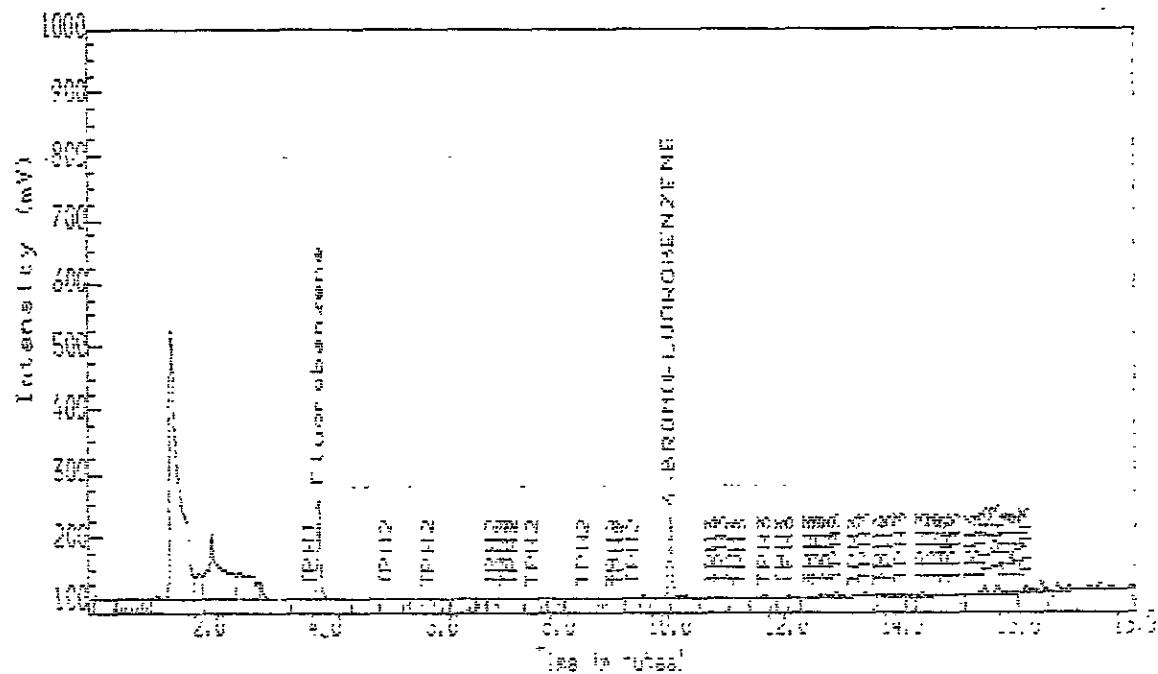
----- TPH	89	
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[070896] 28 YOA070996A,52,1  
Reported on 10-JUL-1996 at 16:17

Page 1

## Inspection Report

Acquired on 10-JUL-1996 at 13:52



Inchcape Testing Services - Dallas

Analyst Name :  
Lims Id :  
Comment :  
Method Title : METHOD 8015  
Sample Name : 7327-4 56 6020/80:5  
Sample Id :  
Sample Type : Sample Amount=0.00000  
Sortie No : 47

### PEAK INFORMATION

RT min	RT Err	PT Err	Area (uVs)	dF/Time/Kg	Peak name	RF slope	RF intercept
1.143	1.131	0.000	7952	0.00		0.0000	0.0000
1.210	1.197	0.000	15813	0.00		0.0000	0.0000
1.286	1.272	0.000	12297	0.00		0.0000	0.0000
1.432	1.417	0.000	4817487	0.00		0.0000	0.0000
1.917	1.896	0.000	563171	0.00		0.0000	0.0000
2.134	2.112	0.000	1787057	0.00		0.0000	0.0000
2.614	2.587	0.000	912069	0.00		0.0000	0.0000
2.997	2.965	0.000	117311	0.00		0.0000	0.0000
3.214	3.180	0.000	17572	0.00		0.0000	0.0000
3.992	3.950	0.000	728857	47.32	Fluorobenzene	0.0265	0.0000
5.470	5.450	0.000	71555	3.58	TF12	0.0345	0.0000

[070896] 28 VOA070996A,52,1  
Reported on 10-JUL-1996 at 15:17

Page 2

RT mins	RT Corr	RT Exp	Area uVs	ug/L-ug/Kg	Peak name	SF slope	SF intercept
8.521	8.486	6.770	13403	0.67	- C2	0.0045	0.0000
9.539	9.505	0.000	13545	0.00		0.0000	0.0000
10.001	9.968	9.968	580373		4-BROMOPLUGOSOBENZENE	1.0000	0.0000
		13.347	575213	46.77	TPH	0.0142	0.0000
10.662	10.636	13.347	13814	1.60	- C3	0.0153	0.0000
11.619	11.589	13.347	20649	2.40	- C5	0.0145	0.0000
12.010	11.960	13.347	15426	1.91	- C3	0.0145	0.0000
12.403	12.377	13.347	7317	0.65	- C3	0.0145	0.0000
12.566	12.537	13.347	7893	0.92	- C3	0.0145	0.0000
12.721	12.692	13.347	10833	1.26	- C3	0.0142	0.0000
12.880	12.822	13.347	36998	1.53	- C3	0.0118	0.0000
13.170	13.142	13.347	7127	0.62	- C3	0.0148	0.0000
13.352	13.325	13.347	20769	2.41	- C3	0.0148	0.0000
13.748	13.721	13.347	5735	0.81	- C3	0.0145	0.0000
13.974	13.948	13.347	23671	1.75	- C3	0.0145	0.0000
14.348	14.322	13.347	36777	4.50	- C3	0.0145	0.0000
14.557	14.531	13.347	20930	2.43	- C3	0.0145	0.0000
14.668	14.642	13.347	16227	1.88	- C3	0.0145	0.0000
14.748	14.722	13.347	12220	1.12	- C3	0.0148	0.0000
14.894	14.869	13.347	30747	3.87	- C3	0.0145	0.0000
15.179	15.154	13.347	12322	1.41	- C3	0.0145	0.0000
15.330	15.306	13.347	17863	2.09	- C3	0.0148	0.0000
15.423	15.399	13.347	61105	7.05	- C3	0.0145	0.0000
15.646	15.622	13.347	76524	9.12	- C3	0.0148	0.0000
15.770	15.746	13.347	11780	1.37	- C3	0.0148	0.0000
15.841	15.817	13.347	12367	1.44	- C3	0.0148	0.0000
15.997	15.973	13.347	5924	1.15	- C3	0.0148	0.0000
16.126	16.102	13.347	34089	6.28	- C3	0.0148	0.0000
16.290	16.267	0.000	31632	0.00		0.0000	0.0000
16.397	16.374	0.000	83739	0.00		0.0000	0.0000
16.677	16.654	0.000	66055	0.00		0.0000	0.0000
16.806	16.785	0.000	15065	0.00		0.0000	0.0000
16.872	16.850	0.000	35893	0.00		0.0000	0.0000
17.054	17.037	0.000	7382	0.00		0.0000	0.0000
17.206	17.184	0.000	41456	0.00		0.0000	0.0000
17.372	17.351	0.000	49077	0.00		0.0000	0.0000
17.579	17.556	0.000	43179	0.00		0.0000	0.0000
17.926	17.902	6.030	3200	0.00		0.0000	0.0000

Totals

Unknowns	95816	n/a
Quantified	10401240	117.68
Grand Total	10497056	117.68

1070896] 29 VOA070996A,52,1  
Reported on 10-JUL-1996 at 15:17

Page 3

MISSING PEAKS

No missing peaks.

PEAK GROUP INFORMATION

Area uVs	ug/L-ug/Kg	Peak name
653828	70.91	TFH as Gasoline

ANALYSIS SUMMARY

Method..... VOA0A1  
Run sequence..... VOA  
Calibration..... STX0703  
Internal standard calibration using area  
Calibration last modified on 8-JUL-1996 at 16:42

Uncalibrated peaks use user factor (0.0000)

FORM 1  
8015 VOA ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

CPG-2

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: GR07327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-5

Sample wt/vol: 5.000 (g/mL) g Lab File ID: 10JUL1302

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 22 Date Analyzed: 07/10/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/Kg	Q
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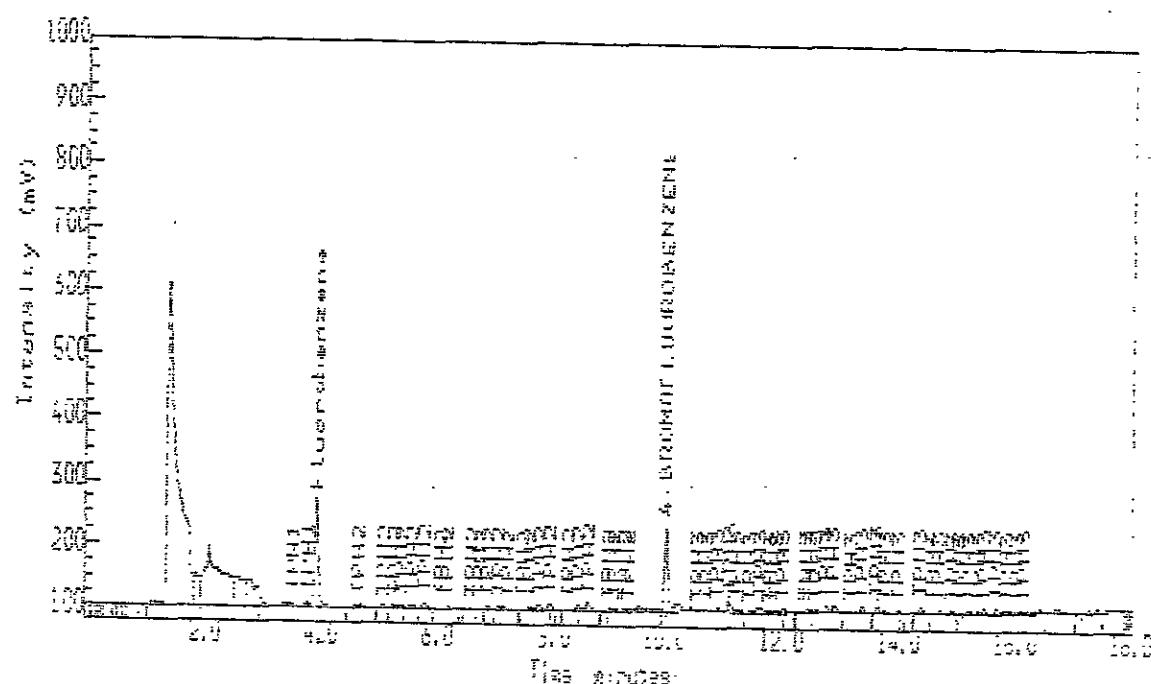
-----TPH _____	180	_____
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[070896] 28 VOA070996A,50,1  
Reported on 10-JUL-1996 at 15:17

Page 1

## Inspection Report

Acquired on 10-JUL-1996 at 13:02



Innoscape Testing Services - Dallas

Analyzer Name :  
Lims Id :  
Comment :  
Method Title : METHOD 8016  
Sample Name : 7327-5 CF 8020/8016  
Sample Id :  
Sample Type : Sample Amount=0.00000  
Cattle No : 45

### PEAK INFORMATION

Time min	RT Corr	RT Exp	Area (uV)	uV/uL-mg/Kg	Peak Name	RF Slope	SC Intercept
1.149	1.133	0.000	2239	0.00		0.0000	0.0000
1.214	1.199	0.000	13116	0.00		0.0000	0.0000
1.294	1.278	0.000	25350	0.00		0.0000	0.0000
1.437	1.418	0.000	6122578	0.00		0.0000	0.0000
1.521	1.857	0.000	314398	0.00		0.0000	0.0000
2.143	2.116	0.000	2025503	0.00		0.0000	0.0000
2.619	2.565	0.000	595736	0.00		0.0000	0.0000
2.623	2.787	0.000	539282	0.00		0.0000	0.0000
3.223	3.182	0.000	11569	0.00		0.0000	0.0000
3.428	3.384	0.000	23968	0.00		0.0000	0.0000
3.459	3.459	0.000	28425	0.00		0.0000	0.0000

542

L070896] 28 VOA070996A,50,1  
Reported on 10-JUL-1996 at 15:17

Page 2

RT mins	RT Comp	RT Exp	Area, uvs	ug/l-ug/Kg	Peak name	RF slope	RF intercept
3.837	3.798	3.653	46431	3.94	- C1	0.0211	0.0000
4.001	3.950	3.350	761824	49.22	Fluorobenzene	0.0265	0.0000
		6.570	558193	27.71	TPH2	0.0345	0.0000
4.721	4.672	4.970	59367	1.96	- C2	0.0345	0.0000
5.157	5.109	6.970	16951	0.84	- C2	0.0345	0.0000
5.357	5.310	6.970	18904	0.51	- C2	0.0345	0.0000
5.463	5.417	6.970	28341	1.41	- C2	0.0345	0.0000
5.611	5.593	6.970	17755	1.38	- C2	0.0345	0.0000
5.959	5.813	6.970	48607	1.41	- C2	0.0345	0.0000
6.130	6.085	6.970	11342	0.56	- C2	0.0345	0.0000
6.259	6.215	6.970	15553	0.77	- C2	0.0345	0.0000
6.659	6.616	6.970	9922	0.49	- C2	0.0345	0.0000
6.948	6.906	6.970	11835	0.59	- C2	0.0345	0.0000
7.134	7.093	6.970	91729	1.58	- C2	0.0345	0.0000
7.303	7.252	6.970	6741	0.43	- C2	0.0345	0.0000
7.683	7.623	6.970	20582	1.03	- C2	0.0345	0.0000
7.819	7.779	6.970	47274	2.35	- C2	0.0345	0.0000
8.006	7.967	6.970	36003	1.80	- C2	0.0345	0.0000
8.321	8.265	6.970	7656	0.39	- C2	0.0345	0.0000
8.494	8.457	6.970	46328	2.30	- C2	0.0345	0.0000
8.677	8.640	6.970	61152	3.04	- C2	0.0345	0.0000
9.015	8.983	6.970	10855	0.53	- C2	0.0345	0.0000
9.126	9.090	6.970	22268	1.11	- C2	0.0345	0.0000
9.303	9.268	6.970	14452	0.72	- C2	0.0345	0.0000
9.379	9.344	6.970	11643	0.58	- C2	0.0345	0.0000
9.524	9.500	0.000	51504	0.00		0.0000	0.0000
9.730	9.696	0.000	10927	0.00		0.0000	0.0000
10.001	9.968	9.888	583166		1-BROMOPHENOLIC ACID	1.1300	0.0000
10.206	10.173	0.000	99186	0.00		0.0000	0.0000
10.410	10.376	0.000	26150	0.00		0.0000	0.0000
	13.347	527562	107.10	TB-3		0.0148	0.0000
10.548	10.517	13.347	6717	0.78	- C3	0.0148	0.0000
10.886	10.855	13.347	29452	3.40	- C3	0.0148	0.0000
11.077	11.047	13.347	75368	7.17	- C3	0.0148	0.0000
11.206	11.176	13.347	14821	1.73	- C3	0.0148	0.0000
11.428	11.399	13.347	5106	0.59	- C3	0.0148	0.0000
11.614	11.587	13.347	62612	7.23	- C3	0.0148	0.0000
11.766	11.738	13.347	9053	1.65	- C3	0.0148	0.0000
11.894	11.867	13.347	11957	1.38	- C3	0.0148	0.0000
12.010	11.983	13.347	34762	4.02	- C3	0.0148	0.0000
12.406	12.380	13.347	25643	3.31	- C3	0.0148	0.0000
12.472	12.447	13.347	15137	1.75	- C3	0.0148	0.0000
12.570	12.545	13.347	25778	2.98	- C3	0.0148	0.0000
12.730	12.706	13.347	45639	5.27	- C3	0.0148	0.0000
12.872	12.849	13.347	65864	7.62	- C3	0.0148	0.0000
13.170	13.147	13.347	15315	1.77	- C3	0.0148	0.0000
13.352	13.330	13.347	41024	4.74	- C3	0.0148	0.0000
13.610	13.588	13.347	49487	5.72	- C3	0.0148	0.0000
13.730	13.703	13.347	17340	2.01	- C3	0.0148	0.0000
13.970	13.949	13.347	29260	3.38	- C3	0.0148	0.0000
14.352	14.333	13.347	66716	7.71	- C3	0.0148	0.0000
14.557	14.528	13.347	12187	1.52	- C3	0.0148	0.0000

