APPENDIX E

Laboratory Analytical Results

METALS -5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

Contract: R2318130

GW22A

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW18R

Matrix (soil/water):

WATER

Level (low/med):

LOW

Concentration Units: ug/L

Analyte	Control	Spiked Sample	_	Sample	_	Spike	_		
	Limit %R	Result (SSR)		Result (SR)	С	Added (SA)	%R	Q	M
Aluminum	<u> </u>	86882.60		86535.01		2000.0	17.4		P
Antimony	<u> </u>	553.97		79.40		500.0	94.9		P
Arsenic	Ι	81.59		44.31		40.0	93.2		P
Barium	I	2813.18		877.79		2000.0	96.8		P
Beryllium	1	48.09		5.00	ס	50.0	96.2		P
Cadmium	1	49.67		5.00	ם	50.0	99.3		P
Calcium		133279.58		131586.38		2000.0	84.7		P
Chromium		348.44		164.72		200.0	91.9		P
Cobalt		504.63		50.00	۵	500.0	100.9		P
Copper	1	648.39		410.91		250.0	95.0		P
Iron		116970.22		119664.02	Γ –	1000.0	-269.4		P
Lead	I	1689.84		1261.21	· _	500.0	85.7		P
Magnesium		198235.34		201105.41		2000.0	-143.5		P
Manganese	T	4637.11		4268.00		500.0	73.8		P
Nickel	T	561.03		115.05		500.0	89.2		P
Potassium	T	64017.94		42185.31		20000.0	109.2		P
Selenium	1	990.03		5.00	ס	1010.0	98.0		P
Silver		42.93		10.00	ם	50.0	85.9		P
Sodium		71299.05		49153.75		20000.0	110.7		P
Thallium		1944.86		10.00	ם	2000.0	97.2		P
Vanadium	l l	648.42		168.53		500.0	96.0		P
Zinc		1580.09		1167.18		500.0	82.6		P

Comments:	

-6-

DUPLICATES

SAMPLE NO.

GW22D		
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Contract: R2318130

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW18R

Matrix (soil/water): WATER

Level (low/med):

LOW

% Solids for Sample:

0.0

% Solids for Duplicate:

	Concen	tration Units (ug/L	or	mg/kg dry weight):	μG/	L _		
Analyte	Control Limit	Sample (S)	C	Duplicate (D)	С	RPD	Q	м
Aluminum		86535.0078		85366.0469		1.4		P
Antimony	60.0	79.3970		87.0592		9.2		P
Arsenic	10.0	44.3138		44.1198		0.4		P
Barium		877.7886		869.6794		0.9		P
Beryllium		5.0000	ש	5.0000	ם			P
Cadmium	l	5.0000	ש	5.0000	ש			P
Calcium		657931.8750		652236.2500		0.9		P
Chromium	l	164.7212		166.9518		1.3		P
Cobalt	l	50.0000	ש	50.0000	ש			P
Copper	l i	410.9124		412.9029		0.5		P
Iron	1	119664.0156	1	120151.5156		0.4		P
Lead		1261.2146		1265.2943		0.3		P
Magnesium		201105.4063		201274.1094		0.1		P
Manganese		4268.0010		4279.6665		0.3		P
Mercury		2.0704		2.0142		2.8		CV
Nickel	40.0	115.0518		116.8209		1.5		P
Potassium		42185.3086		40702.2578		3.6		P
Selenium		5.0000	ש	5.0000	ט			P
Silver		10.0000	ס	10.0000	ס			P
Sodium		49153.7539		48276.8984		1.8		P
Thallium		50.0000	ש	50.0000	ש			P
Vanadium	50.0	168.5310		168.2477		0.2		P
Zinc		1167.1798		1173.2100		0.5		P



A FULL SERVICE ENVIRONMENTAL LABORATORY

October 28, 2003

Mr. Glenn Netuschil Roux Associates Inc. 1377 Motor Parkway Islandia, NY 11749

PROJECT: HONEYWELL OUTER HARBOR 25203Y04 Submission #:R2318570

Dear Mr. Netuschil

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (585) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Mark Wilson

Client Service Manager

Enc.



1 Mustard ST. Suite 250 Rochester, NY 14609 (585) 288-5380

THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Lab Submission # : R2318570

Project Manager : Mark Wilson

Reported : 10/28/03

Report Contains a total of 3H pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

CASE NARRATIVE

COMPANY: Roux Associates
PROJECT: Honeywell/Outer Harbor
SUBMISSION #: R2318570

Water samples were collected on 09/25/03 and received at CAS on 09/26/03 in good condition at cooler temperatures between 0 and 6 °C. See CAS CLP Batching sheets for a cross-reference between Client ID and CAS Job # and analyses requested.

INORGANIC ANALYSIS

Water samples were analyzed the TAL list of Metals using SW-846 protocol. Mercury was analyzed by the cold vapor method 7470A and all other metals were analyzed by ICP method 6010B.

The Blank Spike (Reference Check) recoveries were all within QC limits. The Matrix Spike recoveries from sample GW-18R were all within QC limits of 75 – 125 %. The RPD from the duplicate analyses were all within QC.

No analytical or QC problems were encountered.

SEMIVOLATILE ORGANICS

Water samples were analyzed for Nitrobenzene by SW-846 method 8270C SIM Mode. Due to analyst error the wrong surrogate spike was added during sample extraction. As a result samples required dilutions of 100 in order to obtain surrogate concentrations. Samples were reanalyzed at no dilution to quantify Nitrobenzene only.

All DFTPP tuning criteria were within acceptance limits.

The initial and continuing calibration criteria were met for all analytes.

All internal standard areas were within QC limits.

All surrogate standard recoveries were within QC limits.

No analytical or QC problems were encountered.

CAS ASP/CLP BATCHING FORM / LOGIN SHEET

3







Effective 6/12/2003

ORGANIC QUALIFIERS

- U Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- N Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search.
- P This flag is used for a pesticide/Aroclor target analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank as well as in the sample.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and ALL concentration values reported on that Form I are flagged with the "D" flag.
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- X As specified in Case Narrative.
- * This flag identifies compounds associated with a quality control parameter which exceeds laboratory limits.

CAS/Rochester Lab ID # for State Certifications

Army Corp of Engineers Validated
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited

NELAP Accredited New York ID # 10145 New Jersey ID # NY004 New Hampshire ID # 294100 A/B Pennsylvania Registration 68-786 Rhode Island ID # 158 South Carolina ID #91012 West Virginia ID # 292







Effective 6/12/2003.

INORGANIC QUALIFIERS

C (Concentration) qualifier -

- B if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but was greater than or equal to the Instrument Detection Limit (IDL).
- U if the analyte was analyzed for, but not detected

Q qualifier - Specified entries and their meanings are as follows:

- D Spike was diluted out
- E The reported value is estimated because of the presence of interference.
- J Estimated Value
- M Duplicate injection precision not met.
- N Spiked sample recovery not within control limits.
- S The reported value was determined by the Method of Standard Additions (MSA).
- W Post-digestion spike for Furnace AA Analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
- * Duplicate analysis not within control limits.
- +- Correlation coefficient for the MSA is less than 0.995.

M (Method) qualifier:

- "P" for ICP
- "A" for Flame AA
- "F" for Furnace AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for Flame AA when Microwave Digestion is used
- "FM" for Furnace M when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for Automated Cold Vapor AA
- "CA" for Midi-Distillation Spectrophotometric
- "AS" for Semi-Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- " " where no data has been entered
- "NR" if the analyte is not required to be analyzed.

CAS/Rochester Lab ID # for State Certifications

Army Corp of Engineers Validated
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited
NELAP Accredited

New York ID # 10145 New Jersey ID # NY004 New Hampshire ID # 294100 A/B Pennsylvania Registration 68-786 Rhode Island ID # 158 South Carolina ID #91012 West Virginia ID # 292

ORATORY ('ALYSIS REQUEST F	#480
One Mustard St., Suite	CAS Contact
Project Name Project Number and Container Preservative)	oer and Container Preservative)
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	4. NaoH
CONTRACTOR OF THE PROPERTY OF	5. Zn. Acetate 6. MeOH
(631)232-2600 (631)232-9898 E / 238 58 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	8. Other 100
S, THE COLOR OF TH	
CAST	REMARKS/ ALTERNATE DESCRIPTION
(75520 9/25 120 W	
į	(* (*W-18R)
21 4/25	
12 4(25	
23 23 4/25	
2 24 9/25	
GU-21 25 0/25 1530 1 1	
ၟႍ	HEMENTS INVOICE INFORMATION
POST MARGES APPLY)	
100 Jaor	nmaries PO#
Detection introd : Required : Requested Fax Date III. Results + OC and Calibration Summaries	Galbration BILL TO:
REQUESTED REPORT DATE IV. Data Validation	IV. Data Validation Report with Raw Data
See QAPP	
CUSTODY SEALS: Y N	Ves No SUBMISSION #:\2 F57 0
SHED BY RECEIVED BY RALINOUPSHED BY RECEIVED BY THE CHINE BY THE CHINED	IED BY RECEIVED BY
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3 1200 1111 4/26/03/403 1250 11111 4/26/03 1400 11111 4/26/03/400	Firm
White Dates to Originates Valles 1-1- County Dates 1-1- County	Date/Time
Distribution: White - Heturn to Originator; Yellow - Lab Copy; Pink - Hetaned by Cilent	SCOC-1102-08

Cooler Receipt And Preservation Check Form

Cooler received on 26/03 by: COURIER CAS UPS FEDEX CD&L CLIEN 1. Were custody seals on outside of cooler? 2. Were custody papers properly filled out (ink, signed, etc.)? 3. Did all bottles arrive in good condition (unbroken)? 4. Did any VOA vials have significant air bubbles? 5. Were Ice or Ice packs present? 6. Where did the bottles originate? 7. Temperature of cooler(s) upon receipt:								
_	ature within 0° - 6		 _	Yes Yes	Yes	Yes	Yes	
If No, Expla	in Below		,	No ∕ No	No	No	No	
Date/Time T	emperatures Take	n:	1/5	26/03		14:	35	
	r ID: 161 or 🤇		N	Reading From: Te	mp Blank o	or Sam	ple Bottle	
Cooler Breakdown: Date:								
	: Cassettes / Tub				ed Tedlar®		lated N/A	
4. Air Samples	: Cassettes / Tub				cd Tedlar®	Bags Infl	lated N/A	
4. Air Samples	: Cassettes / Tub	es Inta	ct	Canisters Pressurize		Bags Infl		
4. Air Samples Explain any discrepa	: Cassettes / Tub	es Inta	ct	Canisters Pressurize		Bags Infl		
4. Air Samples Explain any discrepa	: Cassettes / Tub	es Inta	ct	Canisters Pressurize		Bags Infl		
4. Air Samples Explain any discrepa	Reagent NaOH	es Inta	ct	Canisters Pressurize		Bags Infl		
4. Air Samples Explain any discrepa	Reagent NaOH HNO3 H ₂ SO ₄	es Inta	ct	Canisters Pressurize		Bags Infl		
4. Air Samples Explain any discrepa	Reagent NaOH HNO3 H ₂ SO ₄ for TCN & Phenol P/PCBs (608 only)	YES	NO	Sample I.D.		Bags Infl		
pH 12 2 Residual Chlorine (+/-) 5-9** YES = All samples OK **If pH adjustment is req	Reagent NaOH HNO3 H ₂ SO ₄ for TCN & Phenol P/PCBs (608 only) NO = Sarr	YES Apples were r H ₂ SO ₄	NO	Canisters Pressurize		Vol.		

EXTRACTABLE ORGANICS

METHOD NITROBENZENE BY SIM 8270C

Reported: 11/05/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : GW-18R

Date Sampled:	09/25/03	Order #:	675520	Sample Matrix:	WATER
Date Received:	09/26/03	Submission #:	R2318570	Analytical Run	96353

ANALYTE			PQL	RESULT	UNITS
DATE EXTRACTED : DATE ANALYZED : ANALYTICAL DILUTION:	09/29/03 10/14/03 102.00				
NITROBENZENE			0.20	20 U	UG/L
SURROGATE RECOVERIES	QC	LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(15 (30 (38	- 135 - 116 - 107	8)	71 68 50	olo olo olo

EXTRACTABLE ORGANICS

METHOD NITROBENZENE BY SIM 8270C

Reported: 11/05/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : GW-18R

Date Sampled: 09/25/03 Order #: 675520
Date Received: 09/26/03 Submission #: R2318570 Sample Matrix: WATER

Analytical Run 0

Date Received: 09/26/0		1 #: RZ3	16570	Analytical	Run 0	
ANALYTE			PQL	RESU	LT	UNITS
	09/29/03 10/14/03 1.02					
NITROBENZENE			0.20	0.20	υ 1	UG/L
SURROGATE RECOVERIES	QC	LIMITS				
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(15 (30 (38	- 135 - 116 - 107	왕)	71 68 50	X S	90 90 90 90

EXTRACTABLE ORGANICS

METHOD NITROBENZENE BY SIM 8270C

Reported: 11/05/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : GW-19

Date Sampled: 09/25/03 Order #: 675521 Sample Matrix: WATER Date Received: 09/26/03 Submission #: R2318570 Analytical Run 96353

• •					-		
ANALYTE				PQL	RESULT	UNITS	
	09/29/03 10/14/03 101.00						
NITROBENZENE				0.20	20 U	UG/L	
SURROGATE RECOVERIES	QC	LI	MITS				
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(15 (30 (38		135 116 107	웅)	72 60 47	00 000 00	

EXTRACTABLE ORGANICS

METHOD NITROBENZENE BY SIM 8270C

Reported: 11/05/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : GW-19

Date Sampled: 09/25/03 Order #: 675521 Sample Matrix: WATER

Date Received: 09/26/03 Submission #: R2318570 Analytical Run 0

2400 1100021001 05/20/	00		3_00.0				
ANALYTE			PQL	RESU	JLT	UNITS	
	09/29/03 10/14/03 1.01						
NITROBENZENE			0.20	0.20	U	UG/L	
SURROGATE RECOVERIES	QC	LIMITS					
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(15 (30 (38	- 135 - 116 - 107	왕)	72 60 47	X	00 00 00	

EXTRACTABLE ORGANICS

METHOD NITROBENZENE BY SIM 8270C

Reported: 11/05/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : GW-81

Date	Sampled:	09/25/03	Order #	ŧ:	675522	Sample Matrix:	WATER
Date	Received:	09/26/03	Submission #	ŧ:	R2318570	Analytical Run	96353

		_			
ANALYTE			PQL	RESULT	UNITS
	09/29/03 10/15/03 103.60				
NITROBENZENE			0.20	21 U	UG/L
SURROGATE RECOVERIES	QC 1	LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(15 (30 (38	- 135 % - 116 % - 107 %	5)	67 65 53	0,000

EXTRACTABLE ORGANICS

METHOD NITROBENZENE BY SIM 8270C

Reported: 11/05/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : GW-81

Date Sampled: 09/25/03 Order #: 675522 Sample Matrix: WATER

Date Received: 09/26/03 Submission #: R2318570 Analytical Run 0

ANALYTE			PQL	RESULT	UNITS	
	09/29/03 10/14/03 1.04					
NITROBENZENE			0.20	0.21	UG/L	
SURROGATE RECOVERIES	QC	LIMITS				
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(15 (30 (38		·	67 X 65 X 53 X	0,000	

EXTRACTABLE ORGANICS

METHOD NITROBENZENE BY SIM 8270C

Reported: 11/05/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : GW-23

Date Sampled: 09/25/03 Order #: 675523 Sample Matrix: WATER Date Received: 09/26/03 Submission #: R2318570 Analytical Run 96353

• •	_		_		
ANALYTE	_		PQL	RESULT	UNITS
	09/29/03 10/15/03 97.00				
NITROBENZENE			0.20	19 U	UG/L
SURROGATE RECOVERIES	QC	LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(15 (30 (38	- 135 - 116 - 107	웅)	66 62 53	00 00 00

EXTRACTABLE ORGANICS

METHOD NITROBENZENE BY SIM 8270C

Reported: 11/05/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID: GW-23

Date Sampled: 09/25/03 Order #: 675523 Sample Matrix: WADATE Received: 09/26/03 Submission #: R2318570 Analytical Run 0 Sample Matrix: WATER

					· ·			
ANALYTE				PQL	RES	SULT	UNITS	
	09/29/03 10/14/03 0.97							
NITROBENZENE				0.20	0.19	9 U	UG/L	
SURROGATE RECOVERIES	QC	LI	MITS					
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(15 (30 (38	-	135 116 107	왕)	62	6 X 2 X 3 X	0,000,000	

EXTRACTABLE ORGANICS

METHOD NITROBENZENE BY SIM 8270C

Reported: 11/05/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : GW-22

Date Sampled: 09/25/03 Order #: 675524 Sample Matrix: WATER Date Received: 09/26/03 Submission #: R2318570 Analytical Run 96353

Date Received. 03/20/	, , , , , , , , , , , , , , , , , , ,	- ,, • 102	J20370 1	mary croar many	
ANALYTE			PQL	RESULT	UNITS
	09/29/03 10/15/03 104.00				
NITROBENZENE			0.20	21 U	UG/L
SURROGATE RECOVERIES	QC	LIMITS			
TERPHENYL - d14 NITROBENZENE - d5 2 - FLUOROBIPHENYL	(15 (30 (38	- 135 - 116 - 107	왕)	69 65 55	00 00 00

EXTRACTABLE ORGANICS

METHOD NITROBENZENE BY SIM 8270C

Reported: 11/05/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : GW-22

Date Sampled: 09/25/03 Order #: 675524 Sample Matrix: WATER

Date Received: 09/26/03 Submission #: R2318570 Analytical Run 0

ANALYTE	-		PQL	RESULT	UNITS
DATE EXTRACTED : DATE ANALYZED : ANALYTICAL DILUTION:	09/29/03 10/14/03 1.04				-
NITROBENZENE			0.20	0.23	UG/L
SURROGATE RECOVERIES	QC	LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(15 (30 (38	- 135 - 116 - 107	왕)	69 X 65 X 55 X	% % %

EXTRACTABLE ORGANICS

METHOD NITROBENZENE BY SIM 8270C

Reported: 11/05/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : GW-21

Date Sampled : 09/25/03	Order #: 675525	Sample Matrix: WATER
Date Received: 09/26/03	Submission #: R2318570	Analytical Run 96353

	• • • • • • • • • • • • • • • • • • •	- 7,	3103.0		
ANALYTE			PQL	RESULT	UNITS
DATE EXTRACTED : DATE ANALYZED : ANALYTICAL DILUTION:	09/29/03 10/15/03 105.00				
NITROBENZENE			0.20	21 U	UG/L
SURROGATE RECOVERIES	QC	LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(15 (30 (38	- 135 - 116 - 107	%)	71 56 51	o6 o6 o6

EXTRACTABLE ORGANICS

METHOD NITROBENZENE BY SIM 8270C

Reported: 11/05/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : GW-21

Date Sampled: 09/25/03 Order #: 675525 Sample Matrix: WATER

Date Received: 09/26/03 Submission #: R2318570 Analytical Run 0

2000 RCCCIVCO. 03/20/	5 Dasa.1551011	W. R2310370	mary crear Ran	'
ANALYTE		PQL	RESULT	UNITS
	09/29/03 10/14/03 1.05			
NITROBENZENE		0.20	0.21 U	UG/L
SURROGATE RECOVERIES	QC	LIMITS		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(15 (30 (38	- 135 %) - 116 %) - 107 %)	71 X 56 X 51 X	00 00 00

EXTRACTABLE ORGANICS

METHOD NITROBENZENE BY SIM 8270C

Reported: 11/05/03

Project Reference:

Client Sample ID : METHOD BLANK

Order #: 678934 Sample Matrix: WATER Date Sampled: Date Received: Submission #: Analytical Run 0 PQL RESULT UNITS ANALYTE : 09/29/03 DATE EXTRACTED : 10/14/03 DATE ANALYZED ANALYTICAL DILUTION: 1.00 0.20 0.20 U UG/L NITROBENZENE SURROGATE RECOVERIES QC LIMITS (15 - 135 %) 64 왕 TERPHENYL-d14 (30 - 116 %) 46 왕 NITROBENZENE-d5 왕 (38 - 107 %) 39 2-FLUOROBIPHENYL

QUALITY CONTROL SUMMARY

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

WATER

Spiked order No.:

675520 ROUX

Client ID:

GW-18R

Test:

NITROBENZENE BY SIM 8270C

Analytical Units:

UG/L

Run Number :

96353

			MATRIX S	PIKE	MATRIX	SPIKE D	UP.	Q	C LIMITS
ANALYTE	SPIKE ADDED	SAMPLE CONCENT.	FOUND	% REC.	FOUND	% REC.	RPD	RPD	REC.
NITROBENZENE	1.00	0	0.84	84	0.92	92	9	30	50 - 150

'IMBIA ANALYTICAL SERVICES

QUALITY CONTROL SUMMARY

LABORATORY CONTROL SAMPLE

WATER

Spiked order No.:

678935

Client ID:

Test:

NITROBENZENE BY SIM 8270C

Analytical Units:

UG/L

Run Number :

96353

			BLANK SE	PIKE	QC LIMITS
ANALYTE	SPIKE ADDED	SAMPLE CONCENT.	FOUND	% REC.	REC.
NITROBENZENE	1.00	0	0.87	87	50 - 150

METALS COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

C	570		SDG No.:	GW-18R
Lab Code:	Case No.	:	SAS No.:	
SOW No.: SW846 CL	P-M Client:	Roux Associates Inc.		
	Sample No.	Lab Sample ID.	_	_
	GW-18R	675520		
	GW-18RD	675520D		
	GW-18RS	675520S		
	GW-19	675521		
	GW-81	675522		
	GW-23	675523		
	GW-22	675524		
	GW-21	675525		
Were ICP backgro	ement corrections applied and corrections applied araw data generated before of background corrections.	pre	Yes/No Yes/No Yes/No	YES YES
Comments: See A	ttached Case Narrative			
contract, both tabove. Release computer-readable	echnically and for complof the data contained in	compliance with the terms and eteness, for other than the this hardcopy data package ette has been authorized by the following signature.	conditions and in the	detailed
Signature: Mu	hul K-Perny 10/29/03	Name: Millar E	Peny_	
Date:	10/29/03	Title: Luborato	ry Manageo	23

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INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

GW-18R

Contract: R2318570

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Matrix (soil/water): WATER

Lab Sample ID: 675520

Date Received: 09/26/03

Level (low/med):

Concentration Units (ug/L or mg/kg dry weight): μ G/L

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	14300			P
7440-36-0	Antimony	60.0	ס	l ·	P
7440-38-2	Arsenic	21.6			P
7440-39-3	Barium	242		l	P
7440-41-7	Beryllium	5.0	ס		P
7440-43-9	Cadmium	5.0	ס		P
7440-70-2	Calcium	384000			P
7440-47-3	Chromium	17.9	l		P
7440-48-4	Cobalt	50.0	ס		P
7440-50-8	Copper	23.1			P
7439-89-6	Iron	26100			P
7439-92-1	Lead	87.0			P
7439-95-4	Magnesium	71700			P
7439-96-5	Manganese	1670		ļ	P
7439-97-6	Mercury	0.51			CV
7440-02-0	Nickel	40.0	σ		P
7440-09-7	Potassium	25300	1		P
7782-49-2	Selenium	5.0	σ		P
7440-22-4	Silver	10.0	ס		P
7440-23-5	Sodium	30700			P
7440-28-0	Thallium	10.0	ס		P
7440-62-2	Vanadium	50.0	۵		P
7440-66-6	Zinc	149			P

Color Before: BROWN

Clarity Before:

CLOUDY

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

Comments:

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

GW-19

Contract: R2318570

Case No.:

SAS No.:

SDG NO.: GW-18R

Matrix (soil/water):

WATER

Lab Sample ID: 675521

Level (low/med):

Lab Code:

LOW

Date Received: 09/26/03

Concentration Units (ug/L or mg/kg dry weight): μ G/L

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	1190			P
7440-36-0	Antimony	60.0	ם		P
7440-38-2	Arsenic	34.0	l		P
7440-39-3	Barium	20.0	ם		P
7440-41-7	Beryllium	5.0	ש		P
7440-43-9	Cadmium	5.0	ם		P
7440-70-2	Calcium	23600			P
7440-47-3	Chromium	10.0	ם		P
7440-48-4	Cobalt	50.0	ש		P
7440-50-8	Copper	59.9	Γ		P
7439-89-6	Iron	427			P
7439-92-1	Lead	13.2			P
7439-95-4	Magnesium	500	ם		P
7439-96-5	Manganese	11.0			P
7439-97-6	Mercury	0.68			CV
7440-02-0	Nickel	40.0	ש		P
7440-09-7	Potassium	825000			P
7782-49-2	Selenium	27.0			P
7440-22-4	Silver	10.0	ש		P
7440-23-5	Sodium	60900			P
7440-28-0	Thallium	10.0	ס		P
7440-62-2	Vanadium	70.9			P
7440-66-6	Zinc	20.0	σ		P

