

DUNN GEOSCIENCE CORPORATION

12 METRO PARK ROAD
ALBANY, NY 12205
(518) 458-1313
FAX (518) 458-2472

91 AUG -8 AM 8:13

August 7, 1991

Ms. Cynthia Chapman
Hazardous Materials Specialist
Department of Environmental Health
Alameda County Health Agency
80 Swan Way, Rm. 200
Oakland, California 94621

Dear Ms. Chapman:

Subject: ANCC Oakland Facility - Area 5 Sampling

In reference to the Discussion and Conclusions Sections in our July, 1991, report on the Subsurface Investigation at the subject property, DUNN collected four (4) additional soil samples from hand-augered borings on the east, south and north sides of the steam cleaner in Area 5 on June 20, 1991. Sample HA-5-05 was a blind duplicate of sample HA-5-04. Pavement on the west side prevented hand augering there. These samples were collected from an approximate depth of 3.5 feet. The analytical results showed that the total petroleum hydrocarbon (TPH) content (EPA Method 418.1) in any of these samples did not exceed 9.2 mg/kg (ppm). Volatile organic compound (VOC) results were similarly insignificant with total VOC's less than 0.5 ppm in any sample. (The most prevalent contaminant was acetone, which was detected in the laboratory blank.) Analytical results are summarized in Table 5-1, included herein. The laboratory report and location map are attached.

During the initial investigation conducted at the property by Dames & Moore in August, 1989, two borings were advanced near the steam cleaner area (Area 5), just to its north and south. Three (3) soil samples were collected from each boring, at varying depths. Two samples were not analyzed. Three samples contained no detectable petroleum hydrocarbons (Method 418.1). One sample from the south side of the steam cleaner (SC-1-2C) was reported to contain 3200 ppm of TPH.

During DUNN's subsurface investigation in March, 1991, in order to verify the earlier findings and to test the vertical extent of contamination, four (4) soil samples were collected from two borings in the same approximate locations as in August, 1989, although from slightly greater depths. The results of analyses performed on these samples did not confirm the earlier high result. In fact, DUNN's samples contained three orders of magnitude less total petroleum hydrocarbon contamination (2.7 to 6.7 ppm) than in sample SC-1-2C.



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At this time, the steam cleaner area (Area 5) has been tested with a total of twelve (12) soil samples from a range of depths:

Table 5-1

Sample No.	Depth (ft)	TPH (ppm)	Total VOC (ppb)
SC-1-1C	2.25	ND	ND
SC-1-2C	3.75	3200	6.4 ← <i>Dament Maxe</i>
SC-2-1C	2.25	ND	ND
SC-2-2C	3.75	ND	10.4
SB-14(S-3)	5.25	3.3	ND
SB-14(S-6)	9.75	2.7	ND
SB-16(S-4)	5.25	6.7	ND
SB-16(S-7)	9.75	3.3	ND
HA-5-01	3.0	1.7	31 *
HA-5-02	3.4	1.7	110 *
HA-5-04	3.5	7.5	100 *
HA-5-05	3.5	9.2	262 *

* Lab blank contained VOC contaminants.

MW 11

Only one sample (SC-1-2C) showed elevated levels of contamination, which was not reproduced in any of the other samples. DUNN concludes that the contaminated soil sample is anomalous and, therefore, is not representative of the general soil conditions in the steam cleaner area. Based on this conclusion and on the soil data generated to date, no further soil investigation is warranted in Area 5. Quarterly groundwater sampling of monitoring wells GW-4 and MW-11 will continue.

Please call me if you have any questions.