T mins	RT Corr	RT Exp	Area uVs	ug/l-ug/Kg	Peak name	CF slope	RF intercept
14.694	14.677	13.347	30204	3.49	- 63	0.0148	0.0000
15.019	15.001	13.347	6233	0.72	- 63	0.0148	0.0000
15.183	15.166	13.347	33425	3.88	- 63	0.0148	0.0000
15.334	15.318	13.347	17902	2.07	- 63	0.0148	0.0000
15.437	15.420	13.347	33710	3.89	- 63	0.0148	0.0000
15.546	15.530	13.347	57159	6.61	- 63	0.0148	0.0000
15.632	15.617	13.347	21113	2.43	- 63	0.0148	0.0000
16.001	15.987	13.347	10561	1.22	- 63	0.0148	0.0000
16.121	16.107	13.347	21568	2.47	- 63	0.0148	0.0000
16.397	16.383	0.000	41049	0.00		0.0000	0.0000
16.552	16.539	0.000	9078	0.00		0.0000	0.0000
16.663	16.651	0.000	14356	0.00		0.0000	0.0000
16.748	16.736	0.000	15772	0.00		0.0000	0.0000
16.899	16.887	0.000	16273	0.00		0.0000	0.0000
17.254	17.244	0.000	7928	0.00		0.0000	0.0000
17.401	17.391	0.000	14751	0.00		0.0000	0.0000
17.632	17.623	0.000	14307	0.00		0.0000	0.0000

#### Totals

Knowns	21357	N/A
Quantified	12939790	190.43
Total	12951137	190.43

#### MISSING PEAKS

No missing peaks.

#### PEAK GROUP INFORMATION

Area uVs	ug/l-ug/Kg	Peak name
1563884	141.21	TPH as Gasoline

#### ANALYSIS SUMMARY

Method..... VOA070996A,50,1  
 Run sequence..... VOA  
 Calibration..... BTX0703  
 Internal standard calibration using area  
 Calibration last modified on 8-JUL-1996 at 16:42

Uncalibrated peaks use user factor (0.0000)

FORM 1  
8015 VOA ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

MOP-1

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: GR07327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-6

Sample wt/vol: 5.000 (g/mL) g Lab File ID: 10JUL0708

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 14 Date Analyzed: 07/10/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

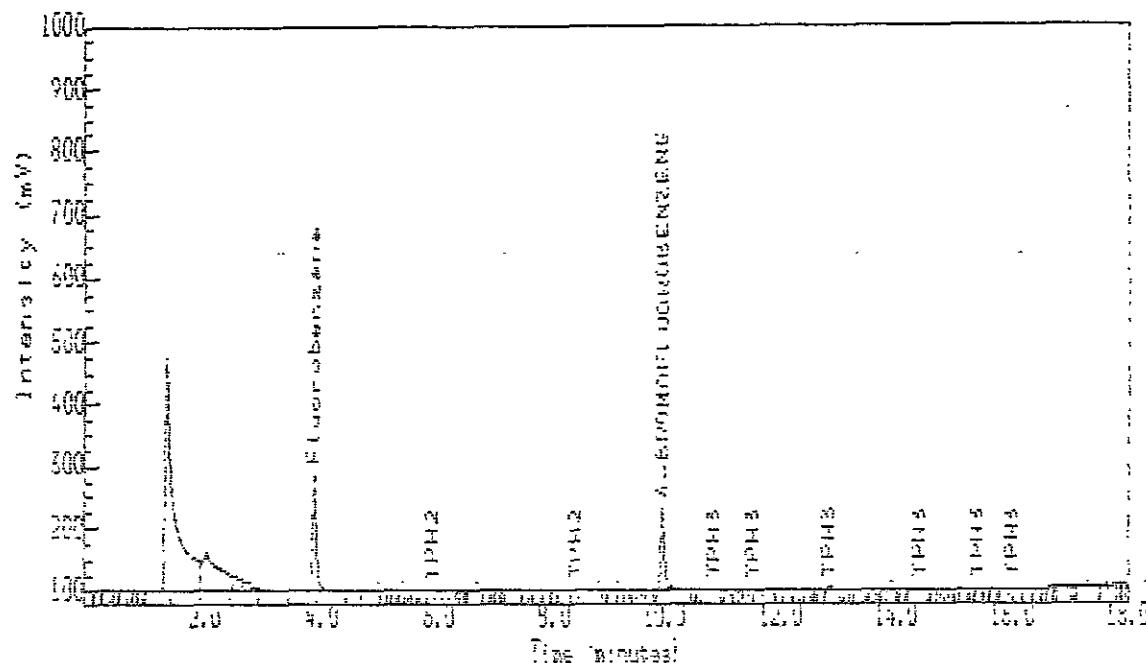
(ug/L or ug/Kg) ug/Kg

Q

CAS NO.	COMPOUND	58	U
	-----TPH_____		

## Injection Report

Acquired on 10-JUL-1996 at 07:08



Inchcape Testing Services - Dallas

Analyst Name :  
Lims Id :  
Comment :  
Method Title : METHOD 8015  
Sample Name : 7327-6 SG 8020/8015  
Sample Id :  
Sample Type : Sample Amount=0.0000  
Bottle No : 37

### PEAK INFORMATION

RT mins	RT Corr	RT Exp	Area (mV)	ug/L-ug/Kg	Peak Name	% slope	% intercept
1.201	1.200	0.000	20165	0.00		0.0000	0.0000
1.423	1.423	0.000	4231021	0.00		0.0000	0.0000
2.121	2.120	0.000	1283962	0.00		0.0000	0.0000
2.583	2.582	0.000	3983659	0.00		0.0000	0.0000
3.952	3.950	3.950	830.67	53.13	Fluorescence	0.1225	0.0000
		5.970	17313	0.86	TPH2	0.0345	0.0000
9.948	9.968	9.968	581710		4-BROMOPHENOSYNE	0.0000	0.0000
		13.347	55189	6.39	TPH3	0.0148	0.0000
10.852	10.856	13.347	6055	0.70	- C3	0.0148	0.0000
12.823	12.855	13.347	17183	1.99	- C3	0.0148	0.0000
16.637	16.683	0.000	3395	0.00		0.0000	0.0000
17.610	17.660	0.000	5897	0.00		0.0000	0.0000

[070896] 28 VOA070996A, 37, 1  
Reported on 10-JUL-1996 at 07:27

Page ..

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RT mins RT Corr RT Exp	Area uVs	ug/L-ug/kg	Peak name	RF slope	RF intercept
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Totals

Unknowns	71455	N/A
Quantified	7417081	50.38
Grand Total	7494540	50.38

MISSING PEAKS

No missing peaks.

PEAK GROUP INFORMATION

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Area uVs	ug/L-ug/kg	Peak name
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74350	7.40	TPH as Gasoline
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ANALYSIS SUMMARY

Method..... VOA0A1

Run sequence..... VOA

Calibration..... BTx0703

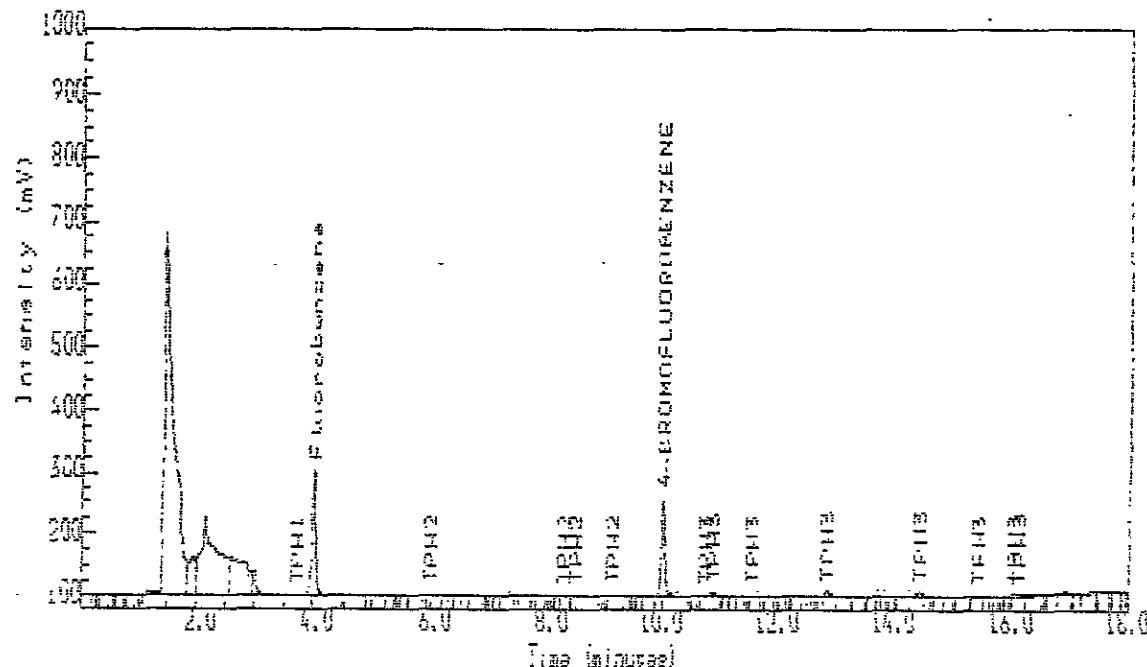
Internal standard calibration using area

Calibration last modified on 8-JUL-1996 at 16:42

Uncalibrated peaks use user factor (1.0000)

## Indication Report

Acquired on 10-JUL-1996 at 10:27



Inchcape Testing Services - Dallas

Analyst Name :  
Lims Id :  
Comment :  
Method Title : METHOD 8015  
Sample Name : 7202-6R 56 8015  
Sample Id :  
Sample Type : Sample Amount=0.0000  
Bottle No : 43

Rept w/ 1st Batch.  
Mar 7-24 96

### PEAK INFORMATION

RT min	RT Corr	RT Exp	Area uVs	ug/L-ug/kg	Peak name	RF slope	RF intercept
1.152	1.139	0.000	9332	0.00		0.0000	0.0000
1.228	1.212	0.000	13854	0.00		0.0000	0.0030
1.299	1.282	0.000	25672	0.00		0.0000	0.0000
1.446	1.427	0.000	6339103	0.00		0.0000	0.0000
1.930	1.905	0.000	541307	0.00		0.0000	0.0000
2.148	2.120	0.000	2531207	0.00		0.0000	0.0000
2.623	2.590	0.000	1227339	0.00		0.0000	0.0000
3.006	2.987	0.000	196438	0.00		0.0000	0.0000
4.001	3.850	3.850	889390	49.35	Fluorobenzene	0.0265	0.0000
		5.970	29420	1.25	TPH2	0.0345	0.0000
6.001	5.958	5.970	6496	0.28	- C2	0.0345	0.0000
8.499	8.465	8.470	9723	0.42	- C2	0.0345	0.0000

RT mins	RT Corr	RT Exp	Area uVs	ug/L-ug/Kg	Peak name	RF slope	RF intercept
9.597	9.968	9.968	679263		4-BROMOFLUOROBENZENE	1.0000	0.0000
		13.347	157163	15.59	TPH3	0.0148	0.0000
10.872	10.847	13.347	31120	3.09	- C3	0.0148	0.0000
11.548	11.525	13.347	6756	0.67	- C3	0.0148	0.0000
12.846	12.828	13.347	47416	4.70	- C3	0.0148	0.0000
14.432	14.421	13.347	45986	4.56	- C3	0.0148	0.0000
16.019	16.013	13.347	4212	0.42	- C3	0.0148	0.0000
16.659	16.656	0.000	9062	0.00		0.0000	0.0000
16.890	16.888	0.000	25893	0.00		0.0000	0.0000
17.398	17.387	1.000	7521	0.00		0.0000	0.0000
17.628	17.628	0.000	4191	0.00		0.0000	0.0000

Totals

Unknowns	64397	N/P
Quantified	12624053	60.19
Grand Total	12746452	60.19

MISSING PEAKS

No missing peaks.