Color Before: BROWN

Clarity Before:

CLEAR

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

Comments:

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

GW-21

Contract: R2318570

Lab Code:

Level (low/med):

Case No.:

SAS No.:

SDG NO.: GW-18R

fatrix (soil/water):

WATER

LOW

Lab Sample ID: 675525

Date Received: 09/26/03

Concentration Units (ug/L or mg/kg dry weight): μ G/L

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	100	σ		P
7440-36-0	Antimony	60.0	<u>ס</u>		P
7440-38-2	Arsenic	10.0	ס		P
7440-39-3	Barium	51.2			P
7440-41-7	Beryllium	5.0	ס		P
7440-43-9	Cadmium	5.0	ש		P
7440-70-2	Calcium	48000			P
7440-47-3	Chromium	10.0	ס		P
7440-48-4	Cobalt	50.0	ע		P
7440-50-8	Copper	20.0	σ		P
7439-89-6	Iron	100	ַ ס		P
7439-92-1	Lead	5.0	ס		P
7439-95-4	Magnesium	3630		l	P
7439-96-5	Manganese	10.0	ס		P
7439-97-6	Mercury	0.20	ס		CV
7440-02-0	Nickel	40.0	ס]	P
7440-09-7	Potassium	23900		l	P
7782-49-2	Selenium	5.0	ט		P
7440-22-4	Silver	10.0	ט		P
7440-23-5	Sodium	15700			P
7440-28-0	Thallium	10.0	<u>ס</u>		P
7440-62-2	Vanadium	50.0	ע		P
7440-66-6	Zinc	20.0	ן ד		P

Color Before: YELLOW

Clarity Before:

CLEAR

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

Comments:

26

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

GW-22

Contract: R2318570

Level (low/med):

lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Matrix (soil/water): WATER

LOW

Lab Sample ID: 675524

Date Received: 09/26/03

Concentration Units (ug/L or mg/kg dry weight): μ G/L

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	467			P
7440-36-0	Antimony	60.0	ש		P
7440-38-2	Arsenic	10.0	ס		P
7440-39-3	Barium	85.1			P
7440-41-7	Beryllium	5.0	ם		P
7440-43-9	Cadmium	5.0	ס		P
7440-70-2	Calcium	307000			P
7440-47-3	Chromium	10.0	ס		P
7440-48-4	Cobalt	50.0	ס		P
7440-50-8	Copper	20.0	ט		P
7439-89-6	Iron	5920	Ι		P
7439-92-1	Lead	13.9			P
7439-95-4	Magnesium	90400	Γ		P
7439-96-5	Manganese	1210	Ι		P
7439-97-6	Mercury	0.20	ס		CV
7440-02-0	Nickel	40.0	ט		P
7440-09-7	Potassium	21300			P
7782-49-2	Selenium	5.0	<u></u> ד		P
7440-22-4	Silver	10.0	ס		P
7440-23-5	Sodium	33200			P
7440-28-0	Thallium	10.0	ס		P
7440-62-2	Vanadium	50.0	ס	1	P
7440-66-6	Zinc	20.0	ם	<u> </u>	P

Color Before: YELLOW

Clarity Before:

CLEAR

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

Comments:

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

GW-23

Contract: R2318570

lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

fatrix (soil/water):

Level (low/med):

WATER

LOW

Lab Sample ID: 675523

Date Received: 09/26/03

Concentration Units (ug/L or mg/kg dry weight): μ G/L

CAS No.	Analyte	Concentration	C	Q	М
7429-90-5	Aluminum	661			P
7440-36-0	Antimony	60.0	ש		P
7440-38-2	Arsenic	10.0	ש		P
7440-39-3	Barium	370		<u> </u>	P
7440-41-7	Beryllium	5.0	ס		P
7440-43-9	Cadmium	5.0	ש		P
7440-70-2	Calcium	187000			P
7440-47-3	Chromium	10.0	ם		P
7440-48-4	Cobalt	50.0	ש	l	P
7440-50-8	Copper	20.0	ַ ש	<u> </u>	P
7439-89-6	Iron	6270		l	P
7439-92-1	Lead	17.1			P
7439-95-4	Magnesium	102000			P
7439-96-5	Manganese	451		l	P P
7439-97-6	Mercury	0.20	ש		CV
7440-02-0	Nickel	40.0	ם		P
7440-09-7	Potassium	20700			P
7782-49-2	Selenium	5.0	ט		P
7440-22-4	Silver	10.0	ש		P
7440-23-5	Sodium	83900			P
7440-28-0	Thallium	10.0	۵		P
7440-62-2	Vanadium	50.0	η υ		P
7440-66-6	Zinc	20.0	U		P

or Before: BROWN

Clarity Before:

CLEAR

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

Comments:

28

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INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

GW-81

Contract: R2318570

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Matrix (soil/water): WATER

Level (low/med):

LOW

Lab Sample ID: 675522

Date Received: 09/26/03

Concentration Units (ug/L or mg/kg dry weight): μ G/L

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	14400			P
7440-36-0	Antimony	60.0	ש		P
7440-38-2	Arsenic	22.0			P
7440-39-3	Barium	243	Γ_		P
7440-41-7	Beryllium	5.0	ש		P
7440-43-9	Cadmium	5.0	ש		P
7440-70-2	Calcium	391000	Ī		P
7440-47-3	Chromium	18.6			P
7440-48-4	Cobalt	50.0	ט	l	P
7440-50-8	Copper	24.6			P
7439-89-6	Iron	27000		l	P
7439-92-1	Lead	81.7			P
7439-95-4	Magnesium	72700			P
7439-96-5	Manganese	1690			P
7439-97-6	Mercury	0.39			CV
7440-02-0	Nickel	40.0	ש		P
7440-09-7	Potassium	28100			P
7782-49-2	Selenium	5.0	ש		P
7440-22-4	Silver	10.0	ש		P
7440-23-5	Sodium	32400			P
7440-28-0	Thallium	10.0	ט		P
7440-62-2	Vanadium	50.0	ש		P
7440-66-6	Zinc	145			P

Color Before: BROWN

Clarity Before:

CLOUDY

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

Comments:

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BLANKS

Contract: R2318570

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

_	Initial Calib. Blank		_	C	ontinuing Ca Blank (ug				Preparation Blank			
Analyte	(ug/L)	С	1	C	2	C	3	С		c_	\coprod	M
Aluminum	100.0	ַ	100.0	σ	100.0	σ	100.0	ס	100.000	σ	Ш	P
Antimony	60.0	ס	60.0	ט	60.0	ס	60.0	<u></u>	60.000	σ	Ш	P
Arsenic	10.0	σ	10.0	ט	10.0	σ	10.0	ט	10.000	σ	Ш	P
Barium	20.0	σ	20.0	σ	20.0	σ	20.0	ש	20.000	ΰ	Ш	P
Beryllium	5.0	σ	5.0	σ	5.0	σ	5.0	σ	5.000	υ	Ш	P
Cadmium	5.0	ט	_5.0	σ	5.0	ש	5.0	ש	5.000	σ	Ш	P
Calcium	500.0	σ	500.0	σ	500.0	σ	500.0	ַ ע	500.000	σ		P
Chromium	10.0	σ	10.0	σ	10.0	ש	10.0	ש	10.000	σ	Ш	P
Cobalt	50.0	σ	50.0	σ	50.0	ש	50.0	ט	50.000	σ	Ш	P
Copper	20.0	σ	20.0	ΰ	20.0	σ	20.0	ש	20.000	σ	Ш	P
Iron	100.0	σ	100.0	σ	100.0	ש	100.0	σ	100.000	σ	Ш	P
Lead	5.0	σ	5.0	σ	5.0	ש	5.0	ט	5.000	σ	Ш	P
Magnesium	500.0	σ	500.0	σ	500.0	ַ	500.0	ש	500.000	σ	Ш	P
Manganese	10.0	σ	10.0	ט	10.0	ש	10.0	ַ	10.000	ד	Ш	P
Mercury	0.20	υ	0.20	σ	0.20	ס	0.20	ַ	0.200	ซ		CV
Nickel	40.0	υ	40.0	σ	40.0	ט	40.0	σ	40.000	υ	Ш	P
Potassium	2000.0	σ	2000.0	σ	2000.0	ש	2000.0	ש	2000.000	σ	Ш	P
Selenium	5.0	σ	5.0	σ	5.0	ש	5.0	ש	5.000	σ	Ш	P
Silver	10.0	σ	10.0	σ	10.0	ט	10.0	ט	10.000	σ	ЦÌ	P
Sodium	500.0	σ	500.0	σ	500.0	ש	500.0	ש	500.000	σ	Ц	P
Thallium	10.0	ט	10.0	σ	10.0	ַ	10.0	ש	10.000	σ	Ш	P
Vanadium	50.0	ס	50.0	ש	50.0	ש	50.0	<u></u>	50.000	ש	Ш	P
Zinc	20.0	ס	20.0	σ	20.0	ט	20.0	ט	20.000	ש	Ш	P

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BLANKS

!ontract: R2318570

ab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

reparation Blank Matrix (soil/water): WATER

reparation Blank Concentration Units (ug/L or mg/kg): UG/L

	Initial Calib. Blank			C	ontinuing Ca Blank (u				Preparation Blank		
Analyte	(ug/L)	C	1	C	2	C	3	С		c	М
Aluminum			100.0	U	100.0	ט	100.0	ט			P
Antimony			60.0	σ	60.0	ש					P
Arsenic			10.0	σ	10.0	מ					P
Barium		\perp	20.0	σ	20.0	Ū	20.0	υ			P
Beryllium		$\perp \perp$	5.0	σ	5.0	σ					P
Cadmium			5.0	σ	_5.0	σ					P
Calcium			500.0	σ	500.0	ט	500.0	ש			P
Chromium			_10.0	σ	10.0	ש	10.0	σ			P
Cobalt			_50.0	υ	_50.0	ש					P
Copper			_20.0	ש	20.0	ש	20.0	ט			P
Iron			100.0	σ	100.0	ט	100.0	ט			P
Lead			5.0	σ	5.0	σ					P
Magnesium			500.0	ט	500.0	ד	500.0	ש			P
Manganese			10.0	ש	10.0	σ	10.0	σ			P
Mercury			0.20	σ	0.20	ַ					cv
Nickel	<u> </u>	\perp	40.0	σ	40.0	σ					P
Potassium			2000.0	Ū	2000.0	σ	2000.0	ט			P
Selenium			5.0	ש	_5.0	σ					P
Silver			10.0	Ū	10.0	σ					P
Sodium			500.0	Ū	500.0	ש	500.0	ט			P
Thallium			10.0	σ	10.0	ש					P
Vanadium			50.0	σ	50.0	ש					P
Zinc			20.0	σ	20.0	ש					P

METALS -5A-

SPIKE SAMPLE RECOVERY

SA	MΡ	\mathbf{LE}	NO	

1	GW-18RS	

Contract: R2318570

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Matrix (soil/water): WATER

Level (low/med):

LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): μ G/L

		Codlead Comple						$\overline{}$	
Analyte	Control Limit %R	Spiked Sample Result (SSR)	С	Sample Result (SR)	С	Spike Added (SA)	%R	Q	м
Aluminum	I TIMIC SK	16034.2813					-	*	├ ──I
				14276.7158		2000.00			P
Antimony	75 - 125			60.0000	ַ	500.00	95.0		P
Arsenic	75 - 125	56.4565		21.5529		40.00	87.3		P
Barium	75 - 125	2256.0857		241.9560		2000.00	100.7		P
Beryllium	75 - 125	45.9875		5.0000	ס	50.00	92.0		P
Cadmium	75 - 125	42.0679		5.0000	ס	50.00	84.1		P
Calcium	l	398118.8125		384340.3125	<u> </u>	2000.00	688.9		P
Chromium	75 - 125	213.8399		17.9409		200.00	97.9		P
Cobalt	75 - 125	455.2102		50.0000	ס	500.00	91.0		P
Copper	75 - 125	271.1734		23.1404		250.00	99.2		P
Iron	l	27119.6113		26058.4277		1000.00	106.1		P
Lead	75 - 125	524.9639		87.0044		500.00	87.6		P
Magnesium	l	74892.4141		71686.2734		2000.00	160.3		P
Manganese	75 - 125	2185.2400		1669.1876		500.00	103.2		P
Mercury	75 - 125	1.4356		0.5053		1.00	93.0		cv
Nickel	75 - 125	461.4112		40.0000	ם	500.00	92.3		P
Potassium	75 - 125	46250.3242		25253.2852		20000.00	105.0		P
Selenium	75 - 125	913.7637		5.0000	ס	1010.00	90.5		P
Silver	75 - 125	43.2194		10.0000	ס	50.00	86.4		P
Sodium	75 - 125	52118.1875		30735.0332		20000.00	106.9		P
Thallium	75 - 125	1811.9126		10.0000	σ	2000.00	90.6		P
Vanadium	75 - 125	499.9033		50.0000	ט	500.00	100.0		P
Zinc	75 - 125	600.6193		149.1327		500.00	90.3		P

ients:				
			 	 _

METALS -5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

Contract: R2318570

GW-18RA

ab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

fatrix (soil/water):

WATER

Level (low/med):

LOW

Concentration Units: ug/L

Analyte	Control	Spiked Sample	_	Sample	_	Spike			
Analyte	Limit %R	Result (SSR)	C	Result (SR)		Added (SA)	%R	Q	M
Aluminum	1	17475.10		14276.72		2000.0	159.9		P
Antimony	Ι	496.86		60.00	ס	500.0	99.4		P
Arsenic	Ι	60.25		21.55		40.0	96.8		P
Barium	1	2271.48		241.96		2000.0	101.5		P
Beryllium	1	47.66		5.00	ס	50.0	95.3		P
Cadmium	T	43.19		5.00	ס	50.0	86.4		P
Calcium	T	424182.16		384340.31		2000.0	1992.1		P
Chromium	T	224.34		17.94		200.0	103.2		P
Cobalt	1	467.31		50.00	ש	500.0	93.5		P
Copper	1	275.70		23.14		250.0	101.0		P
Iron	Ti Ti	29334.55		26058.43		1000.0	327.6		P
Lead	Ī	536.00		87.00		500.0	89.8		P
Magnesium	1	80023.72	_	71686.27		2000.0	416.9		P
Manganese	T	2306.05		1669.19		500.0	127.4		P
Nickel	T	471.67		40.00	ם	500.0	94.3		P
Potassium	T	47848.43		25253.29		20000.0	113.0		P
Selenium		1019.09		5.00	ש	1010.0	100.9		P
Silver		44.86		10.00	ש	50.0	89.7		P
Sodium		53609.02		30735.03		20000.0	114.4		P
Thallium		1919.41		10.00	σ	2000.0	96.0		P
Vanadium	T	519.27		50.00	σ	500.0	103.9		P
Zinc	Τ	621.47		149.13	[500.0	94.5		P

Comments:		 	 			
			 _	 	 	_

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DUPLICATES

SAMPLE NO.

GW-18RD

Contract: R2318570

ab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

fatrix (soil/water): WATER

Level (low/med):

LOW

& Solids for Sample: 0.0

% Solids for Duplicate:

Concentration Units (ug/L or mg/kg dry weight): μ G/L

					_			
Analyte	Control Limit	Sample (S)	С	Duplicate (D)	С	RPD	Q	M
Aluminum	<u> </u>	14276.7158		14179.8203		0.7		P
Antimony		60.0000	ס	60.0000	ם			P
Arsenic	10.0	21.5529		23.2265		7.5		P
Barium	1	241.9560	$\overline{ }$	238.0467		1.6		P
Beryllium	1	5.0000	ש	5.0000	ם			P
Cadmium	1	5.0000	ַ ט	5.0000	ט			P
Calcium		384340.3125		389357.7500		1.3		P
Chromium	10.0	17.9409		17.5976		1.9		P
Cobalt	1	50.0000	ס	50.0000	ם			P
Copper	20.0	23.1404	Ī	24.7511		6.7		P
Iron		26058.4277		26231.7441		0.7		P
Lead	1	87.0044	Ī	87.5174		0.6		P
Magnesium	1	71686.2734		72133.6563		0.6		P
Manganese	1	1669.1876		1685.3447		1.0		P
Mercury	0.2	0.5053		0.4854		4.0		cv
Nickel	T	40.0000	ט	40.0000	ט			P
Potassium	Ī į	25253.2852		25467.0938		0.8		P
Selenium	1	5.0000	ס	5.0000	ט			P
Silver	[10.0000	ס	10.0000	ט			P
Sodium	1	30735.0332		31471.6367		2.4		P
Thallium		10.0000	ש	10.0000	ט			P
Vanadium		50.0000	ס	50.0000	σ			P
Zinc		149.1327		147.7104		1.0		P



A FULL SERVICE ENVIRONMENTAL LABORATORY

December 17, 2003

Mr. Glenn Netuschil Roux Associates Inc. 1377 Motor Parkway Islandia, NY 11749

PROJECT: HONEYWELL OUTER HARBOR 25203Y04

Submission #:R2319165

Dear Mr. Netuschil

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (585) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Mark /Wilson

Client Service Manager

Enc.



1 Mustard ST. Suite 250 Rochester, NY 14609 (585) 288-5380

THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Lab Submission # : R2319165

Project Manager : Mark Wilson

Reported : 12/17/03

Report Contains a total of 33 pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

CASE NARRATIVE

COMPANY: Roux Associates PROJECT: Honeywell/Outer Harbor SUBMISSION #: R2319165

Water samples were collected on 11/12-14/03 and received at CAS on 11/13-14/03 in good condition at cooler temperatures between 0 and 6 °C. See CAS CLP Batching sheets for a cross-reference between Client ID and CAS Job # and analyses requested.

INORGANIC ANALYSIS

Water samples were analyzed the TAL list of Metals using SW-846 protocol. Mercury was analyzed by the cold vapor method 7470A and all other metals were analyzed by ICP method 6010B.

The Blank Spike (Reference Check) recoveries were all within QC limits. The Matrix Spike recoveries from sample GW-18R were all within QC limits of 75 – 125 %. RPD was outside limits for Aluminum, Lead and Zinc.

No analytical or QC problems were encountered.

SEMIVOLATILE ORGANICS

Water samples were analyzed for Nitrobenzene by SW-846 method 8270C SIM Mode.

All Matrix and Blank spike recoveries were within limits. All RPD were within limits.

All DFTPP tuning criteria were within acceptance limits.

The initial and continuing calibration criteria were met for all analytes.

All internal standard areas were within QC limits.

All surrogate standard recoveries were within QC limits.

No analytical or QC problems were encountered.

MATER MATE
STED PARAMETERS DA SAM 8270SIM/TAL 11/1







Effective 6/12/2003

ORGANIC QUALIFIERS

- U Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- N Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search.
- P This flag is used for a pesticide/Aroclor target analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank as well as in the sample.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and ALL concentration values reported on that Form I are flagged with the "D" flag.
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- X As specified in Case Narrative.
- This flag identifies compounds associated with a quality control parameter which exceeds laboratory limits.

CAS/Rochester Lab ID # for State Certifications

Army Corp of Engineers Validated
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited

NELAP Accredited New York ID # 10145 New Jersey ID # NY004 New Hampshire ID # 294100 A/B Pennsylvania Registration 68-786 Rhode Island ID # 158 South Carolina ID #91012 West Virginia ID # 292







Effective 6/12/2003

INORGANIC QUALIFIERS

C (Concentration) qualifier -

- B if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but was greater than or equal to the Instrument Detection Limit (IDL).
- U if the analyte was analyzed for, but not detected

Q qualifier - Specified entries and their meanings are as follows:

- D Spike was diluted out
- E The reported value is estimated because of the presence of interference.
- J Estimated Value
- M Duplicate injection precision not met.
- N Spiked sample recovery not within control limits.
- S The reported value was determined by the Method of Standard Additions (MSA).
- W Post-digestion spike for Furnace AA Analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
- * Duplicate analysis not within control limits.
- +- Correlation coefficient for the MSA is less than 0.995.

M (Method) qualifier:

- "P" for ICP
- "A" for Flame AA
- "F" for Furnace AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for Flame AA when Microwave Digestion is used
- "FM" for Furnace M when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for Automated Cold Vapor AA
- "CA" for Midi-Distillation Spectrophotometric
- "AS" for Semi-Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- " " where no data has been entered
- "NR" if the analyte is not required to be analyzed.

