NOWICKI & ASSOCIATES
ENERGY & ENVIRONMENTAL MANAGEMENT

April 19, 1996

Ms. Gail Coburn
Dept. of Ecology
Toxics Clean-up Program
3190 160th Ave SE
Bellevue, WA 98008-5452

RE: Soil/Groundwater Investigation
Tabit Square
7633-7695 Southeast 27th Street
Mercer Island, Washington

Dear Ms. Coburn:

Enclosed is a copy of our Tabit Square report for your review at the request of Dave Nazy, with whom we have previously discussed the site. As mentioned in the report, laboratory results of soil samples indicate no detected tetrachloroethene PERC in the soil below the depth of approximately 16.5' below ground surface (bgs).

However, a groundwater sample collected at the same location as soil sampling, was detected with PERC at 1,000 ppb. Groundwater table encountered during soil drilling was at about 28' bgs and is now at approximately 9.5' bgs. There is no apparent explanation for the highly elevated water table or the source of impact to groundwater.

Thank you for your assistance. Please give Ron Nowicki or me a call if you have any questions.

Sincerely,

Michael Lam
Environmental Engineer
Enclosure
cc: Charles Tabit
Davis Hall, Attorney

33516 9th Avenue South
Building #6
Federal Way, Washington 98003
Phone: (206) 927-5233
FAX: (206) 924-0323

NOWICKI & ASSOCIATES
ENERGY & ENVIRONMENTAL MANAGEMENT

April 17, 1996

Mr. Charles Tabit
4500 88th Street SE
Mercer Island, WA 98040

RE: Soil Boring/Groundwater Monitoring Well Installation
Tabit Square
7633-7695 Southeast 27th Street
Mercer Island, Washington

Dear Mr. Tabit:

In response to your request, Nowicki & Associates, Inc. (NAI) has conducted the soil and groundwater testing to determine the vertical extent of soil contamination with tetrachloroethene at the above referenced site. This report conforms to the scope of work of the written contract agreement letter dated March 15, 1996, and is intended for the sole use of the original client. No distribution of this report is authorized without the express written consent of Nowicki & Associates, Inc.

Summary:

NAI was on-site with Holt Drilling on March 20, 1996 to place a soil exploration boring which was converted to a monitoring well, MW1. MW1 is located west of the on-site dry cleaner, at a location where tetrachloroethene (PERC) was previously found in the soil at levels above Washington Model Toxics Control Act Method A clean-up level of 0.5 part per million (ppm) or mg/Kg.

Laboratory results from MW1 indicated no PERC above the method detection level in the soil samples collected at 16.5', 21.5', 26.5', and 31.5' bgs. Groundwater was encountered at approximately 28' bgs during soil drilling. Well development was conducted on March 28 and the water table in the well was found to have risen to a depth of 9.5' bgs. Laboratory results of collected groundwater indicate PERC at 1,000 parts per billion (ppb) or ug/L. Dichloroethene and trichloroethene were also detected at trace level at 4 ppb.

Site Background:

The site is located at Tabit Square which consists of several local merchants including Clampitt's Dry Cleaners. Subsurface soil investigation conducted previously by EMG indicated the presence of PERC in the soil at the MW1 location, at the back of the dry cleaning facility. Specifically, PERC was detected 3.2 ppm in the sample collected between 9'-11' bgs, and 2.6 ppm between 14'-16' bgs. PERC was also found at levels below 0.5 ppm in soil borings inside the dry cleaner at 3' bgs. No soil contamination was detected in the soil boring east of the dry cleaner.

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Field Methods and Findings:

Soil drilling was completed using the hollow stem auger method and soil samples were collected with a split spoon. Three split spoons were used and decontamination occurred between each sampling. Soil samples were collected at every five foot intervals for field screening with a volatile gas indicator and visual inspection. Results of field screening indicated elevated levels of volatiles above the background level for soil samples at 5', 10', and 15' bgs. Samples at lower depths were detected with only a trace level of volatiles. Samples for laboratory analysis were collected at the end of the split spoon which is 18" in length. Thus, for a sampling depth of 15', the collected sample is actually from a depth of 16.5'. Laboratory sample collection and storage were in accordance with appropriate DOE recommended protocols. All collected samples were stored in a cooler until delivery to the laboratory.

Well development was conducted with a disposable plastic bailer. Approximately 10 gallons, or three well casing volumes, of water were purged prior to sampling. Purged water was stored in a metal drum at the site. The water table prior to well purging was at approximately 9.5' bgs, considerably higher than the encountered depth during soil drilling.

Soil at the site consists of light brown/yellow silty clay below the top gravelly layer to about 10' bgs. Soil at 10' bgs was moist to wet, indicating the presence of shallow perched water. At 15' bgs, the soil was dry silty clay. Actual groundwater was encountered at approximately 28' bgs. Soil boring logs are included in Appendix B.

Laboratory Methods and Results:

Soil samples collected at 15', 20', 25', and 30' bgs were lab-analyzed for volatile organic compounds (VOCs) using EPA Method 8040. A leachate procedure via EPA Method 1312 was also performed on the 15' and 25' samples. The water sample was also lab-analyzed for VOCs using EPA Method 8240.

Laboratory analyses were performed by Analytical Technologies, Inc. (ATI) of Renton. Sample analysis was in accordance with EPA methodology. Laboratory quality control parameters were within control limits. Laboratory reports are included in Appendix C. Analytical results are summarized in Table 1.

Table 1. Summary of Analytical Results.

Sample ID	Dichloroethene ppm (mg/Kg)	Trichloroethene ppm (mg/Kg)	Tetrachloroethene (PERC) ppm (mg/Kg)
SB1-15'-16.5'	nd <0.010	nd <0.010	nd <0.010
SB1-20'-21.5'	nd <0.063	nd <0.063	nd <0.063
SB1-25'-26.5'	nd <0.010	nd <0.010	nd <0.010
SB1-30'-31.5'	nd <0.063	nd <0.063	nd <0.063
W1 (Water)	4 ppb (ug/L)	4 ppb (ug/L)	1,000 ppb (ug/L)
Detection Method Blank	0.001 (soil) 1 ppb (water)	0.001 (soil) 1 ppb (water)	0.001 (soil) 1 ppb (water)
MTCA A	-	0.5 (soil) 5.0 ppb (water)	0.5 (soil) 5.0 ppb (water)

Conclusions and Recommendation:

Based on the laboratory analytical results of soil from the boring immediately west of Clampitt's Dry Cleaners, PERC impacted soil is localized within the top approximate 16.5' bgs. However, the groundwater sampled at the same location is impacted with PERC at 1,000 ppb, above MTCA Method A clean-up level of 5.0 ppb.

The existing water table in MW1 (approx. 9.5' bgs) is inconsistent with that encountered during soil drilling (28' bgs, which is believed typical in this area). No rationale can be made for the highly elevated water table based on the limited work completed at the site. We recommend that the Department of Ecology be notified of the results from this investigation. We should also arrange a meeting with DOE's Toxics Clean-up Program to discuss our findings and to determine the possibility of abandoning the existing well by plugging it with bentonite and leaving the site as is.