PEAK GROUP INFORMATION

Area uVs	ug/L-ug/Kg	Peak name
193719	17.34	TPH as Gasoline

ANALYSIS SUMMARY

Method: VDA070996A,45,1  
Run sequence: VDA070996A,45,1  
Calibration: BTXe703  
Internal standard calibration using area  
Calibration last modified on 8-Jul-1996 at 16:42

Uncalibrated peaks use user factor (0.0000);

FORM 1  
8015 VOA ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

MOP-2

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: GRO7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-7

Sample wt/vol: 5.000 (g/mL) g Lab File ID: 10JUL1237

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 11 Date Analyzed: 07/10/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

Q

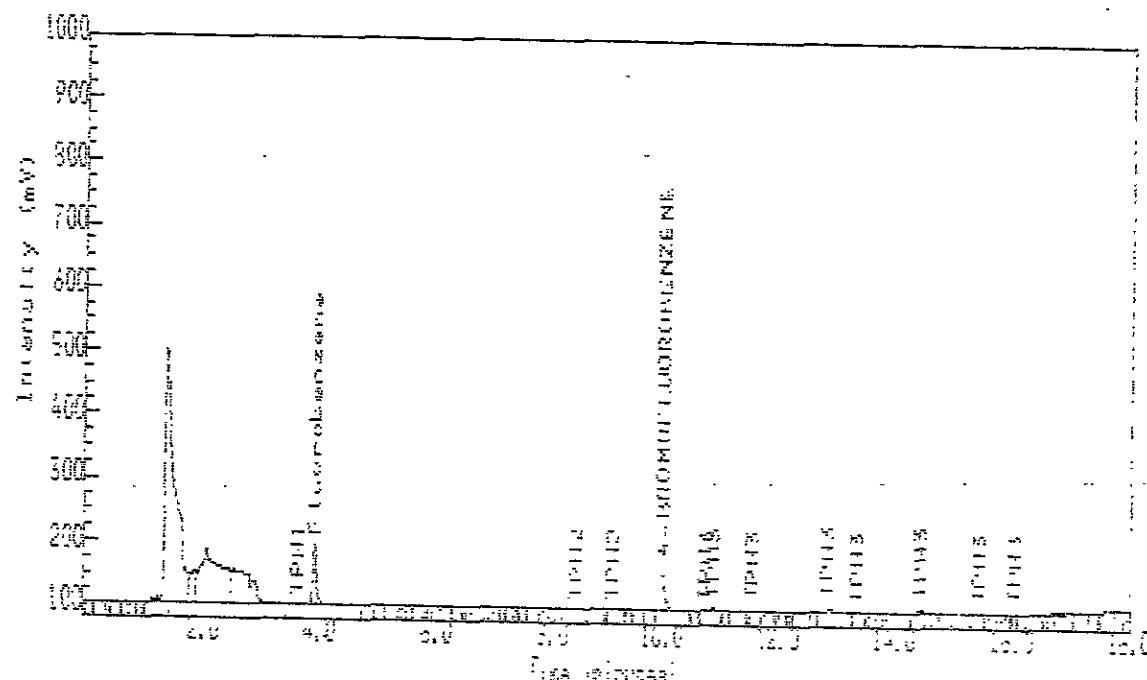
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[070896] 28 VDA070996A,49,1  
Reported on 10-JUL-1996 at 15:17

Page 1

## Indication Report

Acquired on 10-JUL-1996 at 12:37



Inchcape Testing Services - Dallas

Analyst Name :  
Time 1:1 :  
Comment :  
Method Title : METHOD 8015  
Sample Name : 7327-7 EG 8020/8015  
Sample Id :  
Sample Type : Sample Amount=0.00000  
Bottle No : 24

left w/CSN  
use # 39a and  
Mar 7-1996

### PEAK INFORMATION

Time RT	Det RT	Exp	Area abs	ug/l-ug/kg	Peak name	% sig	% integrat
1.143	1.130	0.000	12289	0.00		0.0000	0.0000
1.250	1.275	0.000	58835	0.66		0.0000	0.0000
1.432	1.415	0.000	4719254	0.00		0.0000	0.0000
1.921	1.897	0.000	555169	0.00		0.0000	0.0000
2.110	2.110	0.000	2328251	0.00		0.0000	0.0000
2.514	2.534	0.000	1057263	0.00		0.0000	0.0000
3.997	3.950	3.950	447773	52.51	Fluorobenzene	3.0265	0.0000
			6.970	17903	1.61 TPH2	0.0345	0.0000
8.503	8.467	6.970	7099	0.61 -02		0.0345	0.0000
10.001	9.968	9.968	321499	4-BROMOFLUOROBENZENE		1.0000	0.0000
12.517	12.517	12.517	4.5750	0.00			

551

[070896] 28 VOA070996A,49,1  
Reported on 10-JUL-1996 at 15:17

Page 2

RT mins	RT Corr	RT Exp	Area uVs	ug/L-ug/Kg	Peak name	RF slope	RF intercept
11.548	11.519	13.347	8235	1.73	- C3	0.0148	0.0000
12.850	12.824	13.347	48569	9.76	- C2	0.0148	0.0000
14.432	14.410	13.347	49295	10.23	- C3	0.0148	0.0000
15.659	16.641	0.000	7633	0.00		0.0100	0.0000
16.394	16.378	0.000	24031	0.00		0.0100	0.0000
17.401	17.385	0.000	4325	0.00		0.0000	0.0000
17.570	17.553	0.000	3278	0.00		0.0000	0.0000
17.632	17.617	0.000	4577	0.00		0.0100	0.0000
<b>Totals</b>							
Unknowns			61600	N/A			
Quantified			9826632	66.36			
Grand Total			9891232	66.36			

### MISSING PEAKS

No missing peaks.

### PEAK GROUP: INORGANIC

Area uVs	ug/L-ug/Kg	Peak name
187525	35.77	TPH as Gasoline

### ANALYSIS SUMMARY

Method..... VOA0701  
 Run sequence..... VOA  
 Calibration..... BTX0706  
 Internal standard calibration using area  
 Calibration last modified on 8-JUL-1996 at 16:42  
 Uncalibrated peaks use user factor (0.0000)

FORM 1  
8015 VOA ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

DP-1

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: GR07327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-8

Sample wt/vol: 5.000 (g/mL) g Lab File ID: 10JUL1932

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 15 Date Analyzed: 07/10/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 25.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:

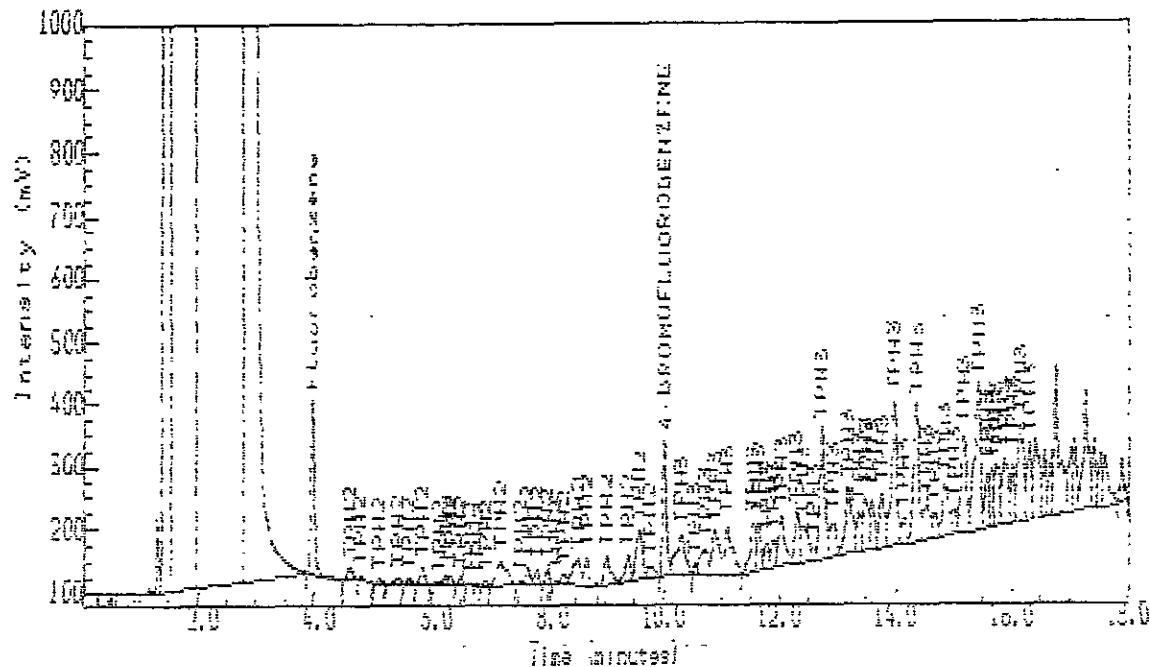
(ug/L or ug/Kg) ug/Kg

Q

-----TPH	47200	
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### Fractionation Report

Acquired on 10-JUL-1996 at 19:32



Chromate Testing Services - Dallas

Analyst Name :

Units Id :

Comment :

Method Title : METHOD 8015

Sample Name : 7227-8 1/25 8020/8015

Sample Id :

Sample Type : Sample Amount: 0.10000

Bottle No : 54

### PEAK INFORMATION

RT mins	RT Corr	RT Exp	Area uVs	ug/L-uVs/kg	Peak type	RT slope	RT intercept
1.134	1.134	0.000	15830	0.00		0.0000	0.0000
1.272	1.272	0.000	298408	6.00		0.0000	0.0000
1.446	1.445	0.000	43849224	0.00		0.0000	0.0000
1.734	1.733	0.000	260144266	0.00		0.0000	0.0000
2.374	2.373	0.000	452493260	0.00		0.0000	0.0000
2.912	2.911	0.000	126069440	0.00		0.0000	0.0000
3.552	3.550	3.550	1159447	1116.49	Fluorobenzene	0.0265	0.0000
		6.920	3848432	2848.17	benzene	0.0325	0.0000
4.601	4.597	6.920	115049	85.29	- C1	0.0345	0.0000
4.770	4.765	6.920	41772	30.92	- C1	0.0345	0.0000
5.093	5.093	6.920	24198	17.91	- C1	0.0345	0.0000
5.419	5.412	6.920	54609	40.42	- C1	0.0345	0.0000

RT min	RT Corr	RT Exp	Area UVs	ug/L-ug/Kg	Peak name	RF slope	RF intercept
5.610	5.603	5.920	36654	27.13	- C1	0.0345	0.0000
5.832	5.825	5.920	149159	110.39	- C1	0.0345	0.0000
6.117	6.108	5.920	43975	32.55	- C1	0.0345	0.0000
6.223	6.215	5.920	67636	50.06	- C1	0.0345	0.0000
6.312	6.303	5.920	90872	59.55	- C1	0.0345	0.0000
6.486	6.476	5.920	65769	49.43	- C1	0.0345	0.0000
6.779	6.769	5.920	8229	4.62	- C1	0.0345	0.0000
6.928	6.915	5.920	43723	32.36	- C1	0.0345	0.0000
7.179	7.167	5.920	466295	345.10	- C1	0.0345	0.0000
7.517	7.504	5.920	17450	12.81	- C1	0.0345	0.0000
7.537	7.524	5.920	155886	116.11	- C1	0.0345	0.0000
7.797	7.783	5.920	137075	101.45	- C1	0.0345	0.0000
7.983	7.970	5.920	106482	78.81	- C1	0.0345	0.0000
8.128	8.111	5.920	21257	15.73	- C1	0.0345	0.0000
8.254	8.240	5.920	108987	79.13	- C1	0.0345	0.0000
8.508	8.493	5.920	426866	315.92	- C1	0.0345	0.0000
8.659	8.643	5.920	271761	201.13	- C1	0.0345	0.0000
9.001	8.984	5.920	345008	255.34	- C1	0.0345	0.0000
9.261	9.343	5.920	262236	194.82	- C1	0.0345	0.0000
9.561	9.543	5.920	619579	458.54	- C1	0.0345	0.0000
9.748	9.729	5.920	175612	129.97	- C1	0.0345	0.0000
9.998	9.968	5.920	77827	4-BROMOFLUOROBENZENE		1.0000	0.0000
		13.234	21707292	37363.20	TPh3	-0.0148	0.0000
10.281	10.261	13.234	589535	1137.65	- C2	0.0148	0.0000
10.517	10.496	13.234	55602	95.75	- C2	0.0148	0.0000
10.681	10.661	13.234	352320	606.75	- C2	0.0148	0.0000
10.348	10.327	13.234	808276	1044.10	- C2	0.0148	0.0000
11.082	11.045	13.234	586663	1162.54	- C2	0.0148	0.0000
11.521	11.497	13.234	472072	912.98	- C2	0.0148	0.0000
11.508	11.531	13.234	387817	667.88	- C2	0.0148	0.0000
11.743	11.719	13.234	275369	388.12	- C2	0.0148	0.0000
11.881	11.856	13.234	264485	463.48	- C2	0.0148	0.0000
12.001	11.976	13.234	592263	1015.97	- C2	0.0148	0.0000
12.272	12.246	13.234	450941	776.59	- C2	0.0148	0.0000
12.388	12.361	13.234	474255	816.70	- C2	0.0148	0.0000
12.568	12.539	13.234	103912	179.55	- C2	0.0148	0.0000
12.708	12.681	13.234	1522195	2277.02	- C2	0.0148	0.0000
12.812	12.884	13.234	459705	751.58	- C2	0.0148	0.0000
13.138	13.137	13.234	655224	1497.97	- C2	0.0148	0.0000
13.348	13.319	13.234	328153	577.19	- C2	0.0148	0.0000
13.483	13.434	13.234	572505	585.94	- C2	0.0148	0.0000
13.593	13.554	13.234	457034	750.08	- C2	0.0148	0.0000
13.739	13.709	13.234	538038	926.58	- C2	0.0148	0.0000
13.957	13.926	13.234	1495176	2574.91	- C2	0.0148	0.0000
14.121	14.090	13.234	238068	410.02	- C2	0.0148	0.0000
14.339	14.307	13.234	1349582	2334.13	- C2	0.0148	0.0000
14.508	14.475	13.234	429950	740.46	- C2	0.0148	0.0000
14.646	14.613	13.234	308976	358.44	- C2	0.0148	0.0000
14.828	14.794	13.234	687708	1184.34	- C2	0.0148	0.0000
14.988	14.954	13.234	204426	352.05	- C2	0.0148	0.0000
15.157	15.122	13.234	1048290	1805.31	- C2	0.0148	0.0000
15.410	15.375	13.234	1687455	2906.05	- C2	0.0148	0.0000
15.570	15.535	13.234	457996	768.74	- C2	0.0148	0.0000

RT mins	RT Corr	RT Exp	Area uVs	ug/L-ug/kg	Peak name	St. slope	St. intercept
15.637	15.601	13.224	355332	611.93	- C2	0.0148	0.0000
15.708	15.672	13.234	659723	1136.14	- C2	0.0148	0.0000
15.850	15.814	13.234	781314	1345.54	- C2	0.0148	0.0000
15.988	15.951	13.234	404363	696.37	- C2	0.0148	0.0000
16.112	16.075	13.234	1181700	2035.06	- C2	0.0148	0.0000
16.281	16.244	13.234	821156	1068.72	- C2	0.0148	0.0000
16.379	16.341	0.000	957684	0.00		0.0000	0.0000
16.543	16.505	0.000	446625	0.00		0.0000	0.0000
16.688	16.629	0.000	437187	0.00		0.0000	0.0000
16.734	16.696	0.000	1493145	0.00		0.0000	0.0000
16.992	16.753	0.000	486887	0.00		0.0000	0.0000
17.054	17.015	0.000	476740	0.00		0.0000	0.0000
17.241	17.201	0.000	1236394	0.00		0.0000	0.0000
17.392	17.352	0.000	433779	0.00		0.0000	0.0000
17.499	17.458	0.000	367195	0.00		0.0000	0.0000
17.579	17.538	0.000	508771	0.00		0.0000	0.0000
17.877	17.835	0.000	282008	0.00		0.0000	0.0000

Totals

Unknowns	3451	n/a
Quantified	258081024	41348.36
Grand Total	558084480	41348.36

MISSING PEAKS

RT mins Peak name

3.653 TPH

PEAK GROUP INFORMATION

Area uVs	ug/L-ug/Kg	Peak name
25555722	40231.36	TPH as Baseline

ANALYSIS SUMMARY

Method..... VDAOA1  
 Run sequence..... VDA  
 Calibration..... BTX0703  
 Internal standard calibration using area  
 Calibration last modified on 11-JUL-1996 at 12:30

Uncalibrated peaks use user factor (0.0000)

FORM 1  
8015 VOA ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

DP-2

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: GRO7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-9

Sample wt/vol: 5.000 (g/mL) g Lab File ID: 10JUL0822

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 18 Date Analyzed: 07/10/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