CAS/Rochester Lab ID # for State Certifications

Army Corp of Engineers Validated
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited
NELAP Accredited

New York ID # 10145 New Jersey ID # NY004 New Hampshire ID # 294100 A/B Pennsylvania Registration 68-786 Rhode Island ID # 158 South Carolina ID #91012 West Virginia ID # 292 CHAIN OF CUSTODY/LABORATORY 4. 1LYSIS REQUEST FORM

Owned Company

Report CC

Project Manage

Project Name

One Mustard St., Suite 250 • Rochester, NY 14609-0859 • (585) 288-5380 • 800-695-7222 x11 • FAX (585) 288-8475 PAGE

CAS Contact

BH #

Other 1cc REMARKS/ ALTERNATE DESCRIPTION ANALYSIS REQUESTED (include Method Number and Container Preservative) PRESERVATIVE NUMBER OF CONTAINERS MATRIX 13 13 SAMPLING FOR OFFICE USE ONLY

CLIENT/SAMPLE ID

 $\widetilde{\mathscr{C}}$

* euoul

Sampler's Signature

IV. Data Validation Report with Raw Data V. Spelcelized Forms / Custom Report ŝ REPORT REQUIREMENTS II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + GC and Calibration *PELINQUISHED BY* Yes 1. Results Only Edata Printed Name Signature TURNAROUND REQUIREMENTS 5 day RUSH (SURCHARGES APPLY) REQUESTED REPORT DATE **EQUESTED FAX DATE** / STANDARD z CUSTODY SEALS: Y SAMPLE RECEIPT: CONDITION/COOLER TEMP SPECIAL INSTRUCTIONS/COMMENTS

See QAPP

Printed Name

Date/Time

Date/Time

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Signature

INVOICE INFORMATION

BILL TO:

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Distribution: White - Aeturn to Originator, Yellow - Lab Copy; Pink - Retained by Client

Cooler Receipt And Preservation Check Form

		S	ubmission Number	R23-19	165.			
Cooler received on 11/13/03 by:	8	_cou	RIER: CAS U	PS FEDEX	CD&L CLIENT			
1. Were custody seals on outside of cooler? 2. Were custody papers properly filled out (ink, signed, etc.)? 3. Did all bottles arrive in good condition (unbroken)? 4. Did any VOA vials have significant air bubbles? 5. Were Ice or Ice packs present? 6. Where did the bottles originate? 7. Temperature of cooler(s) upon receipt: Is the temperature within 0° - 6° C?: YES NO YES NO CAS/ROC CLIENT YES NO Y								
Is the temperature within 0°-	6° C?:		Yes Yes	Yes	Yes Yes			
If No, Explain Below	`	,]	No No	No	No No			
Date/Time Temperatures Tak	en: 11	13/0	3 1	15				
Thermometer ID: 161 or	IR GU	N	Reading From: Te	mp Blank o	r Sample Bottle			
If out of Temperature, Client App	roval to	Run S	Samples					
 Did all bottle labels and tags agree with custody papers? Were correct containers used for the tests indicated? Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A Explain any discrepancies: 								
		T	1					
	YES	NO	Sample I.D.	Reagent	Vol. Added			
pH Reagent	YES	NO	Sample I.D.	Reagent	Vol. Added			
12 NaOH	YES	NO	Sample I.D.	Reagent	Vol. Added			
12 NaOH 2 HNO ₃		NO	Sample I.D.	Reagent	Vol. Added			
12 NaOH 2 HNO ₃ 2 H ₂ SO ₄		NO	Sample I.D.	Reagent	Vol. Added			
12 NaOH 2 HNO ₃ 2 H ₂ SO ₄ Residual Chlorine (+/-) for TCN & Phenol		NO	Sample I.D.	Reagent	Vol. Added			
12 NaOH 2 HNO3 2 H ₂ SO ₄ Residual Chlorine (+/-) for TCN & Phenol 5-9** P/PCBs (608 only)	×		Sample I.D.	Reagent PC OK to adjus				
12 NaOH 2 HNO3 2 H ₂ SO ₄ Residual Chlorine (+/-) for TCN & Phenol 5-9** P/PCBs (608 only)	mples wer	e preser						
12 NaOH 2 HNO ₃ 2 H ₂ SO ₄ Residual Chlorine (+/-) for TCN & Phenol 5-9** P/PCBs (608 only) YES = All samples OK NO = Sa **If pH adjustment is required, use NaOH and VOC Vial pH Verification (Tested after Analysis) Following Samples	mples wer	e preser						
12 NaOH 2 HNO ₃ 2 H ₂ SO ₄ Residual Chlorine (+/-) for TCN & Phenol 5-9** P/PCBs (608 only) YES = All samples OK NO = Sa **If pH adjustment is required, use NaOH and VOC Vial pH Verification (Tested after Analysis) Following Samples	mples wer	e preser						

loyee - Owned Company

CHAIN OF CUSTODY/LABORATORY AF 1LYSIS REQUEST FORM

PAGE One Mustard St., Suite 250 • Rochester, NY 14609-0659 • (585) 288-5380 • 800-695-7222 x11 • FAX (565) 288-8475

CAS Contact

Р

Preservative Key REMARKS/ ALTERNATE DESCRIPTION Other CC 200-18R 0-264566 ANALYSIS REQUESTED (include Method Number and Container Preservative) ત CA PRESERVATIVE NUMBER OF CONTAINERS MATRIX 2203/04 'n 000 3 SAMPLING Sampler's Printed Name 07 FOR OFFICE USE ONLY LAB ID PF907 COST CLIENT SAMPLE ID Ham/Va/Val

Standid

ampler's Signature

200

Company/Address

roject Manage

Project Name

GW-23 7M-22

<u>81-8</u>ル

5m-8

REQUESTED REPORT DATE Z > CUSTODY SEALS: CONDITION/COOLER TEM See QAPP

SUBMISSION #:

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Yes

Edata

IV. Date Validation Report with Raw Data V. Speicalized Forms / Custorn Report Printed Name

Printed Name

Date/Time

Date/Time

Fire

Signeture

INVOICE INFORMATION

REPORT REQUIREMENTS

TURNAROUND REQUIREMENTS

4

SPECIAL INSTRUCTIONS/COMMENTS Metals

RUSH (SURCHARGES APPLY)

. Results Only

BILT TO

å

II. Results + QC Summaries (LCS, DUP, MS/MSD as required)

5 day

III. Results + QC end Calibration

EQUESTED FAX DATE STANDARD

20 220 Printed Name õ

Distribution; White - Return to Originator; Yellow - Lab Copy; Plnk - Retained by Client

• •	Cooler Receipt And Preservation Check Form								
Project/Cli	ent	<u> </u>		S	ubmission Number	1916	<u>5</u> .		
Cooler reco	eived on_	1 <u>-14-03</u> by:_	KE	COU.	RIER: CAS UPS	FEDEX	CD&L	CLIENT	
1. Were custody seals on outside of cooler? 2. Were custody papers properly filled out (ink, signed, etc.)? 3. Did all bottles arrive in good condition (unbroken)? 4. Did any VOA vials have significant air bubbles? 5. Were ice or ice packs present? 6. Where did the bottles originate? 7. Temperature of cooler(s) upon receipt: Is the temperature within 0° - 6° C?: YES NO YES NO YES NO CAS/ROC, CLIENT Yes Yes Yes									
Is t	he tempe	rature within 0° -	6° C?:	Ć	Yes Yes	Yes	Yes	Yes	
If	If No, Explain Below No No No No No								
Da	te/Time T	emperatures Tak	en:	11-14	1-13 @ 14143	3			
The	ermomete	er ID: 161 or	(IR GI		Reading From: Temp	Blank o	or (San	nple Bottle	
 Dio We 	re all bot l all bottle re correc Samples	tle labels comple e labels and tags t containers used : Cassettes / Tu	agree wi	th cus ests in	7	YES YES YES Tedlar®	NO NO NO Bags Inf	Plated N/A	
			YES	NO	Sample I.D.	Reagent	Vol	. Added	
	pH	Reagent							
	12	NaOH						•	
	2	HNO ₃	<i>\\</i>						
	2	H₂SO₄		1			_	-	
Residual Ch	<u>`</u>	for TCN & Phenol	.					· · ·	
	-9**	P/PCBs (608 only)	1-1-1-1-1		and as lab as lives d	OC OV to alling	4 17		
YES = All sa **If pH adjus		nO = Sa uired, use NaOH and		e preser	ved at lab as listed F	PC OK to adjus	t p.n		
· ·		OC Vial pH Verification Tested after Analysis) Following Samples Exhibited pH > 2							
				·					
1					ii ee				
			_						
Other Com						·			

EXTRACTABLE ORGANICS

METHOD 8270C NITROBENZENE

Reported: 12/17/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : GW-19

Date Sampled:	11/12/03	Order #:	688317	Sample Matrix:	WATER
Date Received:	11/13/03	Submission #:	R2319165	Analytical Run	98092

ANALYTE			PQL	RESULT	UNITS
	11/18/03 12/02/03 1.00				
NITROBENZENE			0.20	0.20 U	UG/L
SURROGATE RECOVERIES	QC	LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 (22 (27	- 139 - 130 - 130	•	85 75 64	o6 o6 o6

EXTRACTABLE ORGANICS

METHOD 8270C NITROBENZENE

Reported: 12/17/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : GW-21

Date Sampled:	11/12/03	Order #:	688318	Sample Matrix:	WATER
Date Received:	11/13/03	Submission #:	R2319165	Analytical Run	98092

Date Received: 11/15/	os Bubinibbio.	π. 1(2.	J17103 F	marycicar Run	J00J2	
ANALYTE			PQL	RESULT	UNITS	
	11/18/03 12/02/03 1.01					
NITROBENZENE			0.20	0.20 U	UG/L	
SURROGATE RECOVERIES	QC	LIMITS				
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 (22 (27	- 139 - 130 - 130	용)	97 101 78	op op op	

EXTRACTABLE ORGANICS

METHOD 8270C NITROBENZENE

Reported: 12/17/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : GW-18R

Date Sampled:	11/14/03	Order #:	688907	Sample Matrix:	WATER
Date Received:	11/14/03	Submission #:	R2319165	Analytical Run	98092

ANALYTE	,	PQL	RESULT	UNITS
	11/18/03 12/02/03 1.00			
NITROBENZENE		0.20	0.20 U	UG/L
SURROGATE RECOVERIES	QC LIM	ITS		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(22 - 3	139 %) 130 %) 130 %)	94 101 84	00 00 00

EXTRACTABLE ORGANICS

METHOD 8270C NITROBENZENE

Reported: 12/17/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : GW-22

Date Sampled :	11/14/03	Order #	: 688908	Sample Matrix: WATER
Date Received.	11/14/03	Submission #	P2319165	Analytical Run 98092

					_		
ANALYTE				PQL	RESULT	UNITS	
	11/18/03 12/02/03 1.04						
NITROBENZENE				0.20	0.21 U	UG/L	
SURROGATE RECOVERIES	QC	LIN	MITS				
TERPHENYL, d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 (22 (27	-	139 130 130	웅)	99 107 75	o6 o6 o6	

EXTRACTABLE ORGANICS

METHOD 8270C NITROBENZENE

Reported: 12/17/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : GW-23

Date Sampled: 11/14/0			Sample Matrix: Analytical Run	
ANALYTE		PQL	RESULT	UNITS
	11/18/03 12/02/03 0.97			
NITROBENZENE		0.20	0.19 U	UG/L
SURROGATE RECOVERIES	QC LIMIT	S		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 - 13 (22 - 13 (27 - 13	0 왕)	89 107 73	oo oo

EXTRACTABLE ORGANICS

METHOD 8270C NITROBENZENE

Reported: 12/17/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : GW-81

Date Sampled: 11/14/03 Order #: 688910 Sample Matrix: WATER Date Received: 11/14/03 Submission #: R2319165 Analytical Run 98092

ANALYTE			PQL	RESULT	UNITS
	11/18/03 12/02/03 1.05			1	
NITROBENZENE			0.20	0.21 U	UG/L
SURROGATE RECOVERIES	QC	LIMITS			
TERPHENYL + d14 NITROBENZENE - d5 2 - FLUOROBIPHENYL	(23 (22 (27	- 139 - 130 - 130	웅)	97 113 75	o6 o6 o6

EXTRACTABLE ORGANICS

METHOD 8270C NITROBENZENE

93

86

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Reported: 12/17/03

NITROBENZENE-d5

2-FLUOROBIPHENYL

Project Reference: Client Sample ID : METHOD BLANK

Date Sampled : Date Received:	Order #: 691342 Submission #:	Sample Matrix: WATER Analytical Run 98092
ANALYTE	PQL	RESULT UNITS
	18/03 01/03 1.00	
NITROBENZENE	0.20	0.20 U UG/L
SURROGATE RECOVERIES	QC LIMITS	
TERPHENYL-d14	(23 - 139 %)	101 %

- 130 %)

(27 - 130 %)

(22

QUALITY CONTROL SUMMARY MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY WATER

Spiked Order No.: 688907 Roux Associates Inc.

Client ID: GW-18R

Test: 8270C NITROBENZENE

Analytical Units: UG/L

Run Number : 98092

	<u>_</u>	SP!KE ADDED		CONCENT.	MATRIX S	SPIKE	MATRIX S	SPIKE DI	JP.	! 	QC LIMITS
ANALYTE		ADDED		SAMPLE		% REC.	i	 % REC.	RPD	RPD	REC.
NITROBENZENE		1	.00	0	1.20	120	1.20	120	0	30	50 - 150

QUALITY CONTROL SUMMARY: LABORATORY CONTROL SAMPLE

WATER

Spiked Order No.: 691343

Dup Spiked Order No.: 691344

Client ID:

Test: 8270C NITROBENZENE

Analytical Units:

UG/L

Run Number : 98092

	SPIKE	 SAMPLE	BLANK SE	PIKE	BLANK S	PIKE DU	Ρ.	 	QC LIMITS
ANALYTE		CONCENT.	FOUND	% REC.		 % REC.	 RPD	i	REC.
NITROBENZENE	1.0	0	0.850	85	0.850	85		30	49 - 130

METALS COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

n_ct: R2319165				SDG No.:	GW-19
ub Code:	Case No.	:	:	SAS No.:	
OW No.: SW846 CLP-M	Client:	Roux Associat	es Inc.		
Sample No.		Lab S	ample_ID.		
GW-19		68831	7.		
GW-21		68831		-	
GW-18R		68890		-	
GW-18RD		68890		-	
GW-18RS		68890		-	
GW-22		68890		-	
GW-23				-	
		68890		-	
<u>GW-81</u>		<u>68891</u>		-	
1					
			i		
Were ICP interelement corr	ections applie	d?		Yes/No	YES
Were ICP background correc				Yes/No	YES
If yes-were raw data application of backgr				Yes/No	NO
application of Datage	June Collection			202,1.0	
Comments: See Attached Ca	se Narrative				
I certify that this data p contract, both technically above. Release of the dat computer-readable data sub the Manager's designee, as	and for complacement on a contained in mitted on disk	eteness, for ot this hardcopy ette has been a	ther than the condata package and authorized by the	nditions d in the	detailed
Signature: Muhulk,) enz	Name:	Michael K	Peny	
Date: 12/18/03	<i></i>	Title:	Michael K Laboratory	Manay	<u>er</u> 19

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE	NO.

ontract: R2319165

ab Code:

Case No.:

SAS No.:

SDG NO.:

GW-18R

atrix (soil/water): WATER

evel (low/med):

FOM

Lab Sample ID: 688907

Date Received: 11/14/03

Concentration Units (ug/L or mg/kg dry weight): μ G/L

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	15100		*	P
7440-36-0	Antimony	60.0	ס		P
7440-38-2	Arsenic	34.9	Π		P
7440-39-3	Barium	284			P
7440-41-7	Beryllium	5.0	ם		P
7440-43-9	Cadmium	5.0	ם		P
7440-70-2	Calcium	482000			P
7440-47-3	Chromium	26.4			P
7440-48-4	Cobalt	50.0	ס		P
7440-50-8	Copper	23.0			P
7439-89-6	Iron	29200			P
7439-92-1	Lead	101		*	P
7439-95-4	Magnesium	95800			P
7439-96-5	Manganese	2240	<u> </u>		P
7439-97-6	Mercury	0.20	ם	l	CA
7440-02-0	Nickel	40.0	ם		P
7440-09-7	Potassium	40500			P
7782-49-2	Selenium	5.0	ס		P
7440-22-4	Silver	10.0	ס		P
7440-23-5	Sodium	45500			P
7440-28-0	Thallium	20.0	ע ∫		P
7440-62-2	Vanadium	50.0	ש		P
7440-66-6	Zinc	162		*	P

Color Before: YELLOW

Clarity Before:

CLEAR

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE	ю.	
GW-19		

ontract: R2319165

ab Code:

Case No.:

SAS No.:

SDG NO.: GW-19

latrix (soil/water): WATER

evel (low/med):

FOM

Lab Sample ID: 688317

Date Received: 11/13/03

Concentration Units (ug/L or mg/kg dry weight): μ G/L

CAS No.	Analyte	Concentration	C	Q	м
7429-90-5	Aluminum	1460		*	P
7440-36-0	Antimony	60.0	ס		P
7440-38-2	Arsenic	54.6			P
7440-39-3	Barium	21.2			P
7440-41-7	Beryllium	5.0	ם		P
7440-43-9	Cadmium	5.0	ס		P
7440-70-2	Calcium	24200	_		P
7440-47-3	Chromium	62.0			P
7440-48-4	Cobalt	50.0	۵		P
7440-50-8	Copper	46.1	Ι		P
7439-89-6	Iron	608	[·	l	P
7439-92-1	Lead	16.6		*	P
7439-95-4	Magnesium	500	ס		P
7439-96-5	Manganese	17.9			P
7439-97-6	Mercury	0.95		 	CV
7440-02-0	Nickel	40.0	ס		P
7440-09-7	Potassium	938000			P
7782-49-2	Selenium	28.8			P
7440-22-4	Silver	10.0	ן ס		P
7440-23-5	Sodium	73700			P
7440-28-0	Thallium	20.0	ס		P
7440-62-2	Vanadium	67.5	_		P
7440-66-6	Zinc	20.0	ס	*	P

Color Before: YELLOW

Clarity Before:

CLEAR

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

GW-21

ontract: R2319165

ab Code:

Case No.:

SAS No.:

SDG NO.: GW-19

atrix (soil/water): WATER

Lab Sample ID: 688318

Date Received: 11/13/03

evel (low/med):

LOW

Concentration Units (ug/L or mg/kg dry weight): $\mid \mu$ G/L

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	100	ט	*	P
7440-36-0	Antimony	60.0	ס		P
7440-38-2	Arsenic	10.0	ס		P
7440-39-3	Barium	53.4			P
7440-41-7	Beryllium	5.0	ס		P
7440-43-9	Cadmium	5.0	ס		P
7440-70-2	Calcium	53500			P
7440-47-3	Chromium	10.0	ס	<u> </u>	P
7440-48-4	Cobalt	50.0	ס		P
7440-50-8	Copper	20.0	ס	<u> </u>	P
7439-89-6	Iron	127			P
7439-92-1	Lead	5.0	ס	*	P
7439-95-4	Magnesium	2110			P
7439-96-5	Manganese	10.0	ס		P
7439-97-6	Mercury	0.20	ַד		CV
7440-02-0	Nickel	40.0	۵		P
7440-09-7	Potassium	21800			P
7782-49-2	Selenium	5.0	ס		P
7440-22-4	Silver	10.0	ם		P
7440-23-5	Sodium	14300			P
7440-28-0	Thallium	20.0	ן ס	<u> </u>	P
7440-62-2	Vanadium	50.0	ע	<u> </u>	P
7440-66-6	Zinc	20.0	ס	+	P

Color Before: YELLOW

Clarity Before:

CLEAR

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

GW-22

ontract: R2319165

ab Code:

Case No.:

SAS No.:

SDG NO.: GW-19

atrix (soil/water): WATER

Lab Sample ID: 688908

evel (low/med):

LOW

Date Received: 11/14/03

Concentration Units (ug/L or mg/kg dry weight): μ G/L

CAS No.	Analyte	Concentration	C	Q	М
7429-90-5	Aluminum	2040		*	P
7440-36-0	Antimony	60.0	ס		P
7440-38-2	Arsenic	10.0	ס		P
7440-39-3	Barium	90.9			P
7440-41-7	Beryllium	5.0	ש		P
7440-43-9	Cadmium	5.0	ַ ע		P
7440-70-2	Calcium	379000	<u> </u>		P
7440-47-3	Chromium	10.0	ש	<u> </u>	P
7440-48-4	Cobalt	50.0	ס	_	P
7440-50-8	Copper	32.2		<u> </u>	P
7439-89-6	Iron	16000	ļ		P
7439-92-1	Lead	37.2	<u> </u>	*	P
7439-95-4	Magnesium	126000	<u> </u>	l	P
7439-96-5	Manganese	1270	<u> </u>		P
7439-97-6	Mercury	0.20	ן ס		CV
7440-02-0	Nickel	40.0	ס		P
7440-09-7	Potassium	21800			P
7782-49-2	Selenium	5.0	ם		P
7440-22-4	Silver	10.0	ם		P
7440-23-5	Sodium	66000		<u> </u>	P
7440-28-0	Thallium	20.0	ס		P
7440-62-2	Vanadium	50.0	ן ס	<u> </u>	P
7440-66-6	Zinc	35.7		*	P

Color Before: YELLOW

Clarity Before:

CLEAR

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

-1-

INORGANIC ANALYSIS DATA SHEET

GW-23

ontract: R2319165

ab Code:

Case No.:

SAS No.:

SDG NO.:

GW-19

atrix (soil/water):

WATER

Lab Sample ID: 688909

evel (low/med):

LOW

Date Received: 11/14/03

Concentration Units (ug/L or mg/kg dry weight):

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	178		*	P
7440-36-0	Antimony	78.9			P
7440-38-2	Arsenic	10.4			P
7440-39-3	Barium	345			P
7440-41-7	Beryllium	5.0	ם	· -	P
7440-43-9	Cadmium	5.0	ס		P
7440-70-2	Calcium	272000			P
7440-47-3	Chromium	10.0	ס		P
7440-48-4	Cobalt	50.0	ס		P
7440-50-8	Copper	20.0	ס		P
7439-89-6	Iron	3470	<u> </u>		P
7439-92-1	Lead	10.0		*	P
7439-95-4	Magnesium	97300	Γ_		P
7439-96-5	Manganese	864	Γ		P
7439-97-6	Mercury	0.20	ס		CV
7440-02-0	Nickel	40.0	ס		P
7440-09-7	Potassium	49300	[P
7782-49-2	Selenium	5.0	ש		P
7440-22-4	Silver	10.0	ס		P
7440-23-5	Sodium	80600	T	l	P
7440-28-0	Thallium	20.0	ס		P
7440-62-2	Vanadium	50.0	ס		P
7440-66-6	Zinc	20.0	ס	*	P

Color Before: YELLOW

Clarity Before:

CLEAR

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

GW-81

ontract: R2319165

ab Code:

Case No.:

SAS No.:

SDG NO.: GW-19

atrix (soil/water):

evel (low/med):

WATER

Lab Sample ID: 688910

Date Received: 11/14/03

Concentration Units (ug/L or mg/kg dry weight): μ G/L

CAS No.	Analyte	Concentration	C	Q	М
7429-90-5	Aluminum	13900		*	P
7440-36-0	Antimony	60.0	ם		P
7440-38-2	Arsenic	31.8			P
7440-39-3	Barium	270			P
7440-41-7	Beryllium	5.0	ם		P
7440-43-9	Cadmium	5.0	ש		P
7440-70-2	Calcium	478000			P
7440-47-3	Chromium	24.1			P
7440-48-4	Cobalt	50.0	ם	 	P
7440-50-8	Copper	22.1			P
7439-89-6	Iron	27500	'		P
7439-92-1	Lead	92.9		*	P
7439-95-4	Magnesium	93600			P
7439-96-5	Manganese	2200			P
7439-97-6	Mercury	0.20	ט	1	CV
7440-02-0	Nickel	40.0	ם	l	P
7440-09-7	Potassium	41000	Ī		P
7782-49-2	Selenium	5.0	ש		P
7440-22-4	Silver	10.0	ס	1	P
7440-23-5	Sodium	47100			P
7440-28-0	Thallium	20.0	ס		P
7440-62-2	Vanadium	50.0	ס		P
7440-66-6	Zinc	151	[*	P

Color Before: YELLOW

Clarity Before:

CLEAR

Texture:

Color After: YELLOW

OW Clarity After:

CLEAR

Artifacts:

-3-

BLANKS

ntract: R2319165

b Code:

Case No.:

SAS No.:

SDG NO.: GW-19

eparation Blank Matrix (soil/water): WATER

eparation Blank Concentration Units (ug/L or mg/kg): UG/L

_	Initial Calib. Blank			C	ontinuing Ca Blank (ug				Preparation Blank			
Analyte	(ug/L)	С	1	C	2	C	3	c		C		M
Aluminum	100.0	"	100.0	σ	100.0	ש	100.0	ט	100.000	ט '		P
Antimony	60.0	σ	60.0	U	60.0	ט	60.0	ט	60.000	υ	Ц	P
Arsenic	10.0	ט	10.0	ָד	10.0	σ	10.0	ש	10.000	υ	Ц	P
Barium	20.0	ס	20.0	U	20.0	σ	20.0	ד	20.000	σ	Ц	P
Beryllium	5.0	ש	5.0	σ	5.0	ש	5.0	ש	5.000	ט	Ц	P
Cadmium	5.0	ש	5.0	σ	5.0	שׁ	5.0	ט	5.000	σ	Ц	P
Calcium	500.0	ש	500.0	σ	500.0	ס	500.0	ס	500.000	σ	Ш	Ρĺ
Chromium	10.0	ד	10.0	"ט	10.0	ש	10.0	۵	10.000	σ	Ц	P
Cobalt	50.0	ד	50.0	σ	50.0	ש	50.0	ש	50.000	υ	\prod	₽
Copper	20.0	ד	20.0	σ	20.0	ש	41.7		20.000	Ū	Ц	P
Iron	100.0	ט	100.0	ד	100.0	ט	100.0	ש	100.000	σ	Ш	Ρ
Lead	5.0	σ	5.0	U	5.0	ט	5.0	ם	5.000	Ū	Ц	Ρĺ
Magnesium	500.0	ט	500.0	ס	500.0	ס	500.0	ש	500.000	ט	Ц	P
Manganese	10.0	ט	10.0	ט	10.0	ש	10.0	ט	10.000	σ	П	P
Mercury	0.20	σ	0.20	ס	0.20	ש	0.20	ט	0.200	σ	Ц	cv
Nickel	40.0	ט	40.0	ס	40.0	ס	40.0	ַס	40.000	σ	Ц	P
Potassium	2000.0	ד	2000.0	ם	_2000.0	ם	2000.0	ם	2000.000	σ	П	P
Selenium	5.0	ס	5.0	ס	_5.0	ס	5.0	ט	5.000	σ	$\overline{\coprod}$	P
Silver	10.0	ט	10.0	ט	10.0	ש	10.0	ס	10.000	۵	П	P
Sodium	500.0	σ	500.0	ש	500.0	ש	500.0	ט	500.000	ם	П	P
Thallium	20.0	ם	20.0	Ū	20.0	σ	20.0	ט	20.000	ס	П	P
Vanadium	50.0	ם	50.0	ס	50.0	Ū	50.0	ש	50.000	ד	Ĺ	P
Zinc	20.0	σ	20.0	ש	20.0	U	20.0	ט	20.000	σ	Ц	P

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BLANKS

ontract: R2319165

ab Code:

Case No.:

SAS No.:

SDG NO.: GW-19

reparation Blank Matrix (soil/water): WATER

reparation Blank Concentration Units (ug/L or mg/kg): UG/L

	Initial Calib. Blank			C	ontinuing Ca Blank (ug				Preparation Blank			
Analyte	(ug/L)	С	1	C	2	С	3	С	<u> </u>	С		M
Aluminum			100.0	Ū	100.0	ַס	100.0	ט			Ц	P
Antimony			60.0	Ū	60.0	ַש	60.0	ט	<u> </u>		Ц	P
<u>Arsenic</u>			10.0	ט	10.0	ַד	10.0	ט			Ц	P
Barium			20.0	ד	20.0	ש	20.0	ש		<u> </u>	Ц	P
Beryllium			5.0	ש	5.0	σ	5.0	σ			Ц	P
Cadmium			5.0	σ	5.0	ש	5.0	ט			Ц	P
Calcium		1	500.0	σ	500.0	σ	500.0	ש		L.	Ш	P
Chromium			10.0	ט	10.0	ט	10.0	ש			Ц	P
Cobalt		Ĺĺ	50.0	σ	50.0	ש	50.0	ש			Ц	P
Copper		Ĺĺ	20.0	ש	20.0	ט	20.0	ש			Ц	P
Iron			100.0	σ	100.0	ש	100.0	ש			Ш	P
Lead			5.0	σ	5.0	ש	5.0	ש		1	Ц	P
Magnesium			500.0	ם	500.0	ש	500.0	ם			Ц	P
Manganese			10.0	ש	10.0	ט	10.0	ט			L	P
Mercury			0.20	ם	0.20	ט	0.20	ם			Ù	cv
Nickel			40.0	ם	40.0	ש	40.0	ס			L	P
Potassium			2000.0	ם	2000.0	ט	2000.0	ש			Ĺ	P
Selenium		1	5.0	ם	5.0	ש	5.0	ש			Ĺ	P
Silver			10.0	ם	10.0	[ט	10.0	ם			Ĺ	P
Sodium		$\overline{\Box}$	500.0	ט	500.0	ש	500.0	۵			L	P
Thallium			20.0	ס	20.0	ש	20.0	ַ			Ī	P
Vanadium			50.0	ס	50.0	ט	50.0	ט			Ī	P
Zinc			20.0	ש	20.0	ש	20.0	ש		1		P

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BLANKS

Contract: R2319165

lar Code:

Case No.:

SAS No.:

SDG NO.: GW-19

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

_	Initial Calib. Blank		-	C	ontinuing Ca Blank (u	Preparation Blank						
Analyte	(ug/L)	C	1	C	2	C	3	c		c		M
Antimony			60.0	ש	_60.0	ש	60.0	ט			I	P
Arsenic		Ш	10.0	σ	10.0	σ	10.0	ש				P
Barium_			20.0	ש	20.0	ש	20.0	ַ	<u> </u>		1	P
Beryllium			5.0	σ	5.0	ט	5.0	ש			Ĺ	P
Cadmium '			5.0	σ	5.0	ש	5.0	ט			\perp	P
Calcium			500.0	ש	500.0	ש	500.0	ט			Ĺ	P
Chromium			10.0	ש	10.0	ש	10.0	ס			Ţ	P
Cobalt			50.0	σ	50.0	[ט	50.0	ט			1	P
Copper			20.0	σ	20.0	ן ש	20.0	ש				P
Iron			100.0	ט	100.0	ס	100.0	ס	1		\perp	P
Lead			5.0	ש	5.0	ש	5.0	ט				P
Magnesium		1 .	500.0	ש	500.0	ט	500.0	ט			Ц	P
Manganese			10.0	ש	10.0	ס	10.0	ש			Ц	P
Nickel			40.0	ש	40.0	ט	40.0	ש			Ц	p
Selenium			5.0	ש	5.0	ט	5.0	ט			Ц	P
Silver		1	10.0	ש	10.0	ן ש	10.0	ס			Ш	P
Thallium			20.0	ס	20.0	ס	20.0	ש			П	P
Vanadium			50.0	ש	50.0	ש	50.0	"			П	P
Zinc		Ī	20.0	ס	20.0	ס	20.0	ט		1	ĺΪ	P

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BLANKS

ontract: R2319165

ab Code:

Case No.:

SAS No.:

SDG NO.: GW-19

reparation Blank Matrix (soil/water): WATER

reparation Blank Concentration Units (ug/L or mg/kg): UG/L

	Initial Calib. Blank			C	ontinuing Ca Blank (u		Preparation Blank					
Analyte	(ug/L)	С	1	C	2	C	3	c	<u> </u>	С		M
Antimony			60.0	ש	60.0	ט	60.0	ש			Ш	P
Arsenic			10.0	ש	10.0	σ	10.0	ט			Ц	P
Barium		1	20.0	ַ	20.0	ט	20.0	ַ			Ц	P
Beryllium			5.0	ַ	5.0	U	5.0	ש			Ц	P
Cadmium .			5.0	ש	5.0	ש	5.0	ש			Ш	₽
Calcium			500.0	שׁ	500.0	ַס	500.0	ט			Ц	P
Chromium			10.0	ַ	10.0	ד	10.0	ט			Ц	P
Cobalt			50.0	σ	50.0	ש	50.0	ש		1	Ц	₽
Copper			20.0	ס ו	20.0	ש	20.0	ש		1	Ц	P
Iron			100.0	ן ע	100.0	ש	100.0	ש			ÌΪ	P
Lead			5.0	ס	5.0	ש	5.0	ס			Ц	P
Magnesium		Ĺ	500.0	ט (נ	500.0	ַס	500.0	ס			Ц	P
Manganese		Ĺ	10.0	ס (10.0	ש	10.0	ש			Ц	P
Nickel			40.0	ס (ס	40.0	ס	40.0	ש			П	P
Selenium			5.0	ט וי	5.0	ס	5.0	ד			Πĺ	P
Silver			10.0	שׁ	10.0	ס	10.0	ט			ΠĬ	₽
Thallium			20.0	שׁ	20.0	ש	20.0	ש			ΙĨ	P
Vanadium			50.0	ס ו	_50.0	ס	50.0	ש			LĬ	P
Zinc			20.0	ס (כ	20.0	ס	20.0	ש				P

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BLANKS

Contract: R2319165

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-19

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

	Initial Calib. Blank		_	Con	tinuing Blank		ation		Preparation Blank			
Analyte	(ug/L)	С	1	С	2	C	3	С		С	$ \ $	M
Potassium	2000.	ט ס	2000.	0 0	2000.	0 0	2000.0	ט (П	P

METALS -5A-

SPIKE SAMPLE RECOVERY

SAMPLE 1	м.	•
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GW-18RS	

ontract: R2319165

ab Code:

Case No.:

SAS No.:

SDG NO.: GW-19

atrix (soil/water):WATER

Level (low/med):

TOM

Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): | µG/L

Analyte	Control	Spiked Sample	C	Sample	_	Spike			
	Limit %R			Result (SR)	С	Added (SA)	%R	Q	M
Aluminum		16038.1318		15145.4473		2000.00	44.6		P
Antimony	75 - 125	489.9323		60.0000	σ	500.00	98.0		P
Arsenic ,	75 - 125	72.8589		34.8919		40.00	94.9		P
Barium '	75 - 125	2278.8933		284.3503		2000.00	99.7		P
Beryllium	75 - 125	49.9892		5.0000	ש	50.00	100.0		P
Cadmium	75 - 125	47.7751		5.0000	ש	50.00	95.6		P
Calcium		488256.5938		481577.1250	l	2000.00	334.0		P
Chromium	75 - 125	221.3936		26.3676	l	200.00	97.5		P
Cobalt	75 - 125	487.6418		50.0000	ט	500.00	97.5		P
Copper	75 - 125	266.4295		22.9516	<u> </u>	250.00	97.4		P
Iron		29922.6152		29223.7930	Γ	1000.00	69.9		P
Lead	75 - 125	582.7618		100.9003		500.00	96.4		P
Magnesium		98596.5234		95821.9766		2000.00	138.7		P
Manganese		2747.9004		2244.2358		500.00	100.7		P
Mercury	75 - 125	1.1514		0.2000	ש	1.00	115.1		CV
Nickel	75 - 125	499.9052		40.0000	ש	500.00	100.0		P
Potassium	75 - 125	61640.1641		40535.5078	Π	20000.00	105.5		P
Selenium	75 - 125	990.2570		5.0000	U	1010.00	98.0		P
Silver	75 - 125	46.9298		10.0000	ש	50.00	93.9		P
Sodium	75 - 125	67245.3203		45469.2734		20000.00	108.9		P
Thallium	75 - 125	1881.1450		20.0000	ש	2000.00	94.1		P
Vanadium	75 - 125	536.8887		50.0000	ש	500.00	107.4		P
Zinc	75 - 125	628.2297		161.6609	1	500.00	93.3		P

Comments:	

-5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

GW-18RA

ontract: R2319165

ab Code:

Case No.:

SAS No.:

SDG NO.: GW-19

atrix (soil/water):

WATER

Level (low/med):

LOW

Concentration Units: ug/L

			- •						
Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	С	Spike Added(SA)	%R	Q	M
Aluminum	Ī	16567.31		15145.45		2000.0	71.1		P
Antimony	1	483.48		60.00	Ū	500.0	96.7		P
Arsenic		71.91		34.89		40.0	92.6		P
Barium	+	2199.13		284.35		2000.0	95.7		P
Beryllium	1	47.96		5.00	ס	50.0	95.9		P
Cadmium	1	45.76		5.00	ס	50.0	91.5		P
Calcium		473010.13		481577.13		2000.0	-428.4		P
Chromium	1	213.45		26.37		200.0	93.5		P
obalt		467.83		50.00	ס	500.0	93.6		P
Copper	· ·	257.94		22.95		250.0	94.0		P
Iron	T	29604.88		29223.79		1000.0	38.1		P
Lead	T	560.21		100.90		500.0	91.9		P
Magnesium	T	95957.13		95821.98		2000.0	6.8		P
Manganese	T	2672.38	_	2244.24		500.0	85.6		P
Nickel		482.52	<u> </u>	40.00	ס	500.0	96.5		P
Potassium	T	59829.51		40535.51	$oxed{\Box}$	20000.0	96.5		P
Selenium	1	1010.86		5.00	ס	1010.0	100.1		P
Silver		32.11		10.00	ס	50.0	64.2		P
Sodium		65243.34		45469.27		20000.0	98.9		P
Thallium	1	1804.99		20.00	<u>ס</u>	2000.0	90.2		P
Vanadium	Ι	518.03		50.00	ט	500.0	103.6	L	P
Zinc	1	608.15		161.66		500.0	89.3		P