Very truly yours,

DUNN GEOSCIENCE CORPORATION

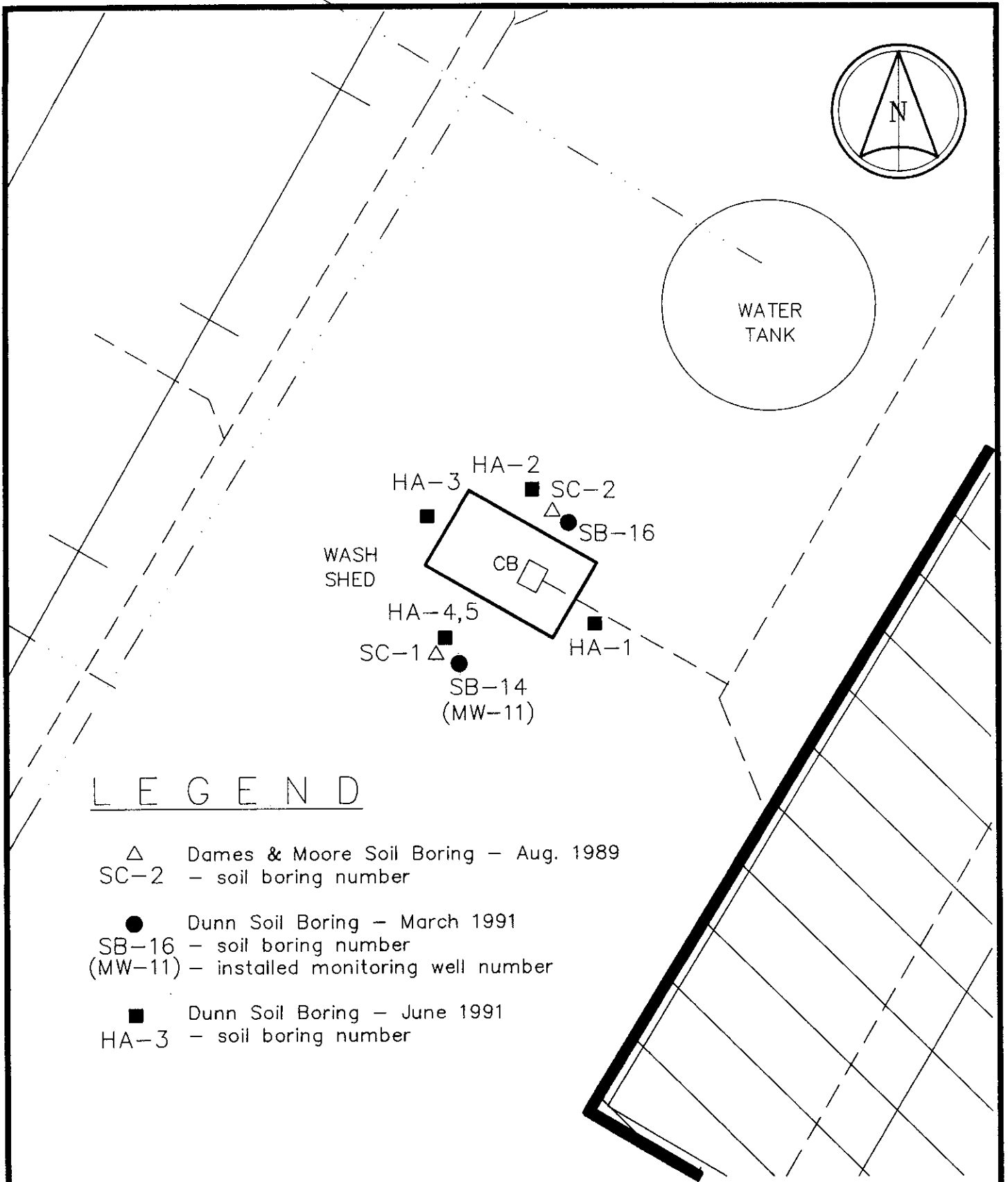
Edward W. Alusow

Edward W. Alusow
Senior Environmental Scientist
Project Manager
Registered Geologist No. 4282

EWA/me

cc: J. Peters
J. Moran
L. Feldman

Attachments



LEGEND

- △ Dames & Moore Soil Boring – Aug. 1989
SC-2 – soil boring number
- Dunn Soil Boring – March 1991
SB-16 – soil boring number
(MW-11) – installed monitoring well number
- Dunn Soil Boring – June 1991
HA-3 – soil boring number



DUNN GEOSCIENCE CORPORATION
12 Metro Park Road
Albany, NY 12205

LOCATION MAP
CONFIRMATION SAMPLING
Steam Cleaner Area
ANC – OAKLAND

PROJECT NO. 02345-01983

DATE June 1991

SCALE IN FEET
0 2 10 20

FIGURE NO. 1

A8985A5A

ANAMETRIX INC

Environmental & Analytical Chemistry
 851 Concourse Drive, Suite E, San Jose, CA 95131
 (408) 432-3192 • Fax: (408) 432-8198

**REPORT**

MR. EDWARD ALUSOW
 DUNN GEOSCIENCE CORP.
 12 METRO PARK ROAD
 ALBANY, NY 12205

Workorder # : 9106244
 Date Received : 06/20/91
 Project ID : 02345-01983
 Purchase Order: N/A

The following samples were received at Anamatrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9106244- 1	HA-5-01
9106244- 2	HA-5-02
9106244- 3	HA-5-03
9106244- 4	HA-5-04
9106244- 5	HA-5-05
9106244- 6	TRIP BLANK

This report consists of 21 pages not including the cover letter, and is organized in sections according to the specific Anamatrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anamatrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anamatrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anamatrix.

Sarah Schoen For
 Sarah Schoen, Ph.D.
 Laboratory Manager

7-8-91
 Date

ANAMETRIX REPORT DESCRIPTION GCMS

Organic Analysis Data Sheets (OADS)

OADS forms contain tabulated results for target compounds. The OADS are grouped by method and, within each method, organized sequentially in order of increasing Anamatrix ID number.

Tentatively Identified Compounds (TICs)

TIC forms contain tabulated results for non-target compounds detected in GC/MS analyses. TICs must be requested at the time samples are submitted at Anamatrix. TIC forms immediately follow the OADS form for each sample. If TICs are requested but not found, then TIC forms will not be included with the report.

Surrogate Recovery Summary (SRS)

SRS forms contain quality assurance data. An SRS form will be printed for each method, if the method requires surrogate compounds. They will list surrogate percent recoveries for all samples and any method blanks. Any surrogate recovery outside the established limits will be flagged with an "*", and the total number of surrogates outside the limits will be listed in the column labelled "Total Out".

Matrix Spike Recovery Form (MSR)

MSR forms contain quality assurance data. They summarize percent recovery and relative percent difference information for matrix spikes and matrix spike duplicates. This information is a statement of both accuracy and precision. Any percent recovery or relative percent difference outside established limits will be flagged with an "*", and the total number outside the limits will be listed at the bottom of the page. Not all reports will contain an MSR form.

Qualifiers

Anamatrix uses several data qualifiers (Q) in its report forms. These qualifiers give additional information on the compounds reported. They should help a data reviewer to verify the integrity of the analytical results. The following is a list of qualifiers and their meanings:

- U - Indicates that the compound was analyzed for, but was not detected at or above the specified reporting limit.
- B - Indicates that the compound was detected in the associated method blank.
- J - Indicates that the compound was detected at an amount below the specified reporting limit. Consequently, the amount should be considered an approximate value. Tentatively identified compounds will always have a "J" qualifier because they are not included in the instrument calibration.
- E - Indicates that the amount reported exceeded the linear range of the instrument calibration.
- D - Indicates that the compound was detected in an analysis performed at a secondary dilution.
- A - Indicates that the tentatively identified compound is a suspected aldol condensation product. This is common in EPA Method 8270 soil analyses.

Absence of a qualifier indicates that the compound was detected at a concentration at or above the specified reporting limit.