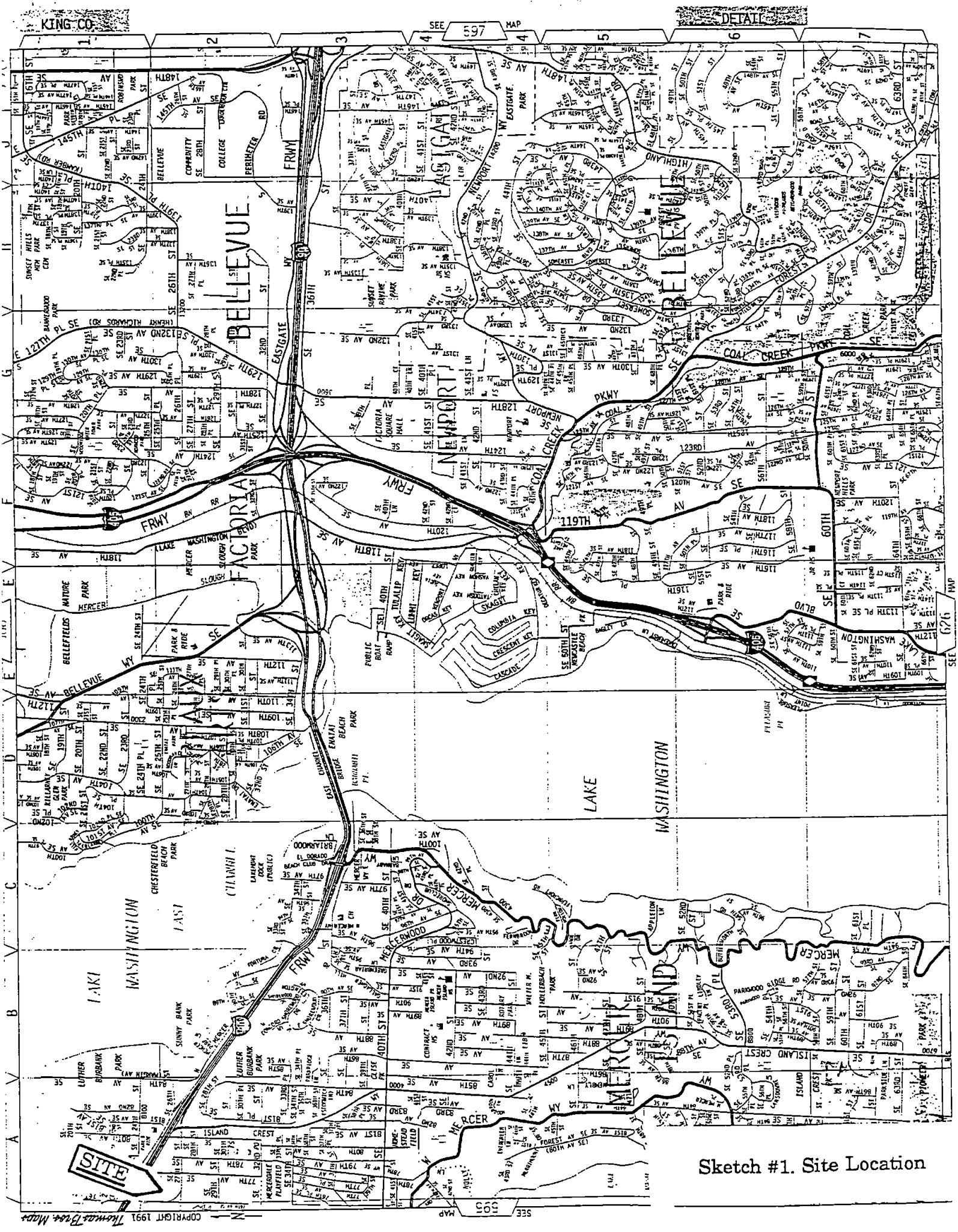
Sincerely,

Michael Lam
Environmental Engineer
Registered Site Assessor

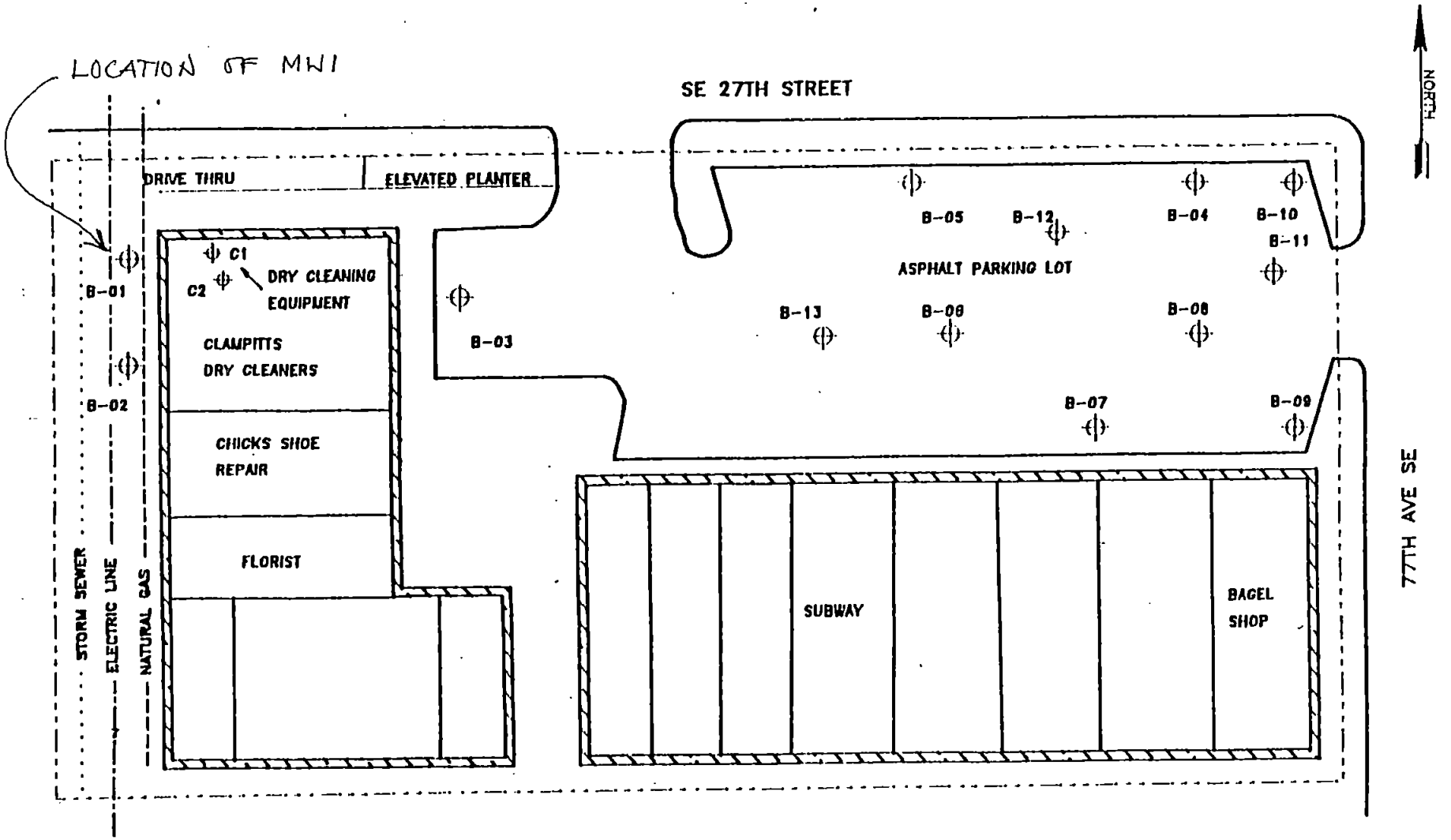
cc: David Hall
Attachments:
Appendix A. Site Map and EMG Boring Location Sketch
Appendix B. Soil Boring/Well Log
Appendix C. ATI Laboratory Reports

Appendix A.