Comm	en	ts	1
~~~	C**		•

-6-

### **DUPLICATES**

SAMPLE NO.

GW-18RD

ontract: R2319165

ab Code:

Case No.:

SAS No.:

SDG NO.: GW-19

atrix (soil/water): WATER

Level (low/med):

LOW

Solids for Sample: 0.0

% Solids for Duplicate:

Concentration Units (ug/L or mg/kg dry weight):  $\mu$ G/L

		tracton chieb (ag/					<u> </u>				
Analyte	Control Limit	Sample (S)	С	Duplic	ate	(D)	С	RPD		Q	M
Aluminum		15145.4473			10	148.2549		39.	5	*	P
Antimony	1	60.0000	ש			60.0000	ש		1		P
Arsenic	10.0	34.8919				26.4292		27.	6		P
Barium	T	284.3503				238.7126		17.	5		P
Beryllium	1	5.0000	ש			5.0000	ש		Ĭ		P
Cadmium	1	5.0000	ש			5.0000	ם		Ī		P
Calcium	T i	481577.1250		<u> </u>	471	882.9063		2.	0		P
Chromium	10.0	26.3676				19.4107		30.	4		P
Cobalt	Π	50.0000	ש			50.0000	ש		ī	i	P
Copper	1	22.9516				20.0000	ש	200.	0		P
Iron	T	29223.7930			24	926.5137	Ī	15.	9		P
Lead	1	100.9003				74.5289		30.	1	*	P
Magnesium	T i	95821.9766			93	486.0234		2.	5		P
Manganese	1	2244.2358	Ī		2	133.4651	T	5.	1		P
Mercury	0.2	0.2000	ט			0.2386		200.	0		CV
Nickel	Ī	40.0000	ט			40.0000	U		ī		P
Potassium	<del>                                     </del>	40535.5078		<u> </u>	39	593.9453	Ī	2.	4		P
Selenium	i i	5.0000	ט			5.0000	U		i		P
Silver	<u> </u>	10.0000	U			10.0000	U	li –	Ì		P
Sodium	l i	45469.2734			45	933.9844		1.	0		P
Thallium		20.0000	U			20.0000	ש		j		P
Vanadium		50.0000	σ			50.0000	ש		_ i		P
Zinc	T	161.6609	$\overline{\Gamma}$	<u> </u>		115.2819	T	33.	. 5	*	P



### A FULL SERVICE ENVIRONMENTAL LABORATORY

January 7, 2004

Mr. Glenn Netuschil Roux Associates Inc. 1377 Motor Parkway Islandia, NY 11749

PROJECT: HONEYWELL OUTER HARBOR 25203Y04 Submission #:R2319589

Dear Mr. Netuschil

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (585) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Mark Wilson

Client Service Manager

Enc.



1 Mustard ST. Suite 250 Rochester, NY 14609 (585) 288-5380

### THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Lab Submission # : R2319589

Project Manager : Mark Wilson

Reported : 01/07/04

Report Contains a total of  $3\lambda$  pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. Method E. Perm

### CASE NARRATIVE

COMPANY: Roux Associates
PROJECT: Honeywell/Outer Harbor
SUBMISSION #: R2319589

Water samples were collected on 12/16/03 and received at CAS on 12/17/03 in good condition at cooler temperatures between 0 and 6 °C. See CAS CLP Batching sheets for a cross-reference between Client ID and CAS Job # and analyses requested.

### **INORGANIC ANALYSIS**

Water samples were analyzed the TAL list of Metals using SW-846 protocol. Mercury was analyzed by the cold vapor method 7470A and all other metals were analyzed by ICP method 6010B.

The Blank Spike (Reference Check) recoveries were all within QC limits. The Matrix Spike recoveries from sample GW-18R were all within QC limits of 75 – 125 %. RPD was outside limits for Aluminum, Lead and Zinc.

No analytical or QC problems were encountered.

### **SEMIVOLATILE ORGANICS**

Water samples were analyzed for Nitrobenzene by SW-846 method 8270C SIM Mode.

All Matrix and Blank spike recoveries were within limits. All RPD were within limits. ICP Serial Dilution was outside limits for Aluminum, Chromium and Zinc.

All DFTPP tuning criteria were within acceptance limits.

The initial and continuing calibration criteria were met for all analytes.

All internal standard areas were within QC limits.

All surrogate standard recoveries were within QC limits.

No analytical or QC problems were encountered.

# CAS ASP/CLP BATCHING TORM / LOGIN SHEET

DATE: 12/1 CUSTODY CUSTODY MATER WATER WATER WATER WATER WATER	SW-18 SION	3R R2319589		BATCH COMPLETE:yes		DATE REVISED: DATE DUE: 01/04/04	ISED: : 01/04/04		
**	IENT: IENT REP:	Roux Associates Inc. Mark Wilson	DATE: 12 CUSTOD	2/18/03 DY SEAL: PRESENT/ABSENT:	ن	PROTOCOL: 846 SHIPPING No.:	L: 846 No.:		
GW-22 GW-23 GW-23 GW-19 GW-21 GW-21 GW-2 GW-2 GW-2 GW-2 GW-2 GW-2 GW-2 GW-2	#	CLIENT/EPAID	MATRIX	REQUESTED PARAMETERS	DATE SAMPLED	DATE DATE PH % SAMPLEDRECEIVED(SOLIDS) SOLIDS	SOLIDS)	SOLIDS	REMARKS AMPLE CONDITION
GW-22 GW-23 GW-21 GW-21		GW-18R	WATER	QC 8270SIM/TAL	12/16/03	12/7/03			
GW-23 GW-19 GW-2		GW-22	WATER	8270SIM/TAL	12/16/03	12/7/03		,	
GW-21 GW-2 GW-2		GW-23	WATER	8270SIM/TAL	12/16/03	12/7/03			
GW-21			WATER	8270SIM/TAL	12/16/03	12/7/03			
GW-2			WATER	8270SIM/TAL	12/16/03	12/7/03			
			WATER	8270SIM/TAL	12/16/03	12/7/03			
				,					
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### **ORGANIC QUALIFIERS**

- U Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- N Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search.
- P This flag is used for a pesticide/Aroclor target analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank as well as in the sample.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and ALL concentration values reported on that Form I are flagged with the "D" flag.
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- X As specified in Case Narrative.
- This flag identifies compounds associated with a quality control parameter which exceeds laboratory limits.

### CAS/Rochester Lab ID # for State Certifications

Army Corp of Engineers Validated
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited

NELAP Accredited New York ID # 10145 New Jersey ID # NY004 New Hampshire ID # 294100 A/B Pennsylvania Registration 68-786 Rhode Island ID # 158 South Carolina ID #91012 West Virginia ID # 292







# **INORGANIC QUALIFIERS**

### C (Concentration) qualifier -

- B if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but was greater than or equal to the Instrument Detection Limit (IDL).
- U if the analyte was analyzed for, but not detected

### Q qualifier - Specified entries and their meanings are as follows:

- D Spike was diluted out
- E The reported value is estimated because of the presence of interference.
- J Estimated Value
- M Duplicate injection precision not met.
- N Spiked sample recovery not within control limits.
- S The reported value was determined by the Method of Standard Additions (MSA).
- W Post-digestion spike for Furnace AA Analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
- * Duplicate analysis not within control limits.
- + Correlation coefficient for the MSA is less than 0.995.

### M (Method) qualifier:

- "P" for ICP
- "A" for Flame AA
- "F" for Furnace AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for Flame AA when Microwave Digestion is used
- "FM" for Furnace M when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for Automated Cold Vapor AA
- "CA" for Midi-Distillation Spectrophotometric
- "AS" for Semi-Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- " " where no data has been entered
- "NR" if the analyte is not required to be analyzed.

### CAS/Rochester Lab ID # for State Certifications

Army Corp of Engineers Validated
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited
NELAP Accredited

New York ID # 10145 New Jersey ID # NY004 New Hampshire ID # 294100 A/B Pennsylvania Registration 68-786 Rhode Island ID # 158 South Carolina ID #91012 West Virginia ID # 292

REGL	PAGE
<b>LYSIS</b>	K (585) 288-8475
CHAIN OF CUSTODY/LABORATORY A LYSIS REQL	DEFVICES
Columbia	An Employee - Owned Company

# CHAIN OF CUSTODY/LABORATORY A LYSIS REQUEST FORM

Р

	act	
# ES	CAS Contact	

servative Key REMARKS/ ALTERNATE DESCRIPTION INVOICE INFORMATION ANALYSIS REQUESTED (Include Method Number and Container Preservative) BILL TO: ğ IV. Data Validation Report with Raw Data V. Speicalized Forms / Custorn Report £ REPORT REQUIREMENTS II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + OC and Calibration . Results Only S Edeta TURNAROUND REQUIREMENTS _ 5 day RUSH (SURCHARGES APPLY) REQUESTED REPORT DATE REQUESTED FAX DATE STANDARD **PRESERVATIVE** z CUSTODY SEALS: Y NUMBER OF CONTAINERS 2 0 7 6 MATRIX 3 200 7 1S Project Number 2520 3VB DATE 237 FOR OFFICE USE ONLY LAB ID Report CC CONDITION/COOLER TEMP **Q** SPECIAL INSTRUCTIONS/COMMENTS Metals CLIENT SAMPLE ID Q SAMPLE RECEIPT See QAPP

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Clien

Printed Name Signature

rinted Name

RELINQUISHED BY

RECEIVED BY

Date/Time

Date/Time

3,50

Jate/Time

							,	
	Cooler R	Receipt	And l	Preservat	ion Chec	k Form		
Project/Client	COUX	A1 /				er R2-1958	9	
Cooler received on	12-17-03 by:_	KE	_cot	TRIER: (	CAS t	JPS FEDEX	CD&L	CLIEN
Were custoo  Did all bottl  Did any VC  Were Ice of  Where did t	dy seals on outside dy papers properly les arrive in good o A vials have sign Ice packs presen he bottles originat e of cooler(s) upon	filled condition if it is the condition if it	out (in on (un air bub	broken)?	, etc.)?	YES YES YES YES CAS/R	NO NO NO NO NO CLI	N/A ENT
Is the tempe	rature within 0°-	6° C?:	(	Yes	Yes	Yes	Yes	Yes
If No, Expl	ain Below Femperatures Take		12-	No 17-03	No	No 13:59	No	. No
Did all bottle Were correc	ttle labels complete e labels and tags a t containers used f : Cassettes / Tub ancies:	gree wi	ith cus tests in	tody papedicated?	-	YES YES	NO NO NO B Bags Inf	flated N
		YES	NO	Sample 1	.D.	Reagent	Vol	. Added
рН	Reagent							
12	NaOH							
2	HNO ₃	i/			_			·
2	H₂SO₄							٠.
Residual Chlorine (+/-)	for TCN & Phenol							
5-9**	P/PCBs (608 only)							
ES = All samples OK 'If pH adjustment is req		•	e preser	ved at lab as	listed	PC OK to adjus	st pH	- 15 1.11
(7	OC Vial pH Verification Tested after Analysis) Following Samples Exhibited pH > 2							
				_				

Other Comments:

### EXTRACTABLE ORGANICS

METHOD 8270C NITROBENZENE

Reported: 01/06/04

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Date Sampled: 12/16/03 Date Received: 12/17/03		<b>-</b>	
ANALYTE		PQL RESULT	UNITS
	2/22/03 2/29/03 0.97		
NITROBENZENE		0.20 0.19 U	UG/L
SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 - 139 % (22 - 130 % (27 - 130 %	) 99	واه واه

### EXTRACTABLE ORGANICS

METHOD 8270C NITROBENZENE

Reported: 01/06/04

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Date Sampled:	12/16/03	Order #:	697042	Sample Matrix: WATER
Date Received:	12/17/03	Submission #:	R2319589	Analytical Run 99190

2410 1100011041 12/11/0		,, , , , , , ,			,,,,,,	
ANALYTE			PQL	RESULT	UNITS	
	12/22/03 12/29/03 1.00					
NITROBENZENE			0.20	0.20 U	UG/L	
SURROGATE RECOVERIES	QC	LIMITS				
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 (22 (27	- 139 - 130 - 130	용)	58 106 68	oo oo oo	

### EXTRACTABLE ORGANICS

METHOD 8270C NITROBENZENE

Reported: 01/06/04

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Date Sampled : 12/16/03	Order #: 697043	Sample Matrix: WATER
Date Received: 12/17/03	Submission #: R2319589	Analytical Run 99190

,			_			
ANALYTE			PQL	RESULT	UNITS	
	12/22/03 12/29/03 0.98					
NITROBENZENE			0.20	0.20 U	UG/L	
SURROGATE RECOVERIES	QC	LIMITS				
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 (22 (27	- 139 - 130 - 130	용)	56 106 68	00 00 00	

### EXTRACTABLE ORGANICS

METHOD 8270C NITROBENZENE

Reported: 01/06/04

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Date Sampled: 12/16/03	Order #: 697044	Sample Matrix: WATER
Date Received: 12/17/03	Submission #: R2319589	Analytical Run 99190

-, ·· ,				•		
ANALYTE			PQL	RESULT	UNITS	
	2/22/03 2/29/03 1.14					
NITROBENZENE			0.20	0.23 U	UG/L	
SURROGATE RECOVERIES	QC	LIMIT	S			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 (22 (27	- 13 - 13 - 13	0 왕)	62 100 76	00 00 00	

### EXTRACTABLE ORGANICS

METHOD 8270C NITROBENZENE

Reported: 01/06/04

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Date Sampled:	12/16/03	Order #:	697045	Sample Matrix:	WATER
Date Received:	12/17/03	Submission #:	R2319589	Analytical Run	99190

ANALYTE				PQL	RESULT	UNITS	
	12/22/03 12/29/03 0.96						
NITROBENZENE				0.20	0.19 U	UG/L	
SURROGATE RECOVERIES	QC	LIM	IITS				
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 (22 (27	-	139 130 130	아) 아) 아)	54 94 71	00 00 00	

### EXTRACTABLE ORGANICS

METHOD 8270C NITROBENZENE

Reported: 01/06/04

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : GW-2

Date Sampled: 12/16/03 Order #: 697046 Sample Matrix: WATER Date Received: 12/17/03 Submission #: R2319589 Analytical Run 99190

ANALYTE		PQL	RESULT	UNITS	
DATE EXTRACTED : 12/22/03 DATE ANALYZED : 12/29/03 ANALYTICAL DILUTION: 0.9	97				
NITROBENZENE		0.20	0.19 U	UG/L	
SURROGATE RECOVERIES	QC LIMITS	5			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 - 139 (22 - 130 (27 - 130	) 왕)	58 104 76	e e e	

### EXTRACTABLE ORGANICS

METHOD 8270C NITROBENZENE

Reported: 01/06/04

Project Reference: Client Sample ID : METHOD BLANK

Date Sampled : Date Received:	Order #: 0 Submission #:	699072	Sample Matrix: Analytical Run	
ANALYTE		PQL	RESULT	UNITS
	12/22/03 12/29/03 1.00			
NITROBENZENE		0.20	0.20 U	UG/L
SURROGATE RECOVERIES	QC LIMI	rs		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(22 - 13	 39 %) 30 %) 30 %)	51 84 63	op op

QUALITY CONTROL SUMMARY MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY WATER

Spiked Order No.: 697041 Roux Associates Inc.

Client ID: GW-18R

Test: 8270C NITROBENZENE

Analytical Units: UG/L

Run Number : 99190

	SPIKE	CONCENT.		X SPIKE   MATRIX SPIKE DUP.   QC LIM		MATRIX SPIKE   MATRIX SPIKE DUP.   QC LIMITS		
ANALYTE		SAMPLE		REC.	FOUND	REC. RPD	RPD REC	
NITROBENZENE	1.00	0	1.30	130		130  0	30   50 - 19	50

QUALITY CONTROL SUMMARY LABORATORY CONTROL SAMPLE WATER

Spiked Order No.: 699073

Client ID:

Test: 8270C NITROBENZENE

Analytical Units: UG/L

Run Number : 99190

	CDIVE	SAMPLE	BLANK SI	PIKE	QC LIMITS
ANALYTE	SPIKE  ADDED	CONCENT.	FOUND	% REC.	REC.
NITROBENZENE	1.00	0	0.930	93	49 - 130

### J:\ACQUDATA\5973C\DATA\122903\AE835.D

Data File Name AE835.D

Data File Path J:\ACQUDATA\5973C\DATA\122903\
Date Acquired 12/29/2003 12:27
Sample Name 699073 1.0
Instrument Name 5973C

	•			Amount spil	ί.		
#	Name	Amount	Units	ppm	% REC.	F or P	Limits
2)	Analine	0.06	ppb	1	6%	NA	NA
3)	SURR4, Nitrobenzene	0.92	ppb	1	92%	Р	22-124
4)	Nitrobenzene	0.93	ppb	1	93%	NA	NA
5)	Naphthalene	0.77	ppb	1	77%	Р	39-109
6)	2-Methylnaphthalene	0.79	ppb	1	79%	NA	NA
7)	1-Methylnaphthalene	0.80	ppb	1	80%	NA	NA
9)	SURR5,2-Fluorobiphenyl	0.69	ppb	1	69%	Р	27-114
10)	Acenaphthylene	0.80	ppb	1	80%	Р	45-122
11)	Acenaphthene	0.81	ppb	1	81%	Р	49-116
12)	Dibenzofuran	0.84	ppb	1	84%	NA	NA
13)	Fluorene	0.88	ppb	1	88%	Р	48-122
14)	Hexachlorobenzene	0.74	ppb	1	74%	NA	NA
16)	Phenanthrene	0.90	ppb	1	90%	Р	47-128
17)	Anthracene	0.82	ppb	1	82%	P	54-120
18)	Carbazol	0.93	ppb	1	93%	NA	NA
19)	Fluoranthene	1.04	ppb	1	104%	Р	56-121
21)	Pyrene	0.79	ppb	1	79%	Р	60-113
22)	SURR6,Terphenyl-d14	0.82	ppb	1	82%	Р	23-139
23)	Benzo(a)anthracene	0.87	ppb	1	87%	Р	61-116
24)	Chrysene	0.87	ppb	1	87%	Р	60-117
25)	Bis(2-Ethylhexyl)Phthalate	1.32	ppb	1			
27)	Benzo(b)Fluoranthene	0.87	ppb	1	87%	Р	60-116
28)	Benzo(k)Fluoranthene	0.87	ppb	1	87%	Р	54-120
29)	Benzo(a)pyrene	0.77	ppb	1	77%	Р	60-118
30)	Indeno(1,2,3-cd)Pyrene	0.76	ppb	1	76%	Р	50-125
31)	Dibenz(a,h)anthracene	0.76	ppb	1	76%	Р	31-139
32)	Benzo(g,h,i)perylene	0.73	ppb	1	73%	Р	50-125

# METALS COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

ract: R23	19589				SDG No.:	GW-18R
Lab Code:		Case No.	:		SAS No.:	
SOW No.: SW846	CLP-M	Client:	Roux Associ	ates Inc.		
	Sample No.	-	Lab	Sample ID.		
	GW-18R		697	041		
	GW-18RD			041D		
	GW-18RS			041S		
	GW-22			042		
	GW-23			043		
,	GW-19			044		
	GW-21			045		
	GW-2		697	046		
Were ICP inter	element corre	ctions applie	đ?		Yes/No	YES
Were ICP backg	round correct	ions applied?			Yes/No	YES
If yes-we	re raw data g	enerated befo	re			
_		ound correction			Yes/No	NO
Comments: See	Attached Cas	e Narrative				
I certify that contract, both above. Release computer-readal the Manager's of	technically e of the data ole data subm	and for comple contained in itted on disk	eteness, for this hardcop ette has been	other than the y data package authorized by	conditions and in the	detailed
Signature: Mu	hul C.Pe	resof	Name :	Michael Laborator,	K. Perry	
Date:	1/12/04	<i>V</i>	Title:	Laborator	Manager	18

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### INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

GW-18R

Contract: R2319589

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

fatrix (soil/water): WATER

Level (low/med):

LOW

Lab Sample ID: 697041

Date Received: 12/17/03

Concentration Units (ug/L or mg/kg dry weight):  $\mu$ G/L

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	11300		E	P
7440-36-0	Antimony	3.2	В		P
7440-38-2	Arsenic	33.1			P
7440-39-3	Barium	235			P
7440-41-7	Beryllium	0.13	ַ ס		P
7440-43-9	Cadmium	0.56	В	,	P
7440-70-2	Calcium	445000			P
7440-47-3	Chromium	20.2		E	P
7440-48-4	Cobalt	7.8	В		P
7440-50-8	Copper	15.6	В		P
7439-89-6	Iron	23300			P
7439-92-1	Lead	91.7			P
7439-95-4	Magnesium	91100			P
7439-96-5	Manganese	2420			P
7439-97-6	Mercury	0.14	В		CV
7440-02-0	Nickel	22.5	В		P
7440-09-7	Potassium	26000			P
7782-49-2	Selenium	3.5	ם		P
7440-22-4	Silver	0.53	ש		P
7440-23-5	Sodium	37500			P
7440-28-0	Thallium	7.9	ם		P
7440-62-2	Vanadium	27.1	В		P
7440-66-6	Zinc	203		E	P

Color Before: BROWN

Clarity Before:

CLOUDY

Texture:

Color After: YELLOW

Clarity After:

CLOUDY

Artifacts:

-1-

### **INORGANIC ANALYSIS DATA SHEET**

SAMPLE NO.

GW-19

Contract: R2319589

ab Code:

Level (low/med):

Case No.:

SAS No.:

SDG NO.:

GW-18R

fatrix (soil/water): WATER

Lab Sample ID: 697044

Date Received: 12/17/03

Concentration Units (ug/L or mg/kg dry weight):  $\mu$ G/L

CAS No.	Analyte	Concentration	С	Q	M
7429-90-5	Aluminum	1960		E	P
7440-36-0	Antimony	3.1	ט		P
7440-38-2	Arsenic	3.2	В		P
7440-39-3	Barium	30.0			P
7440-41-7	Beryllium	0.13	ע		P
7440-43-9	Cadmium	0.17	В		P
7440-70-2	Calcium	81900			P
7440-47-3	Chromium	59.9		K	P
7440-48-4	Cobalt	0.64	ס		P
7440-50-8	Copper	2.3	ש		P
7439-89-6	Iron	312			P
7439-92-1	Lead	1.5	В		P
7439-95-4	Magnesium	383	В		P
7439-96-5	Manganese	8.3	В		P
7439-97-6	Mercury	0.06	В		CV
7440-02-0	Nickel	2.0	В		P
7440-09-7	Potassium	328000			P
7782-49-2	Selenium	13.6			P
7440-22-4	Silver	0.53	<b>ס</b>		P
7440-23-5	Sodium	21700			P
7440-28-0	Thallium	4.0	ש		P
7440-62-2	Vanadium	18.4	В		P
7440-66-6	Zinc	7.0	В	E	P

Color Before: BROWN

Clarity Before:

CLEAR

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

-1-

# **INORGANIC ANALYSIS DATA SHEET**

SAMPLE NO.

GW-2

Contract: R2319589

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Matrix (soil/water): WATER

Level (low/med):

LOW

Lab Sample ID: 697046

Date Received: 12/17/03

Concentration Units (ug/L or mg/kg dry weight):  $\mu$ G/L

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	1980	'	E	P
7440-36-0	Antimony	3.1	ס		P
7440-38-2	Arsenic	4.0	В		P
7440-39-3	Barium	29.6			P
7440-41-7	Beryllium	0.13	ם		P
7440-43-9	Cadmium	0.15	В		P
7440-70-2	Calcium	82200			P
7440-47-3	Chromium	60.3		E	P
7440-48-4	Cobalt	0.64	ס		P
7440-50-8	Copper	2.3	ס		P
7439-89-6	Iron	348			P
7439-92-1	Lead	2.2	В		P
7439-95-4	Magnesium	316	В		P
7439-96-5	Manganese	8.3	В		P
7439-97-6	Mercury	0.06	В		CV
7440-02-0	Nickel	2.1	В		P
7440-09-7	Potassium	328000			P
7782-49-2	Selenium	15.1			P
7440-22-4	Silver	0.53	<b>U</b> _		P
7440-23-5	Sodium	21100			P
7440-28-0	Thallium	4.0	<b>ס</b>		P
7440-62-2	Vanadium	18.2	В		P
7440-66-6	Zinc	8.0	В	E	P

Color Before: BROWN

Clarity Before:

CLEAR

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

# INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

GW-21

Lab Code:

Contract: R2319589

Case No.:

SAS No.:

SDG NO.: GW-18R

Matrix (soil/water): WATER

Level (low/med):

LOW

Lab Sample ID: 697045

Date Received: 12/17/03

Concentration Units (ug/L or mg/kg dry weight):  $\mu$ G/L

CAS No.	Analyte	Concentration	С	Ω	М
7429-90-5	Aluminum	43.1	В	E	P
7440-36-0	Antimony	3.1	ש		P
7440-38-2	Arsenic	2.5	ש		P
7440-39-3	Barium	55.5			P
7440-41-7	Beryllium	0.13	ש		P
7440-43-9	Cadmium	0.15	ש		P
7440-70-2	Calcium	49900			P
7440-47-3	Chromium	1.1	В	E	P
7440-48-4	Cobalt	0.64	ש		P
7440-50-8	Copper	2.3	ס		P
7439-89-6	Iron	28.4	В		P
7439-92-1	Lead	1.8	В		P
7439-95-4	Magnesium	5650			P
7439-96-5	Manganese	2.8	В		P
7439-97-6	Mercury	0.04	В		CV
7440-02-0	Nickel	1.1	ש		P
7440-09-7	Potassium	21100			P
7782-49-2	Selenium	3.5	ם		P
7440-22-4	Silver	0.53	ם		P
7440-23-5	Sodium	14000			P
7440-28-0	Thallium	4.0	ש		P
7440-62-2	Vanadium	2.7	В		P
7440-66-6	Zinc	3.2	В	B	P

Color Before: BROWN

Clarity Before:

CLEAR

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

-1-

### **INORGANIC ANALYSIS DATA SHEET**

SAMPLE NO.

GW-22

Contract: R2319589

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Matrix (soil/water): WATER

Lab Sample ID: 697042

Level (low/med):

FOM

Date Received: 12/17/03

Concentration Units (ug/L or mg/kg dry weight):  $\mu$ G/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1420		E	P
7440-36-0	Antimony	7.7	В		P
7440-38-2	Arsenic	2.5	ס		P
7440-39-3	Barium	94.2			P
7440-41-7	Beryllium	0.13	ס		P
7440-43-9	Cadmium	2.1	В		P
7440-70-2	Calcium	370000			P
7440-47-3	Chromium	5.7	В	E	P
7440-48-4	Cobalt	2.3	В		P
7440-50-8	Copper	17.3	B_		P
7439-89-6	Iron	17300			P
7439-92-1	Lead	27.9			P
7439-95-4	Magnesium	111000		l	P
7439-96-5	Manganese	1240		l	P
7439-97-6	Mercury	0.07	В		CV
7440-02-0	Nickel	17.7	В		P
7440-09-7	Potassium	28100			P
7782-49-2	Selenium	3.5	ס	<u></u>	P
7440-22-4	Silver	0.53	ס		P
7440-23-5	Sodium	51200			P
7440-28-0	Thallium	4.0	ד		P
7440-62-2	Vanadium	4.1	В		P
7440-66-6	Zinc	32.0		E	P

Color Before: BROWN

Clarity Before:

CLEAR

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

-1-

### INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

GW-23

Contract: R2319589

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Matrix (soil/water): WATER

Level (low/med):

LOW

Lab Sample ID: 697043

Date Received: 12/17/03

Concentration Units (ug/L or mg/kg dry weight):  $\mu$ G/L