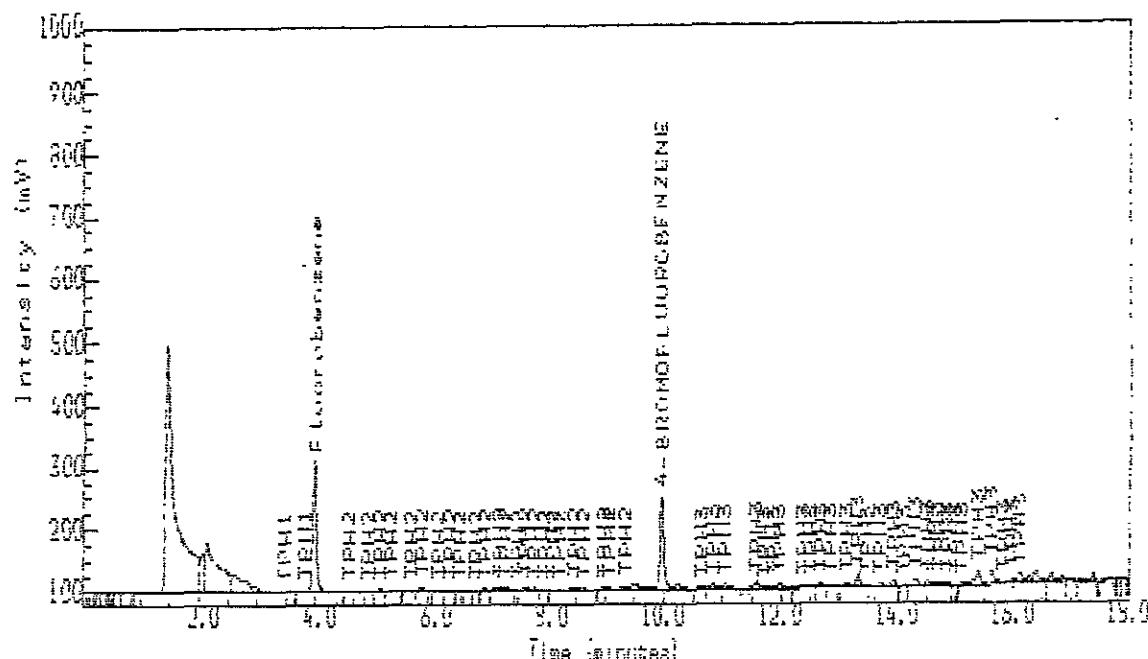
Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg Q

CAS NO.	COMPOUND	171	
	-----TPH		

## Injection Report

Acquired on 10-JUL-1996 at 08:22



Indrapak Testing Services - Dallas

Analyzer Name :  
Lims Id :  
Comment :  
Method Title : METHOD 5015  
Sample Name : 7317-9 56 8029/8016  
Sample ID :  
Sample Type : Sample Amount(0): 00000  
Bottle No : 40

### PEAK INFORMATION

RT min	RT corr	RT Exp	Area UVs	ug/L-equiv	Peak name	% slope	% intercept
1.214	1.207	0.000	13478	0.00		0.0000	0.0000
1.437	1.428	0.000	4880174	0.00		0.0000	0.0000
2.068	2.055	0.000	327825	0.00		0.0000	0.0000
2.134	2.121	0.000	1282259	0.00		0.0000	0.0000
2.506	2.590	0.000	472061	0.00		0.0000	0.0000
		3.653	23763	1.72	TPH1	0.0211	0.0000
3.819	3.795	3.653	17157	1.24	- C1	0.0211	0.0000
3.874	3.950	3.950	918527	52.88	Fluorobenzene	0.0265	0.0000
		6.970	389691	17.24	TPH2	0.0345	0.0000
5.121	5.104	6.970	14187	0.63	- C2	0.0345	0.0000
5.317	5.300	6.970	9743	0.43	- C2	0.0345	0.0000
5.832	5.819	6.970	24687	1.07	- C2	0.0345	0.0000

RT mins	RT Corr	RT Exp	Area UVs	ug/L-ug/kg	Peak name	SF slope	SF intercept
6.317	6.306	6.970	12936	0.57	- C1	0.0345	0.0000
6.917	6.910	6.970	17791	0.79	- C2	0.0345	0.0000
7.174	7.169	6.970	28666	1.27	- C1	0.0345	0.0000
7.259	7.254	6.970	29223	1.29	- C2	0.0345	0.0000
7.619	7.616	6.970	32271	1.43	- C2	0.0345	0.0000
7.788	7.786	6.970	11749	0.52	- C2	0.0345	0.0000
7.961	7.961	6.970	9132	0.40	- C2	0.0345	0.0000
8.223	8.225	6.970	11586	0.51	- C2	0.0345	0.0000
8.461	8.484	6.970	58748	2.51	- C2	0.0345	0.0000
8.637	8.640	6.970	21100	0.99	- C2	0.0345	0.0000
8.983	8.989	6.970	25960	1.15	- C2	0.0345	0.0000
9.077	9.083	6.970	13341	0.59	- C2	0.0345	0.0000
9.339	9.347	6.970	26247	1.69	- C2	0.0345	0.0000
9.499	9.508	0.000	78115	0.00		0.0000	0.0000
9.703	9.713	0.000	33353	0.00		0.0000	0.0000
9.957	9.968	9.958	654611		4-BROMOFLUOROBENZENE	1.0400	0.0000
10.150	10.263	0.000	72035	0.00		1.0000	0.0000
	13.347	11.7285	129.65	TPH3		0.0148	0.0000
10.646	10.561	13.347	19858	3.04	- C3	0.0148	0.0000
10.819	10.836	13.347	42935	4.41	- C2	0.0148	0.0000
11.037	11.055	13.347	43147	4.44	- C2	0.0148	0.0000
11.579	11.560	13.347	72623	7.47	- C1	0.0148	0.0000
11.705	11.730	13.347	6530	6.67	- C2	0.0148	0.0000
11.863	11.886	13.347	10114	1.65	- C2	0.0148	0.0000
11.966	11.959	13.347	48434	5.01	- C2	0.0148	0.0000
12.066	12.082	13.347	34891	3.59	- C2	0.0148	0.0000
12.517	12.544	13.347	15317	1.58	- C2	0.0148	0.0000
12.672	12.700	13.347	32413	3.34	- C2	0.0148	0.0000
12.832	12.861	13.347	19040	1.96	- C2	0.0148	0.0000
12.121	12.152	13.347	40465	4.12	- C2	0.0148	0.0000
13.312	13.344	13.347	98175	9.07	- C2	0.0148	0.0000
13.454	13.487	13.347	20025	2.06	- C2	0.0148	0.0000
13.703	13.738	13.347	19403	2.00	- C2	0.0148	0.0000
13.926	13.961	13.347	54769	5.66	- C2	0.0148	0.0000
14.303	14.341	13.347	89578	7.17	- C2	0.0148	0.0000
14.512	14.551	13.347	34859	3.53	- C2	0.0148	0.0000
14.619	14.659	13.347	19938	1.95	- C2	0.0148	0.0000
14.708	14.748	13.347	22289	3.29	- C2	0.0148	0.0000
14.850	14.891	13.347	20791	3.17	- C2	0.0148	0.0000
15.108	15.150	13.347	11311	1.16	- C2	0.0148	0.0000
15.328	15.432	13.347	135141	13.91	- C2	0.0148	0.0000
15.519	15.565	13.347	153771	16.03	- C2	0.0148	0.0000
15.823	15.870	13.347	18403	1.89	- C2	0.0148	0.0000
15.966	15.913	13.347	26208	2.70	- C2	0.0148	0.0000
16.099	16.148	13.347	76055	7.21	- C2	0.0148	0.0000
16.272	16.322	0.000	53759	0.00		0.0000	0.0000
16.379	16.429	0.000	111955	0.00		0.0000	0.0000
16.859	16.711	0.000	63605	0.60		0.0000	0.0000
16.783	16.836	0.000	14184	0.00		0.0000	0.0000
16.854	16.908	0.000	27434	0.00		0.0000	0.0000
17.041	17.095	0.000	9581	0.00		0.0000	0.0000
17.128	17.243	0.000	30659	0.00		0.0000	0.0000
17.374	17.431	0.000	38609	0.00		0.0000	0.0000

RT mins	RT Corr	RT Exp	Area UVs	ug/L-ug/kg	Peak name	RF slope	RF intercept
17.597	17.554	0.000	27405	0.00		0.0000	0.0000
17.908	17.957	0.000	2974	0.00		0.0000	0.0000
18.001	18.061	0.000	1965	0.00		0.0000	0.0000
<b>Totals</b>							
Unknowns			50625	N/A			
Quantified			1050736	192.49			
Grand Total			10551401	192.49			

MISSING PEAKS

No missing peaks.

PEAK GROUP INFORMATION

Area UVs	ug/L-ug/kg	Peak name
1585738	139.31	TPH as Gasoline

ANALYSIS SUMMARY

Method: VDA01  
Run sequence: VDA  
Calibration: BTX0703  
Internal standard calibration using area  
Calibration last modified on 8-JUL-1996 at 10:42

Uncalibrated peaks use user factor (0.10000)

FORM 1  
8015 VOA ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

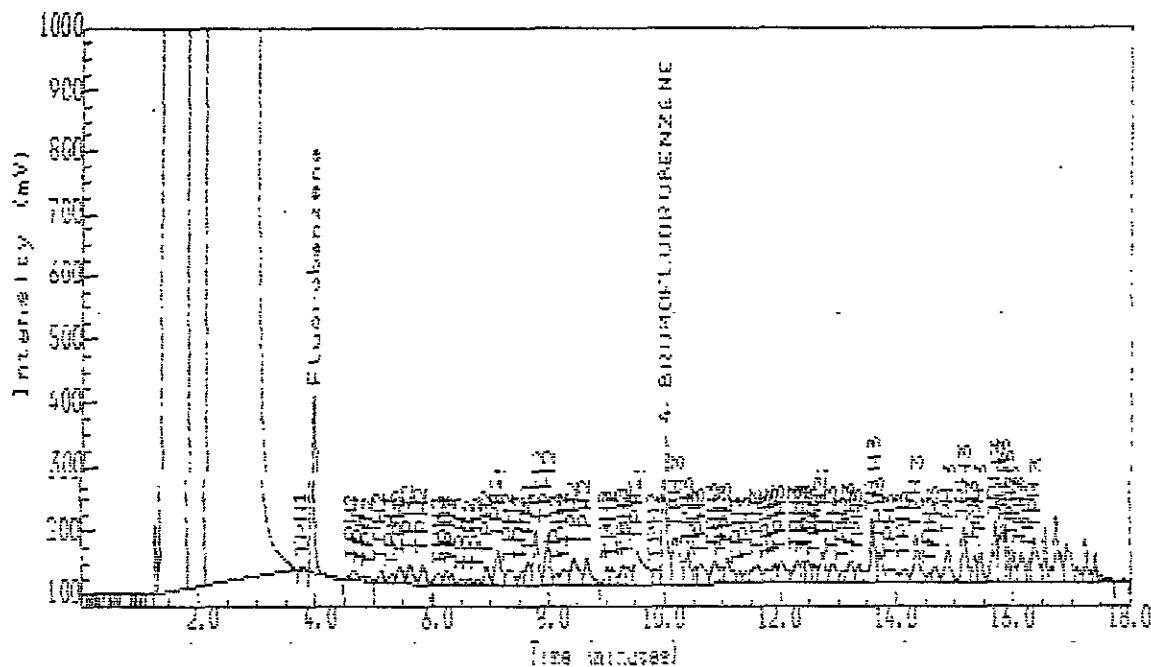
Lab Name: INCHCAPE TESTING SERVICES	Contract:	OGP-1
Lab Code: DALLAS	Case No.:	SAS No.: SDG No.: GRO7327
Matrix: (soil/water) SOIL	Lab Sample ID: 7327-10	
Sample wt/vol: 5.000 (g/mL) g	Lab File ID: 10JUL1844	
Level: (low/med) LOW	Date Received: 07/03/96	
% Moisture: 19	Date Analyzed: 07/10/96	
GC Column: DB-624 ID: 0.53 (mm)	Dilution Factor: 25.0	
Soil Extract Volume: _____ (uL)	Soil Aliquot Volume: _____ (uL)	

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
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-----TPH -----	25500	-----
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## Injection Report

Acquired on 10-JUL-1996 at 18:44



Inchcape Testing Services - Dallas

Analyst Name :  
Lims Id :  
Comment :  
Method Title : METHOD 6015  
Sample Name : 7327-10 1/25 8020/8025  
Sample Id :  
Sample Type : Sample Amount=0.00000  
Bottle No : 54

### PEAK INFORMATION

RT min	RT Corr	RT Exp	Area (mV)	ug/L-ug/kg	Peak name	RF slope	RF intercept
1.139	1.137	0.000	2593	0.00		0.0000	0.0000
1.201	1.199	0.000	4415	0.00		0.0000	0.0000
1.277	1.275	0.000	24850	0.00		0.0000	0.0000
1.557	1.554	0.000	235492288	0.00		0.0000	0.0000
1.948	1.944	0.000	148185532	0.00		0.0000	0.0000
2.563	2.579	0.000	457499360	0.00		0.3000	0.0000
		3.653	27057	26.70	TPH1	0.0211	0.0000
3.783	3.777	3.653	27057	26.70	- C1	0.0211	0.0000
3.957	3.950	3.950	1131193	986.82	Fluorobenzene	0.0265	0.0000
		6.920	6216426	3743.88	TPH2	0.0345	0.0000
4.632	4.623	5.920	124707	75.11	- C2	0.0345	0.0000
4.770	4.760	5.920	58228	35.07	- C2	0.0345	0.0000

RT mins	RT Corr	RT Exp	Area UVs	ug/L-ug/Kg	Peak name	FF slope	FF intercept
4.921	4.910	4.920	42551	25.53	- C2	0.0345	0.0000
5.112	5.101	5.920	109157	85.74	- C3	0.0345	0.0000
5.303	5.291	5.920	97087	58.47	- C2	0.0345	0.0000
5.437	5.424	5.920	199368	120.07	- C2	0.0345	0.0000
5.614	5.601	5.920	226448	136.39	- C2	0.0345	0.0000
5.837	5.822	5.920	194658	117.23	- C2	0.0345	0.0000
6.112	6.096	5.920	132437	79.76	- C2	0.0345	0.0000
6.228	6.211	5.920	102417	61.68	- C2	0.0345	0.0000
6.321	6.304	5.920	82177	49.49	- C2	0.0345	0.0009
6.494	6.477	5.920	54296	32.59	- C2	0.0345	0.0000
6.637	6.618	5.920	58851	25.25	- C2	0.0345	0.0000
6.783	6.764	5.920	47202	26.43	- C2	0.0345	0.0000
6.934	6.815	5.920	163968	98.75	- C2	0.0345	0.0000
7.121	7.101	5.920	406435	142.97	- C2	0.0345	0.0000
7.343	7.322	5.920	248053	148.39	- C2	0.0345	0.0000
7.534	7.512	5.920	129839	72.84	- C2	0.0345	0.0000
7.654	7.632	5.920	324290	135.28	- C2	0.0345	0.0000
7.806	7.782	5.920	514850	309.95	- C2	0.0345	0.0000
7.992	7.968	5.920	457762	275.69	- C2	0.0345	0.0000
8.139	8.114	5.920	101758	51.28	- C2	0.0345	0.0000
8.263	8.238	5.920	309641	130.64	- C2	0.0345	0.0000
8.441	8.415	5.920	379504	228.55	- C2	0.0345	0.0000
8.668	8.641	5.920	229367	187.77	- C2	0.0345	0.0000
8.914	8.986	5.920	154653	73.14	- C2	0.0345	0.0000
9.102	9.074	5.920	152858	51.55	- C2	0.0345	0.0000
9.294	9.265	5.920	302159	121.16	- C2	0.0345	0.0000
9.374	9.345	5.920	171522	103.21	- C2	0.0345	0.0000
9.556	9.426	5.920	459315	415.77	- C2	0.0345	0.0000
9.846	9.813	5.920	170493	101.68	- C2	0.0345	0.0000
10.001	9.938	5.920	1201255	4-TERPENYL,GERANIENE		1.0000	0.0000
		13.234	12033807	16864.46	TPh3	0.0148	0.0000
10.197	10.163	13.234	725269	1017.24	- C2	0.0148	0.0000
10.406	10.371	13.234	325832	456.35	- C3	0.0148	0.0000
10.539	10.504	13.234	122249	186.88	- C3	0.0148	0.0000
10.619	10.583	13.234	203689	425.80	- C3	0.0148	0.0000
10.854	10.818	13.234	322361	451.76	- C3	0.0148	0.0000
10.988	10.951	13.234	120822	169.32	- C3	0.0148	0.0000
11.077	11.039	13.234	255470	498.13	- C3	0.0148	0.0000
11.277	11.238	13.234	101665	142.78	- C3	0.0148	0.0000
11.414	11.375	13.234	133466	187.04	- C3	0.0148	0.0000
11.510	11.570	13.234	346758	484.59	- C3	0.0148	0.0000
11.764	11.725	13.234	173420	343.03	- C3	0.0148	0.0000
11.859	11.838	13.234	190505	266.98	- C3	0.0148	0.0000
12.014	11.975	13.234	335476	476.14	- C3	0.0148	0.0000
12.294	12.252	13.234	383147	396.81	- C3	0.0148	0.0000
12.401	12.358	13.234	187470	262.73	- C3	0.0148	0.0000
12.477	12.433	13.234	226524	309.05	- C3	0.0148	0.0000
12.579	12.532	13.234	184228	258.18	- C3	0.0148	0.0000
12.720	12.685	13.234	355865	498.72	- C3	0.0148	0.0000
12.912	12.867	13.234	293227	411.37	- C3	0.0148	0.0000
13.077	13.031	13.234	108071	151.45	- C3	0.0148	0.0000
13.214	13.188	13.234	307210	436.53	- C3	0.0148	0.0000
13.352	13.305	13.234	220973	309.68	- C3	0.0148	0.0000