Site Map
EMG Boring Location Sketch



Sketch #1. Site Location



FROM EMG REPORT SEPT. 5, 1995

EMG	Title: APPENDIX A – SOIL BORING LOCATION MAP TABIT SQUARE	Date: 08/28/95 Drawn: HJF/JTS	Scale: Job No.: 13740026.95P

Appendix B.

Soil Boring/Well Drilling Log

NOWICKI & ASSOCIATES
ENERGY & ENVIRONMENTAL MANAGEMENT

33516 9th Avenue South
Building #6
Federal Way, Washington 98003
Phone: (206) 927-5233
FAX: (206) 924-0323

Boring SB1 Date 3/20/96 Sheet 1 of 2
Job TABIT Job No. _____
Logged by ML Weather CLEAR
Drilled by/Method HSA
Sampling Method Split spoon

Water Content	Color	Size % G (Max.)	Size % S (Range)	Size % F	Sample Number	Depth	Sample Recovery	Penetration Resistance	REMARKS: Drill action, sample procedures, water conditions, heave, soil variations.	SUMMARY LOG
						0			Asphalt over gravel	
						1			Yellow / light brown silty clay	
						2				
						3				
						4				
						5		11	Light brown clay - moist	
						6		6		
								10		
						7				
						8				
						9				
						10			Encounter shallow perched water at ~10'	
								30		
						11		15	Dense gray sandy clay - moist	
								25		
						12				
						13				
						14				
						15				
						16		24	Dry gray silty clay	
								24		
						17		30		
						18				
						19				
						20				
						21				
						22				
						23				
						24				

NOWICKI & ASSOCIATES
ENERGY & ENVIRONMENTAL MANAGEMENT

33516 9th Avenue South
Building #6
Federal Way, Washington 98003
Phone: (206) 927-5233
FAX: (206) 924-0323

Boring 8B1 Date 3/20/96 Sheet 2 of 2
Job TABIT Job No. 1
Logged by ML Weather CLEAR
Drilled by/Method HSA
Sampling Method Split Spoon

Water Content	Color	Size % G (Max.)	Size % S (Range)	Size % F	Sample Number	Depth	Sample Recovery	Penetration Resistance	REMARKS: Drill action, sample procedures, water conditions, heave, soil variations.	SUMMARY LOG
						0		21	Grey, dry silty clay	
						1		27		
								30		
						2				
						3				
						4				
						5		15	Grey silty clay - moist	
								27		
						6		25		
						7				
						8			▽ Groundwater table at approx. 28'	
						9				
						10				
								12	Grey silty clay - damp/moist.	
						11		20		
								29		
						12				
						13				
						14				
						15				
						16				
						17				
						18				
						19				
						20				

Appendix C.

ATI Laboratory Reports

Analytical Technologies, Inc.
560 Naches Avenue, S.W., Suite 101, Renton, WA 98055 (206) 228-8335
John M. Buerger, Laboratory Manager

ATI I.D. # 603065

April 2, 1996

Nowicki & Associates
33516 9th Avenue South
Building #6
Federal Way WA 98003

Attention : Michael Lam

Project Number : -

Project Name : Tabit Square

Dear Mr. Lam:

On March 20, 1996, Analytical Technologies, Inc. (ATI), received four samples for analysis. The samples were analyzed with EPA methodology or equivalent methods as specified in the attached analytical schedule. The results, sample cross reference, and quality control data are enclosed.

Sincerely,

Elaine M. Walker

Elaine M. Walker
Project Manager

EMW/hal/mrj

Enclosure

Analytical Technologies, Inc.

ATI I.D. # 603065

SAMPLE CROSS REFERENCE SHEET

CLIENT : NOWICKI & ASSOCIATES
PROJECT # : -
PROJECT NAME : TABIT SQUARE

ATI #	CLIENT DESCRIPTION	DATE SAMPLED	MATRIX
603065-1	SB1-15'	03/20/96	SOIL
603065-2	SB1-20'	03/20/96	SOIL
603065-3	SB1-25'	03/20/96	SOIL
603065-4	SB1-30'	03/20/96	SOIL

----- TOTALS -----

MATRIX	# SAMPLES
SOIL	4

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of the report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

Analytical Technologies, Inc.

ATI I.D. # 603065

ANALYTICAL SCHEDULE

CLIENT : NOWICKI & ASSOCIATES
PROJECT # : -
PROJECT NAME : TABIT SQUARE

ANALYSIS	TECHNIQUE	REFERENCE	LAB
TCLP PREPARATION	-	EPA 1312	R
VOLATILE ORGANIC COMPOUNDS	GCMS	EPA 8240	R
MOISTURE	GRAVIMETRIC	CLP SOW ILM01.0	R

R = ATI - Renton
ANC = ATI - Anchorage
SUB = Subcontract

Analytical Technologies, Inc.

ATI I.D. # 603065

VOLATILE ORGANICS ANALYSIS
DATA SUMMARY

CLIENT	: NOWICKI & ASSOCIATES	DATE SAMPLED	: N/A
PROJECT #	: -	DATE RECEIVED	: N/A
PROJECT NAME	: TABIT SQUARE	DATE LEACHED	: N/A
CLIENT I.D.	: METHOD BLANK	DATE EXTRACTED	: N/A
SAMPLE MATRIX	: WATER	DATE ANALYZED	: 03/22/96
EPA METHOD	: 8240-ZHE	UNITS	: mg/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
BENZENE	<0.0010
2-BUTANONE (MEK)	<0.010
CARBON TETRACHLORIDE	<0.0010
CHLOROBENZENE	<0.0010
CHLOROFORM	<0.0010
1,2-DICHLOROETHANE	<0.0010
1,1-DICHLOROETHENE	<0.0010
TETRACHLOROETHENE	<0.0010
TRICHLOROETHENE	<0.0010
VINYL CHLORIDE	<0.0010

SURROGATE PERCENT RECOVERY		LIMITS
1,2-DICHLOROETHANE-D4	102	85 - 119
TOLUENE-D8	101	79 - 120
BROMOFLUOROBENZENE	95	78 - 122

Analytical Technologies, Inc.

ATI I.D. # 603065

VOLATILE ORGANICS ANALYSIS
DATA SUMMARY

CLIENT	: NOWICKI & ASSOCIATES	DATE SAMPLED	: N/A
PROJECT #	: -	DATE RECEIVED	: N/A
PROJECT NAME	: TABIT SQUARE	DATE LEACHED	: 03/21/96
CLIENT I.D.	: TCLP BLANK	DATE EXTRACTED	: N/A
SAMPLE MATRIX	: LEACHATE	DATE ANALYZED	: 03/22/96
EPA METHOD	: 8240-ZHE	UNITS	: mg/L
		DILUTION FACTOR	: 10

COMPOUNDS	RESULTS
BENZENE	<0.010
2-BUTANONE (MEK)	<0.10
CARBON TETRACHLORIDE	<0.010
CHLOROBENZENE	<0.010
CHLOROFORM	<0.010
1,2-DICHLOROETHANE	<0.010
1,1-DICHLOROETHENE	<0.010
TETRACHLOROETHENE	<0.010
TRICHLOROETHENE	<0.010
VINYL CHLORIDE	<0.010

SURROGATE PERCENT RECOVERY		LIMITS
1,2-DICHLOROETHANE-D4	102	85 - 119
TOLUENE-D8	100	79 - 120
BROMOFLUOROBENZENE	95	78 - 122

Analytical Technologies, Inc.