CAS No.	Analyte	Concentration	С	Q	M
7429-90-5	Aluminum	312		E	P
7440-36-0	Antimony	25.4	В		P
7440-38-2	Arsenic	4.9	В		P
7440-39-3	Barium	220			P
7440-41-7	Beryllium	0.13	ס		P
7440-43-9	Cadmium	0.75	В		P
7440-70-2	Calcium	284000	l		P
7440-47-3	Chromium	3.6	В	E	P
7440-48-4	Cobalt	1.9	В		P
7440-50-8	Copper	2.3	ס		P
7439-89-6	Iron	5600	<u> </u>		P
7439-92-1	Lead	11.2	<u> </u>		P
7439-95-4	Magnesium	75800			P
7439-96-5	Manganese	918		<u> </u>	P
7439-97-6	Mercury	0.04	В		CV
7440-02-0	Nickel	10.2	В		P
7440-09-7	Potassium	45600	<u> </u>		P
7782-49-2	Selenium	3.5	ד		P
7440-22-4	Silver	0.53	ס		P
7440-23-5	Sodium	48100			P
7440-28-0	Thallium	4.0	<b>ס</b>		P
7440-62-2	Vanadium	1.9	В		P
7440-66-6	Zinc	6.7	В	E	P

Color Before: BROWN

Clarity Before:

CLEAR

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

-3-

### **BLANKS**

Contract: R2319589

ab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

reparation Blank Matrix (soil/water): WATER

Analyte	Initial Calib. Blank (ug/L)	c	1	c	ontinuing C		Preparation Blank			M		
		_		_	2	C	3	С	<u> </u>	C	Ц	
Aluminum	8.5		8.5	_	8.5	ש	8.5	ס	27.541	В	Ц	P
Antimony	4.5		4.7	В	6.3	В	5.4	В	3.070	Ū	Ц	P
Arsenic		U	2.5	Ū	2.5	ט		<u></u>	2.490	ប	Ц	₽
Barium	3.4	В	3.2	ד	3.2	ס	4.2	В	3.230	σ	Ш	P
Beryllium	0.1	σ	0.2	В	0.1	ס	0.1	ס	0.129	Ū	Ш	₽
Cadmium	0.2	σ	0.2	В	0.2	ס	0.2	ס	0.149	σ	IJ	P
Calcium	31.8	σ	44.8	В	31.8	ם	31.8	ם	31.800	σ	$\Box$	P
Chromium	0.2	Ū	0.2	ס	0.2	ש	0.2	ס	0.438	В	$\prod$	P
Cobalt	0.6	σ	0.9	В	0.8	В	0.9	В	0.637	ס	$\prod$	P
Copper	2.3	σ	-2.5	В	-5.2	в	-6.2	В	-5.616	В	$\Box$	P
Iron	24.3	σ	25.6	В	24.3	اه	24.3	ש	24.300	σ	$\overline{\coprod}$	P
Lead	1.3	σ	1.3	ס	1.3	ט	1.3	<b>ט</b>	1.260	U	П	P
Magnesium	41.6	σ	41.6	ס	41.6	ם	41.6	ש	41.600	σ	П	P
Manganese	0.8	ט	0.8	ד	0.8	ם	0.8	ש	0.806	υ	ĪÏ	P
Mercury	0.03	ט	0.03	U	0.03	ט	0.03	ד	0.027	υ	Π	CA
Nickel	1.2	σ	1.2	В	1.2	ש	1.2	ש	1.150	ד	$\overline{\prod}$	P
Potassium	193.0	σ	193.0	σ	193.0	ט	193.0	ש	193.000	Ū	Π	P
Selenium	3.5	ט	3.5	ד	3.5	ם	3.5	ש	3.460	U	Π	P
Silver	0.5	<b>ט</b>	0.5	ָם	0.5	ט	0.5	ש	0.52B	U	П	P
Sodium	79.4	Ū	79.4	σ	79.4	ש	79.4	ש	79.400	Ū	T	P
Thallium	4.0	Ū	4.0	U	4.0	ס	4.0	ש	3.970	Ū	Ħ	P
Vanadium	1.0	Ū	1.0	ש	1.0	ס	1.4	В	0.989	Ū	Π	P
Zinc	2.0	Ū	2.0	Ū	2.0	σ	2.0	<u></u>	2.010	Ū	Ħ	P

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### **BLANKS**

Contract: R2319589

iab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Preparation Blank Matrix (soil/water): WATER

	Initial Calib. Blank			Continuing Calibration Prepara Blank (ug/L) Blank								
Analyte	(ug/L)	С	1	C	2	C	3	С		c		M
Aluminum			8.5	ַם		$\Box$					I	P
Antimony		$\perp \perp$	3.5	В	4.3	В					$\perp$	P
Arsenic		$\perp$	2.5	ּס	2.5	Ū		$\Box$			$\perp$	P
Barium		Ш	3.2	ס	4.0	В					$\perp$	P
Beryllium		$\perp \perp$	0.1	ס	0.2	В					$\perp$	P
Cadmium	•	ĹĹ	0.2	ש	0.2	ד					$\perp$	P
Calcium		ĹĹ	31.8	ש	31.8	ד					Ţ	P
Chromium		ĪĪ	0.2	ס	0.2	ס					Ĺ	P
Cobalt		Ĺ	0.6	В	1.3	В					Ĺ	P
Copper			-5.2	в	2.3	ַ					Ĺ	P
Iron		$\overline{1}$	24.3	ام	24.3	٥			Ī		Ì	P
Lead		$\Box$	1.3	ט	1.3	ם					Ī	P
Magnesium		Ī	41.6	٥	41.6	٥					Ī	<b>P</b>
Manganese		$\Box$	0.8	ם	0.8	٥					Ī	P
Mercury	•	ĪĪ	0.03	ם	0.03	٥	0.03	ס			$\overline{\perp}$	CV
Nickel		$\overline{1}$	1.2	ט	1.2	ש			Ĺ		Ì	P
Potassium	_		193.0	ם							$\overline{\perp}$	P
Selenium		ΪĪ	3.5	ש	3.5	ש			ī		Ī	P
Silver		ī	0.5	סו	0.6	В			Ī		Ī	P
Sodium		1 1	79.4	_		i					Ī	P
Thallium		$\dashv$	4.0		4.0	ש					Ī	P
Vanadium		1 1		$\overline{}$	1.0	ד					Ī	P
Zinc		<del>   </del>	2.0	ם ו	2.0	ס			Ī	<u> </u>	Ī	P

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**BLANKS** 

Contract: R2319589

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Preparation Blank Matrix (soil/water): WATER

Initia Calib Blank				Con	tinuing Blank	Preparation Blank						
Analyte	(ug/L)	С	1	C	2	C	3	С		C		M
Potassium	193.	0 0	193	. ០  ប	193.	0   <del>U</del>	193.0	ט			Ш	P
Thallium	4.	이 ㅠ	4	. 0   <del>U</del>	4.	ס   ס	4.0	ס			П	P

-3-

**BLANKS** 

Contract: R2319589

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Preparation Blank Matrix (soil/water): WATER

	Initial Calib. Blank			Con	tinuing Blank		Preparation Blank					
Analyte	(ug/L)	С	1	С	2	C	3	С		С	M	1
Thallium			4.	0   0	4.	ο   σ	4.0	ן ס   כ			P	<u> </u>

-3-

**BLANKS** 

Contract: R2319589

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Preparation Blank Matrix (soil/water): WATER

			Co	ntinuing Blank	Preparation Blank						
Analyte	(ug/L)	C	1	C	2	C	3	C		c	M
Thallium			4.	이 ㅠ							P

# **METALS** -5A-

# SPIKE SAMPLE RECOVERY

SZ	MP	LE	NO.

Contract:	R2319589	

GW-18RS

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Matrix (soil/water): WATER

Level (low/med):

LOW

% Solids for Sample: 0.0

### Concentration Units (ug/L or mg/kg dry weight): $\mu G/L$

Analyte	Control	Spiked Sample	_	Sample		Spike			
imary co	Limit %R	Result (SSR)	С	Result (SR)	C	Added (SA)	%R	Q	M
Aluminum	1	16460.6719		11321.3242		2000.00	257.0		P
Antimony	75 - 125	508.9500		3.1715	В	500.00	101.2		P
Arsenic	75 - 125	80.6079		33.1145		40.00	118.7		P
Barium	75 ~ 125	2320.6091		234.6917		2000.00	104.3		P
Beryllium	75 - 125	50.0526		0.1290	ש	50.00	100.1		₽
Cadmium	75 - 125	49.3057		0.5623	В	50.00	97.5		₽
Calcium		438402.3750		445377.7188		2000.00	-348.8		P
Chromium	75 - 125	227.5842		20.1615		200.00	103.7		₽
Cobalt	75 - 125	505.2429		7.8446	В	500.00	99.5		P
Copper	75 - 125	264.5368		15.6382	В	250.00	99.6		P
Iron		29992.3828		23266.3359		1000.00	672.6		P
Lead	75 - 125	585.8054	- 1	91.7255		500.00	98.8		₽
Magnesium		92592.3047		91115.7969		2000.00	73.8		₽
Manganese		2911.6731		2418.0176		500.00	98.7		₽
Mercury	75 - 125	1.1775		0.1378	В	1.00	104.0		CV
Nickel	75 - 125	520.2729		22.5315	В	500.00	99.5		P
Potassium	75 - 125	45487.8984	- 1	25989.9258		20000.00	97.5		₽
Selenium	75 - 125	1033.8480		3.4600	ט	1010.00	102.4		₽
Silver	75 - 125	48.8051		0.5280	ש	50.00	97.6		₽
Sodium	75 - 125	55504.4023		37504.7109		20000.00	90.0		P
Thallium	75 - 125	1960.3329	I	7.9400	ש	2000.00	98.0		₽
Vanadium	75 - 125	545.5784	Ī	27.1062	В	500.00	103.7		P
Zinc	75 - 125	703.0920		202.9948		500.00	100.0		P

Comments:					

# **METALS** -5B-

### POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

!ontract: R2319589

GW-18RA

ab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

latrix (soil/water): WATER

Level (low/med):

LOW

### Concentration Units: ug/L

Analyte	Control	Spiked Sample	_	Sample		Spike			
Analyce	Limit %R	Result (SSR)	С	Result (SR)	C	Added (SA)	₹R	Q	M
Aluminum	1	11879.36		11321.32		2000.0	27.9		P
Antimony	I	488.67		3.17	В	500.0	97.1		P
Arsenic	1	69.78		33.11		40.0	91.7		P
Barium	Ī	2145.03		234.69		2000.0	95.5		P
Beryllium	1	47.21		0.13	ש	50.0	94.4		P
Cadmium	1	46.16		0.56	В	50.0	91.2		P
Calcium	1	435483.72		445377.72		2000.0	-494.7		P
Chromium	I	208.62		20.16		200.0	94.2		P
Cobalt	T	472.19		7.84	В	500.0	92.9		P
Copper	1	248.62		15.64	В	250.0	93.2		P
Iron	1	23688.19		23266.34		1000.0	42.2		P
Lead	T	551.06		91.73		500.0	91.9		P
Magnesium	I	91129.65		91115.80		2000.0	0.7		P
Manganese	T	2843.51		2418.02		500.0	85.1		P
Nickel	1	483.82		22.53	В	500.0	92.3		P
Potassium	T	43582.39		25989.93		20000.0	88.0		P
Selenium	1	1034.70		3.46	ס	1010.0	102.4		P
Silver	1	45.39		0.53	ם	50.0	90.8		P
Sodium	I	54786.81		37504.71		20000.0	86.4		P
Thallium	1	1936.73		3.97	ט	2000.0	96.8		P
Vanadium	1	505.44		27.11	В	500.0	95.7		P
Zinc		653.94		202.99		500.0	90.2		P

~-	mm	_		_	
	mm		пт.	8	

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### **DUPLICATES**

SAMPLE NO.

GW-18RD

Contract: R2319589

Lab Code:

____

Case No.:

SAS No.:

SDG NO.: GW-18R

Matrix (soil/water): WATER

Level (low/med):

LOW

% Solids for Sample: 0.0

0 0

% Solids for Duplicate:

	Concer	tration Units (ug/L	or	mg/kg dry weight):	μG/	<u>'L</u>		
Analyte	Control   Limit	Sample (S)	С	Duplicate (D)	С	RPD	Q	м
Aluminum	I	11321.3242		13491.5977		17.5		P
Antimony	1	3.1715	В	3.0700	ם	200.0		P
Arsenic	10.0	33.1145		37.8645		13.4		P
Barium	I	234.6917		267.8068		13.2		P
Beryllium	1	0.1290	ם	0.1290	ם			P
Cadmium	I	0.5623	В	0.5582	В	.0.7		P
Calcium	I	445377.7188		437921.0938		1.7		P
Chromium	10.0	20.1615	Γ	24.8906		21.0		P
Cobalt	T	7.8446	В	9.1634	В	15.5		P
Copper	T	15.6382	В	18.6206	В	17.4		P
Iron	l	23266.3359		27474.4668		16.6		P
Lead		91.7255		93.9829		2.4		P
Magnesium	l i	91115.7969		90589.2422		0.6		P
Manganese	I	2418.0176		2413.3818		0.2		P
Mercury	<u> </u>	0.1378	В	0.1530	В	10.5		CV
Nickel	ı	22.5315	В	25.8959	В	13.9		P
Potassium	1	25989.9258		25741.0156	1	1.0		P
Selenium	I	3.4600	ס	3.4600	ט	j j		P
Silver	· i	0.5280	ס	0.5280	ס		ĺ	P
Sodium	T	37504.7109		36608.1055		2.4		P
Thallium		7.9400	σ	7.9400	<b>ט</b>			P
Vanadium		27.1062	В	32.9170	В	19.4		P
Zinc	l i	202.9948	$\overline{}$	214.7517		5.6		P

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 11/10/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID : PTSB-25 12-14'

Date Sampled: 10/21/03 Order #: 682125 Sample Matrix: SOIL/SEDIMENT

Date Received: 10/23/03 Submission #: R2318866 Percent Solid: 78.3

Date Received: 10/25/	os bubilibbio	π • 1(2.	510000	rereeme borra	. 70.5
ANALYTE			PQL	RESULT	UNITS
	10/23/03 10/24/03 200.00				Dry Weight
NITROBENZENE			330	1000000	UG/KG
SURROGATE RECOVERIES	QC	LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	- 137 - 120 - 115	<b>%</b> )	D D D	<b>ે</b> જ

# EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 11/10/03

Project Reference: Client Sample ID : METHOD BLANK

Date Sampled : Date Received:	Order #: 682458 Submission #:		Sample Matrix: SOIL/SEDIMENT Percent Solid: 100		
ANALYTE		PQL	RESULT	UNITS	
	10/23/03 10/24/03 1.00			Dry Weight	
NITROBENZENE		330	330 U	UG/KG	
SURROGATE RECOVERIES	QC L	IMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23	- 137 %) - 120 %) - 115 %)	109 82 75	୫ ୫	

QUALITY CONTROL SUMMARY MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY SOIL/SEDIMENT

Spiked Order No. : 682116 Roux Associates Inc.

Client ID: PTSB-29 0-8'

Test: 8270 NITROBENZENE

Analytical Units: UG/KG

Run Number : 96866

Percent Solid : 72.8

	SPIKE   CONCENT.		MATRIX SPIKE		MATRIX S	SPIKE DUP.	- <del>1</del>   	QC LIMITS		
ANALYTE		SAMPLE	FOUND	* REC.	FOUND	REC.   RPD	RPD	REC.		
NITROBENZENE	4570	1650000	1650000	ם	1650000	D  0	30	46 - 102		

QUALITY CONTROL SUMMARY: LABORATORY CONTROL SAMPLE

SOIL/SEDIMENT

Spiked Order No. : 682459

Dup Spiked Order No. : 682460

Client ID:

Test: 8270 NITROBENZENE

Analytical Units:

UG/KG

Run Number : 96866

	CDIVE	    SAMPLE	BLANK SI	PIKE	BLANK S	PIKE DU	Ρ.	   	QC LIMITS
•		CONCENT.	FOUND	* REC.	FOUND	REC.	RPD	RPD	REC.
NITROBENZENE	3300	0	3400	102	3300	99	<del>1</del>  3	  30 	46 - 102

Reported: 11/10/03

10/27/03 09:51

1.0

Roux Associates Inc.

PERCENT SOLIDS

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

160.0

1.0

Client Sample ID: PTSB-30 14-16'

Date Sampled: 10/20/03 Order #: 682115 Sample Matrix: SOIL/SEDIMENT
Date Received: 10/23/03 Submission #: R2318866

ANALYTE METHOD PQL RESULT UNITS ANALYZED ANALYZED DILUTION

72.6

용

Reported: 11/10/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04 Client Sample ID: PTSB-29 0-8'

Sample Matrix: SOIL/SEDIMENT

Date Sampled: 10/21/03 Date Received: 10/23/03

Order #: 682116 Submission #: R2318866

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS		TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.0	1.0	72.8		10/27/03	09:51	1.0

Reported: 11/10/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID: PTSB-24 0-8'

Date Sampled: 10/21/03 Date Received: 10/23/03			#: 682117 #: R2318866	Sa	ample Matr	ix: SOIL/	SEDIMENT
ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS		TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.0	1.0	70.7	*	10/27/03	09:51	1.0

Reported: 11/10/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID : PTSB-28 12-14'

Date Sampled: 10/21/03 Date Received: 10/23/03 Order #: 682118 Sample Matrix: SOIL/SEDIMENT

Submission #: R2318866

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS		TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.0	1.0	73.2	*	10/27/03	09:51	1.0

Reported: 11/10/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID : PTSB-29 14-16'

Date Sampled: 10/21/03 Order #: 682119 Sample Matrix: SOIL/SEDIMENT Date Received: 10/23/03 Submission #: R2318866

DRY WEIGHT DATE TIME ANALYTE METHOD PQL RESULT UNITS ANALYZED ANALYZED DILUTION PERCENT SOLIDS 160.0 1.0 77.0 윰 10/27/03 09:51 1.0

Reported: 11/10/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID : PTSB-27 16-18'

Date Sampled: 10/21/03 Date Received: 10/23/03 Order #: 682120 Sample Matrix: SOIL/SEDIMENT

Submission #: R2318866

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.0	1.0	77.2	8	10/27/03	09:51	1.0

Reported: 11/10/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04 Client Sample ID: PTSB-31 8-10'

Order #: 682121 Date Sampled: 10/21/03 Sample Matrix: SOIL/SEDIMENT

Date Received:	10/23/03		Submission	#: R2318866				
ANALYTE	·	METHOD	PQL	RESULT	DRY WEIGHT UNITS		TIME ANALYZED	DILUTION
PERCENT SOLIDS		160.0	1.0	77.1	8	10/27/03	09:51	1.0

Reported: 11/10/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID : PTSB-24 12-14'

Date Sampled: 10/21/03

Sample Matrix: SOIL/SEDIMENT

Date Received: 10/23/03

Order #: 682122 Submission #: R2318866

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.0	1.0	77.4	8	10/27/03	09:51	1.0

Reported: 11/10/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID : PTSB-31 0-8'

Date Sampled: 10/21/03 Date Received: 10/23/03 Order #: 682123 Submission #: R2318866 Sample Matrix: SOIL/SEDIMENT

Date Received:	10/23/03	Submission	#: KZ3T8866				
ANALYTE	METHO	D PQL	RESULT	DRY WEIGHT UNITS		TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.	1.0	70.2	*	10/27/03	09:51	1.0

Reported: 11/10/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID : PTSB-26 10-12'

Date Sampled: 10/21/03 Date Received: 10/23/03 Order #: 682124 Submission #: R2318866 Sample Matrix: SOIL/SEDIMENT

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.0	1.0	75.0	ક	10/27/03	09:51	1.0

Reported: 11/10/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID : PTSB-25 12-14'

Date Sampled: 10/21/03 Date Received: 10/23/03

Order #: 682125

Sample Matrix: SOIL/SEDIMENT

Submission #: R2318866

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS		TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.0	1.0	78.3	*	10/27/03	09:51	1.0



# A FULL SERVICE ENVIRONMENTAL LABORATORY

August 28, 2003

Mr. Glenn Netuschil Roux Associates Inc. 1377 Motor Parkway Islandia, NY 11788

PROJECT: HONEYWELL/OUTER HARBOR 25203Y04

Submission #:R2317833

Dear Mr. Netuschil

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (585) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Mark/Wilson

Client Service Manager

Enc.



1 Mustard ST. Suite 250 Rochester, NY 14609 (585) 288-5380

#### THIS IS AN ANALYTICAL TEST REPORT FOR:

Client

: Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Lab Submission # : R2317833

Project Manager : Mark Wilson

Reported

: 08/28/03

Report Contains a total of 32 pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to, comply with NELAC standards prior to report submittal.

#### CASE NARRATIVE

COMPANY: Roux Associates PROJECT: Honeywell/Outer Harbor SUBMISSION #: R2317833

Water samples were collected on 07/29/03 and received at CAS on 07/29/03 in good condition at a cooler temperature of 3 °C. See CAS CLP Batching sheets for a cross-reference between Client ID and CAS Job # and analyses requested.

#### **INORGANIC ANALYSIS**

Seven water samples were analyzed the TAL list of Metals using SW-846 protocol. Mercury was analyzed by the cold vapor method 7470A and all other metals were analyzed by ICP method 6010B.

The Blank Spike (Reference Check) recoveries were all within QC limits. The Matrix Spike recoveries from sample GW-18R were all within QC limits of 75 – 125 %. The RPD from the duplicate analyses were all within QC.

No analytical or QC problems were encountered.

# SEMIVOLATILE ORGANICS

Seven water samples were analyzed for Nitrobenzene by SW-846 method 8270C.

All DFTPP tuning criteria were within acceptance limits.

The initial and continuing calibration criteria were met for all analytes.

All internal standard areas were within QC limits.

All surrogate standard recoveries were within QC limits.

The Blank Spike (Reference Check) were all within QC limits. The Matrix Spike/Matrix Spike Duplicate recoveries and RPD from sample GW-18R were all within QC limits.

No analytical or QC problems were encountered.

UND NOTION | UNIVERSITY | UNIVE

7/30/03

DATE REVISED: DATE DUE: 08/22/03

SDG #: GW18 SUBMISSION R2317833







Effective 6/12/2003

# ORGANIC QUALIFIERS

- U Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- N Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search.
- P This flag is used for a pesticide/Aroclor target analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank as well as in the sample.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form 1 for the diluted sample, and ALL concentration values reported on that Form 1 are flagged with the "D" flag.
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- X As specified in Case Narrative.
- This flag identifies compounds associated with a quality control parameter which exceeds laboratory limits.

#### CAS/Rochester Lab ID # for State Certifications

Army Corp of Engineers Validated
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited

NELAP Accredited New York ID # 10145 New Jersey ID # NY004 New Hampshire ID # 294100 A/B Pennsylvania Registration 68-786 Rhode Island ID # 158 South Carolina ID #91012 West Virginia ID # 292







Effective 6/12/2003

# **INORGANIC QUALIFIERS**

#### C (Concentration) qualifier -

- B if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but was greater than or equal to the Instrument Detection Limit (IDL).
- U if the analyte was analyzed for, but not detected

Q qualifier - Specified entries and their meanings are as follows:

- D Spike was diluted out
- E The reported value is estimated because of the presence of interference.
- J Estimated Value
- M Duplicate injection precision not met.
- N Spiked sample recovery not within control limits.
- S The reported value was determined by the Method of Standard Additions (MSA).
- W Post-digestion spike for Furnace AA Analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
- * Duplicate analysis not within control limits.
- +- Correlation coefficient for the MSA is less than 0.995.

#### M (Method) qualifier:

- "P" for ICP
- "A" for Flame AA
- "F" for Furnace AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for Flame AA when Microwave Digestion is used
- "FM" for Furnace M when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for Automated Cold Vapor AA
- "CA" for Midi-Distillation Spectrophotometric
- "AS" for Semi-Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- " " where no data has been entered
- "NR" if the analyte is not required to be analyzed.

#### CAS/Rochester Lab ID # for State Certifications

Army Corp of Engineers Validated
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited
NELAP Accredited

New York ID # 10145 New Jersey ID # NY004 New Hampshire ID # 294100 A/B Pennsylvania Registration 68-786 Rhode Island ID # 158 South Carolina ID #91012 West Virginia ID # 292

Y OR NA V 4 1620 Y OR N SEAL INTACT Y OR N SEAL INTACT SEAL INTACT PAGE 9 Lab#'s NOTES IIME 45 76 57 660273 1 1 ナト 24 7 e Z SZITIOB IMIOT Lehn Huber LMJ 7/30/23 ms/mgo is on GW-18R as per N h b 읎 FOR FOR **ANALYSES** t CHAIN OF CUSTODY (SIGNATUBE) (SAGNATURE) RECEIVED BY: (SIGNATURE) RECEIVED BY: RECE SAMPLE MITHER SEAL INTACT Y OR N * OR N Y OR N SEAL INTACT SEAL 209 SHAFTER STREET ISLANDIA, NEW YORK 11749-5074 (631) 232-2600 FAX: (631) 232-9898 25703104 Į PROJECT NUMBER TIME COLLECTED 12:25 25 2:50 1.45 2:15 1:35 2.45 COMMENTS 127/03 DATE DATE COLLECTED 20-22-1 R1111 R2317833 SAMPLER(S) BOTTELO POLETTON MY 뎞 뎞 뎞 Hore yell loterthicker -rnw-19R ROUX ASSOCIATES, INC. Environmental Consulting & Management SAMPLE DESIGNATION / LOCATION V 8 1 (SIGNATURE) HED BY: (SIGNATURE) RELINDA/ISHED BY: (SIGNATURE) S C U FieldBank 22 Q ANALYTICAL LABORATORY 0 MST PROJECTALOCATION PROJECT MANAĜEI DELIVERY METHOD, 200) K PROJECT NAME RELINGUIS/KED-BY that the CO CHINDECOR 120UG98 3 20 NS/

# Cooler Receipt And Preservation Check Form

Project/Client	KOUX			Submission Numb	oer <u>Kabi 700</u>	<u> </u>	
Cooler received on	<u> </u>	BL	_cou	RIER: CAS	JPS FEDEX	CD&L	CLIENT
<ol> <li>Were custo</li> <li>Did all bott</li> <li>Did any VO</li> </ol>	dy seals on outside dy papers properly les arrive in good c DA vials have signi r Ice packs present	filled ondition	out (inl on (unl	oroken)?	YES YES YES YES	NO NO NO NO NO	N/A
6. Where did	the bottles originate re of cooler(s) upon	?	ot:	3		CLIE	NT
Is the temp	erature within 0° - 6	5° C?:		Yes Yes	Yes	Yes	Yes
If No, Exp	lain Below		. ,	No / No	= No	No	No
Date/Time	Temperatures Take	n:	2/0	29/03		164	5
Thermome	er ID: 161 or	IR GI	N)	Reading From: T	Temp Blank o	r Sam	ple Bottle
If out of Tempera	ture, Client Appro	oval to	Run, S	Samples			• .
	le labels and tags ag	gree wi	ith cust	tody papers?	(ES)	NO NO	
<ol> <li>Did all bott</li> <li>Were correct</li> </ol>	le labels and tags ag ct containers used for s: Cassettes / Tub	gree wi	ith cust	tody papers? dicated?	YES		ated 🐠
<ol> <li>Did all bott</li> <li>Were corre</li> <li>Air Sample</li> </ol>	le labels and tags ag ct containers used for s: Cassettes / Tub	gree wi	ith cust	tody papers? dicated?	YES	NO NO Bags Infl	ated 🕡
<ol> <li>Did all bott</li> <li>Were corre</li> <li>Air Sample</li> </ol>	le labels and tags ag ct containers used for s: Cassettes / Tub	gree wi or the t es Inta	th custests in	tody papers? dicated? Canisters Pressuri	ZES YES Zed Tedlar®	NO NO Bags Infl	