RT mins	RT Corr	ST Exp	Area uVs	ug/L-ug/Kg	Peak name	FF slope	FF intercept
13.606	13.557	13.234	842884	900.85	- C3	0.0148	0.0000
13.721	13.672	13.234	305263	427.80	- C3	0.0148	0.0000
13.874	13.845	13.234	262303	367.60	- C3	0.0148	0.0000
14.139	14.088	13.234	186214	260.96	- C3	0.0148	0.0000
14.352	14.301	13.234	530394	729.29	- C3	0.0148	0.0000
14.574	14.522	13.234	77852	109.10	- C3	0.0148	0.0000
14.653	14.610	13.234	193462	271.12	- C3	0.0148	0.0000
14.890	14.836	13.234	432768	606.49	- C3	0.0148	0.0000
15.161	15.106	13.234	534641	749.26	- C3	0.0148	0.0000
15.339	15.283	13.234	211400	396.23	- C3	0.0148	0.0000
15.437	15.380	13.234	318012	447.08	- C3	0.0148	0.0000
15.703	15.646	13.234	533327	733.26	- C3	0.0148	0.0000
15.823	15.770	13.234	576982	807.19	- C3	0.0148	0.0000
15.890	15.832	13.234	390043	406.47	- C3	0.0148	0.0000
15.892	15.834	13.234	342017	339.17	- C3	0.0148	0.0000
16.117	16.057	13.234	311533	436.59	- C3	0.0148	0.0000
16.288	16.208	13.234	141808	199.73	- C3	0.0148	0.0000
16.370	16.310	13.234	534033	745.41	- C3	0.0148	0.0000
16.543	16.482	0.000	317592	0.00		0.0000	0.0000
16.674	16.593	0.000	167753	0.00		0.0000	0.0000
16.739	16.677	0.000	557684	0.00		0.0000	0.0000
16.925	16.863	0.000	471027	0.00		0.0000	0.0000
17.090	17.027	0.000	153951	0.00		0.0000	0.0000
17.137	17.173	0.000	278439	0.00		0.0000	0.0000
17.242	17.327	0.000	134019	0.00		0.0000	0.0000
17.490	17.425	0.000	34591	0.00		0.0000	0.0000
17.574	17.509	0.000	38334	0.00		0.0000	0.0000
17.748	17.681	0.000	4162	0.00		0.0000	0.0000
17.877	17.810	0.000	12735	0.00		0.0000	0.0000

Totals

Unknowns	549	%
Quantified	906165276	21521.87
Grand Total	906165951	21521.87

MISCELLANEOUS PEAKS

No missing peaks.

PEAK GROUP INFORMATION

Area uVs	ug/L-ug/Kg	Peak name
18277292	20635.04	TPH as Gasoline

ANALYSIS SUMMARY

Method..... VDADAI  
Run sequence..... VOA  
Calibration..... BTX0703  
Internal standard calibration using area  
Calibration last modified on 11-JUL-1996 at 12:36

Uncalibrated peaks use user factor (0.0000)

FORM 1  
8015 VOA ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

OGP-2

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: GRO7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-11

Sample wt/vol: 5.000 (g/mL) g Lab File ID: 10JUL2021

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 19 Date Analyzed: 07/11/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

## CONCENTRATION UNITS:

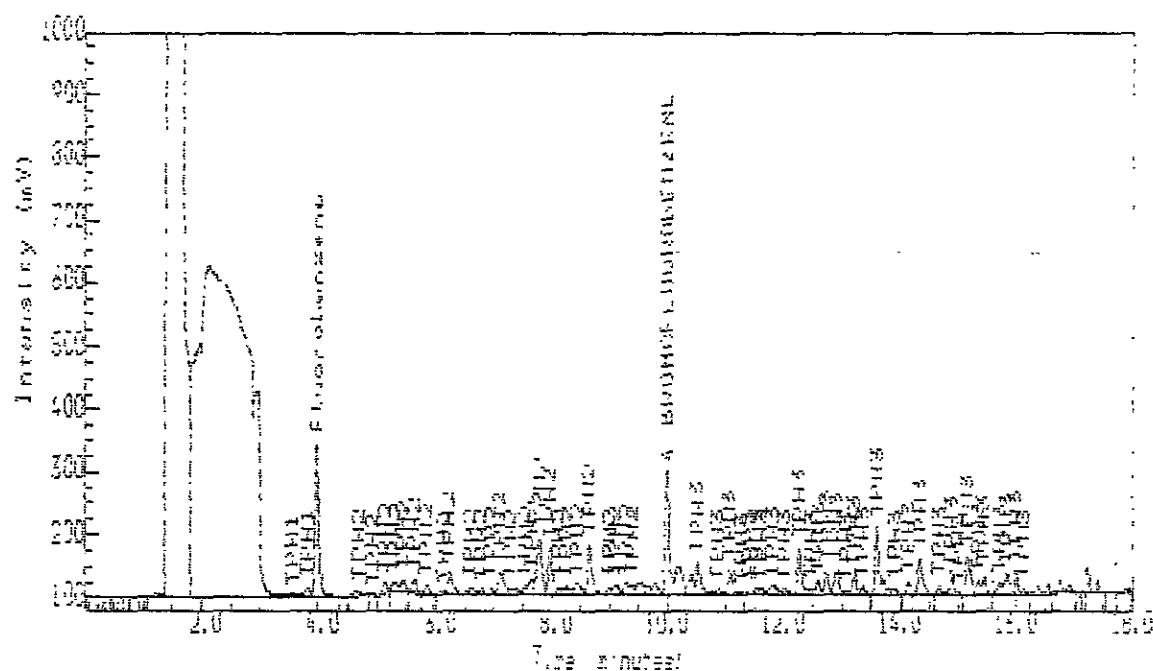
(ug/L or ug/Kg) ug/Kg

Q

CAS NO.	COMPOUND		
	-----TPH -----	260000	

### Identification Report

Acquired on 11-JUL-1996 at 08:45



Inchesape Testing Services - Dallas

Analyst Name :  
Lims Id :  
Comment : PURGEABLE AROMATICS BY PLOT/STD  
Method Title : METHOD B01E  
Sample Name : 7327-148 1/500 8624/8015  
Sample Id :  
Sample Type : Sample UNKNOWN 00100  
Bottle No : 148

### CEMS INFORMATION

RT mins ST Comp RT Exp	Area (cps)	RT (min)	Peak name	% slope	% intercept
1.143 1.124 0.000	5303	0.00		-0.0000	0.0000
1.310 1.200 0.000	11180	0.00		-0.0000	0.0000
1.396 1.275 0.000	32894	0.00		-0.0000	0.0000
1.437 1.425 0.000	52460104	0.00		-0.0000	0.0000
2.120 2.112 0.000	31939694	0.00		-0.0000	0.0000
3.410 3.381 0.000	37208	0.00		-0.0000	0.0000
	3.453	103456	2641.66	-0.0211	0.0000
3.570 3.540 3.553	22864	583.82	- C1	-0.0211	0.0000
3.923 3.791 3.853	80592	2057.94	- C1	-0.0211	0.0000
3.983 3.950 3.950	1086170	22030.60	Fluorescein	-0.0255	0.0000
	3.970	3585306	55264.73	-0.0245	0.0000
4.703 4.672 4.970	84618	1318.49	- C2	-0.0342	0.0000

10708953 28 VDAD071094,19,1  
Reported on 11-JUL-1994 at 08:48

Page 2

RT mins	RT Dens	RT Err	Area	UVs	ug/L-ug/kg	Peak name	RF Slope	RF intercept
4.939	4.908	6.970	4599	71.67	- C2		0.0345	0.0000
5.139	5.108	6.970	52742	777.62	- C2		0.0345	0.0000
5.294	5.254	6.970	53756	1305.05	- C2		0.0345	0.0000
5.446	5.416	6.970	102565	1598.15	- C2		0.0345	0.0000
5.628	5.598	6.970	108253	1586.75	- C2		0.0345	0.0000
5.846	5.817	6.970	79453	1238.00	- C2		0.0345	0.0000
6.126	6.097	6.970	45175	703.90	- C2		0.0345	0.0000
6.237	6.209	6.970	225535	3515.74	- C2		0.0345	0.0000
6.505	6.578	6.970	105781	1648.23	- C2		0.0345	0.0000
6.788	6.761	6.970	47345	737.70	- C2		0.0345	0.0000
6.959	6.912	6.970	80598	1255.25	- C2		0.0345	0.0000
7.117	7.091	6.970	244150	3804.25	- C2		0.0345	0.0000
7.281	7.253	6.970	117231	1928.20	- C2		0.0345	0.0000
7.548	7.523	6.970	66212	1021.79	- C2		0.0345	0.0000
7.654	7.630	6.970	130375	2031.44	- C2		0.0345	0.0000
7.805	7.781	6.970	576860	3294.90	- C2		0.0345	0.0000
7.986	7.954	6.970	402649	6273.81	- C2		0.0345	0.0000
8.126	8.102	6.970	54325	346.48	- C2		0.0345	0.0000
8.259	8.235	6.970	109890	1616.77	- C2		0.0345	0.0000
8.450	8.427	6.970	131722	2352.43	- C2		0.0345	0.0000
8.563	8.541	6.970	412995	5435.41	- C2		0.0345	0.0000
8.696	8.684	6.970	51090	795.06	- C2		0.0345	0.0000
8.703	8.683	6.970	438965	1540.32	- C2		0.0345	0.0000
8.786	8.754	6.970	101381	1781.54	- C2		0.0345	0.0000
9.391	9.371	6.970	58661	1072.26	- C2		0.0345	0.0000
9.508	9.487	0.000	15.257	0.00			0.0000	0.0000
9.650	9.630	0.000	81651	0.00			0.0000	0.0000
9.779	9.752	0.000	111525	0.00			0.0000	0.0000
9.958	9.938	9.763	919078		4-PROPYL-1-PHENYL-2-ENE		0.0000	0.0000
10.201	10.192	0.000	386809	0.00			0.0000	0.0000
10.397	10.378	0.000	176189	0.00			0.0000	0.0000
		13.347	4210826	152374.54	9443		0.0148	0.0000
10.512	10.494	13.347	279283	10126.16	- C3		0.0148	0.0000
10.850	10.833	13.347	53176	1926.12	- C3		0.0148	0.0000
11.063	11.046	13.347	203398	7374.72	- C3		0.0148	0.0000
11.419	11.403	13.347	36776	1340.65	- C3		0.0148	0.0000
11.539	11.523	13.347	31347	1136.55	- C3		0.0148	0.0000
11.610	11.594	13.347	37197	1349.57	- C3		0.0148	0.0000
11.792	11.777	13.347	118345	4327.16	- C3		0.0148	0.0000
12.030	11.995	13.347	44362	1608.48	- C3		0.0148	0.0000
12.253	12.249	13.347	358123	12984.71	- C3		0.0148	0.0000
12.477	12.463	13.347	39179	1442.29	- C3		0.0148	0.0000
12.579	12.565	13.347	103296	3959.59	- C3		0.0148	0.0000
12.721	12.708	13.347	169775	6155.63	- C3		0.0148	0.0000
12.899	12.885	13.347	208428	7557.12	- C3		0.0148	0.0000
13.063	13.051	13.347	22736	824.37	- C3		0.0148	0.0000
13.206	13.194	13.347	135064	4897.11	- C3		0.0148	0.0000
13.343	13.332	13.347	55584	2015.55	- C3		0.0148	0.0000
13.592	13.581	13.347	206797	21475.71	- C3		0.0148	0.0000
13.894	13.884	13.347	51904	1931.92	- C3		0.0148	0.0000
14.134	14.125	13.347	32295	3020.12	- C3		0.0148	0.0000
14.339	14.329	13.347	303565	11066.19	- C3		0.0148	0.0000
14.654	14.646	13.347	54983	.993.55	- C3		0.0148	0.0000

RT mins	RT Corr	RT Exp	Area uVs	ug/L-ug/kg	Peak name	RF slope	RF intercept
14.877	14.868	13.347	155274	5629.86	- C3	0.0148	0.0000
15.001	14.993	13.347	12394	449.38	- C3	0.0148	0.0000
15.157	15.149	13.347	342140	12405.19	- C3	0.0148	0.0000
15.334	15.327	13.347	68516	2204.45	- C3	0.0148	0.0000
15.422	15.425	13.347	131907	4782.65	- C3	0.0148	0.0000
15.699	15.693	13.347	90986	3298.73	- C3	0.0148	0.0000
15.823	15.817	13.347	225448	5174.21	- C3	0.0148	0.0000
15.920	15.927	13.347	116225	4214.06	- C3	0.0148	0.0000
16.121	16.115	13.347	40594	1471.06	- C3	0.0148	0.0000
16.272	16.257	0.000	13795	0.00		0.0000	0.0000
16.370	16.365	0.000	10575	0.00		0.0000	0.0000
16.546	16.542	0.000	52037	0.00		0.0000	0.0000
16.734	16.731	0.000	83771	0.00		0.0000	0.0000
16.899	16.895	0.000	51831	0.00		0.0000	0.0000
17.232	17.229	0.000	112094	0.00		0.0000	0.0000
17.397	17.394	0.000	52527	0.00		0.0000	0.0000
17.628	17.626	0.000	5122	0.00		0.0000	0.0000
17.831	17.830	0.000	7603	0.00		0.0000	0.0000

Totals

Unknowns	"	13479	R.A.
Quantified		102751776	232211.84
Grand Total		107765256	232211.84

MISSING PEAKS

No missing peaks.