ATI I.D. # 603065-1

VOLATILE ORGANICS ANALYSIS
DATA SUMMARY

CLIENT	: NOWICKI & ASSOCIATES	DATE SAMPLED	: 03/20/96
PROJECT #	: -	DATE RECEIVED	: 03/20/96
PROJECT NAME	: TABIT SQUARE	DATE LEACHED	: 03/21/96
CLIENT I.D.	: SB1-15'	DATE EXTRACTED	: N/A
SAMPLE MATRIX	: LEACHTED	DATE ANALYZED	: 03/22/96
EPA METHOD	: 8240-ZHE	UNITS	: mg/L
		DILUTION FACTOR	: 10

COMPOUNDS	RESULTS
BENZENE	<0.010
2-BUTANONE (MEK)	<0.10
CARBON TETRACHLORIDE	<0.010
CHLOROBENZENE	<0.010
CHLOROFORM	<0.010
1,2-DICHLOROETHANE	<0.010
1,1-DICHLOROETHENE	<0.010
TETRACHLOROETHENE	<0.010
TRICHLOROETHENE	<0.010
VINYL CHLORIDE	<0.010

SURROGATE PERCENT RECOVERY		LIMITS
1,2-DICHLOROETHANE-D4	102	85 - 119
TOLUENE-D8	99	79 - 120
BROMOFLUOROBENZENE	94	78 - 122

AnalyticalTechnologies,Inc.

ATI I.D. # 603065-3

VOLATILE ORGANICS ANALYSIS
DATA SUMMARY

CLIENT	: NOWICKI & ASSOCIATES	DATE SAMPLED	: 03/20/96
PROJECT #	: -	DATE RECEIVED	: 03/20/96
PROJECT NAME	: TABIT SQUARE	DATE LEACHED	: 03/21/96
CLIENT I.D.	: SB1-25'	DATE EXTRACTED	: N/A
SAMPLE MATRIX	: LEACHATE	DATE ANALYZED	: 03/22/96
EPA METHOD	: 8240-ZHE	UNITS	: mg/L
		DILUTION FACTOR	: 10

COMPOUNDS	RESULTS
BENZENE	<0.010
2-BUTANONE (MEK)	<0.10
CARBON TETRACHLORIDE	<0.010
CHLOROBENZENE	<0.010
CHLOROFORM	<0.010
1,2-DICHLOROETHANE	<0.010
1,1-DICHLOROETHENE	<0.010
TETRACHLOROETHENE	<0.010
TRICHLOROETHENE	<0.010
VINYL CHLORIDE	<0.010

SURROGATE PERCENT RECOVERY		LIMITS
1,2-DICHLOROETHANE-D4	106	85 - 119
TOLUENE-D8	99	79 - 120
BROMOFLUOROBENZENE	97	78 - 122

Analytical Technologies, Inc.

ATI I.D. # 603065

VOLATILE ORGANICS ANALYSIS
QUALITY CONTROL DATA

CLIENT	: NOWICKI & ASSOCIATES	SAMPLE I.D. #	: BLANK
PROJECT #	: -	DATE LEACHED	: N/A
PROJECT NAME	: TABIT SQUARE	DATE EXTRACTED	: N/A
SAMPLE MATRIX	: WATER	DATE ANALYZED	: 03/22/96
EPA METHOD	: 8240-ZHE	UNITS	: mg/L

COMPOUNDS	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPD
BENZENE	<0.00100	0.0500	0.0500	100	N/A	N/A	N/A
2-BUTANONE (MEK)	<0.0100	0.0500	0.0487	97	N/A	N/A	N/A
CARBON TETRACHLORIDE	<0.00100	0.0500	0.0512	102	N/A	N/A	N/A
CHLOROBENZENE	<0.00100	0.0500	0.0499	100	N/A	N/A	N/A
CHLOROFORM	<0.00100	0.0500	0.0525	105	N/A	N/A	N/A
1,2-DICHLOROETHANE	<0.00100	0.0500	0.0520	104	N/A	N/A	N/A
1,1-DICHLOROETHENE	<0.00100	0.0500	0.0535	107	N/A	N/A	N/A
TETRACHLOROETHENE	<0.00100	0.0500	0.0496	99	N/A	N/A	N/A
TRICHLOROETHENE	<0.00100	0.0500	0.0479	96	N/A	N/A	N/A
VINYL CHLORIDE	<0.00100	0.0500	0.0503	101	N/A	N/A	N/A

CONTROL LIMITS	% REC.	RPD
BENZENE	38 - 121	20
2-BUTANONE (MEK)	41 - 119	20
CARBON TETRACHLORIDE	43 - 120	20
CHLOROBENZENE	45 - 128	20
CHLOROFORM	40 - 118	20
1,2-DICHLOROETHANE	41 - 120	20
1,1-DICHLOROETHENE	41 - 121	20
TETRACHLOROETHENE	44 - 125	20
TRICHLOROETHENE	42 - 123	20
VINYL CHLORIDE	42 - 123	20

SURROGATE RECOVERIES	SPIKE	DUP. SPIKE	LIMITS
1,2-DICHLOROETHANE-D4	108	N/A	85 - 119
TOLUENE-D8	101	N/A	79 - 120
BROMOFLUOROBENZENE	97	N/A	78 - 122

Analytical Technologies, Inc.

ATI I.D. # 603065

VOLATILE ORGANICS ANALYSIS
QUALITY CONTROL DATA

CLIENT	: NOWICKI & ASSOCIATES	SAMPLE I.D. #	: 603065-1
PROJECT #	: -	DATE LEACHED	: 03/21/96
PROJECT NAME	: TABIT SQUARE	DATE EXTRACTED	: N/A
SAMPLE MATRIX	: LEACHATE	DATE ANALYZED	: 03/22/96
EPA METHOD	: 8240-ZHE	UNITS	: mg/L

COMPOUNDS	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPD
BENZENE	<0.0100	0.500	0.419	84	0.459	92	9
2-BUTANONE (MEK)	<0.100	0.500	0.352	70	0.425	85	19
CARBON TETRACHLORIDE	<0.0100	0.500	0.414	83	0.469	94	12
CHLOROBENZENE	<0.0100	0.500	0.408	82	0.452	90	10
CHLOROFORM	<0.0100	0.500	0.446	89	0.500	100	11
1,2-DICHLOROETHANE	<0.0100	0.500	0.425	85	0.485	97	13
1,1-DICHLOROETHENE	<0.0100	0.500	0.445	89	0.495	99	11
TETRACHLOROETHENE	<0.0100	0.500	0.408	82	0.452	90	10
TRICHLOROETHENE	<0.0100	0.500	0.392	78	0.438	88	11
VINYL CHLORIDE	<0.0100	0.500	0.428	86	0.468	94	9

CONTROL LIMITS	% REC.	RPD
BENZENE	42 - 118	20
2-BUTANONE (MEK)	41 - 119	20
CARBON TETRACHLORIDE	43 - 118	20
CHLOROBENZENE	43 - 120	20
CHLOROFORM	41 - 118	20
1,2-DICHLOROETHANE	40 - 119	20
1,1-DICHLOROETHENE	39 - 123	20
TETRACHLOROETHENE	42 - 119	20
TRICHLOROETHENE	43 - 119	20
VINYL CHLORIDE	37 - 128	20

SURROGATE RECOVERIES	SPIKE	DUP. SPIKE	LIMITS
1,2-DICHLOROETHANE-D4	103	108	85 - 119
TOLUENE-D8	99	97	79 - 120
BROMOFLUOROBENZENE	96	96	78 - 122

Analytical Technologies, Inc.