REPORTING CONVENTIONS

- ◆ Due to a size limitation in our data processing step, only the first eight (8) characters of your project ID and sample ID will be printed on the report forms. However, the report cover letter and report summary pages display up to twenty (20) characters of your project and sample IDs.
- ◆ Amounts reported are gross values, i.e., not corrected for method blank contamination.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. EDWARD ALUSOW
DUNN GEOSCIENCE CORP.
12 METRO PARK ROAD
ALBANY, NY 12205

Workorder # : 9106244
Date Received : 06/20/91
Project ID : 02345-01983
Purchase Order: N/A
Department : GCMS
Sub-Department: GCMS

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9106244- 1	HA-5-01	SOIL	06/20/91	8240
9106244- 2	HA-5-02	SOIL	06/20/91	8240
9106244- 4	HA-5-04	SOIL	06/20/91	8240
9106244- 5	HA-5-05	SOIL	06/20/91	8240
9106244- 6	TRIP BLANK	WATER	06/20/91	8240

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. EDWARD ALUSOW
DUNN GEOSCIENCE CORP.
12 METRO PARK ROAD
ALBANY, NY 12205

Workorder # : 9106244
Date Received : 06/20/91
Project ID : 02345-01983
Purchase Order: N/A
Department : GCMS
Sub-Department: GCMS

QA/QC SUMMARY :

- Internal standard areas are outside established limits in the EPA Method 8240 analysis of sample HA-5-05.
- Acetone quantitation exceeded the calibration range in the EPA Method 8240 analysis of sample HA-5-05.

Jana Mayo
Department Supervisor

7-8-91
Date

Denise Powell
Chemist

7-8-91
Date

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 624/8240
ANAMETRIX, INC. (408)432-8192

Project ID : 02345-01
Sample ID : HA-5-01
Matrix : SOIL
Date Sampled : 6/20/91
Date Analyzed : 7/ 2/91
Instrument ID : F3

Anamatrix ID : 9106244-01
Analyst : DP
Supervisor : UM
Dilution Factor : 1.00
Conc. Units : ug/Kg

CAS NO.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
74-87-3	CHLOROMETHANE	10.	ND	U
75-01-4	VINYL CHLORIDE	10.	ND	U
74-83-9	BROMOMETHANE	10.	ND	U
75-00-3	CHLOROETHANE	10.	ND	U
75-69-4	TRICHLOROFLUOROMETHANE	5.	ND	U
75-35-4	1,1-DICHLOROETHENE	5.	ND	U
76-13-1	TRICHLOROTRIFLUOROETHANE	5.	ND	U
67-64-1	ACETONE	20.	31.	B
75-15-0	CARBON DISULFIDE	5.	ND	U
75-09-2	METHYLENE CHLORIDE	5.	ND	U
156-60-5	TRANS-1,2-DICHLOROETHENE	5.	ND	U
75-34-3	1,1-DICHLOROETHANE	5.	ND	U
78-93-3	2-BUTANONE	20.	ND	U
156-59-2	CIS-1,2-DICHLOROETHENE	5.	ND	U
67-66-3	CHLOROFORM	5.	ND	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	ND	U
56-23-5	CARBON TETRACHLORIDE	5.	ND	U
71-43-2	BENZENE	5.	ND	U
107-06-2	1,2-DICHLOROETHANE	5.	ND	U
79-01-6	TRICHLOROETHENE	5.	ND	U
78-87-5	1,2-DICHLOROPROPANE	5.	ND	U
75-27-4	BROMODICHLOROMETHANE	5.	ND	U
110-75-8	2-CHLOROETHYL VINYL ETHER	5.	ND	U
108-05-4	VINYL ACETATE	10.	ND	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	ND	U
108-10-1	4-METHYL-2-PENTANONE	10.	ND	U
108-88-3	TOLUENE	5.	ND	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	ND	U
79-00-5	1,1,2,-TRICHLOROETHANE	5.	ND	U
127-18-4	TETRACHLOROETHENE	5.	ND	U
591-78-6	2-HEXANONE	10.	ND	U
124-48-1	DIBROMOCHLOROMETHANE	5.	ND	U
108-90-7	CHLOROBENZENE	5.	ND	U
100-41-4	ETHYLBENZENE	5.	ND	U
1330-20-7	XYLENE (TOTAL)	5.	ND	U
100-42-5	STYRENE	5.	ND	U
75-25-2	BROMOFORM	5.	ND	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	ND	U
541-73-1	1,3-DICHLOROBENZENE	5.	ND	U
106-46-7	1,4-DICHLOROBENZENE	5.	ND	U
95-50-1	1,2-DICHLOROBENZENE	5.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 624/8240
 ANAMETRIX, INC. (408)432-8192

Project ID : 02345-01
 Sample ID : HA-5-02
 Matrix : SOIL
 Date Sampled : 6/20/91
 Date Analyzed : 7/ 3/91
 Instrument ID : MSD1

Anamatrix ID : 9106244-02
 Analyst : DP
 Supervisor : WJ
 Dilution Factor : 1.00
 Conc. Units : ug/Kg