PEAK GROUP INFORMATION

Area uVs	ug/L-ug/kg	Peak name
7899590	101181.11	TPH as Baseline

ANALYSIS SUMMARY

Method.....VDA071096,19,1 VDAAZ  
Run sequence.....VDA071096,19,1 VDAAZ  
Calibration.....BTX071096,19,1 BTX071096,19,1  
Internal standard calibration using area  
Calibration last modified on 8-JUL-1996 at 16:42  
Uncalibrated peaks use user factor (0.0000)

FORM 1  
8015 VOA ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

OGP-3

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: GR07327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-12

Sample wt/vol: 5.000 (g/mL) g Lab File ID: 10JUL1731

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 20 Date Analyzed: 07/10/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

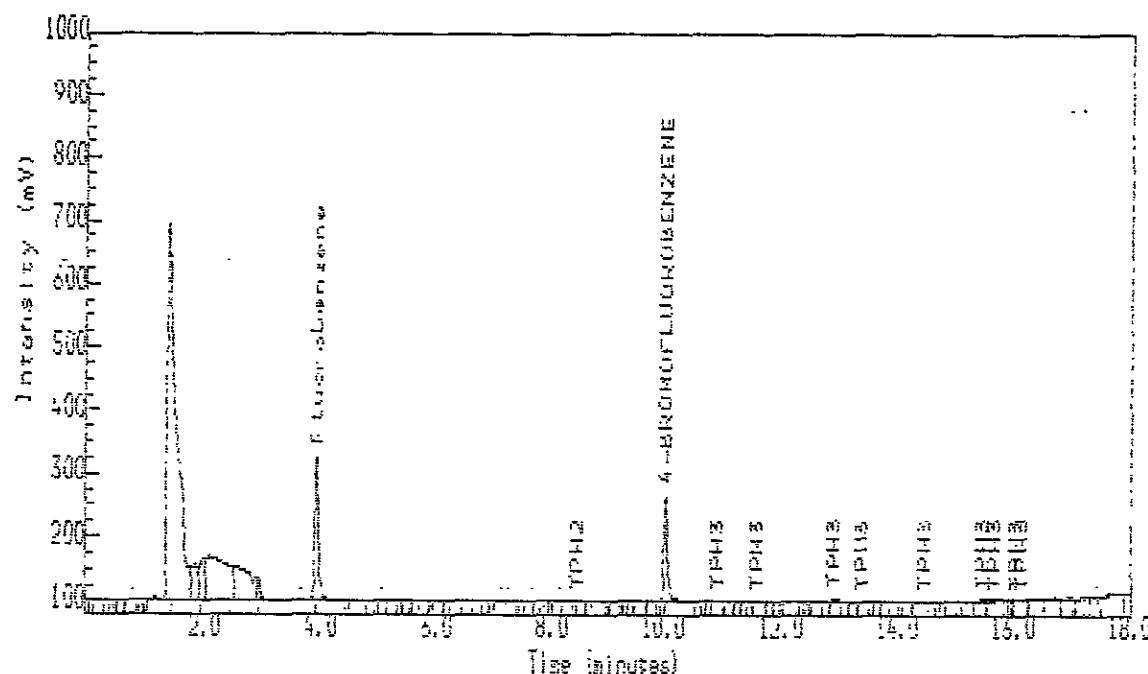
(ug/L or ug/Kg) ug/Kg

Q

CAS NO.	COMPOUND	62	U
	-----TPH		

## Injection Report

Acquired on 10-JUL-1996 at 17:31



Innolapse Testing Services - Dallas

Analyst Name :  
Lims Id :  
Comment :  
Method Title : METHOD 8015  
Sample Name : 7327-12 SG 8020/8015  
Sample Id :  
Sample Type : Sample Amount=0.00000  
Bottle No : 52

### PEAK INFORMATION

RT mins AT Corr RT Exp	Area UVs	UG/L-UG/Kg	Peak name	RF slope	RF intercept
1.152	1.136	0.000	35002	0.0000	0.0000
1.214	1.148	0.000	15592	0.0000	0.0000
1.294	1.276	0.000	5633	0.0000	0.0000
1.441	1.421	0.000	6423e02	0.0000	0.0000
1.930	1.903	0.000	455827	0.0000	0.0000
2.086	2.057	0.000	457462	0.0000	0.0000
2.139	2.109	0.000	1707588	0.0000	0.0000
2.623	2.587	0.000	1074745	0.0000	0.0000
3.001	2.959	0.000	139000	0.0000	0.0000
3.223	3.179	0.000	14906	0.0000	0.0000
4.006	3.950	51.09	Fluorobenzene	0.0265	0.0000
6.970	13965	0.54	TPH2	0.0345	0.0000

RT min	RT Corr	RT Exp	Area uVs	ug/L-ug/kg	Peak name	RF slope	RF intercept
10.019	9.968	9.968	745514		4-BROMOFLUOROBENZENE	1.0000	0.0000
		13.347	68018	7.77	TPH3	0.0148	0.0000
12.877	12.829	13.347	27595	2.49	- C3	0.0148	0.0000
14.454	14.408	13.347	12536	1.13	- C3	0.0148	0.0000
15.441	15.395	13.347	5946	0.54	- C3	0.0148	0.0000
16.677	16.632	0.000	12363	0.00		0.0000	0.0000
16.912	16.867	0.000	11553	0.00		0.0000	0.0000
17.410	17.366	0.000	7242	0.00		0.0000	0.0000
17.574	17.530	0.000	5343	0.00		0.0000	0.0000
17.641	17.597	0.000	7951	0.00		0.0000	0.0000
17.783	17.739	0.000	2188	0.00		0.0000	0.0000

Totals

Unknowns	89773	N/A
Quantified	12253170	59.39
Grand Total	12322943	59.39

MISSING PEAKS

No missing peaks.

PEAK GROUP DISTRIBUTION

Area uVs	ug/L-ug/kg	Peak name
103323	8.63	TPH as gasoline

ANALYSIS SUMMARY

Method.....VDAU70996A,60,1  
Run sequence.....VDA  
Calibration.....STX0703  
Internal standard calibration using area  
Calibration last modified on 8-JUL-1996 at 16:42

Uncalibrated peaks use user factor (0.0000)

FORM 1  
8015 VOA ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

GPSTP-1

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: GRO7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-14

Sample wt/vol: 5.000 (g/mL) g Lab File ID: 10JUL1755

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 16 Date Analyzed: 07/10/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

Q

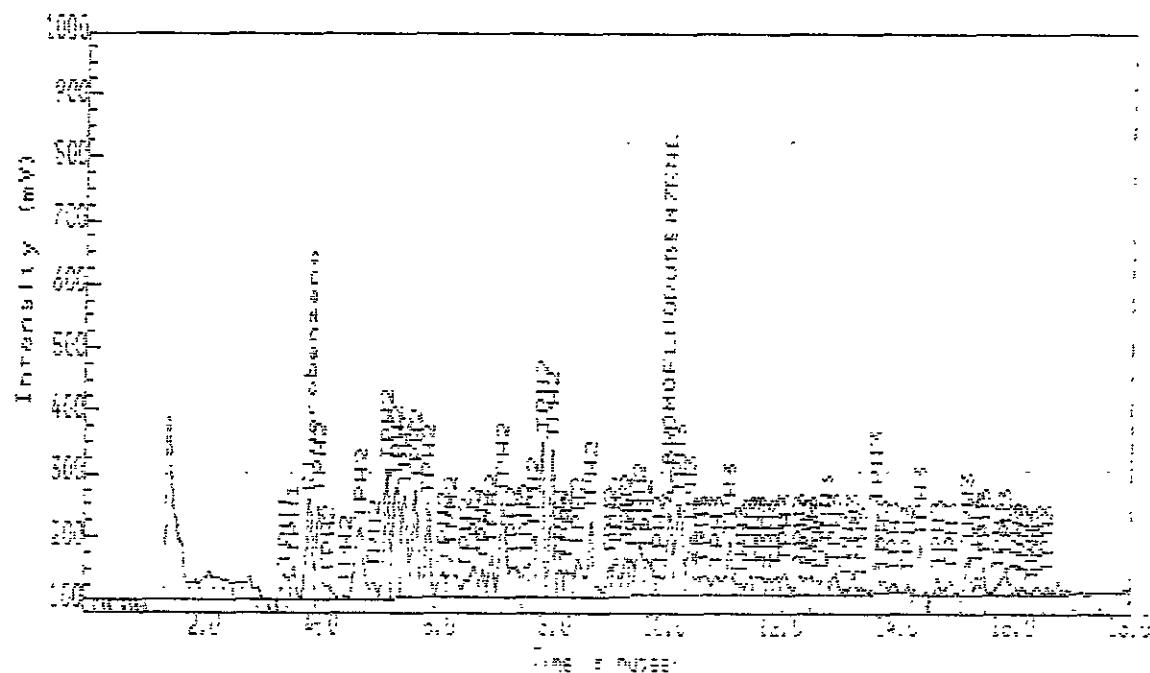
CAS NO.	COMPOUND	1640	
	-----TPH		

[070896] 23 VOA070996A,81,1  
Reported on 11-JUL-1996 at 12:37

Caption 1

It is a well-known fact that the number of species per genus is negatively correlated with the number of genera in a family.

Acquired on 10-JUL-1996 at 17:55



Indicate Testing Strategy - Failure

Analyst Name :  
Line Id :  
Comment :  
Method Title : METHOD BC15  
Sample Name : 7327-14 GE 8/26/2015  
Sample Id :  
Sample Type : Sample - account=0,000,  
Sectris No : 90

#### PEAK INFORMATION

RT mins	RT Degr	RT Exp	Area UVs	ug/L-ug/Kg	Peak name	RF %slope	RF intercept%
1.181	1.197	0.000	4732	0.00		0.0000	-0.0000
1.228	1.255	0.000	14093	0.00		0.0000	0.0000
1.303	1.333	0.000	6740	0.00		0.0000	0.0000
1.450	1.483	0.000	3180251	0.00		0.0000	0.0000
1.939	1.982	0.000	253339	0.00		0.0000	0.0000
2.170	2.219	0.000	572407	0.00		0.0000	0.0000
2.312	2.364	0.000	305206	0.00		0.0000	0.0000
2.472	2.528	0.000	296903	0.00		0.0000	0.0000
2.632	2.691	0.000	266551	0.00		0.0000	0.0000
2.654	2.813	0.000	427115	0.00		0.0000	0.0000

574

3.446 21.222 13.810 127.171 14.67

[070896] 28 VD4070296A.61,1  
 Reported on 11-JUL-1996 at 12:37

Page 2

RT mins	RT Comp	RT Exc	Area (cps)	ug/L-ug/kg	Peak name	SE slope	SE intercept
3.601	3.682	3.653	300387	15.67	- C1	0.011	0.0000
3.863	3.750	3.950	1074884	44.00	Fluorobenzene	0.02e5	0.0000
		6.920	20660482	628.53	TP49	1.0345	0.0000
4.023	4.106	6.920	555376	27.36	- C2	0.0343	0.0000
4.197	4.274	6.920	172452	5.50	- C2	1.0345	0.0000
4.494	4.584	6.920	30250	0.65	- C2	0.0345	0.0000
4.739	4.802	6.920	1141324	56.36	- C2	0.0345	0.0000
4.974	5.001	6.920	175560	5.01	- C2	0.0345	0.0000
5.172	5.230	6.920	1203331	38.35	- C2	1.0345	0.0000
5.352	5.393	6.920	1470355	46.37	- C2	0.0345	0.0000
5.431	5.524	6.920	1113314	38.58	- C2	0.0345	0.0000
5.603	5.701	6.920	1177832	57.53	- C2	1.0345	0.0000
5.886	5.917	6.920	801697	27.47	- C2	0.0345	0.0000
6.157	6.181	6.920	345367	11.00	- C2	1.0345	0.0000
6.272	6.393	6.920	347765	17.46	- C2	1.0345	0.0000
6.509	6.653	6.920	168142	5.37	- C2	1.0345	0.0000
6.681	6.691	6.920	466331	13.02	- C2	1.0345	0.0000
6.828	6.834	6.920	543287	7.55	- C2	1.0345	0.0000
6.974	6.973	6.920	411575	15.12	- C2	1.0345	0.0000
7.157	7.154	6.920	1115334	38.54	- C2	1.0345	0.0000
7.189	7.321	6.920	542898	17.51	- C2	1.0345	0.0000
7.579	7.564	6.920	276234	5.87	- C2	1.0345	0.0000
7.634	7.677	6.920	542170	17.58	- C2	1.0345	0.0000
7.841	7.820	6.920	164311	51.37	- C2	1.0345	0.0000
8.028	8.001	6.920	1297885	41.35	- C2	1.0345	0.0000
8.174	8.141	6.920	177417	8.63	- C2	1.0345	0.0000
8.290	8.256	6.920	383063	12.21	- C2	1.0345	0.0000
8.481	8.412	6.920	563685	7.75	- C2	1.0345	0.0000
8.702	8.658	6.920	793985	26.23	- C2	1.0345	0.0000
9.045	9.091	6.920	367318	8.53	- C2	1.0345	0.0000
9.142	9.050	6.920	216482	5.15	- C2	1.0345	0.0000
9.314	9.261	6.920	442366	14.10	- C2	1.0345	0.0000
9.422	9.359	6.920	333364	10.31	- C2	1.0345	0.0000
9.552	9.454	6.920	714152	22.77	- C2	1.0345	0.0000
9.681	9.609	6.920	815091	16.51	- C2	1.0345	0.0000
9.881	9.804	6.920	204453	6.30	- C2	1.0345	0.0000
10.050	9.762	6.920	502645	4-CHLOROPHENOBENZENE		1.0345	0.0000
		13.224	9257063	629.40	TP49	0.0148	0.0000
10.157	10.150	13.224	1230935	95.01	- C2	0.0148	0.0000
10.432	10.340	13.224	705392	52.10	- C2	0.0148	0.0000
10.552	10.446	13.224	1683355	12.48	- C2	0.0148	0.0000
10.650	10.552	13.224	298540	22.14	- C2	0.0148	0.0000
10.881	10.777	13.224	247292	18.35	- C2	0.0148	0.0000
11.103	10.953	13.224	682266	50.80	- C2	0.0148	0.0000
11.308	11.192	13.224	877116	6.51	- C2	0.0148	0.0000
11.463	11.343	13.224	212426	15.76	- C2	0.0148	0.0000
11.574	11.451	13.224	143563	11.09	- C2	0.0148	0.0000
11.632	11.507	13.224	221503	16.43	- C2	0.0148	0.0000
11.797	11.667	13.224	185399	13.74	- C2	0.0148	0.0000
11.917	11.754	13.224	189370	14.05	- C2	0.0148	0.0000
12.045	11.810	13.224	287657	21.37	- C2	0.0148	0.0000