ATI I.D. # 603065

VOLATILE ORGANICS ANALYSIS
DATA SUMMARY

CLIENT	: NOWICKI & ASSOCIATES	DATE SAMPLED	: N/A
PROJECT #	: -	DATE RECEIVED	: N/A
PROJECT NAME	: TABIT SQUARE	DATE EXTRACTED	: 03/22/96
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 03/22/96
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8240	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUNDS	RESULTS
ACETONE	<0.50
BENZENE	<0.050
BROMODICHLOROMETHANE	<0.050
BROMOFORM	<0.25
BROMOMETHANE	<0.50
2-BUTANONE (MEK)	<0.50
CARBON DISULFIDE	<0.050
CARBON TETRACHLORIDE	<0.050
CHLOROBENZENE	<0.050
CHLOROETHANE	<0.050
CHLOROFORM	<0.050
CHLOROMETHANE	<0.50
DIBROMOCHLOROMETHANE	<0.050
1,1-DICHLOROETHANE	<0.050
1,2-DICHLOROETHANE	<0.050
1,1-DICHLOROETHENE	<0.050
1,2-DICHLOROETHENE (TOTAL)	<0.050
1,2-DICHLOROPROPANE	<0.050
CIS-1,3-DICHLOROPROPENE	<0.050
TRANS-1,3-DICHLOROPROPENE	<0.050
ETHYLBENZENE	<0.050
2-HEXANONE (MBK)	<0.50
4-METHYL-2-PENTANONE (MIBK)	<0.50
METHYLENE CHLORIDE	<0.25
STYRENE	<0.050
1,1,2,2-TETRACHLOROETHANE	<0.050
TETRACHLOROETHENE	<0.050
TOLUENE	<0.050
1,1,1-TRICHLOROETHANE	<0.050
1,1,2-TRICHLOROETHANE	<0.050
TRICHLOROETHENE	<0.050
VINYL ACETATE	<0.50
VINYL CHLORIDE	<0.050
TOTAL XYLENES	<0.050

SURROGATE PERCENT RECOVERY		LIMITS
1,2-DICHLOROETHANE-D4	99	53 - 140
TOLUENE-D8	92	46 - 141
BROMOFLUOROBENZENE	91	41 - 145

Analytical Technologies, Inc.

ATI I.D. # 603065-2

VOLATILE ORGANICS ANALYSIS
DATA SUMMARY

CLIENT	: NOWICKI & ASSOCIATES	DATE SAMPLED	: 03/20/96
PROJECT #	: -	DATE RECEIVED	: 03/20/96
PROJECT NAME	: TABIT SQUARE	DATE EXTRACTED	: 03/22/96
CLIENT I.D.	: SB1-20'	DATE ANALYZED	: 03/22/96
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8240	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUNDS	RESULTS
ACETONE	<0.63
BENZENE	<0.063
BROMODICHLOROMETHANE	<0.063
BROMOFORM	<0.32
BROMOMETHANE	<0.63
2-BUTANONE (MEK)	<0.63
CARBON DISULFIDE	<0.063
CARBON TETRACHLORIDE	<0.063
CHLOROBENZENE	<0.063
CHLOROETHANE	<0.063
CHLOROFORM	<0.063
CHLOROMETHANE	<0.63
DIBROMOCHLOROMETHANE	<0.063
1,1-DICHLOROETHANE	<0.063
1,2-DICHLOROETHANE	<0.063
1,1-DICHLOROETHENE	<0.063
1,2-DICHLOROETHENE (TOTAL)	<0.063
1,2-DICHLOROPROPANE	<0.063
CIS-1,3-DICHLOROPROPENE	<0.063
TRANS-1,3-DICHLOROPROPENE	<0.063
ETHYLBENZENE	<0.063
2-HEXANONE (MBK)	<0.63
4-METHYL-2-PENTANONE (MIBK)	<0.63
METHYLENE CHLORIDE	<0.32
STYRENE	<0.063
1,1,2,2-TETRACHLOROETHANE	<0.063
TETRACHLOROETHENE	<0.063
TOLUENE	<0.063
1,1,1-TRICHLOROETHANE	<0.063
1,1,2-TRICHLOROETHANE	<0.063
TRICHLOROETHENE	<0.063
VINYL ACETATE	<0.63
VINYL CHLORIDE	<0.063
TOTAL XYLENES	<0.063

SURROGATE PERCENT RECOVERY		LIMITS
1,2-DICHLOROETHANE-D4	82	53 - 140
TOLUENE-D8	77	46 - 141
BROMOFLUOROBENZENE	73	41 - 145

Analytical Technologies, Inc.

ATI I.D. # 603065-4

VOLATILE ORGANICS ANALYSIS
DATA SUMMARY

CLIENT	: NOWICKI & ASSOCIATES	DATE SAMPLED	: 03/20/96
PROJECT #	: -	DATE RECEIVED	: 03/20/96
PROJECT NAME	: TABIT SQUARE	DATE EXTRACTED	: 03/22/96
CLIENT I.D.	: SB1-30'	DATE ANALYZED	: 03/22/96
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8240	DILUTION FACTOR	: 1

RESULTS ARE CORRECTED FOR MOISTURE CONTENT

COMPOUNDS	RESULTS
ACETONE	<0.63
BENZENE	<0.063
BROMODICHLOROMETHANE	<0.063
BROMOFORM	<0.32
BROMOMETHANE	<0.63
2-BUTANONE (MEK)	<0.63
CARBON DISULFIDE	<0.063
CARBON TETRACHLORIDE	<0.063
CHLOROBENZENE	<0.063
CHLOROETHANE	<0.063
CHLOROFORM	<0.063
CHLOROMETHANE	<0.63
DIBROMOCHLOROMETHANE	<0.063
1,1-DICHLOROETHANE	<0.063
1,2-DICHLOROETHANE	<0.063
1,1-DICHLOROETHENE	<0.063
1,2-DICHLOROETHENE (TOTAL)	<0.063
1,2-DICHLOROPROPANE	<0.063
CIS-1,3-DICHLOROPROPENE	<0.063
TRANS-1,3-DICHLOROPROPENE	<0.063
ETHYLBENZENE	<0.063
2-HEXANONE (MBK)	<0.63
4-METHYL-2-PENTANONE (MIBK)	<0.63
METHYLENE CHLORIDE	<0.32
STYRENE	<0.063
1,1,2,2-TETRACHLOROETHANE	<0.063
TETRACHLOROETHENE	<0.063
TOLUENE	<0.063
1,1,1-TRICHLOROETHANE	<0.063
1,1,2-TRICHLOROETHANE	<0.063
TRICHLOROETHENE	<0.063
VINYL ACETATE	<0.63
VINYL CHLORIDE	<0.063
TOTAL XYLENES	<0.063

SURROGATE PERCENT RECOVERY		LIMITS
1,2-DICHLOROETHANE-D4	90	53 - 140
TOLUENE-D8	87	46 - 141
BROMOFLUOROBENZENE	83	41 - 145

Analytical Technologies, Inc.