2. Did all bott 3. Were corre 4. Air Sample Explain any discrep	le labels and tags aget containers used for a cassettes / Tub pancies:	gree wi or the t es Inta	th custests in	tody papers? dicated? Canisters Pressuri	ZES YES Zed Tedlar®	NO NO Bags Infl	
2. Did all bott 3. Were corre 4. Air Sample Explain any discrep	le labels and tags aget containers used for a containers used for a containers.  Cassettes / Tub pancies:  Reagent	gree wi or the t es Inta	th custests in	tody papers? dicated? Canisters Pressuri	ZES YES Zed Tedlar®	NO NO Bags Infl	
2. Did all bott 3. Were correct 4. Air Sample Explain any discrep  pH  12	le labels and tags aget containers used for containers used for s: Cassettes / Tub pancies:  Reagent NaOH	gree wi or the t es Inta	th custests in	tody papers? dicated? Canisters Pressuri	ZES YES Zed Tedlar®	NO NO Bags Infl	
2. Did all bott 3. Were correct 4. Air Sample Explain any discrep  pH  12  2	le labels and tags aget containers used for containers used for street Cassettes / Tub pancies:  Reagent  NaOH  HNO3  H ₂ SO ₄	gree wi or the t es Inta	th custests in	tody papers? dicated? Canisters Pressuri	ZES YES Zed Tedlar®	NO NO Bags Infl	
2. Did all bott 3. Were correct 4. Air Sample Explain any discrep  pH  12  2  2	le labels and tags aget containers used for containers used for street Cassettes / Tub pancies:  Reagent  NaOH  HNO3  H ₂ SO ₄	gree wi or the t es Inta	th custests in	tody papers? dicated? Canisters Pressuri	ZES YES Zed Tedlar®	NO NO Bags Infl	
2. Did all bott 3. Were correct 4. Air Sample Explain any discrep  pH  12  2  2  Residual Chlorine (+/-	le labels and tags as et containers used for containers used for s: Cassettes / Tub pancies:  Reagent NaOH HNO3 H ₂ SO ₄ ) for TCN & Phenol P/PCBs (608 only) NO = Sam	yes wer	ests in ct NO	tody papers? dicated? Canisters Pressuri	ZES YES Zed Tedlar®	NO NO Bags Infl	
2. Did all bott 3. Were correct 4. Air Sample Explain any discrep  pH  12  2  Residual Chlorine (+/- 5-9**  YES = All samples OK  **If pH adjustment is re	le labels and tags as et containers used for containers used for s: Cassettes / Tub pancies:  Reagent NaOH HNO3 H ₂ SO ₄ ) for TCN & Phenol P/PCBs (608 only) NO = Sam	YES  ples wer r H ₂ SO ₄	ests in ct NO	tody papers? dicated? Canisters Pressuri  Sample I.D.	zed Tedlar®	NO NO Bags Infl	
2. Did all bott 3. Were correct 4. Air Sample Explain any discrep  pH  12  2  Residual Chlorine (+/- 5-9**  YES = All samples OK  **If pH adjustment is re	Reagent NaOH HNO3 H ₂ SO ₄ ) for TCN & Phenol P/PCBs (608 only) NO = Sam quired, use NaOH and/or (Tested after Analysis) Following Samples	YES  ples wer r H ₂ SO ₄	ests in ct NO	tody papers? dicated? Canisters Pressuri  Sample I.D.	zed Tedlar®	NO NO Bags Infl	
2. Did all bott 3. Were correct 4. Air Sample Explain any discrep  pH  12  2  Residual Chlorine (+/- 5-9**  YES = All samples OK  **If pH adjustment is re	Reagent NaOH HNO3 H ₂ SO ₄ ) for TCN & Phenol P/PCBs (608 only) NO = Sam quired, use NaOH and/or (Tested after Analysis) Following Samples	YES  ples wer r H ₂ SO ₄	ests in ct NO	tody papers? dicated? Canisters Pressuri  Sample I.D.	zed Tedlar®	NO NO Bags Infl	

#### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 08/20/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID : GW-18R

Date Sampled: 07/29/03 Order #: 660273 Sample Matrix: WATER Date Received: 07/29/03 Submission #: R2317833 Analytical Run 93852

ANALYTE		PQL	RESULT	UNITS
	01/03 05/03 1.01			
NITROBENZENE		5.0	5.1 U	UG/L
SURROGATE RECOVERIES	QC LIMI	TS		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(35 - 1		90 61 67	o o o o

#### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 08/20/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID : GW-22

Date Sampled: 07/29/03 Order #: 660274 Sample Matrix: WATER Date Received: 07/29/03 Submission #: R2317833 Analytical Run 93852

ANALYTE PQL RESULT UNITS : 08/01/03 DATE EXTRACTED : 08/07/03 DATE ANALYZED ANALYTICAL DILUTION: 0.99 5.0 5.0 U UG/L NITROBENZENE QC LIMITS SURROGATE RECOVERIES - 141 %) 87 TERPHENYL-d14 (33 - 114 응) (35 64 % NITROBENZENE-d5 2-FLUOROBIPHENYL (43 - 116 %) 66

#### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

74

72

Reported: 08/20/03

Roux Associates Inc.

NITROBENZENE-d5

2-FLUOROBIPHENYL

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID : GW-23

Date Sampled: 07/29/0 Date Received: 07/29/0			mple Matrix: W. alytical Run 9	
ANALYTE		PQL	RESULT	UNITS
	08/01/03 08/05/03 0.98			-
NITROBENZENE		5.0	4.9 U	UG/L
SURROGATE RECOVERIES	QC LIMITS			
TERPHENYL-d14	(33 - 141	웅)	90	%

(35 - 114 %)

(43 - 116 %)

#### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 08/20/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID : GW-19

Date Sampled: 07/29/0			Sample Matrix: Analytical Run	
ANALYTE		PQL	RESULT	UNITS
	08/01/03 08/05/03 1.01			
NITROBENZENE		5.0	5.1 U	UG/L
SURROGATE RECOVERIES	QC LIMITS	<b>,</b>		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(33 - 141 (35 - 114 (43 - 116	· %)	88 70 66	% % %

#### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 08/20/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID : GW-21

Date Sampled: 07/29/03 Date Received: 07/29/03	Order #: 660 Submission #: R23		Sample Matrix: W Analytical Run 9	
ANALYTE		PQL	RESULT	UNITS
	3/01/03 3/07/03 0.97			
NITROBENZENE		5.0	4.9 U	UG/L
SURROGATE RECOVERIES	QC LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(33 - 141 (35 - 114 (43 - 116	용)	86 71 64	o6 o6 o6

# EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 08/20/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID : DUP

Date Sampled: 07/29/03 Date Received: 07/29/03		Sample Matrix: 33 Analytical Run	
ANALYTE	PQ:	L RESULT	UNITS
	08/01/03 08/07/03 1.12		
NITROBENZENE	5	.0 5.6 U	UG/L
SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(33 - 141 %) (35 - 114 %) (43 - 116 %)	93 69 67	o o o o

#### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 08/20/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID : FIELD BLANK

Date	Sampled:	07/29/03	Order #:	660279	Sample Matrix:	WATER
Date	Received:	07/29/03	Submission #:	R2317833	Analytical Run	93852

ANALYTE					ΡÇ		F	RESULT	UNITS
DATE EXTRACTED : DATE ANALYZED : ANALYTICAL DILUTION:	08/01/03 08/07/03 0.99	9							
NITROBENZENE						5.0	5	5.0 U	UG/L
SURROGATE RECOVERIES		QC	LIN	MITS					
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL		(33 (35 (43	-	141 114 116	왕)			95 73 70	ofo ofo ofo

# EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 08/20/03

Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled : Date Received:	Order #: 6 Submission #:	61565	Sample Matrix: Analytical Run	
ANALYTE		PQL	RESULT	UNITS
	08/01/03 08/05/03 1.00			
NITROBENZENE		5.0	5.0 U	UG/L
SURROGATE RECOVERIES	QC LIMIT	S		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(33 - 14 (35 - 11 (43 - 11	4 %)	100 73 68	op op op

QUALITY CONTROL SUMMARY MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY WATER

Spiked Order No. : 660273 Roux Associates Inc.

Client ID: GW-18R

Test: 8270 NITROBENZENE

Analytical Units: UG/L

Run Number : 93852

	SPIKE		MATRIX	SPIKE	MATRIX	SPIKE DUP.		QC LIMITS
ANALYTE	ADDED	CONCENT.	FOUND	₹ REC.	FOUND	% REC. RPD	RPD	REC.
NITROBENZENE	100	0	89.0	89	96.0	96  8	30	50 - 150

!UALITY CONTROL SUMMARY: LABORATORY CONTROL SAMPLE

WATER

Spiked Order No. : 661566

Dup Spiked Order No. : 661567

Client ID:

Test: 8270 NITROBENZENE

Analytical Units: UG/L

Run Number : 93852

	LODINE	l l	BLANK SI	IKE	BLANK SI	PIKE DUP.		QC LIMITS
		SAMPLE     CONCENT.	FOUND	% REC.	FOUND	% REC. RPD	RPD	REC.
NITROBENZENE	100	0	82.0	82	80.0	80  2	30	50 - 150

# METALS COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

cract: R231	7833		SDG No.:	GW-18R
Lab Code:	Case No.	:	SAS No.:	
SOW No.: SW846 C	LP-M Client:	Roux Associates Inc.		
	Sample No.	Lab Sample ID.		
	GW-18R	660273		
•	GW-18RD	660273D		
	GW-18RS	660273s		
	GW-22	660274		
	GW-23	660275	<del></del>	
	GW-19 GW-21	660276 660277		
	DUP	660278		
	FIELD BLANK	660279		
•				
Were ICP intere	element corrections applie	ed?	Yes/No	YES
-	round corrections applied?		Yes/No	YES
-	re raw data generated befo on of background correcti		Yes/No	мо
Comments: See	Attached Case Narrative			
I certify that	this data package is in o	compliance with the terms a	and condition	s of the
		leteness, for other than th		
above. Release	e of the data contained in	n this hardcopy data packag	ge and in the	1
computer-readal	ble data submitted on dis	kette has been authorized b	y the Labora	tory Manager o
the Manager's o	designee, as verified by	the following signature.		
	-A A A		. Λ	
Signature AA		Name: Mar D. O.	VPar	
Signature: ///	had thereny	Name: ///	Flerry	
Date:	8/29/03	Name: Michael Title: Laborat	and Manage	18
			- produce	18

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# INORGANIC ANALYSIS DATA SHEET

SAMPLE	NO.

DUP

Contract: R2317833

Lab Code:

Case No.:

SAS No.:

SDG NO.:

GW-18R

Matrix (soil/water):

WATER

Lab Sample ID: 660278

78

Level (low/med):

LOW

Date Received: 07/29/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	19300			P
7440-36-0	Antimony	60.0	ט		P
7440-38-2	Arsenic	13.1			P
7440-39-3	Barium	280			P
7440-41-7	Beryllium	5.0	ט		P
7440-43-9	Cadmium	5.0	ַט		P
7440-70-2	Calcium	314000	l		P
7440-47-3	Chromium	39.3	l		P
7440-48-4	Cobalt	50.0	ט		P
7440-50-8	Copper	119	-		P
7439-89-6	Iron	31100			P
7439-92-1	Lead	337			P
7439-95-4	Magnesium	111000			P
7439-96-5	Manganese	1710			P
7439-97-6	Mercury	0.51			CV
7440-02-0	Nickel	40.0	ט	1	P
7440-09-7	Potassium	22700			P
7782-49-2	Selenium	5.0	ט		P
7440-22-4	Silver	10.0	ט	\	P
7440-23-5	Sodium	37400		l	P
7440-28-0	Thallium	20.0	ט		P
7440-62-2	Vanadium	50.0	ט		P
7440-66-6	Zinc	377			P

Color Before: BROWN

Clarity Before:

CLOUDY

Texture:

Color After: YELLOW

Clarity After:

CLOUDY

Artifacts:

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# INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

FIELD BLANK

Contract: R2317833

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Matrix (soil/water):

WATER

Lab Sample ID: 660279

Level (low/med):

LOW

Date Received: 07/29/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	100	ַ ט		P
7440-36-0	Antimony	60.0	ַ ט		P
7440-38-2	Arsenic	10.0	ט		P
7440-39-3	Barium	20.0	ט		P
7440-41-7	Beryllium	5.0	ש		P
7440-43-9	Cadmium	5.0	ש		P
7440-70-2	Calcium	500	ַ ט		P
7440-47-3	Chromium	10.0	ט		P
7440-48-4	Cobalt	50.0	ש		P
7440-50-8	Copper	20.0	ט		P
7439-89-6	Iron	100	ַט	1	P
7439-92-1	Lead	5.0	ט		P
7439-95-4	Magnesium	500	ט		P
7439-96-5	Manganese	10.0	ַ ט		P
7439-97-6	Mercury	0.20	ם		CV
7440-02-0	Nickel	40.0	ט		P
7440-09-7	Potassium	2000	ט		P
7782-49-2	Selenium	5.0	ט		P
7440-22-4	Silver	10.0	ט	<u> </u>	P
7440-23-5	Sodium	500	ט		P
7440-28-0	Thallium	10.0	ט	<u> </u>	P
7440-62-2	Vanadium	50.0	ט		P
7440-66-6	Zinc	28.2			P

Color Before: COLORLESS

Clarity Before:

CLEAR

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

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# INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

GW-18R

Contract: R2317833

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Matrix (soil/water):

WATER

Lab Sample ID: 660273

Level (low/med):

LOW

Date Received: 07/29/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	с	Q	М
7429-90-5	Aluminum	15100			P
7440-36-0	Antimony	60.0	ט		P
7440-38-2	Arsenic	34.1			P
7440-39-3	Barium	247			P
7440-41-7	Beryllium	5.0	ט		P
7440-43-9	Cadmium	5.0	ט		P
7440-70-2	Calcium	433000			P
7440-47-3	Chromium	25.9	_		P
7440-48-4	Cobalt	50.0	ט		P
7440-50-8	Copper	46.3			P
7439-89-6	Iron	28600			P
7439-92-1	Lead	150	1		P
7439-95-4	Magnesium	80000			P
7439-96-5	Manganese	1800			P
7439-97-6	Mercury	0.21			cv
7440-02-0	Nickel	40.0	ט		P
7440-09-7	Potassium	19300	Π		P
7782-49-2	Selenium	5.0	ט		P
7440-22-4	Silver	10.0	ט	1	P
7440-23-5	Sodium	26300		l	P
7440-28-0	Thallium	20.0	ט		P
7440-62-2	Vanadium	50.0	ט		P
7440-66-6	Zinc	272			P

Color Before: BROWN

Clarity Before:

CLOUDY

Texture:

Color After: YELLOW

Clarity After:

CLOUDY

Artifacts:

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# INORGANIC ANALYSIS DATA SHEET

SAMPLE	NO.

Contract: R2317833

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Matrix (soil/water): WATER

Lab Sample ID: 660276

Level (low/med):

Date Received: 07/29/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	860			P
7440-36-0	Antimony	60.0	ט		P
7440-38-2	Arsenic	68.8			P
7440-39-3	Barium	24.5		·	P
7440-41-7	Beryllium	5.0	ַ ט		P
7440-43-9	Cadmium	5.0	ט		P
7440-70-2	Calcium	25900			P
7440-47-3	Chromium	16.4			P
7440-48-4	Cobalt	50.0	ט		P
7440-50-8	Copper	135			P
7439-89-6	Iron	407			P
7439-92-1	Lead	26.1			P
7439-95-4	Magnesium	500	ט	}	P
7439-96-5	Manganese	12.4		1	P
7439-97-6	Mercury	1.3	<u> </u>		cv
7440-02-0	Nickel	40.0	ט	!	P
7440-09-7	Potassium	1110000			P
7782-49-2	Selenium	32.6			P
7440-22-4	Silver	10.0	ט		P
7440-23-5	Sodium	84100			P
7440-28-0	Thallium	10.0	ט		P
7440-62-2	Vanadium	103			P
7440-66-6	Zinc	77.1			P

lor Before: BROWN

Clarity Before:

CLOUDY

Texture:

Color After: YELLOW Clarity After:

CLOUDY

Artifacts:

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# INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

GW-21

Contract: R2317833

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Matrix (soil/water):

WATER

Lab Sample ID: 660277

Level (low/med):

LOW

Date Received: 07/29/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	100	ש		P
7440-36-0	Antimony	60.0	ט		P
7440-38-2	Arsenic	10.0	ט		P
7440-39-3	Barium	55.4	·		P
7440-41-7	Beryllium	5.0	ט		P
7440-43-9	Cadmium	5.0	บ	l	P
7440-70-2	Calcium	47200	<u> </u>		P
7440-47-3	Chromium	10.0	ַט	1	P
7440-48-4	Cobalt	50.0	ט		P
7440-50-8	Copper	20.0	ט	\	P
7439-89-6	Iron	149			P
7439-92-1	Lead	5.0	ט		P
7439-95-4	Magnesium	4190			P
7439-96-5	Manganese	10.0	ט		P
7439-97-6	Mercury	0.20	ט		cv
7440-02-0	Nickel	40.0	ט		P
7440-09-7	Potassium	27400	1	<u> </u>	P
7782-49-2	Selenium	5.0	ט		P
7440-22-4	Silver	10.0	ט		P
7440-23-5	Sodium	15200		ł	P
7440-28-0	Thallium	10.0	ט		P
7440-62-2	Vanadium	50.0	Ū		P
7440-66-6	Zinc	83.1			P

Color Before: BROWN

Clarity Before:

CLOUDY

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

-1-

# INORGANIC ANALYSIS DATA SHEET

SAMPLE	NO.
_	

GW-22

Contract: R2317833

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Matrix (soil/water):

WATER

Lab Sample ID: 660274

Level (low/med):

LOW

Date Received: 07/29/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	18000			P
7440-36-0	Antimony	60.0	ט		P
7440-38-2	Arsenic	13.3			P
7440-39-3	Barium	254			P
7440-41-7	Beryllium	5.0	ט		P
7440-43-9	Cadmium	5.0	ט		P
7440-70-2	Calcium	312000			P
7440-47-3	Chromium	36.4			P
7440-48-4	Cobalt	50.0	ט		P
7440-50-8	Copper	114			P
7439-89-6	Iron	28900	Ī	l	P
7439-92-1	Lead	325			P
7439-95-4	Magnesium	109000			P
7439-96-5	Manganese	1660	}	ļ	P
7439-97-6	Mercury	0.68	Γ	<u> </u>	cv
7440-02-0	Nickel	40.0	ט		P
7440-09-7	Potassium	21400			P
7782-49-2	Selenium	5.0	ש		P
7440-22-4	Silver	10.0	ט		P
7440-23-5	Sodium	37000			P
7440-28-0	Thallium	20.0	ט	<u> </u>	P
7440-62-2	Vanadium	50.0	ט	}	P
7440-66-6	Zinc	358		<u> </u>	P

Color Before: BROWN

Clarity Before:

CLOUDY

Texture:

Color After: YELLOW

Clarity After:

CLOUDY

Artifacts:

-1-

#### INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

GW-23

Contract: R2317833

Lab Code:

Case No.:

SAS No.:

Matrix (soil/water): WATER

Lab Sample ID: 660275

SDG NO.: GW-18R

Level (low/med):

LOW

Date Received: 07/29/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	197			P
7440-36-0	Antimony	60.0	ט		P
7440-38-2	Arsenic	10.0	ט		P
7440-39-3	Barium	120			P
7440-41-7	Beryllium	5.0	ן ט		P
7440-43-9	Cadmium	5.0	ט		P
7440-70-2	Calcium	301000			P
7440-47-3	Chromium	10.0	ט		P
7440-48-4	Cobalt	50.0	ט		P
7440-50-8	Copper	20.0	ט	l	P
7439-89-6	Iron	3940			P
7439-92-1	Lead	6.1			P
7439-95-4	Magnesium	65400			P
7439-96-5	Manganese	1200	_		P
7439-97-6	Mercury	0.20	ט		CV
7440-02-0	Nickel	40.0	ַ ט		P
7440-09-7	Potassium	15100			P
7782-49-2	Selenium	5.0	ט		P
7440-22-4	Silver	10.0	ט		P
7440-23-5	Sodium	24900			P
7440-28-0	Thallium	10.0	ט		P
7440-62-2	Vanadium	50.0	ט		P
7440-66-6	Zinc	28.8			P

color Before: BROWN

Clarity Before:

CLOUDY

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

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# **BLANKS**

Contract: R2317833

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Preparation Blank Matrix (soil/water): WATER

	Initial Calib. Blank		-	C	ontinuing Ca Blank (ug		Preparation Blank					
Analyte	(ug/L)	С	11	С	2	С	3	С		С	Ш	М
Aluminum	100.0	ַט	100.0	บ	100.0	ซ	100.0	ַ ט	100.000	U	П	P
Antimony	60.0	ซ	60.0	ט	60.0	ซ	60.0	ַ ט	60.000	U	Ц	P
Arsenic_	10.0	ซ	10.0	U	10.0	ט	10.0	ט	10.000	U	Ц	P
Barium	20.0	ַ ט	20.0	ซ	20.0	ט	20.0	ַ ט	20.000	U	Ц	P
Beryllium	5.0	ซ	5.0	บ	5.0	ט	5.0	ט [	5.000	U	Ц	P
Cadmium	5.0	ט	5.0	บ	5.0	ש	5.0	ט	5.000	U	$\square$	Рĺ
Calcium	500.0	บ	500.0	ַ	500.0	ש	500.0	ש	500.000	U	П	P
Chromium	10.0	ט	10.0	บ	10.0	ש	10.0	ט	10.000	ט	П	P
Cobalt	50.0	ָט	50.0	ט	50.0	ש	50.0	ש	50.000	U	$\Box$	P
Copper	20.0	ט	20.0	บ	_20.0	ש	20.0	ט	20.000	ט	П	P
Iron	100.0	บ	100.0	<b>ט</b>	100.0	ש	100.0	ט	100.000	ם	$\square$	P
Lead	5.0	ซ	5.0	ָּט	5.0	ט	5.0	ש	5.000	ซ	П	P
Magnesium	500.0	บ	500.0	U	500.0	ש	500.0	ן ט	500.000	บ	$\coprod$	P
Manganese	10.0	U	10.0	ט	10.0	ט	10.0	ן ט	10.000	บ	$\overline{\mathbb{L}}$	P
Mercury	0.20	ט	0.20	ט	0.20	ט	0.20	ט	0.200	บ		cv
Nickel	40.0	บ	40.0	ט	40.0	[ ט	40.0	ן ט	40.000	ט	L	P
Potassium	2000.0	ם	2000.0	ם	2000.0	ש	2000.0	ט	2000.000	ט	Ī	P
Selenium	5.0	ับ	5.0	ט	5.0	ש	5.0	ט	5,000	ซ	Ī	P
Silver	10.0	ט	10.0	U	10.0	ש	10.0	บ	10.000	ט	Ī	P
Sodium	500.0	บ	500.0	บ	500.0	<b>ט</b>	500.0	บ	500.000	ש	Ī	P
Thallium	10.0	ָ ט	10.0	ט	10.0	ט	10.0	ט	10.000	บ	I	P
Vanadium	50.0	ם	50.0	ט	50.0	ש	50.0	ט	50.000	ש	Ī	P
Zinc	20.0	บ	20.0	บ	20.0	<b>ט</b>	20.0	ש	20.000	ט	Ĺ	P

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# **BLANKS**

Contract: R2317833

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Preparation Blank Matrix (soil/water): WATER

	Initial Calib. Blank			Co	ontinuing Ca Blank (ug				Preparation Blank			
Analyte	(ug/L)	С	1	С	2	С	3	С	]	С	М	١.
Aluminum			100.0	บ	100.0	ט					P	<u> </u>
Antimony			60.0	ט	60.0	ט					P	<u>.</u>
Arsenic			10.0	[ט	10.0	ַט					P	2
Barium		$\perp \perp$	20.0	บ	20.0	ט					P	2
Beryllium			5.0	ַט	5.0	ַד					P	2
Cadmium			5.0	ַ ט	5.0	บ		$\Box$			l P	2
Calcium			500.0	ש	500.0	บ				$ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ld}}}}}}}$	P	?
Chromium		Ш	10.0	ַ ט	10.0	บ	· 				F	?
Cobalt			50.0	ש	50.0	บ		Ш			↓ F	Ρ_
Copper	<u> </u>		20.0	ט	20.0	ַט					F	<u>P</u>
Iron			100.0	ַ ט	100.0	ַט					F	P
Lead	<u> </u>		5.0	ប	5.0	ַד					I	P
Magnesium	<u> </u>		500.0	ប	500.0	ַ ט					1	P
Manganese	<u>L</u>		10.0	ט	10.0	ซ					L	P
Mercury	<u> </u>	$\perp$	0.20	ט	0.20	ָט	0.20	ט			C	:V
Nickel	<u> </u>		40.0	ַ ט	40.0	ַט					Ш	P
Potassium	l		2000.0	ַט	2000.0	ט					Щı	P
Selenium			5.0	ט	5.0	ט					Ш	P
Silver	l		_10.0	ט	10.0	ט					Ш	P
Sodium	!		500.0	ש	500.0	ַט					Ш	P
Thallium			10.0	ט	10.0	ַט				1	Ш	₽
Vanadium	<u> </u>	$\perp$	50.0	ש	50.0	ַט				1	11:	P
Zinc	<u> </u>		20.0	ש	20.0	שׁ					11:	P

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**BLANKS** 

Contract: R2317833

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Preparation Blank Matrix (soil/water): WATER

Blank (ug/L)							Preparation Blank					
Analyte	(ug/L)	С	1	С	2	С	3	С		С		М
Potassium	2000.	0 _U	2000.	0 0	2000.	ן ט	2000.0	ן ט			$\prod$	P
Thallium	10.	0 U	10.	0 0	10.	ס ט	10.0	ט			$\coprod$	P

-3-

**BLANKS** 

Contract: R2317833

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Preparation Blank Matrix (soil/water): WATER

			Con	tinuing Blank (	Preparation Blank							
Analyte	(ug/L)	С	1	С	2	C	3	С		С	Þ	W
Potassium		ΙĹ	2000.	0 0	2000.	0   ប		1			] ]	P
Thallium			10.	0 0	10.	ן ט					<u> </u>	Ρ

# METALS -5A-

#### SPIKE SAMPLE RECOVERY

Contract: R2317833

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Matrix (soil/water): WATER

Level (low/med):

TOM

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

31	Control	Spiked Sample	_	Sample		Spike		П	$\Box$
Analyte	Limit %R	Result (SSR)	С	Result (SR)	С	Added (SA)	%R	Q	М
Aluminum		15270.2168		15081.3145		2000.00	9.4		P
Antimony	75 - 125	492.4213		60.0000	U	500.00	98.5		P
Arsenic	75 - 125	71.4391		34.0658		40.00	93.4		P
Barium	75 - 125	2218.8975		246.6400		2000.00	98.6		P
Beryllium	75 - 125	48.9007		5.0000	U	50.00	97.8		P
Cadmium	75 - 125	46.5690		5.0000	U	50.00	93.1		P
Calcium		447703.8750		433357.7188		2000.00	717.3		P
Chromium	75 - 125	216.8394		25.9184		200.00	95.5		P
Cobalt	75 – 125	478.9652		50.0000	ש	500.00	95.8		P
Copper	75 - 125	285.1426		46.2915	<u> </u>	250.00	95.5		P
Iron		29696.9316		28618.6953		1000.00	107.8		P
Lead	75 - 125	623.6725		149.6117		500.00	94.8	L	P
Magnesium	1	84012.4063		80032.6406		2000.00	199.0		P
Manganese	75 - 125	2322.1304		1800.1191	\ _	500.00	104.4		P
Mercury	75 - 125	1.2166		0.2112	Ī -	1.00	100.5		cv
Nickel	75 - 125	491.8894		40.0000	ַט	500.00	98.4		P
Potassium	75 - 125	37815.2109		19318.2227		20000.00	92.5		P
Selenium	75 - 125	967.0039		5.0000	ש	1010.00	95.7		P
Silver	75 - 125	45.5304		10.0000	ןש	50.00	91.1	1	P
Sodium	75 - 125	45904.8359		26347.8750		20000.00	97.8		P
Thallium	75 - 125	1879.6677		20.0000	ש	2000.00	94.0		P
Vanadium	75 - 125	517.1838		50.0000	ט	500.00	103.4		P
Zinc	T 75 - 125	708.4447		272.0474		500.00	87.3		P

_nents:	 	 	_	 	_	

#### -5B-

# POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

Contract: R2317833

GW-18RA

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Matrix (soil/water):

WATER

Level (low/med):

LOW

Concentration Units: ug/L

Analyte	Control	Spiked Sample	_	Sample		Spike			$\Box$
Allaryte	Limit %R	Result (SSR)	С	Result (SR)	С	Added (SA)	₽R	Q	M
Aluminum	<u> </u>	16784.48		15081.31		2000.0	85.2		P