575

12,432 12,266 13,234 119000 9.75 - 18

12,432 12,266

[070896] 28 VOA070996A,61,1  
Reported on 11-JUL-1996 at 12:37

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RT mins	RT Cmn	RT Exp	Area (mV)	(mV/mug/Kg)	Peak Name	RF slope	RF intercept
12,512	12,364	13,234	167567	12.44	- C3	0.0148	0.0036
12,628	12,476	13,234	118641	8.21	- C3	0.0148	0.1666
12,781	12,606	13,234	339387	22.17	- C3	0.0148	0.0000
12,917	12,757	13,234	229512	17.09	- C3	0.0148	0.0000
13,108	12,943	13,234	45275	3.36	- C3	0.0148	0.0000
13,241	13,073	13,234	191357	14.22	- C3	0.0148	0.0000
13,386	13,211	13,234	66251	5.46	- C3	0.0148	0.0001
13,632	13,453	13,234	596631	42.76	- C3	0.0148	0.0000
13,752	13,570	13,234	141072	10.46	- C3	0.0148	0.0000
13,934	13,747	13,234	117386	8.71	- C3	0.0148	0.0000
14,174	12,981	13,234	72876	5.38	- C3	0.0148	0.0000
14,379	14,179	13,234	292512	29.19	- C3	0.0148	0.0000
14,691	14,386	13,234	119913	8.62	- C3	0.0148	0.0000
14,912	14,698	13,234	195591	14.51	- C3	0.0148	0.0000
15,201	14,979	13,234	188802	26.81	- C3	0.0148	0.0000
15,361	15,135	13,234	132744	9.85	- C3	0.0148	0.0000
15,468	15,237	13,234	185047	13.72	- C3	0.0148	0.0000
15,730	15,494	13,234	110406	8.15	- C3	0.0148	0.0000
15,850	15,610	13,234	301375	22.35	- C3	0.0148	0.0000
16,148	15,775	13,234	65503	5.36	- C3	0.0148	0.0000
16,143	15,895	13,234	64181	4.74	- C3	0.0148	0.0000
16,299	16,047	13,234	18597	1.11	- C3	0.0148	0.0000
16,397	16,142	13,234	92104	1.51	- C3	0.0148	0.0000
16,570	16,311	13,234	53369	5.77	- C3	0.0148	0.0000
16,677	16,415	0.000	18857	0.00		0.0000	0.0000
16,781	16,497	0.000	74591	0.00		0.0000	0.0000
16,957	16,687	0.000	48128	0.00		0.0000	0.0000
17,277	16,998	0.000	12050	0.00		0.0000	0.0000
17,346	17,087	0.000	48663	0.00		0.0000	0.0000
17,419	17,137	0.000	12104	0.00		0.0000	0.0000
17,517	17,232	0.000	5251	0.00		0.0000	0.0000
17,651	17,366	0.000	12500	0.00		0.0000	0.0000
17,792	17,500	0.000	2361	0.00		0.0000	0.0000
17,899	17,604	0.000	3224	0.00		0.0000	0.0000
<b>Totals</b>			9006	N/A			
Unknowns			1802400	1423.1.			
Quantified			3203312	1423.1			
Grand Total			3203312	1423.1			

MISSING PEAKS

No missing peaks.

[070896] 28 VDA070896A,61,1  
Reported on 11-JUL-1996 at 12:37

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PEAK GROUP INFORMATION

Area (Vs)	ppm	Peak name
30541066	1378.52	TPH as Gasoline

ANALYSIS SUMMARY

Method..... VDAGS1  
Run sequence..... VDA  
Calibration..... BTX0700  
Internal standard calibration using area  
Calibration last modified on 11-JUL-1996 at 12:37

Uncalibrated peaks use user factor (0.0000)

FORM 1  
8015 VOA ORGANICS ANALYSIS DATA SHEET

WWC SAMPLE NO.

GPSTP-2

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: GRO7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-15

Sample wt/vol: 5.000 (g/mL) g Lab File ID: 10JUL1327

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 18 Date Analyzed: 07/10/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

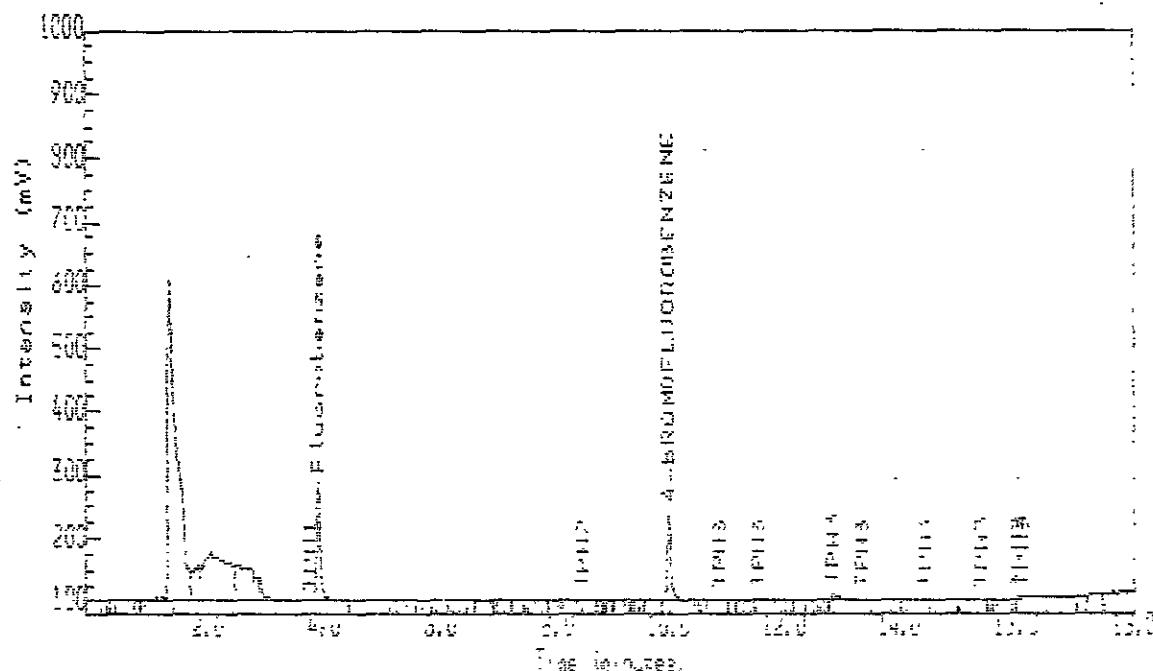
Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg Q

CAS NO.	COMPOUND	61	U
	-----TPH _____		

## Indication Report

Acquired on 10-JUL-1996 at 13:27



Indeope Testing Services - Dallas

Analyst Name :  
Line Id :  
Comment :  
Method Title : METHOD 8015  
Sample Name : 7327-15 58 8020/2015  
Sample Id :  
Sample Type : Sample Amount=0.0000  
Bottle No : 46

### PEAK INFORMATION

RT min	RT Corr	RT Exp	Area (mV)	ppb/1-ug/Kg	Peak name	RF slope	RF intercept
1.143	1.131	0.000	6347	0.00		0.0000	0.0000
1.219	1.157	0.000	12406	0.00		0.0000	0.0000
1.290	1.276	0.000	18200	0.00		0.0000	0.0000
1.437	1.421	0.000	5330280	0.00		0.0000	0.0000
1.521	1.521	0.000	487129	0.00		0.0000	0.0000
2.134	2.112	0.000	2370747	0.00		0.0000	0.0000
2.606	2.578	0.000	1172340	0.00		0.0000	0.0000
2.997	2.985	0.000	178054	0.00		0.0000	0.0000
			3.853	5721	0.41 TPH1	0.0211	0.0000
3.992	3.950	0.000	819368	43.56	Fluorobenzene	0.0285	0.0000

L070896] 28 VOA070996A,51,1  
Reported on 10-JUL-1996 at 15:17

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T mine	RT	Corr	RT	Exp	Area uVs	ug/L-ug/Kg	Peak name	-	RF slope	RF intercept	
					13,347	94582	10.24	TPH3		0.0148	0.0060
10.877	10.855	13.347			6920	0.75	- C3		0.0148	0.0000	
12.841	12.826	13.347			47812	5.18	- C3		0.0148	0.0000	
14.423	14.413	13.347			10676	1.14	- C3		0.0148	0.0000	
16.550	16.640	0.000			29808	0.00			0.0000	0.0000	
16.890	16.887	0.000			11841	0.00			0.0000	0.0000	
17.379	17.378	0.000			6731	0.00			0.0000	0.0000	
17.552	17.551	0.000			3807	0.00			0.0000	0.0000	
17.619	17.618	0.000			6124	0.00			0.0000	0.0000	

Totals

Unknowns	56145	N/A
Quantified	11177367	60.79
Grand Total	11233510	60.79

MISSING PEAKS

No missing peaks.

PEAK GROUP INFORMATION

Area uVs	ug/L-ug/Kg	Peak name
112260	11.24	TPH as Baseline

ANALYSIS SUMMARY

Method..... vDAGA1  
Run sequence..... VOA  
Calibration..... BTX0705  
Internal standard calibration using area  
Calibration last modified on 8-JUL-1996 at 16:42

Uncalibrated peaks use user factor (0.0000)



Inchcape Testing Services  
Environmental Laboratories

## **TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS DATA**



**Inchcape Testing Services**  
Environmental Laboratories

## **QUALITY CONTROL SUMMARY**

FORM 2  
SOIL 8015M\_DRO SURROGATE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: TPH7327

Level: (low/med) LOW

	WOODWARD CLYDE SAMPLE NO.	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	S7 #	TOT OUT
01	BLK	101							0
02	BLKBS	99.4							0
03	BLKBSD	105							0
04	WO-1MS	104							0
05	WO-1MSD	93.4							0
06	WO-1	107							0
07	CPD-1	93.0							0
08	CPD-2	98.2							0
09	CPG-1	106							0
10	CPG-2	97.7							0
11	MOP-1	101							0
12	MOP-2	95.8							0
13	DP-1	90.9							0
14	DP-2	97.8							0
15	OGP-1	105							0
16	OGP-2	94.4							0
17									
18									
19									
20									

QC LIMITS  
(60-140)

# Column to be used to flag recovery values  
 \* Values outside of contract required QC limits  
 D Surrogate diluted out

FORM 2  
SOIL 8015M DRO SURROGATE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: TPH7327

Level: (low/med) LOW

S1 = TRIACONTANE

QC LIMITS  
(60-140)

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits  
D Surrogate diluted out

FORM 2  
SOIL 8015M\_DRO SURROGATE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: TPH7327

Level: (low/med) LOW

	WOODWARD CLYDE SAMPLE NO.	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	S7 #	TOT OUT
01	BLK3	93.5							0
02	BLKBS3 <i>Alt 8/14/96</i>	98.2							0
03	BLKBSD3	96.2							0
04	7465-31MS	91.1							0
05	7465-31MSD	105							0
06	7465-31	101							0
07	7327-2	93.0							0
08									
09									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

QC LIMITS  
(60-140)

S1 = TRIACONTANE

# Column to be used to flag recovery values  
 \* Values outside of contract required QC limits  
 D Surrogate diluted out

FORM 3  
SOIL 8015M\_DRO MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: TPH7327

Matrix Spike - WOODWARD CLYDE Sample No.: WO-1 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC #	QC. LIMITS REC.
TPH AS DIESEL	101	0.00	111	111	60-140

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
TPH AS DIESEL	101	100	100	10	25	60-140

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

RPD: 1 out of 1 outside limits

Spike Recovery: 2 out of 2 outside limits

COMMENTS: \_\_\_\_\_

FORM 3  
WATER 8015M\_DRO BLANK SPIKE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: TPH7327

Matrix Spike - WOODWARD CLYDE Sample No.: BLK Level: (low/med) LOW

COMPOUND	SPIKE ADDED (mg/Kg)	BLANK CONCENTRATION (mg/Kg)	BS CONCENTRATION (mg/Kg)	BS % REC #	QC. LIMITS REC.
TPH AS DIESEL	83.3	0.000	86.9	104	60-140

COMPOUND	SPIKE ADDED (mg/Kg)	BSD CONCENTRATION (mg/Kg)	BSD % REC #	% RPD #	QC LIMITS RPD	REC.
TPH AS DIESEL	83.3	96.9	116	11	25	60-140

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS: \_\_\_\_\_

FORM 3  
SOIL 8015M\_DRO MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: TPH7096

Matrix Spike - WOODWARD CLYDE Sample No.: 7345-3 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC #	QC. LIMITS REC.
TPH AS DIESEL	83.3	95.1	208	135	60-140

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
TPH AS DIESEL	83.3	206	133	1	25	60-140

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

RPD: 1 out of 1 outside limits

Spike Recovery: 2 out of 2 outside limits

COMMENTS: \_\_\_\_\_

FORM 3  
WATER 8015M\_DRO BLANK SPIKE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: TPH7327

Matrix Spike - WOODWARD CLYDE Sample No.: BLK2 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (mg/Kg)	BLANK CONCENTRATION (mg/Kg)	BS CONCENTRATION (mg/Kg)	BS % REC #	QC. LIMITS REC.
TPH AS DIESEL	83.3	0.000	65.1	107	60-140

COMPOUND	SPIKE ADDED (mg/Kg)	BSD CONCENTRATION (mg/Kg)	BSD % REC #	% RPD #	QC LIMITS RPD	REC.
TPH AS DIESEL	83.3	84.4	64.7	1	25	60-140

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS: \_\_\_\_\_

FORM 3  
SOIL 8015M\_DRO MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: TPH7327

Matrix Spike - WOODWARD CLYDE Sample No.: 7456-31 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC #	QC. LIMITS REC.
TPH AS DIESEL	83.3	18.7	93.0	89.1	60-140

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
TPH AS DIESEL	83.3	105	104	12	25	60-140

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

RPD: 1 out of 1 outside limits

Spike Recovery: 2 out of 2 outside limits

COMMENTS: \_\_\_\_\_

FORM 3  
WATER 8015M\_DRO BLANK SPIKE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: TPH7327

Matrix Spike - WOODWARD CLYDE Sample No.: BLK3 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (mg/Kg)	BLANK CONCENTRATION (mg/Kg)	BS CONCENTRATION (mg/Kg)	BS % REC #	QC. LIMITS REC.
TPH AS DIESEL	83.3	0.000	89.0	107	60-140

COMPOUND	SPIKE ADDED (mg/Kg)	BSD CONCENTRATION (mg/Kg)	BSD % REC #	% RPD #	QC LIMITS RPD	REC.
TPH AS DIESEL	83.3	91.9	110	3	25	60-140

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS: \_\_\_\_\_

FORM 4  
8015M\_DRO METHOD BLANK SUMMARY

RUST LICHLITER SAMPLE NO.

BLK

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: TPH7327

Lab File ID: 09JUL2134709 Lab Sample ID: BLK

Instrument ID: MULTI17 Date Extracted: 07/08/96

Matrix: (soil/water) SOIL Date Analyzed: 07/09/96

Level: (low/med) LOW Time Analyzed: 2134

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	WOODWARD CLYDE SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	BLKBS	7327-20	09JUL2205709	07/09/96
02	BLKBSD	BLKBSD	09JUL2237709	07/09/96
03	WO-1MS	7327-18	09JUL2308709	07/09/96
04	WO-1MSD	7327-19	09JUL2340709	07/09/96
05	WO-1	7327-1	10JUL0011710	07/09/96
06	CPD-2	7327-3	10JUL0114710	07/10/96
07	CPG-1	7327-4	10JUL0145710	07/10/96
08	CPG-2	7327-5	10JUL0217710	07/10/96
09	MOP-1	7327-6	10JUL0628710	07/10/96
10	MOP-2	7327-7	10JUL0659710	07/10/96
11	DP-1	7327-8	11JUL0711711	07/11/96
12	DP-2	7327-9	10JUL0802710	07/10/96
13	OGP-1	7327-10	10JUL0320710	07/10/96
14	OGP-2	7327-11	10JUL0351710	07/10/96
15				
16				
17				
18				

COMMENTS:

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FORM IV 8015M\_DRO

FORM 4  
8015M\_DRO METHOD BLANK SUMMARY

RUST LICHLITER SAMPLE NO.