ATI I.D. # 603065

VOLATILE ORGANICS ANALYSIS
QUALITY CONTROL DATA

CLIENT : NOWICKI & ASSOCIATES
PROJECT # : -
PROJECT NAME : TABIT SQUARE
SAMPLE MATRIX : SOIL
EPA METHOD : 8240

SAMPLE I.D. # : BLANK
DATE EXTRACTED : 03/22/96
DATE ANALYZED : 03/22/96
UNITS : mg/Kg

COMPOUNDS	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPD
BENZENE	<0.0500	2.50	2.43	97	N/A	N/A	N/A
CHLOROBENZENE	<0.0500	2.50	2.46	98	N/A	N/A	N/A
1,1-DICHLOROETHENE	<0.0500	2.50	2.33	93	N/A	N/A	N/A
TOLUENE	<0.0500	2.50	2.47	99	N/A	N/A	N/A
TRICHLOROETHENE	<0.0500	2.50	2.31	92	N/A	N/A	N/A

CONTROL LIMITS	% REC.	RPD
BENZENE	85 - 128	20
CHLOROBENZENE	84 - 129	20
1,1-DICHLOROETHENE	59 - 141	20
TOLUENE	82 - 129	20
TRICHLOROETHENE	81 - 126	20

SURROGATE RECOVERIES	SPIKE	DUP. SPIKE	LIMITS
1,2-DICHLOROETHANE-D4	102	N/A	53 - 140
TOLUENE-D8	93	N/A	46 - 141
BROMOFLUOROBENZENE	92	N/A	41 - 145

AnalyticalTechnologies,Inc.

ATI I.D. # 603065

VOLATILE ORGANICS ANALYSIS
QUALITY CONTROL DATA

CLIENT	: NOWICKI & ASSOCIATES	SAMPLE I.D. #	: 603065-2
PROJECT #	: -	DATE EXTRACTED	: 03/22/96
PROJECT NAME	: TABIT SQUARE	DATE ANALYZED	: 03/22/96
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8240		

COMPOUNDS	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPD
BENZENE	<0.0500	2.50	2.05	82	1.98	79	3
CHLOROBENZENE	<0.0500	2.50	2.04	82	2.08	83	2
1,1-DICHLOROETHENE	<0.0500	2.50	1.87	75	1.80	72	4
TOLUENE	<0.0500	2.50	2.07	83	2.01	80	3
TRICHLOROETHENE	<0.0500	2.50	1.93	77	1.96	78	2

CONTROL LIMITS	% REC.	RPD
BENZENE	75 - 129	20
CHLOROBENZENE	68 - 138	20
1,1-DICHLOROETHENE	50 - 138	20
TOLUENE	65 - 137	20
TRICHLOROETHENE	58 - 134	20

SURROGATE RECOVERIES	SPIKE	DUP. SPIKE	LIMITS
1,2-DICHLOROETHANE-D4	83	83	53 - 140
TOLUENE-D8	78	77	46 - 141
BROMOFLUOROBENZENE	77	77	41 - 145

Analytical Technologies, Inc.

ATI I.D. # 603065

GENERAL CHEMISTRY ANALYSIS

CLIENT : NOWICKI & ASSOCIATES MATRIX : SOIL
PROJECT # : -
PROJECT NAME : TABIT SQUARE

PARAMETER	DATE ANALYZED
MOISTURE	03/23/96

Analytical Technologies, Inc.

ATI I.D. # 603065

GENERAL CHEMISTRY ANALYSIS
DATA SUMMARY

CLIENT : NOWICKI & ASSOCIATES MATRIX : SOIL
PROJECT # : -
PROJECT NAME : TABIT SQUARE UNITS : %

ATI I.D. #	CLIENT I.D.	MOISTURE
603065-2	SB1-20'	21
603065-4	SB1-30'	21

Analytical Technologies, Inc.

ATI I.D. # 603065

GENERAL CHEMISTRY ANALYSIS
QUALITY CONTROL DATA

CLIENT : NOWICKI & ASSOCIATES MATRIX : SOIL
PROJECT # : -
PROJECT NAME : TABIT SQUARE UNITS : %

PARAMETER	ATI I.D.	SAMPLE RESULT	DUP RESULT	RPD	SPIKED RESULT	SPIKE ADDED	% REC
MOISTURE	603065-4	21	21	0	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{|(\text{Sample Result} - \text{Duplicate Result})|}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.
560 Naches Avenue, S.W., Suite 101, Renton, WA 98055 (206) 228-8335

DATE: 3/20/96 Page 1 of 1 ATI ACCESSION # 6003065

COMPANY: Nowicki & Assoc, Inc.
REPORT TO: Michael Lam
ADDRESS: 33516 9th Ave S, Bldg 6
Federal Way, WA 98003
PHONE: (206) 927-5233 FAX: (206) 924-0323
PROJECT MANAGER: Michael Lam
PROJECT NUMBER:
PROJECT NAME: TABIT SQUARE
ATI will DISPOSE / RETURN samples (circle one)

Sample ID	Date	Time	Matrix	LabID
SB1-15'	3/20	1147	Soil	1
SB1-20'	"	1159	"	2
SB1-25'	"	1215	"	3
SB1-30'	"	1245	"	4

	FUELS										ORGANIC COMPOUNDS										METALS			TCLP					OTHER				
	TPH-HCID WA/OR	BETX/TPH-G combo WA/OR	BETX (by 8020) WA/OR	TPH-G WA/OR	TPH-D WA/OR	8015 modified WA/OR	418.1	413.2	AK-GRO	AK-DRO	8240 GCMS Volatiles	8270 GCMS Semivolatiles	8080 Pesticides/PCBs	PCB only (by 8080) STD/lo level	8010 Halogenated VOCs	8020 Aromatic VOCs	8310 HPLC PAHs	8040 Phenols	8140 OP Pesticides	8150 OC Herbicides	Metals (Indicate * below)	Total Lead	Priority Pollutant Metals (13)	TAL Metals (23)	TCLP-Volatiles (ZHE-8240)	TCLP-Semivolatiles (8270)	TCLP-Pesticides (8080)	TCLP-Herbicides (8150)	TCLP-Metals (8 metals)	% Moisture (please indicate)	EPA 1312			Total # of Containers/sample
SB1-15'											✓																			✓			1
SB1-20'											✓																						1
SB1-25'											✓																			✓			1
SB1-30'											✓																						1

Turnaround Time		Sample Receipt	
STANDARD TAT		TOTAL # CONTAINERS RECVD	4
1 WEEK TAT		COC SEALS PRESENT?	N
4 WORK DAY TAT		COC SEALS INTACT?	N/A
3 WORK DAY TAT		RECEIVED COLD?	N
2 WORK DAY TAT	X	RECEIVED INTACT?	Y
24 HOUR TAT		RECEIVED VIA:	Hand

Special Instructions:

* Metals needed:

Relinquished By:	Relinquished By:	Relinquished By:
Michael Lam Date: 3/20/96	Date:	Date:
MICHAEL LAM Time: 4:36 PM	Time:	Time:
Received By:	**Received By:**	**Received By:**
Elaine Walker Date: 3/20/96	Date:	Date:
Elaine Walker Time: 4:36 PM	Time:	Time:

Analytical Technologies, Inc.
560 Naches Avenue, S.W., Suite 101, Renton, WA 98055 (206) 228-8335
John M. Buerger, Laboratory Manager

ATI I.D. # 603099

April 8, 1996

Nowicki & Associates
33516 9th Avenue South
Building #6
Federal Way WA 98003

Attention : Michael Lam

Project Number : -

Project Name : Tabit Square

Dear Mr. Lam:

On March 29, 1996, Analytical Technologies, Inc. (ATI), received one sample for analysis. The sample was analyzed with EPA methodology or equivalent methods as specified in the attached analytical schedule. The results, sample cross reference, and quality control data are enclosed.