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
74-87-3	Chloromethane	10.	ND	U
75-01-4	Vinyl chloride	10.	ND	U
74-83-9	Bromomethane	10.	ND	U
75-00-3	Chloroethane	10.	ND	U
75-69-4	Trichlorofluoromethane	5.	ND	U
75-35-4	1,1-Dichloroethene	5.	ND	U
76-13-1	Trichlorotrifluoroethane	5.	ND	U
67-64-1	Acetone	20.	110.	
75-15-0	Carbon disulfide	5.	ND	U
75-09-2	Methylene chloride	5.	ND	U
156-60-5	Trans-1,2-dichloroethene	5.	ND	U
75-34-3	1,1-Dichloroethane	5.	ND	U
156-59-2	Cis-1,2-dichloroethene	5.	ND	U
78-93-3	2-Butanone	20.	ND	U
67-66-3	Chloroform	5.	ND	U
71-55-6	1,1,1-Trichloroethane	5.	ND	U
56-23-5	Carbon tetrachloride	5.	ND	U
108-05-4	Vinyl acetate	10.	ND	U
71-43-2	Benzene	5.	ND	U
107-06-2	1,2-Dichloroethane	5.	ND	U
79-01-6	Trichloroethene	5.	ND	U
78-87-5	1,2-Dichloropropane	5.	ND	U
75-27-4	Bromodichloromethane	5.	ND	U
110-75-8	2-Chloroethylvinyl ether	5.	ND	U
10061-01-5	Cis-1,3-dichloropropene	5.	ND	U
108-10-1	4-Methyl-2-pentanone	10.	ND	U
108-88-3	Toluene	5.	ND	U
10061-02-6	Trans-1,3-dichloropropene	5.	ND	U
79-00-5	1,1,2-Trichloroethane	5.	ND	U
127-18-4	Tetrachloroethene	5.	ND	U
591-78-6	2-Hexanone	10.	ND	U
124-48-1	Dibromochloromethane	5.	ND	U
108-90-7	Chlorobenzene	5.	ND	U
100-41-4	Ethylbenzene	5.	ND	U
1330-20-7	Xylene (Total)	5.	ND	U
100-42-5	Styrene	5.	ND	U
75-25-2	Bromoform	5.	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	ND	U
541-73-1	1,3-Dichlorobenzene	5.	ND	U
106-46-7	1,4-Dichlorobenzene	5.	ND	U
95-50-1	1,2-Dichlorobenzene	5.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 624/8240
ANAMETRIX, INC. (408)432-8192

Project ID : 02345-01
 Sample ID : HA-5-04
 Matrix : SOIL
 Date Sampled : 6/20/91
 Date Analyzed : 7/ 2/91
 Instrument ID : F3

Anamatrix ID : 9106244-04
 Analyst : DP
 Supervisor : UM
 Dilution Factor : 1.00
 Conc. Units : ug/Kg

CAS NO.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
74-87-3	CHLOROMETHANE	10.	ND	U
75-01-4	VINYL CHLORIDE	10.	ND	U
74-83-9	BROMOMETHANE	10.	ND	U
75-00-3	CHLOROETHANE	10.	ND	U
75-69-4	TRICHLOROFLUOROMETHANE	5.	ND	U
75-35-4	1,1-DICHLOROETHENE	5.	ND	U
76-13-1	TRICHLOROTRIFLUOROETHANE	5.	ND	U
67-64-1	ACETONE	20.	100.	B
75-15-0	CARBON DISULFIDE	5.	ND	U
75-09-2	METHYLENE CHLORIDE	5.	ND	U
156-60-5	TRANS-1,2-DICHLOROETHENE	5.	ND	U
75-34-3	1,1-DICHLOROETHANE	5.	ND	U
78-93-3	2-BUTANONE	20.	ND	U
156-59-2	CIS-1,2-DICHLOROETHENE	5.	ND	U
67-66-3	CHLOROFORM	5.	ND	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	ND	U
56-23-5	CARBON TETRACHLORIDE	5.	ND	U
71-43-2	BENZENE	5.	ND	U
107-06-2	1,2-DICHLOROETHANE	5.	ND	U
79-01-6	TRICHLOROETHENE	5.	ND	U
78-87-5	1,2-DICHLOROPROPANE	5.	ND	U
75-27-4	BROMODICHLOROMETHANE	5.	ND	U
110-75-8	2-CHLOROETHYL VINYL ETHER	5.	ND	U
108-05-4	VINYL ACETATE	10.	ND	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	ND	U
108-10-1	4-METHYL-2-PENTANONE	10.	ND	U
108-88-3	TOLUENE	5.	ND	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	ND	U
79-00-5	1,1,2,-TRICHLOROETHANE	5.	ND	U
127-18-4	TETRACHLOROETHENE	5.	ND	U
591-78-6	2-HEXANONE	10.	ND	U
124-48-1	DIBROMOCHLOROMETHANE	5.	ND	U
108-90-7	CHLOROBENZENE	5.	ND	U
100-41-4	ETHYLBENZENE	5.	ND	U
1330-20-7	XYLENE (TOTAL)	5.	ND	U
100-42-5	STYRENE	5.	ND	U
75-25-2	BROMOFORM	5.	ND	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	ND	U
541-73-1	1,3-DICHLOROBENZENE	5.	ND	U
106-46-7	1,4-DICHLOROBENZENE	5.	ND	U
95-50-1	1,2-DICHLOROBENZENE	5.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 624/8240
 ANAMETRIX, INC. (408)432-8192

TENTATIVELY IDENTIFIED COMPOUNDS

Project ID : 02345-01
 Sample ID : HA-5-04
 Matrix : SOIL
 Date Sampled : 6/20/91
 Date Analyzed : 7/ 2/91
 Instrument ID : F3

Anamatrix ID : 9106244-04
 Analyst : DP
 Supervisor : UM
 Dilution Factor : 1.00
 Conc. Units : ug/Kg

CAS NUMBER	COMPOUND NAME	REPORTING LIMIT	ESTIMATED CONC.	Q
1. 55429-29-3	ARSENOUS ACID, TRIS(TRIMETHY	0.	2.	J
2. 556-67-2	CYCLOTETRASILOXANE, OCTAMETH	0.	7.	J
3.				
4.				
5.				
6.				
7.				
8.				
9.				
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12.				
13.				
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27.				
28.				
29.				
30.				