BLK2

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: TPH7327

Lab File ID: 11JUL1110711 Lab Sample ID: BLK

Instrument ID: MULTI17 Date Extracted: 07/09/96

Matrix: (soil/water) SOIL Date Analyzed: 07/11/96

Level: (low/med) LOW Time Analyzed: 1110

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	WOODWARD CLYDE SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	BLKBST2 A# 814/96	7327-20/2	11JUL1110711	07/11/96
02	BLKBSD2	BLKBSD	11JUL1142711	07/11/96
03	7345-3MS	7345-3MS	11JUL1214711	07/11/96
04	7345-3MSD	7345-3MSD	11JUL1245711	07/11/96
06	OGP-3	7327-12	11JUL1758711	07/11/96
07	DSTP-1	7327-13	11JUL1830711	07/11/96
08	GPSTP-1	7327-14	11JUL1902711	07/11/96
09	GPSTP-2	7327-15	11JUL1933711	07/11/96
10				
11				
12				

COMMENTS:

page 1 of 1

FORM IV 8015M\_DRO

FORM 4  
8015M\_DRO METHOD BLANK SUMMARY

RUST LICHLITER SAMPLE NO.

BLK3

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: TPH7327

Lab File ID: 28JUN1110628 Lab Sample ID: BLK

Instrument ID: MULTI17 Date Extracted: 07/11/96

Matrix: (soil/water) WATER Date Analyzed: 07/12/96

Level: (low/med) LOW Time Analyzed: 1003

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	RUST LICHLITER SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	BLKB3 A4 8/14/96	7327-20/3	12JUL1033712	07/12/96
02	BLKBS3	BLKBS3	12JUL1104712	07/12/96
03	7456-31MS	7456-31MS	12JUL1135712	07/12/96
04	7456-31MSD	7456-31MSD	12JUL1206712	07/12/96
05	7456-31	7456-31	12JUL1237712	07/12/96
06	CPD-1	7327-2	15JUL1417715	07/15/96
07				
08				
09				
10				
11				
12				

COMMENTS: \_\_\_\_\_

page 1 of 1

FORM IV 8015M\_DRO



Inchcape Testing Services  
Environmental Laboratories

## SAMPLE DATA

FORM 1  
8015M\_DRO ORGANICS ANALYSIS DATA SHEET

WOODWARD CLYDE SAMPLE NO.

WO-1

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: TPH7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-1

Sample wt/vol: 30 (g/mL) G Lab File ID: 10JUL0011710

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 17.8 decanted: (Y/N) N Date Extracted: 07/08/96

Concentrated Extract Volume: 5 (mL) Date Analyzed: 07/10/96

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

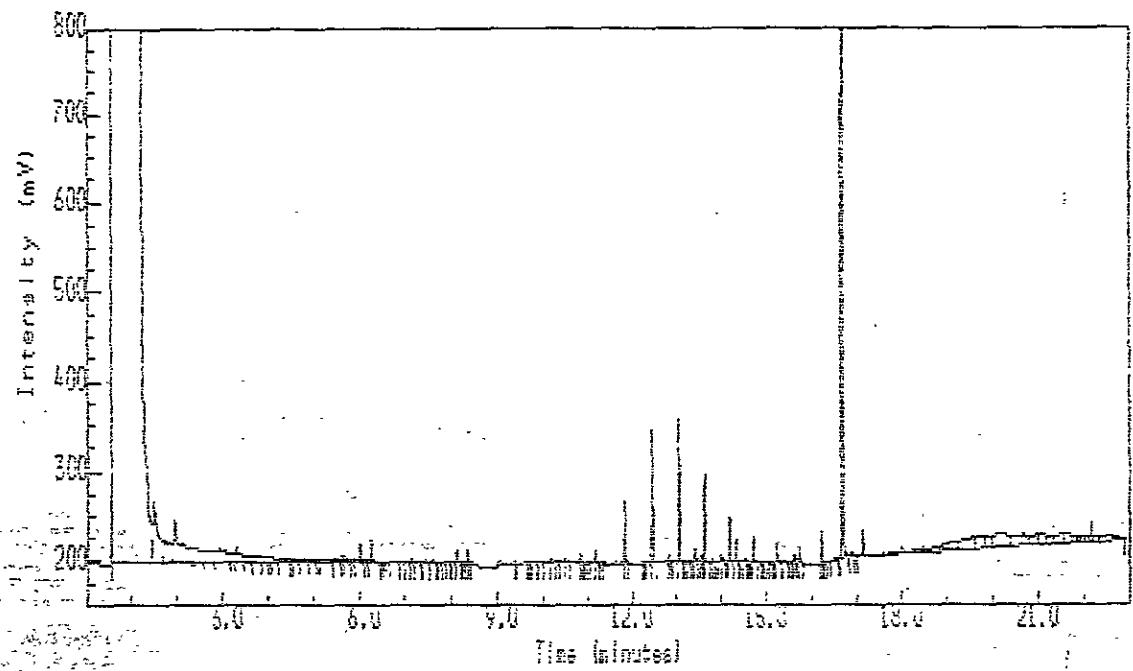
## CONCENTRATION UNITS:

CAS NO. COMPOUND MG/KG Q

-----TPH AS DIESEL 12.2 U

# Inspection Report

Acquired on 10-JUL-1996 at 00:11



Chesapeake Testing Services - Dallas

Analyst Name : Tane A. Langley

Sample ID :

Comment : TPH BY 8015

Method Title : TPH BY METHOD 8015 mod

Sample Name : 7327-11-1-30/5

AB615-23

Sample ID : 7327-11-1-30/5

Sample Type : Sample Amount=0.00000

Bottle No. : 17

TPH <10

Sum 101%

WTL 7-10-96

## PEAK INFORMATION

RT mins	RT Corr	RT Exp	Height mV	Area (mV)	ppm-l/Mg/Kc	Peak name	RF slope	RF intercept
2.441	2.441	8.640	946926	2654950	2.591	TPH AS DIESEL	184173.8906	0.0000
2.441	2.441	8.640	16248	142457	0.129	- C1	184173.8906	0.0000
2.614	2.614	8.640	14722	201546	0.182	- C1	184173.8906	0.0000
2.943	2.943	8.640	14927	263614	0.293	- C1	184173.8906	0.0000
3.192	3.192	8.640	10521	71527	0.065	- C1	184173.8906	0.0000
3.317	3.317	8.640	15471	115539	0.105	- C1	184173.8906	0.0000
3.503	3.503	8.640	8423	93757	0.087	- C1	184173.8906	0.0000
3.659	3.659	8.640	8492	87111	0.077	- C1	184173.8906	0.0000
3.917	3.917	8.640	7014	62260	0.056	- C1	184173.8906	0.0000
4.037	4.037	8.640	5661	24823	0.023	- C1	184173.8906	0.0000
4.103	4.103	8.640	6547	47734	0.043	- C1	184173.8906	0.0000
4.250	4.250	8.640	4985	76227	0.069	- C1	184173.8906	0.0000

RT	RT	Corr RT	RT	Exp.	Heat	WV	Area	UVa	kg/L-ha/KC	Peak name	RF slope	RF intercept
4.512	4.512	8.640	4265		14471		0.013	-	C1		184173.8906	0.0000
4.659	4.650	8.640	5183		44142		0.040	-	C1		184173.8906	0.0000
4.726	4.726	8.640	5047		53668		0.049	-	C1		184173.8906	0.0000
5.028	5.028	8.640	5042		47858		0.043	-	C1		184173.8906	0.0000
5.054	5.054	8.640	5151		13321		0.012	-	C1		184173.8906	0.0000
5.166	5.166	8.640	5102		81598		0.074	-	C1		184173.8906	0.0000
5.374	5.374	8.640	4084		33023		0.030	-	C1		184173.8906	0.0000
5.629	5.629	8.640	5943		17885		0.016	-	C1		184173.8906	0.0000
5.666	5.666	8.640	5936		43870		0.040	-	C1		184173.8906	0.0000
5.846	5.846	8.640	4472		26309		0.024	-	C1		184173.8906	0.0000
6.032	6.032	8.640	18937		67453		0.061	-	C1		184173.8906	0.0000
6.126	6.126	8.640	4091		21276		0.019	-	C1		184173.8906	0.0000
6.253	6.253	8.640	26209		71435		0.065	-	C1		184173.8906	0.0000
6.494	6.494	8.640	1688		5535		0.005	-	C1		184173.8906	0.0000
6.557	6.557	8.640	2503		8922		0.007	-	C1		184173.8906	0.0000
6.628	6.628	8.640	2763		9593		0.009	-	C1		184173.8906	0.0000
6.712	6.712	8.640	2193		13179		0.012	-	C1		184173.8906	0.0000
6.952	6.952	8.640	1418		6260		0.006	-	C1		184173.8906	0.0000
7.046	7.046	8.640	2689		12397		-0.011	-	C1		184173.8906	0.0000
7.157	7.157	8.640	3242		6454		0.008	-	C1		184173.8906	0.0000
7.308	7.308	8.640	1204		7041		0.006	-	C1		184173.8906	0.0000
7.374	7.374	8.640	622		1515		0.001	-	C1		184173.8906	0.0000
7.446	7.446	8.640	2537		9224		0.008	-	C1		184173.8906	0.0000
7.610	7.610	8.640	5372		6387		0.006	-	C1		184173.8906	0.0000
7.726	7.726	8.640	1115		2114		0.002	-	C1		184173.8906	0.0000
7.850	7.850	8.640	496		1532		0.001	-	C1		184173.8906	0.0000
7.974	7.974	8.640	379		364		2.534E-4	-	C1		184173.8906	0.0000
8.130	8.130	8.640	12447		17767		0.018	-	C1		184173.8906	0.0000
8.254	8.254	8.640	1518		2301		0.003	-	C1		184173.8906	0.0000
8.366	8.366	8.640	12712		19731		0.018	-	C1		184173.8906	0.0000
8.383	8.383	8.640	682		859		7.761E-4	-	C1		184173.8906	0.0000
8.662	8.662	8.640	1603		1083		9.804E-4	-	C1		184173.8906	0.0000
9.788	9.788	8.640	2527		5996		0.005	-	C1		184173.8906	0.0000
9.966	9.966	8.640	1425		4657		0.004	-	C1		184173.8906	0.0000
10.086	10.086	8.640	1323		2902		0.004	-	C1		184173.8906	0.0000
10.197	10.197	8.640	3097		7923		-0.007	-	C1		184173.8906	0.0000
10.317	10.317	8.640	682		1691		0.002	-	C1		184173.8906	0.0000
10.441	10.441	8.640	2122		9373		0.008	-	C1		184173.8906	0.0000
10.499	10.499	8.640	4370		10522		0.010	-	C1		184173.8906	0.0000
10.854	10.854	8.640	8251		11222		0.010	-	C1		184173.8906	0.0000
10.934	10.934	8.640	1676		3944		0.004	-	C1		184173.8906	0.0000
10.992	10.992	8.640	1363		3681		0.003	-	C1		184173.8906	0.0000
11.183	11.183	8.640	13416		19011		0.017	-	C1		184173.8906	0.0000
11.272	11.272	8.640	389		485		4.382E-4	-	C1		184173.8906	0.0000
11.330	11.330	8.640	589		553		5.907E-4	-	C1		184173.8906	0.0000
11.832	11.832	8.640	42221		94204		0.055	-	C1		184173.8906	0.0000
12.222	12.222	8.640	1254		1282		0.001	-	C1		184173.8906	0.0000
12.299	12.299	8.640	1424		2195		0.002	-	C1		184173.8906	0.0000
12.459	12.459	8.640	147130		302431		0.189	-	C1		184173.8906	0.0000
12.637	12.637	8.640	7734		9355		0.009	-	C1		184173.8906	0.0000
12.890	12.890	8.640	1619		1756		0.002	-	C1		184173.8906	0.0000
13.059	13.059	8.640	157656		222899		0.212	-	C1		184173.8906	0.0000
13.170	13.170	8.640	182		114		1.033E-4	-	C1		184173.8906	0.0000

RT	Time	RT	Corr	RT	Exp	Height	UV	Area	UVs	Mg/L-Mg/Kg	Peak name	RF slope	RF intercept
13.277		13.277		8.640		1859		3610		0.003	- C1	184173.8906	0.0000
13.423		13.423		8.640		12698		19395		0.018	- C1	184173.8906	0.0000
13.472		13.472		8.640		4637		8532		0.008	- C1	184173.8906	0.0000
13.561		13.561		8.640		9472		12927		0.012	- C1	184173.8906	0.0000
13.632		13.632		8.640		56948		137655		0.125	- C1	184173.8906	0.0000
13.806		13.806		8.640		2844		4637		0.004	- C1	184173.8906	0.0000
13.983		13.983		8.640		7970		13392		0.012	- C1	184173.8906	0.0000
14.037		14.037		8.640		4854		5362		0.008	- C1	184173.8906	0.0000
14.126		14.126		8.640		498		325		2.943E-4	- C1	184173.8906	0.0000
14.188		14.188		8.640		48115		69977		0.063	- C1	184173.8906	0.0000
14.334		14.334		8.640		25737		41996		0.038	- C1	184173.8906	0.0000
14.454		14.454		8.640		384		767		6.940E-4	- C1	184173.8906	0.0000
14.526		14.526		8.640		4129		7529		0.007	- C1	184173.8906	0.0000
14.574		14.574		8.640		3631		4900		0.004	- C1	184173.8906	0.0000
14.632		14.632		8.640		720		616		5.571E-4	- C1	184173.8906	0.0000
14.721		14.721		8.640		26948		37063		0.034	- C1	184173.8906	0.0000
16.699		16.699		16.770		6108117		9371156		8.881	SURROGATE (TRIACONTANE)	175867.9531	0.0000
Total													
Unknowns						10356246		403762496		N/A			
Quantified						7054743		12226106		11.464			
Grand Total						17421188		417988608		11.464			

### ANALYSIS SUMMARY

Method..... DRD

Run sequence..... DRD

Calibration..... DR/42396

External standard calibration using area

Calibration last modified on 5-JUL-1996 at 13:29

Uncalibrated peaks use user factor (0.0000)

FORM 1  
8015M\_DRO ORGANICS ANALYSIS DATA SHEET

WOODWARD CLYDE SAMPLE NO.

CPD-1

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: TPH7327

Matrix: (soil/water) SOIL Lab Sample ID: 7327-2

Sample wt/vol: 30 (g/mL) G Lab File ID: 15JUL1547715

Level: (low/med) LOW Date Received: 07/03/96

% Moisture: 19.1 decanted: (Y/N) N Date Extracted: 07/11/96

Concentrated Extract Volume: 5 (mL) Date Analyzed: 07/15/96

Injection Volume: 1.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH: 7.0

## CONCENTRATION UNITS:

CAS NO. COMPOUND MG/KG Q

-----TPH AS DIESEL

1160