Sincerely,

Elaine M. Walker

Elaine M. Walker
Project Manager

EMW/hal/elf

Enclosure

Analytical Technologies, Inc.

ATI I.D. # 603099

SAMPLE CROSS REFERENCE SHEET

CLIENT : NOWICKI & ASSOCIATES
PROJECT # : -
PROJECT NAME : TABIT SQUARE

ATI #	CLIENT DESCRIPTION	DATE SAMPLED	MATRIX
603099-1	W1	03/27/96	WATER

----- TOTALS -----

MATRIX	# SAMPLES
WATER	1

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of the report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

Analytical Technologies, Inc.

ATI I.D. # 603099

ANALYTICAL SCHEDULE

CLIENT : NOWICKI & ASSOCIATES
PROJECT # : -
PROJECT NAME : TABIT SQUARE

ANALYSIS	TECHNIQUE	REFERENCE	LAB
VOLATILE ORGANIC COMPOUNDS	GCMS	EPA 8240	R

R = ATI - Renton
ANC = ATI - Anchorage
SUB = Subcontract

Analytical Technologies, Inc.

ATI I.D. # 603099

VOLATILE ORGANICS ANALYSIS
DATA SUMMARY

CLIENT	: NOWICKI & ASSOCIATES	DATE SAMPLED	: N/A
PROJECT #	: -	DATE RECEIVED	: N/A
PROJECT NAME	: TABIT SQUARE	DATE EXTRACTED	: N/A
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 03/29/96
SAMPLE MATRIX	: WATER	UNITS	: ug/L
EPA METHOD	: 8240	DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
ACETONE	<10
BENZENE	<1
BROMODICHLOROMETHANE	<1
BROMOFORM	<5
BROMOMETHANE	<10
2-BUTANONE (MEK)	<10
CARBON DISULFIDE	<1
CARBON TETRACHLORIDE	<1
CHLOROBENZENE	<1
CHLOROETHANE	<1
CHLOROFORM	<1
CHLOROMETHANE	<10
DIBROMOCHLOROMETHANE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHANE	<1
1,1-DICHLOROETHENE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
1,2-DICHLOROPROPANE	<1
CIS-1,3-DICHLOROPROPENE	<1
TRANS-1,3-DICHLOROPROPENE	<1
ETHYLBENZENE	<1
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
METHYLENE CHLORIDE	<5
STYRENE	<1
1,1,2,2-TETRACHLOROETHANE	<1
TETRACHLOROETHENE	<1
TOLUENE	<1
1,1,1-TRICHLOROETHANE	<1
1,1,2-TRICHLOROETHANE	<1
TRICHLOROETHENE	<1
VINYL ACETATE	<10
VINYL CHLORIDE	<1
TOTAL XYLENES	<1

SURROGATE PERCENT RECOVERY		LIMITS
1,2-DICHLOROETHANE-D4	116	86 - 120
TOLUENE-D8	96	85 - 111
BROMOFLUOROBENZENE	98	81 - 114

Analytical**Technologies,**Inc.

ATI I.D. # 603099

VOLATILE ORGANICS ANALYSIS
DATA SUMMARY

CLIENT	: NOWICKI & ASSOCIATES	DATE SAMPLED	: N/A
PROJECT #	: -	DATE RECEIVED	: N/A
PROJECT NAME	: TABIT SQUARE	DATE EXTRACTED	: N/A
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 03/31/96
SAMPLE MATRIX	: WATER	UNITS	: ug/L
EPA METHOD	: 8240	DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
ACETONE	<10
BENZENE	<1
BROMODICHLOROMETHANE	<1
BROMOFORM	<5
BROMOMETHANE	<10
2-BUTANONE (MEK)	<10
CARBON DISULFIDE	<1
CARBON TETRACHLORIDE	<1
CHLOROBENZENE	<1
CHLOROETHANE	<1
CHLOROFORM	<1
CHLOROMETHANE	<10
DIBROMOCHLOROMETHANE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHANE	<1
1,1-DICHLOROETHENE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
1,2-DICHLOROPROPANE	<1
CIS-1,3-DICHLOROPROPENE	<1
TRANS-1,3-DICHLOROPROPENE	<1
ETHYLBENZENE	<1
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
METHYLENE CHLORIDE	<5
STYRENE	<1
1,1,2,2-TETRACHLOROETHANE	<1
TETRACHLOROETHENE	<1
TOLUENE	<1
1,1,1-TRICHLOROETHANE	<1
1,1,2-TRICHLOROETHANE	<1
TRICHLOROETHENE	<1
VINYL ACETATE	<10
VINYL CHLORIDE	<1
TOTAL XYLENES	<1

SURROGATE PERCENT RECOVERY		LIMITS
1,2-DICHLOROETHANE-D4	101	86 - 120
TOLUENE-D8	100	85 - 111
BROMOFLUOROBENZENE	96	81 - 114

Analytical Technologies, Inc.

ATI I.D. # 603099-1

VOLATILE ORGANICS ANALYSIS
DATA SUMMARY

CLIENT	: NOWICKI & ASSOCIATES	DATE SAMPLED	: 03/27/96
PROJECT #	: -	DATE RECEIVED	: 03/29/96
PROJECT NAME	: TABIT SQUARE	DATE EXTRACTED	: N/A
CLIENT I.D.	: W1	DATE ANALYZED	: 03/29/96
SAMPLE MATRIX	: WATER	UNITS	: ug/L
EPA METHOD	: 8240	DILUTION FACTOR	: 1

COMPOUNDS	RESULTS	
ACETONE	<10	
BENZENE	<1	
BROMODICHLOROMETHANE	<1	
BROMOFORM	<5	
BROMOMETHANE	<10	
2-BUTANONE (MEK)	<10	
CARBON DISULFIDE	<1	
CARBON TETRACHLORIDE	<1	
CHLOROBENZENE	<1	
CHLOROETHANE	<1	
CHLOROFORM	<1	
CHLOROMETHANE	<10	
DIBROMOCHLOROMETHANE	<1	
1,1-DICHLOROETHANE	<1	
1,2-DICHLOROETHANE	<1	
1,1-DICHLOROETHENE	<1	
1,2-DICHLOROETHENE (TOTAL)	4	
1,2-DICHLOROPROPANE	<1	
CIS-1,3-DICHLOROPROPENE	<1	
TRANS-1,3-DICHLOROPROPENE	<1	
ETHYLBENZENE	<1	
2-HEXANONE (MBK)	<10	
4-METHYL-2-PENTANONE (MIBK)	<10	
METHYLENE CHLORIDE	<5	
STYRENE	<1	
1,1,2,2-TETRACHLOROETHANE	<1	
TETRACHLOROETHENE	1000	D5
TOLUENE	<1	
1,1,1-TRICHLOROETHANE	<1	
1,1,2-TRICHLOROETHANE	<1	
TRICHLOROETHENE	4	
VINYL ACETATE	<10	
VINYL CHLORIDE	<1	
TOTAL XYLENES	<1	

SURROGATE PERCENT RECOVERY		LIMITS
1,2-DICHLOROETHANE-D4	102	86 - 120
TOLUENE-D8	96	85 - 111
BROMOFLUOROBENZENE	95	81 - 114

D5 = Value from a twenty fold diluted analysis.