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 624/8240
 ANAMETRIX, INC. (408)432-8192

Project ID : 02345-01
 Sample ID : HA-5-05
 Matrix : SOIL
 Date Sampled : 6/20/91
 Date Analyzed : 7/ 2/91
 Instrument ID : F3

Anamatrix ID : 9106244-05
 Analyst : DP
 Supervisor : UM
 Dilution Factor : 1.00
 Conc. Units : ug/Kg

CAS NO.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
74-87-3	CHLOROMETHANE	10.	ND	U
75-01-4	VINYL CHLORIDE	10.	ND	U
74-83-9	BROMOMETHANE	10.	ND	U
75-00-3	CHLOROETHANE	10.	ND	U
75-69-4	TRICHLOROFLUOROMETHANE	5.	ND	U
75-35-4	1,1-DICHLOROETHENE	5.	ND	U
76-13-1	TRICHLOROTRIFLUOROETHANE	5.	ND	U
67-64-1	ACETONE	20.	220.	B E
75-15-0	CARBON DISULFIDE	5.	4.	J
75-09-2	METHYLENE CHLORIDE	5.	ND	U
156-60-5	TRANS-1,2-DICHLOROETHENE	5.	ND	U
75-34-3	1,1-DICHLOROETHANE	5.	ND	U
78-93-3	2-BUTANONE	20.	38.	
156-59-2	CIS-1,2-DICHLOROETHENE	5.	ND	U
67-66-3	CHLOROFORM	5.	ND	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	ND	U
56-23-5	CARBON TETRACHLORIDE	5.	ND	U
71-43-2	BENZENE	5.	ND	U
107-06-2	1,2-DICHLOROETHANE	5.	ND	U
79-01-6	TRICHLOROETHENE	5.	ND	U
78-87-5	1,2-DICHLOROPROPANE	5.	ND	U
75-27-4	BROMODICHLOROMETHANE	5.	ND	U
110-75-8	2-CHLOROETHYL VINYL ETHER	5.	ND	U
108-05-4	VINYL ACETATE	10.	ND	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	ND	U
108-10-1	4-METHYL-2-PENTANONE	10.	ND	U
108-88-3	TOLUENE	5.	ND	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	ND	U
79-00-5	1,1,2,-TRICHLOROETHANE	5.	ND	U
127-18-4	TETRACHLOROETHENE	5.	ND	U
591-78-6	2-HEXANONE	10.	ND	U
124-48-1	DIBROMOCHLOROMETHANE	5.	ND	U
108-90-7	CHLOROBENZENE	5.	ND	U
100-41-4	ETHYLBENZENE	5.	ND	U
1330-20-7	XYLENE (TOTAL)	5.	ND	U
100-42-5	STYRENE	5.	ND	U
75-25-2	BROMOFORM	5.	ND	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	ND	U
541-73-1	1,3-DICHLOROBENZENE	5.	ND	U
106-46-7	1,4-DICHLOROBENZENE	5.	ND	U
95-50-1	1,2-DICHLOROBENZENE	5.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 624/8240
ANAMETRIX, INC. (408)432-8192

TENTATIVELY IDENTIFIED COMPOUNDS

Project ID : 02345-01
 Sample ID : HA-5-05
 Matrix : SOIL
 Date Sampled : 6/20/91
 Date Analyzed : 7/ 2/91
 Instrument ID : F3

Anametrix ID : 9106244-05
 Analyst : DP
 Supervisor : WY
 Dilution Factor : 1.00
 Conc. Units : ug/Kg

CAS NUMBER	COMPOUND NAME	REPORTING LIMIT	ESTIMATED CONC.	Q
1. 594-82-1	BUTANE, 2,2,3,3-TETRAMETHYL-	0.	3.	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
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ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 624/8240
 ANAMETRIX, INC. (408)432-8192

Project ID : 02345-01
 Sample ID : TRIP BLA
 Matrix : WATER
 Date Sampled : 6/20/91
 Date Analyzed : 7/ 2/91
 Instrument ID : F3

Anamatrix ID : 9106244-06
 Analyst : DP
 Supervisor : UH
 Dilution Factor : 1.00
 Conc. Units : ug/L

CAS NO.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
74-87-3	CHLOROMETHANE	10.	ND	U
75-01-4	VINYL CHLORIDE	10.	ND	U
74-83-9	BROMOMETHANE	10.	ND	U
75-00-3	CHLOROETHANE	10.	ND	U
75-69-4	TRICHLOROFLUOROMETHANE	5.	ND	U
75-35-4	1,1-DICHLOROETHENE	5.	ND	U
76-13-1	TRICHLOROTRIFLUOROETHANE	5.	ND	U
67-64-1	ACETONE	20.	ND	U
75-15-0	CARBON DISULFIDE	5.	ND	U
75-09-2	METHYLENE CHLORIDE	5.	ND	U
156-60-5	TRANS-1,2-DICHLOROETHENE	5.	ND	U
75-34-3	1,1-DICHLOROETHANE	5.	ND	U
78-93-3	2-BUTANONE	20.	ND	U
156-59-2	CIS-1,2-DICHLOROETHENE	5.	ND	U
67-66-3	CHLOROFORM	5.	ND	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	ND	U
56-23-5	CARBON TETRACHLORIDE	5.	ND	U
71-43-2	BENZENE	5.	ND	U
107-06-2	1,2-DICHLOROETHANE	5.	ND	U
79-01-6	TRICHLOROETHENE	5.	ND	U
78-87-5	1,2-DICHLOROPROPANE	5.	ND	U
75-27-4	BROMODICHLOROMETHANE	5.	ND	U
110-75-8	2-CHLOROETHYL VINYL ETHER	5.	ND	U
108-05-4	VINYL ACETATE	10.	ND	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	ND	U
108-10-1	4-METHYL-2-PENTANONE	10.	ND	U
108-88-3	TOLUENE	5.	ND	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	ND	U
79-00-5	1,1,2,-TRICHLOROETHANE	5.	ND	U
127-18-4	TETRACHLOROETHENE	5.	ND	U
591-78-6	2-HEXANONE	10.	ND	U
124-48-1	DIBROMOCHLOROMETHANE	5.	ND	U
108-90-7	CHLOROBENZENE	5.	ND	U
100-41-4	ETHYLBENZENE	5.	ND	U
1330-20-7	XYLENE (TOTAL)	5.	ND	U
100-42-5	STYRENE	5.	ND	U
75-25-2	BROMOFORM	5.	ND	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	ND	U
541-73-1	1,3-DICHLOROBENZENE	5.	ND	U
106-46-7	1,4-DICHLOROBENZENE	5.	ND	U
95-50-1	1,2-DICHLOROBENZENE	5.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 624/8240
ANAMETRIX, INC. (408)432-8192

TENTATIVELY IDENTIFIED COMPOUNDS

Project ID : 02345-01
 Sample ID : TRIP BLA
 Matrix : WATER
 Date Sampled : 6/20/91
 Date Analyzed : 7/ 2/91
 Instrument ID : F3

Anamatrix ID : 9106244-06
 Analyst : DP
 Supervisor : UM
 Dilution Factor : 1.00
 Conc. Units : ug/L

CAS NUMBER	COMPOUND NAME	REPORTING LIMIT	ESTIMATED CONC.	Q
1. 540-84-1	PENTANE, 2,2,4-TRIMETHYL-	0.	1.	J
2. 541-05-9	CYCLOTRISILOXANE, HEXAMETHYL	0.	4.	J
3. 556-67-2	CYCLOTETRASILOXANE, OCTAMETH	0.	4.	J
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ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 624/8240
ANAMETRIX, INC. (408)432-8192

Project ID :
Sample ID : BLANK
Matrix : SOIL
Date Sampled : 0/ 0/ 0
Date Analyzed : 7/ 2/91
Instrument ID : F3

Anamatrix ID : 3CB0702V00
Analyst : DP
Supervisor : M
Dilution Factor : 1.00
Conc. Units : ug/Kg

CAS NO.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
74-87-3	CHLOROMETHANE	10.	ND	U
75-01-4	VINYL CHLORIDE	10.	ND	U
74-83-9	BROMOMETHANE	10.	ND	U
75-00-3	CHLOROETHANE	10.	ND	U
75-69-4	TRICHLOROFLUOROMETHANE	5.	ND	U
75-35-4	1,1-DICHLOROETHENE	5.	ND	U
76-13-1	TRICHLOROTRIFLUOROETHANE	5.	ND	U
67-64-1	ACETONE	20.	7.	J
75-15-0	CARBON DISULFIDE	5.	ND	U
75-09-2	METHYLENE CHLORIDE	5.	4.	J
156-60-5	TRANS-1,2-DICHLOROETHENE	5.	ND	U
75-34-3	1,1-DICHLOROETHANE	5.	ND	U
78-93-3	2-BUTANONE	20.	ND	U
156-59-2	CIS-1,2-DICHLOROETHENE	5.	ND	U
67-66-3	CHLOROFORM	5.	ND	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	ND	U
56-23-5	CARBON TETRACHLORIDE	5.	ND	U
71-43-2	BENZENE	5.	ND	U
107-06-2	1,2-DICHLOROETHANE	5.	ND	U
79-01-6	TRICHLOROETHENE	5.	ND	U
78-87-5	1,2-DICHLOROPROPANE	5.	ND	U
75-27-4	BROMODICHLOROMETHANE	5.	ND	U
110-75-8	2-CHLOROETHYL VINYL ETHER	5.	ND	U
108-05-4	VINYL ACETATE	10.	ND	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	ND	U
108-10-1	4-METHYL-2-PENTANONE	10.	ND	U
108-88-3	TOLUENE	5.	ND	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	ND	U
79-00-5	1,1,2,-TRICHLOROETHANE	5.	ND	U
127-18-4	TETRACHLOROETHENE	5.	ND	U
591-78-6	2-HEXANONE	10.	ND	U
124-48-1	DIBROMOCHLOROMETHANE	5.	ND	U
108-90-7	CHLOROBENZENE	5.	ND	U
100-41-4	ETHYLBENZENE	5.	ND	U
1330-20-7	XYLENE (TOTAL)	5.	ND	U
100-42-5	STYRENE	5.	ND	U
75-25-2	BROMOFORM	5.	ND	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	ND	U
541-73-1	1,3-DICHLOROBENZENE	5.	ND	U
106-46-7	1,4-DICHLOROBENZENE	5.	ND	U
95-50-1	1,2-DICHLOROBENZENE	5.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 624/8240
 ANAMETRIX, INC. (408)432-8192

Project ID :
 Sample ID : BLANK
 Matrix : SOIL
 Date Sampled : 0/ 0/ 0
 Date Analyzed : 7/ 3/91
 Instrument ID : MSD1

Anamatrix ID : 0703B002
 Analyst : MCT
 Supervisor : JM
 Dilution Factor : 1.00
 Conc. Units : ug/Kg