Analytical**Technologies,**Inc.

ATI I.D. # 603099

VOLATILE ORGANICS ANALYSIS
QUALITY CONTROL DATA

CLIENT : NOWICKI & ASSOCIATES
PROJECT # : -
PROJECT NAME : TABIT SQUARE
SAMPLE MATRIX : WATER
EPA METHOD : 8240

SAMPLE I.D. # : BLANK
DATE EXTRACTED : N/A
DATE ANALYZED : 03/29/96
UNITS : ug/L

COMPOUNDS	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPD
BENZENE	<1.00	50.0	50.1	100	N/A	N/A	N/A
CHLOROBENZENE	<1.00	50.0	52.7	105	N/A	N/A	N/A
1,1-DICHLOROETHENE	<1.00	50.0	49.7	99	N/A	N/A	N/A
TOLUENE	<1.00	50.0	51.4	103	N/A	N/A	N/A
TRICHLOROETHENE	<1.00	50.0	50.9	102	N/A	N/A	N/A

CONTROL LIMITS	% REC.	RPD
BENZENE	83 - 134	20
CHLOROBENZENE	86 - 133	20
1,1-DICHLOROETHENE	73 - 135	20
TOLUENE	84 - 129	20
TRICHLOROETHENE	84 - 129	20

SURROGATE RECOVERIES	SPIKE	DUP. SPIKE	LIMITS
1,2-DICHLOROETHANE-D4	115	N/A	86 - 120
TOLUENE-D8	98	N/A	85 - 111
BROMOFLUOROBENZENE	100	N/A	81 - 114

Analytical**Technologies**, Inc.

ATI I.D. # 603099

VOLATILE ORGANICS ANALYSIS
QUALITY CONTROL DATA

CLIENT : NOWICKI & ASSOCIATES
PROJECT # : -
PROJECT NAME : TABIT SQUARE
SAMPLE MATRIX : WATER
EPA METHOD : 8240

SAMPLE I.D. # : BLANK
DATE EXTRACTED : N/A
DATE ANALYZED : 03/31/96
UNITS : ug/L

COMPOUNDS	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPD
BENZENE	<1.00	50.0	50.5	101	N/A	N/A	N/A
CHLOROBENZENE	<1.00	50.0	51.1	102	N/A	N/A	N/A
1,1-DICHLOROETHENE	<1.00	50.0	50.7	101	N/A	N/A	N/A
TOLUENE	<1.00	50.0	52.8	106	N/A	N/A	N/A
TRICHLOROETHENE	<1.00	50.0	48.6	97	N/A	N/A	N/A

CONTROL LIMITS	% REC.	RPD
BENZENE	83 - 134	20
CHLOROBENZENE	86 - 133	20
1,1-DICHLOROETHENE	73 - 135	20
TOLUENE	84 - 129	20
TRICHLOROETHENE	84 - 129	20

SURROGATE RECOVERIES	SPIKE	DUP. SPIKE	LIMITS
1,2-DICHLOROETHANE-D4	104	N/A	86 - 120
TOLUENE-D8	100	N/A	85 - 111
BROMOFLUOROBENZENE	96	N/A	81 - 114

Analytical**Technologies,**Inc.

ATI I.D. # 603099

VOLATILE ORGANICS ANALYSIS
QUALITY CONTROL DATA

CLIENT : NOWICKI & ASSOCIATES
PROJECT # : -
PROJECT NAME : TABIT SQUARE
SAMPLE MATRIX : WATER
EPA METHOD : 8240

SAMPLE I.D. # : 603099-1
DATE EXTRACTED : N/A
DATE ANALYZED : 03/29/96
UNITS : ug/L

COMPOUNDS	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPD
BENZENE	<1.00	50.0	50.9	102	51.1	102	0
CHLOROBENZENE	<1.00	50.0	50.1	100	50.9	102	2
1,1-DICHLOROETHENE	<1.00	50.0	51.3	103	49.1	98	4
TOLUENE	<1.00	50.0	50.5	101	50.5	101	0
TRICHLOROETHENE	4.22	50.0	53.5	99	52.7	97	2

CONTROL LIMITS	% REC.	RPD
BENZENE	74 - 139	20
CHLOROBENZENE	90 - 126	20
1,1-DICHLOROETHENE	74 - 128	20
TOLUENE	69 - 138	20
TRICHLOROETHENE	84 - 126	20

SURROGATE RECOVERIES	SPIKE	DUP. SPIKE	LIMITS
1,2-DICHLOROETHANE-D4	103	103	86 - 120
TOLUENE-D8	96	95	85 - 111
BROMOFLUOROBENZENE	95	97	81 - 114

AnalyticalTechnologies, Inc.
560 Naches Avenue, S.W., Suite 101, Renton, WA 98055 (206) 228-8335

DATE: 3/29 Page 1 of 1 ATI ACCESSION # 603099

COMPANY: Dames & Moore
REPORT TO: Michael Lam
ADDRESS:
PHONE: (206) 623-5733 FAX: (206) 741-0323
PROJECT MANAGER: ML
PROJECT NUMBER:
PROJECT NAME: TABIT SQUARE
ATI will (DISPOSE) / RETURN samples (circle one)

Sample ID	Date	Time	Matrix	LabID	FUELS: TPH-HCID WA/OR	BETX/TPH-G combo WA/OR	BETX (by 8020)	TPH-G WA/OR	TPH-D WA/OR	8015 modified	418.1 WA/OR	413.2	AK-GRO	AK-DRO	ORGANIC COMPOUNDS: 8240 GCMS Volatiles	8270 GCMS Semivolatiles	8080 Pesticides/PCBs	PCB only (by 8080) STD/lo level	8010 Halogenated VOCs	8020 Aromatic VOCs	8310 HPLC PAHs	8040 Phenols	8140 OP Pesticides	8150 OC Herbicides	METALS: Metals (Indicate below *)	Total Lead	Priority Pollutant Metals (13)	TAL Metals (23)	TCLP: TCLP-Volatiles (ZHE-8240)	TCLP-Semivolatiles (8270)	TCLP-Pesticides (8080)	TCLP-Herbicides (8150)	TCLP-Metals (8 metals)	OTHER: % Moisture (please indicate)					Total # of Containers/sample
W1	3/27		W	1											✓																							2

Turnaround Time		Sample Receipt	
STANDARD TAT		TOTAL # CONTAINERS RECVD	2
1 WEEK TAT		COC SEALS PRESENT?	N
4 WORK DAY TAT		COC SEALS INTACT?	NA
3 WORK DAY TAT		RECEIVED COLD?	Y
2 WORK DAY TAT		RECEIVED INTACT?	Y
24 HOUR TAT	X	RECEIVED VIA:	hand

Special Instructions: EDD 3/29/96

* Metals needed:

Relinquished By:	Relinquished By:	Relinquished By:
Michael Lam		
Date: 3/29/96	Date:	Date:
Time: 845 AM	Time:	Time:
Received By:	**Received By:**	**Received By:**
Date: 3-29-96	Date:	Date:
Time: STINAKENGEL 845	Time:	Time:
ATI-LA		