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
74-87-3	Chloromethane	10.	ND	U
75-01-4	Vinyl chloride	10.	ND	U
74-83-9	Bromomethane	10.	ND	U
75-00-3	Chloroethane	10.	ND	U
75-69-4	Trichlorofluoromethane	5.	ND	U
75-35-4	1,1-Dichloroethene	5.	ND	U
76-13-1	Trichlorotrifluoroethane	5.	ND	U
67-64-1	Acetone	20.	ND	U
75-15-0	Carbon disulfide	5.	ND	U
75-09-2	Methylene chloride	5.	4.	J
156-60-5	Trans-1,2-dichloroethene	5.	ND	U
75-34-3	1,1-Dichloroethane	5.	ND	U
156-59-2	Cis-1,2-dichloroethene	5.	ND	U
78-93-3	2-Butanone	20.	ND	U
67-66-3	Chloroform	5.	ND	U
71-55-6	1,1,1-Trichloroethane	5.	ND	U
56-23-5	Carbon tetrachloride	5.	ND	U
108-05-4	Vinyl acetate	10.	ND	U
71-43-2	Benzene	5.	ND	U
107-06-2	1,2-Dichloroethane	5.	ND	U
79-01-6	Trichloroethene	5.	ND	U
78-87-5	1,2-Dichloropropane	5.	ND	U
75-27-4	Bromodichloromethane	5.	ND	U
110-75-8	2-Chloroethylvinyl ether	5.	ND	U
10061-01-5	Cis-1,3-dichloropropene	5.	ND	U
108-10-1	4-Methyl-2-pentanone	10.	ND	U
108-88-3	Toluene	5.	ND	U
10061-02-6	Trans-1,3-dichloropropene	5.	ND	U
79-00-5	1,1,2-Trichloroethane	5.	ND	U
127-18-4	Tetrachloroethene	5.	ND	U
591-78-6	2-Hexanone	10.	ND	U
124-48-1	Dibromochloromethane	5.	ND	U
108-90-7	Chlorobenzene	5.	ND	U
100-41-4	Ethylbenzene	5.	ND	U
1330-20-7	Xylene (Total)	5.	ND	U
100-42-5	Styrene	5.	ND	U
75-25-2	Bromoform	5.	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	ND	U
541-73-1	1,3-Dichlorobenzene	5.	ND	U
106-46-7	1,4-Dichlorobenzene	5.	ND	U
95-50-1	1,2-Dichlorobenzene	5.	ND	U

SURROGATE RECOVERY SUMMARY -- EPA METHOD 624/8240
ANAMETRIX, INC. (408)432-8192

Project ID : 02345-01
Matrix : LIQUID

Anamatrix ID : 9106244
Analyst : *DP*
Supervisor : *UM*

	SAMPLE ID	SU1	SU2	SU3	TOTAL OUT
1	TRIP BLA	93	101	99	0
2					
3					
4					
5					
6					
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8					
9					
10					
11					
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QC LIMITS

SU1 = 1,2-DICHLOROETHANE-D4 (75-113)
SU2 = TOLUENE-D8 (83-110)
SU3 = BROMOFLUOROBENZENE (82-114)

* Values outside of Anamatrix QC limits

SURROGATE RECOVERY SUMMARY -- EPA METHOD 624/8240
ANAMETRIX, INC. (408)432-8192

Project ID : 02345-01
Matrix : SOLID

Anamatrix ID : 9106244
Analyst : DP
Supervisor : UY

	SAMPLE ID	SU1	SU2	SU3	TOTAL OUT
1	BLANK	93	102	112	0
2	HA-5-01	89	98	89	0
3	HA-5-MS	93	103	84	0
4	HA-5-MSD	95	99	81	0
5	HA-5-04	92	96	77	0
6	HA-5-05	95	98	78	0
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QC LIMITS

SU1 = 1,2-DICHLOROETHANE-D4 (73-130)
SU2 = TOLUENE-D8 (74-121)
SU3 = BROMOFLUOROBENZENE (70-124)

* Values outside of Anamatrix QC limits

SURROGATE RECOVERY SUMMARY -- EPA METHOD 624/8240
 ANAMETRIX, INC. (408)432-8192

Project ID : 02345-01
 Matrix : SOIL

Anamatrix ID : 9106244
 Analyst : MCT
 Supervisor : IM

	SAMPLE ID	SU1	SU2	SU3	TOTAL OUT
1	BLANK	99	98	101	0
2	HA-5-02	98	93	89	0
3					
4					
5					
6					
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QC LIMITS

SU1 = 1,2-Dichloroethane-d4 (73-130)
 SU2 = Toluene-d8 (74-121)
 SU3 = 1,4-Bromofluorobenzene (70-124)

* Values outside of Anamatrix QC limits

MATRIX SPIKE RECOVERY FORM -- EPA METHOD 624/8240
 ANAMETRIX, INC. (408)432-8192

Project ID : 02345-01
 Sample ID : HA-5-01
 Matrix : SOIL
 Date Sampled : 6/20/91
 Date Analyzed : 7/ 2/91
 Instrument ID : F3

Anamatrix ID : 9106244-01
 Analyst : DP
 Supervisor : UM

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	%REC LIMITS
1,1-DICHLOROETHENE	50.	0.	52.	104	54-150
TRICHLOROTRIFLUOROETHAN	50.	0.	61.	123	44-180
METHYLENE CHLORIDE	50.	0.	48.	97	64-130
CHLOROFORM	50.	0.	49.	99	60-158
1,1,1-TRICHLOROETHANE	50.	0.	49.	97	48-152
BENZENE	50.	0.	57.	113	70-134
1,2-DICHLOROETHANE	50.	0.	51.	101	64-126
TRICHLOROETHENE	50.	0.	54.	109	58-146
4-METHYL-2-PENTANONE	50.	0.	47.	93	50-130
TOLUENE	50.	0.	54.	107	76-132
TETRACHLOROETHENE	50.	0.	61.	121	64-148
CHLOROBENZENE	50.	0.	52.	104	86-124
1,2-DICHLOROBENZENE	50.	0.	34.	68	56-146

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	RPD LIMITS	%REC LIMITS
1,1-DICHLOROETHENE	50.	54.	107	3	30	54-150
TRICHLOROTRIFLUOROETHAN	50.	63.	127	3	30	44-180
METHYLENE CHLORIDE	50.	50.	99	2	30	64-130
CHLOROFORM	50.	52.	103	5	30	60-158
1,1,1-TRICHLOROETHANE	50.	52.	104	6	30	48-152
BENZENE	50.	58.	116	2	30	70-134
1,2-DICHLOROETHANE	50.	54.	107	6	30	64-126
TRICHLOROETHENE	50.	56.	111	2	30	58-146
4-METHYL-2-PENTANONE	50.	48.	97	4	30	50-130
TOLUENE	50.	53.	106	1	30	76-132
TETRACHLOROETHENE	50.	61.	122	0	30	64-148
CHLOROBENZENE	50.	53.	107	3	30	86-124
1,2-DICHLOROBENZENE	50.	34.	67	1	30	56-146

* Value is outside of Anamatrix QC limits

RPD: 0 out of 13 outside limits
 Spike Recovery: 0 out of 26 outside limits

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. EDWARD ALUSOW
DUNN GEOSCIENCE CORP.
12 METRO PARK ROAD
ALBANY, NY 12205

Workorder # : 9106244
Date Received : 06/20/91
Project ID : 02345-01983
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9106244- 1	HA-5-01	SOIL	06/20/91	418.1
9106244- 2	HA-5-02	SOIL	06/20/91	418.1
9106244- 4	HA-5-04	SOIL	06/20/91	418.1
9106244- 5	HA-5-05	SOIL	06/20/91	418.1

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. EDWARD ALUSOW
DUNN GEOSCIENCE CORP.
12 METRO PARK ROAD
ALBANY, NY 12205

Workorder # : 9106244
Date Received : 06/20/91
Project ID : 02345-01983
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

QA/QC SUMMARY :

- No QA/QC problems encountered for this workorder.

Stratos Dimas 7-5-91
Department Supervisor Date

PR Patel 07-05-91
Chemist Date

ANALYSIS DATA SHEET - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
 EPA METHOD 418.1
 ANAMETRIX, INC. (408) 432-8192

Project # : 02345-01983	Anamatrix I.D. : 9106244
Matrix : SOIL	Analyst : HPT
Date sampled : 06/20/91	Supervisor : SD
Date ext. : 07/03/91	Date released : 07/05/91
Date analyzed: 07/03/91	

Workorder #	Sample I.D.	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9106244-01	HA-5-01	1	1.7
9106244-02	HA-5-02	1	1.7
9106244-04	HA-5-04	1	7.5
9106244-05	HA-5-05	1	9.2
GSBL070391	METHOD BLANK	1	ND

ND - Not detected at or above the practical quantitation limit for the method.

Reference - Methods for Chemical Analysis of Water and Wastes, 3rd edition, US EPA-600/4-79-020, March 1983.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS MATRIX SPIKE REPORT
 EPA METHOD 418.1
 ANAMETRIX, INC. (408) 432-8192

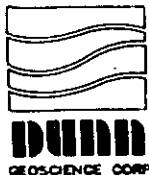
Sample I.D. : 02345-01983 HA-5-01	Anamatrix I.D. : 9106244
Matrix : SOIL	Analyst : APP
Date sampled : 06/20/91	Supervisor : SD
Date extracted: 07/03/91	Date Released : 07/05/91
Date analyzed : 07/03/91	

COMPOUND	SPIKE AMT. (mg/Kg)	MS (mg/Kg)	%REC MS	MSD (mg/Kg)	%REC MSD	%RPD	% REC LIMITS
Petroleum Hydrocarbon	33.4	45	130	45	130	0%	50-150%

* Quality control limits established by Anamatrix, Inc.

Dunn Geoscience Corp.
 12 Metro Park Road
 Albany, N.Y. 12205 (518) 458-1313

#11
 1/14
 1/10



Client Name: <u>AMERICAN NATIONAL CANCO.</u>	DGC Contact: <u>EMILY HILSON</u>
Project No.: <u>02345-01983</u>	Laboratory Contact: <u>ANIT KISANG</u>
Site Location: <u>CPKLINE, CALIFORNIA</u>	Lab Identification:
Sampler: <u>WALTER C. HOWARD</u>	Date Report Required:

Sample Identification	Date	Time	Sample Matrix	Collection Vessel	Lowering Device	# Sample Containers	Preserv.	Comp. or Grab	Comment
HA-5-01	6/29/91	0835	SOIL	GLASS TUBE	—	1	N	Grab	VOC(8240) TPH (418.1)
HA-5-02	"	1030	"	"	—	1	N	"	"
HA-5-03	"	1300	SOIL*	"	—	1	N	"	" CONTAINER DOWN PRIOR TO OPENING
HA-5-04	"	1350	SOIL	"	—	1	N	"	VOC(8240) TPH (418.1)
HA-5-05	"	1415	"	"	—	1	N	"	"
TRIP BLANK	"	—	WATER	—	—	2	N	—	VOC(8240) TPH(418.1)
									NOTE: See enclosed memo for analysis instructions. ALSO, PLEASE DO MATRIX SPIKE and matrix spike duplicate on this sample batch.

Name	Affiliation	Date	Time	Name	Date	Time
Relinquished by: <u>Walter C. Howard</u>	<u>DUNN</u>	<u>6-20-91</u>	<u>1445</u>	Received by Laboratory: <u>[Signature]</u>	<u>06/29/1991</u>	<u>1620</u>
Received by: <u>[Signature]</u>		<u>6-20-91</u>	<u>1445</u>	Samples Intact & Properly Preserved: <u>(Yes)</u> or No		
Relinquished by: <u>[Signature]</u>		<u>6-20-91</u>	<u>1620</u>	Laboratory Comments: <u>No head space, cold, proper containers</u>		
Received by:						