Antimony	<u> </u>	511.18		60.00	ש	500.0	102.2		P
Arsenic	1	73.05		34.07		40.0	97.4		P
Barium	1	2261.82		246.64		2000.0	100.8		P
Beryllium	1	49.64		5.00	ט	50.0	99.3		P
Cadmium	<u> </u>	49.25		5.00	ט	50.0	98.5		P
Calcium	1	435167.13		433357.72		2000.0	90.5		P
Chromium	1	220.64		25.92		200.0	97.4		P
Cobalt	1	502.79		50.00	บ	500.0	100.6		P
Copper	1	294.27		46.29		250.0	99.2		P
Iron	!	29698.82		28618.70		1000.0	108.0		P
Lead	1	652.07		149.61		500.0	100.5		P
Magnesium	1	81955.91		80032.64	Ī_	2000.0	96.2		P
Manganese		2284.12		1800.12		500.0	96.8		P
Nickel	I	516.12		40.00	ט	500.0	103.2		P
Potassium	I	40319.54		19318.22		20000.0	105.0		P
Selenium	1	1054.17		5.00	ט	1010.0	104.4		P
Silver		45.70		10.00	ַ ט	50.0	91.4	1	P
Sodium	1	45837.93		26347.88		20000.0	97.5		P
Thallium		1831.06		10.00	ט	2000.0	91.6		P
Vanadium		527.00		50.00	ט	500.0	105.4		P
Zinc		739.76		272.05	<u> </u>	500.0	93.5		P

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-6-

#### **DUPLICATES**

SAMPLE NO.

GW-18RD

Contract: R2317833

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW-18R

Matrix (soil/water): WATER

Level (low/med):

LOW

% Solids for Sample:

0.0

% Solids for Duplicate:

Concentration Units (ug/L or mg/kg dry weight): µG/L

	Concen	tration Units (ug/L c		mg/kg dry werght/.	<u>μς/</u>	<del>=</del>		
Analyte	Control Limit	Sample (S)	С	Duplicate (D)	С	RPD	Q	м
Aluminum		15081.3145		14408.0186		4.6		P
Antimony		60.0000	ט	60.0000	ט	<u> </u>		P
Arsenic	10.0	34.0658		34.0139		0.2		P
Barium	1	246.6400		236.7781		4.1		P
Beryllium	I	5.0000	ט	5.0000	ט			P
Cadmium	1	5.0000	ט	5.0000	ט	1 1		P
Calcium	I	433357.7188		428653.2188		1.1		P
Chromium	10.0	25.9184		25.2265		2.7		P
Cobalt	- I	50.0000	ַ ט	50.0000	ט			P
Copper	20.0	46.2915		47.9477	_	3.5		P
Iron	1	28618.6953		29293.9277		2.3		P
Lead	1	149.6117		148.9934		0.4		P
Magnesium	1	80032.6406		81590.1953		1.9	1	P
Manganese	l i	1800.1191		1838.6344	Π	2.1		P
Mercury	0.2	0.2112		0.2137		1.2		cv
Nickel	1	40.0000	U	40.0000	ט	li i		P
Potassium	T i	19318.2227	İ	18557.3594	Ī	4.0		P
Selenium	i i	5.0000	ט	5.0000	ט			P
Silver		10.0000	Ū	10.0000	ט	li	Ì	P
Sodium		26347.8750		26348.9766		0.0		P
Thallium		20.0000	ט	20.0000	ט			P
Vanadium	1	50.0000	ับ	50.0000	ט			P
Zinc		272.0474		246.0015		10.1		P



#### A FULL SERVICE ENVIRONMENTAL LABORATORY

September 29, 2003

Mr. Glenn Netuschil Roux Associates Inc. 1377 Motor Parkway Islandia, NY 11749

PROJECT: HONEYWELL/OUTER HARBOR 25203404

Submission #:R2318130

Dear Mr. Netuschil

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (585) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Mark Wilson

Client Service Manager

Enc.



1 Mustard ST. Suite 250 Rochester, NY 14609 (585) 288-5380

#### THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Lab Submission # : R2318130

Project Manager : Mark Wilson

Reported : 09/29/03

Report Contains a total of 30 pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

#### CASE NARRATIVE

COMPANY: Roux Associates PROJECT: Honeywell/Outer Harbor SUBMISSION #: R2318130

Water samples were collected on 08/23/03 and received at CAS on 08/25/03 in good condition at cooler temperatures between 0 and 6 °C. See CAS CLP Batching sheets for a cross-reference between Client ID and CAS Job # and analyses requested.

#### **INORGANIC ANALYSIS**

Water samples were analyzed the TAL list of Metals using SW-846 protocol. Mercury was analyzed by the cold vapor method 7470A and all other metals were analyzed by ICP method 6010B.

The Blank Spike (Reference Check) recoveries were all within QC limits. The Matrix Spike recoveries from sample GW-22 were all within QC limits of 75 – 125 %. The RPD from the duplicate analyses were all within QC. The ICP serial dilution was outside limits for Zinc.

No analytical or QC problems were encountered.

#### **SEMIVOLATILE ORGANICS**

Water samples were analyzed for Nitrobenzene by SW-846 method 8270C SIM Mode.

All DFTPP tuning criteria were within acceptance limits.

The initial and continuing calibration criteria were met for all analytes.

All internal standard areas were within QC limits.

All surrogate standard recoveries were within QC limits.

The Blank Spike (LCS) recoveries were all within QC limits. The Matrix Spike/Matrix Spike Duplicate recoveries and RPD from sample GW-22 were all within QC limits.

No analytical or QC problems were encountered.

# CAS ASP/CLP BATCHING FORM / LOGIN SHEET

CLIENT BOLLY ASS						1 . 846		
CLIENT REP: Mark Wilson	Roux Associates Inc. Mark Wilson	DATE: 08/25/03 CUSTODY SEA	8/25/03 DY SEAL: PRESENT/ABSENT:		PROTOCOL: 846 SHIPPING No.:	No.:		
PROJECT:	HONEYWELL/OUTER HARBOR;	CHAIN O	HONEYWELL/OUTER HARBOR; CHAIN OF CUSTODY: PRESENT/ABSENT		SUMMARY PKG. Y	PKG: Y	N X	
CAS JOB#	CLIENT/EPA ID	MATRIX	REQUESTED PARAMETERS	DATE SAMPI FIN	DATE DATE pH SAMPI EDRECEIVED (SOLIDS)	Hd (SOLIDS)	% SOI IOS	REMARKS AMPLE CONDITION
666645	GW18R	WATER	8270/TAL	8/23/03	8/25/03	(00000)		
666646	GW19	WATER	8270/TAL	8/23/03	8/25/03			
666647	GW21	WATER	8270/TAL	8/23/03	8/25/03			
	GW22	WATER	QC 8270/TAL	8/23/03	8/25/03			
	GW23	WATER	8270/TAL	8/23/03	8/25/03			
666650	GW32	WATER	8270/TAL	8/23/03	8/25/03			

03







Effective 6/12/2003

# **ORGANIC QUALIFIERS**

- U Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- N Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search.
- P This flag is used for a pesticide/Aroclor target analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank as well as in the sample.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and ALL concentration values reported on that Form I are flagged with the "D" flag.
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- X As specified in Case Narrative.
- This flag identifies compounds associated with a quality control parameter which exceeds laboratory limits.

#### CAS/Rochester Lab ID # for State Certifications

Army Corp of Engineers Validated
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited

NELAP Accredited New York ID # 10145 New Jersey ID # NY004 New Hampshire ID # 294100 A/B Pennsylvania Registration 68-786 Rhode Island ID # 158 South Carolina ID #91012 West Virginia ID # 292







Effective 6/12/2003

## **INORGANIC QUALIFIERS**

#### C (Concentration) qualifier -

- B if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but was greater than or equal to the Instrument Detection Limit (IDL).
- U if the analyte was analyzed for, but not detected

Q qualifier - Specified entries and their meanings are as follows:

- D Spike was diluted out
- E The reported value is estimated because of the presence of interference.
- J Estimated Value
- M Duplicate injection precision not met.
- N Spiked sample recovery not within control limits.
- S The reported value was determined by the Method of Standard Additions (MSA).
- W Post-digestion spike for Furnace AA Analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
- * Duplicate analysis not within control limits.
- + Correlation coefficient for the MSA is less than 0.995.

#### M (Method) qualifier:

- "P" for ICP
- "A" for Flame AA
- "F" for Furnace AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for Flame AA when Microwave Digestion is used
- "FM" for Furnace M when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for Automated Cold Vapor AA
- "CA" for Midi-Distillation Spectrophotometric
- "AS" for Semi-Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- " " where no data has been entered
- "NR" if the analyte is not required to be analyzed.

#### CAS/Rochester Lab ID # for State Certifications

Army Corp of Engineers Validated
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited
NELAP Accredited

New York ID # 10145 New Jersey ID # NY004 New Hampshire ID # 294100 A/B Pennsylvania Registration 68-786 Rhode Island ID # 158 South Carolina ID #91012 West Virginia ID # 292

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ROUX ASSOCIATES, INC. : Environmental Consulting & Management	209 SHAFTER STREET ISLANDIA, NEW YORK (631) 232-2600 FAX: (6	209 SHAFTER STREET ISLANDIA, NEW YORK 11749-5074 (631) 232-2600 FAX: (631) 232-9898	)74 3898		er of	ANALYSES		PAGE	<u>.</u> ا
PROJECT NAME	<u>.                                    </u>	PROJECT NUMBER	/ hc	POOK NA	S. C.S.		SF		
	outer harbo	- Jagar	\ <u>`</u> "	De S	112		TTOB JATO		
PROJECT MANAGER  G. Le. A. C. Lus. ( )	SAMPLER(S)	/ 7080H	*	to hay a	2		24		_
	DATE	COLLECTED		3				NOTES	
GW102	6/33/6	10:10 GW	$\vdash$	×		ч	17799	لم	
G-W 19	. , ,	1 3150	<u>×</u>	×		۲,	7	اِف	
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7€ 35 A		045)	<b>×</b> ,	×,		7,			
<b>GU 23</b>		0430	*	<		7	וְיַּל	5	
GW 3 2		05:01	<b>×</b>	×-		در ا	5	0	
MS/MSD.	-	0955	*	*		7			
RELINGUISHED BY: (SJGNATURE)	E Y	1 DATE TIME   8   25   3   4 6 0	SEAL INTACT Y OR N	RECEIVED BY: (SIGNATURE)	(SIGNATURE)	S S	DATE 1/25/03	TIME 1400	SEAL INTACT Y OR N
RELINGUISHED BY, (SIGNATURE)	FOR	8/25/03 1530	SEAL INTACT Y OR N	RECEIVED BY:	GIGNATURE	FOR	DATE 8/55/03	TIME 1530	SEAL INTACT Y OR N
RELINQUISHED BY: (SIGNATURE)	FOR	DATE TIME	SEAL INTACT Y OR N	RECEIVED BY:	RECEIVED BY: (SIGNATURE)	FOR	рате	TIME	SEAL INTACT Y OR N
DELIVERY METHOD		COMMENTS	/	MS/MSD	is from				
ANALYTICAL LABORATORY			بي	لد س)					
									]

# Cooler Receipt And Preservation Check Form

Project/Client	Roux		S	abmission Num	iber <i> 8 </i> _	3 <i>0</i>
Cooler received on_	6/25/03 by: <u>/</u>	3C	COU	UER: CAS	UPS FEDEX	CD&L CLIENT
<ol> <li>Were custody</li> <li>Did all bottle</li> <li>Did any VOA</li> <li>Were Ice or I</li> <li>Where did th</li> <li>Temperature</li> </ol>	y seals on outside of papers properly for sarrive in good control vials have signifulated packs present? The bottles originated of cooler(s) upon ature within 0° - 6	filled ondition icant and ? ? receipt	ut (ink n (unbi ir bubb	oken)?	YES	NO NO NO NO NO NO COC CLIENT  Yes Yes
If No, Expla	in Below			lo No	No	No No
· -	emperatures Taker	a:	8%	25/03		1535
	rID: 161 or		I VAI	Reading From:	Temp Blank	or Sample Bottle
<ol> <li>Did all bottle</li> <li>Were correct</li> </ol>	tle labels complete labels and tags ag containers used for Cassettes / Tub	(i.e. and the test of the test	th cust tests ind ct (	ody papers? licated?	etc.)? YES YES YES urized Tedlar	NO NO NO ® Bags Inflated
		YES	NO	Sample I.D.	Reagent	Vol. Added
pН	Reagent					
12	NaOH					
2	HNO ₃					
2	H₂SO₄					,
Residual Chlorine (+/-)	for TCN & Phenol					
5-9**	P/PCBs (608 only)					
		r H₂SO₄		ved at lab as listed	PC OK to adj	ust pH

#### EXTRACTABLE ORGANICS

METHOD NITROBENZENE BY SIM 8270C

Reported: 10/01/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : GW18R

Date Sampled: 08/23/03	<b>Order #:</b> 666645	Sample Matrix: WATER
Date Received: 08/25/03	Submission #: R2318130	Analytical Run 94907

ANALYTE			PQL	RESULT	UNITS	
	08/29/03 09/03/03 1.04					
NITROBENZENE			0.20	0.22	UG/L	
SURROGATE RECOVERIES	QC	LIMITS				
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(15 (30 (38	- 135 - 116 - 107	왕)	83 75 54	ob ob ob	

#### EXTRACTABLE ORGANICS

METHOD NITROBENZENE BY SIM 8270C

Reported: 10/01/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : GW19

Date Sampled: 08/23/03 Order #: 666646 Sample Matrix: WATER Date Received: 08/25/03 Submission #: R2318130 Analytical Run 94907

• •					
ANALYTE		·	PQL	RESULT	UNITS
	08/29/03 09/02/03 0.93				
NITROBENZENE			0.20	0.21	UG/L
SURROGATE RECOVERIES	QC	LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(15 (30 (38	- 135 - 116 - 107	웅)	104 71 60	00 00 00

#### EXTRACTABLE ORGANICS

METHOD NITROBENZENE BY SIM 8270C

Reported: 10/01/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : GW21

Date Sampled: 08/23/03 Order #: 666647 Sample Matrix: WATER Date Received: 08/25/03 Submission #: R2318130 Analytical Run 94907

ANALYTE			PQL	RESULT	UNITS
	08/29/03 09/02/03 0.97				
NITROBENZENE			0.20	0.19 U	UG/L
SURROGATE RECOVERIES	QC 1	LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(15 (30 (38	- 135 - 116 - 107	왕)	103 87 66	% % %

#### EXTRACTABLE ORGANICS

METHOD NITROBENZENE BY SIM 8270C

Reported: 10/01/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : GW22

Date Sampled:	08/23/03	Order #:	666648	Sample Matrix: N	WATER
Date Received:	08/25/03	Submission #:	R2318130	Analytical Run	94907

ANALYTE		PQL	RESULT	UNITS
	08/29/03 09/03/03 1.00			
NITROBENZENE		0.20	0.33	UG/L
SURROGATE RECOVERIES	QC LIMIT	rs		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL		 35 %) 16 %) )7 %)	76 88 60	00 00 00

#### EXTRACTABLE ORGANICS

METHOD NITROBENZENE BY SIM 8270C

Reported: 10/01/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : GW23

Date Sampled: 08/23/03 Order #: 666649 Sample Matrix: WATER Date Received: 08/25/03 Submission #: R2318130 Analytical Run 94907

ANALYTE			PQL	RESULT	UNITS
	08/29/03 09/03/03 1.01				
NITROBENZENE			0.20	0.73	UG/L
SURROGATE RECOVERIES	QC	LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(15 (30 (38	- 135 - 116 - 107		88 99 64	o o o o

#### EXTRACTABLE ORGANICS

METHOD NITROBENZENE BY SIM 8270C

Reported: 10/01/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : GW32

Date Sampled: 08/23/03 Order #: 666650 Sample Matrix: WATER Date Received: 08/25/03 Submission #: R2318130 Analytical Run 94907

ANALYTE			PQL	RESULT	UNITS
	08/29/03 09/03/03 1.05				
NITROBENZENE			0.20	1.2	UG/L
SURROGATE RECOVERIES	QC	LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(15 (30 (38	- 135 - 116 - 107	왕)	79 101 69	of of of

#### EXTRACTABLE ORGANICS

METHOD NITROBENZENE BY SIM 8270C Reported: 09/29/03

Project Reference: Client Sample ID : METHOD BLANK

Date Sampled : Date Received:	Order Submission		3394	Sample Matrix: Analytical Run	
ANALYTE			PQL	RESULT	UNITS
	08/29/03 09/02/03 1.00				
NITROBENZENE			0.20	0.20 U	UG/L
SURROGATE RECOVERIES	QC L	IMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(30	- 135 - 116 - 107	왕)	83 64 52	o6 o6

QUALITY CONTROL SUMMARY MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY WATER

Spiked Order No.: 666648 Roux Associates Inc.

Client ID: GW22

Test: NITROBENZENE BY SIM 8270C

Analytical Units: UG/L

Run Number : 94907

	SPIKE	CONCENT.	MATRIX S	SPIKE	MATRIX	SPIKE DU	IP.	QC LIMITS
ANALYTE	ADDED	SAMPLE	FOUND	% REC.	FOUND	% REC.	RPD RPD	REC.
NITROBENZENE	1.00	0.330	1.70	137	1.60	127	6 30	50 - 150

#### QUALITY CONTROL SUMMARY LABORATORY CONTROL SAMPLE WATER

Spiked Order No. : 668395

Client ID:

Test: NITROBENZENE BY SIM 8270C

Analytical Units: UG/L

Run Number : 94907

	SPIKE	SAMPLE	BLANK SI	QC LIMITS	
<u> </u>	ADDED	CONCENT.	FOUND	% REC.	REC.
NITROBENZENE	1.00	0	0.810	81	50 - 150

## METALS COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

C ract: R231813		RGANIC ANALYSES DATA PAC	SDG No.:	GW18R
Lab Code:	Case No.	:	SAS No.:	
SOW No.: SW846 CLP-	M Client:	Roux Associates Inc.		
<u></u>	ample No.	Lab Sample ID.		
G	W18R	666645		
G	W19	666646		
_	W21	666647		
_	W22	666648		
_	W22D	666648D		
_	W22S	666648S		
	W23	666649 666650		
<u> </u>	W32	000030		
		40	4	VEC
Were ICP intereler	ment corrections applie	.d?	Yes/No	YES
Were ICP backgroup	nd corrections applied?		Yes/No	YES
_	raw data generated befo		res/No	
_	of background correction		Yes/No	NO
apprication	or background correction	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	•	
Comments: See Att	ached Case Narrative			
I certify that thi	s data package is in c	ompliance with the terms and	d conditions	s of the
		eteness, for other than the		
		this hardcopy data package		
		ette has been authorized by		tory Manager o
		he following signature.		
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Signature: Muha	of K. Keny	Name: Wicklard	t leny	
,		1 1	2 00	
Date: //	11/03	Title: Laborat	bory 11 ano	100
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COVER PAGE - IN

-1-

#### INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

GW18R

Contract: R2318130

Lab Code:

Level (low/med):

Case No.:

SAS No.:

SDG NO.: GW18R

Matrix (soil/water):

WATER

Lab Sample ID: 666645

Date Received: 08/25/03

Concentration Units (ug/L or mg/kg dry weight):  $\mu$ G/L

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	38700			P
7440-36-0	Antimony	60.0	ש		P
7440-38-2	Arsenic	84.0			P
7440-39-3	Barium	479	l		P
7440-41-7	Beryllium	5.0	ס		P
7440-43-9	Cadmium	5.0	ט		P
7440-70-2	Calcium	478000			P
7440-47-3	Chromium	59.3	Γ		P
7440-48-4	Cobalt	50.0	ט		P
7440-50-8	Copper	69.1			P
7439-89-6	Iron	53900			P
7439-92-1	Lead	246			P
7439-95-4	Magnesium	92800			P
7439-96-5	Manganese	2820			P
7439-97-6	Mercury	0.50			CV
7440-02-0	Nickel	48.4			P
7440-09-7	Potassium	28700			P
7782-49-2	Selenium	5.0	ט		P
7440-22-4	Silver	10.0	ש		P
7440-23-5	Sodium	32700	_		P
7440-28-0	Thallium	30.0	ש		P
7440-62-2	Vanadium	80.6			P
7440-66-6	Zinc	390		Е	P

Color Before: BROWN

Clarity Before:

CLOUDY

Texture:

Color After: YELLOW

Clarity After:

CLOUDY

Artifacts:

-1-

#### INORGANIC ANALYSIS DATA SHEET

NO.	SAMPLE	
	GW19	Ī
	GW19	

Contract: R2318130

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW18R

Matrix (soil/water): WATER

Lab Sample ID: 666646

Date Received: 08/25/03

Level (low/med): LOW

Concentration Units (ug/L or mg/kg dry weight):  $\mu$ G/L

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	3310			P
7440-36-0	Antimony	60.0	ש		P
7440-38-2	Arsenic	10.0	ם		P
7440-39-3	Barium	32.2			P
7440-41-7	Beryllium	5.0	ס		P
7440-43-9	Cadmium	5.0	ש		P
7440-70-2	Calcium	63500			P
7440-47-3	Chromium	59.6		l	P
7440-48-4	Cobalt	50.0	ע		P
7440-50-8	Copper	20.0	ט		P
7439-89-6	Iron	122			P
7439-92-1	Lead	5.0	ט		P
7439-95-4	Magnesium	500	ַ ט		P
7439-96-5	Manganese	10.0	ש		P
7439-97-6	Mercury	0.20	ט		CV
7440-02-0	Nickel	40.0	ט		P
7440-09-7	Potassium	427000			P
7782-49-2	Selenium	16.8			P
7440-22-4	Silver	10.0	ט		P
7440-23-5	Sodium	29500			P
7440-28-0	Thallium	10.0	ש		P
7440-62-2	Vanadium	50.0	ט	l	P
7440-66-6	Zinc	20.0	ש	E	P

Color Before: YELLOW

Clarity Before:

CLEAR

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

-1-

#### INORGANIC ANALYSIS DATA SHEET

SAMPLE	NO.	
GW21		

Contract: R2318130

Lab Code:

Case No.:

SAS No.:

SDG NO.:

GW18R

Matrix (soil/water): WATER

Level (low/med):

LOW

Lab Sample ID: 666647

Date Received: 08/25/03

Concentration Units (ug/L or mg/kg dry weight):  $\mu$ G/L

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	100	ט		P
7440-36-0	Antimony	60.0	ט	l	P
7440-38-2	Arsenic	10.0	ש	l	P
7440-39-3	Barium	51.9		ļ	P
7440-41-7	Beryllium	5.0	ן ט		P
7440-43-9	Cadmium	5.0	ט		P
7440-70-2	Calcium	47100			P
7440-47-3	Chromium	10.0	ט		P
7440-48-4	Cobalt	50.0	<b>ס</b>		P
7440-50-8	Copper	20.0	ט	l	P
7439-89-6	Iron	135		<u> </u>	P
7439-92-1	Lead	5.0	<b>ט</b>	l	P
7439-95-4	Magnesium	3320		<b>l</b>	P
7439-96-5	Manganese	10.0	σ	l	P
7439-97-6	Mercury	0.20	ט		CV
7440-02-0	Nickel	40.0	ש		P
7440-09-7	Potassium	22000			P
7782-49-2	Selenium	5.0	ם		P
7440-22-4	Silver	10.0	ם		P
7440-23-5	Sodium	14300			P
7440-28-0	Thallium	10.0	<u>ס</u>		P
7440-62-2	Vanadium	50.0	ע		P
7440-66-6	Zinc	20.0	ש	E	P

Color Before: YELLOW

Clarity Before:

CLEAR

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

-1-

#### INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

GW22

Contract: R2318130

Case No.:

SAS No.:

SDG NO.: GW18R

Matrix (soil/water): WATER

Lab Sample ID: 666648

Level (low/med):

Lab Code:

LOW

Date Received: 08/25/03

Concentration Units (ug/L or mg/kg dry weight):  $\mu$ G/L

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	86500			P
7440-36-0	Antimony	79.4			P
7440-38-2	Arsenic	44.3	Ī		P
7440-39-3	Barium	878			P
7440-41-7	Beryllium	5.0	ס		P
7440-43-9	Cadmium	5.0	ש		P
7440-70-2	Calcium	658000			P
7440-47-3	Chromium	165			P
7440-48-4	Cobalt	50.0	ם		P
7440-50-8	Copper	411	<u> </u>		P
7439-89-6	Iron	120000			P
7439-92-1	Lead	1260			P
7439-95-4	Magnesium	201000			P
7439-96-5	Manganese	4270			P
7439-97-6	Mercury	2.1			CV
7440-02-0	Nickel	115			P
7440-09-7	Potassium	42200			P
7782-49-2	Selenium	5.0	<b>ט</b>		P
7440-22-4	Silver	10.0	<b>ט</b>		P
7440-23-5	Sodium	49200			P
7440-28-0	Thallium	50.0	ס		P
7440-62-2	Vanadium	169			P
7440-66-6	Zinc	1170	l	E	P

Color Before: BROWN

Clarity Before: CLOUDY

Texture:

Color After: YELLOW

Clarity After:

CLOUDY

Artifacts:

-1-

#### INORGANIC ANALYSIS DATA SHEET

SAMPLE	NO.	
GW23		

Contract: R2318130

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW18R

Matrix (soil/water): WATER

Level (low/med):

Lab Sample ID: 666649

Date Received: 08/25/03

Concentration Units (ug/L or mg/kg dry weight):  $\mu$ G/L

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	532			P
7440-36-0	Antimony	60.0	ַ ס		P
7440-38-2	Arsenic	10.5			P
7440-39-3	Barium	343			P
7440-41-7	Beryllium	5.0	ט		P
7440-43-9	Cadmium	5.0	ט		P
7440-70-2	Calcium	254000			P
7440-47-3	Chromium	10.0	ט		P
7440-48-4	Cobalt	50.0	ַ שׁ		P
7440-50-8	Copper	21.5			P
7439-89-6	Iron	7900			P
7439-92-1	Lead	15.9		<u> </u>	P
7439-95-4	Magnesium	82500		<u> </u>	P
7439-96-5	Manganese	720			P
7439-97-6	Mercury	0.20	σ		CV
7440-02-0	Nickel	40.0	"ס		P
7440-09-7	Potassium	32500			P
7782-49-2	Selenium	5.0	<b>"</b>		P
7440-22-4	Silver	10.0	<b>ט</b>	1	P
7440-23-5	Sodium	58000			P
7440-28-0	Thallium	10.0	ַ ט		P
7440-62-2	Vanadium	50.0	<u> </u>		P
7440-66-6	Zinc	23.7		E	P

Color Before: YELLOW

Clarity Before: CLEAR

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

-1-

#### INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

GW32

Contract: R2318130

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW18R

Matrix (soil/water): WATER

Lab Sample ID: 666650

Level (low/med):

LOW

Date Received: 08/25/03

Concentration Units (ug/L or mg/kg dry weight):  $\mu$ G/L

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	1360			P
7440-36-0	Antimony	60.0	ם	[	P
7440-38-2	Arsenic	10.1			P
7440-39-3	Barium	337			P
7440-41-7	Beryllium	5.0	<b>"</b> "		P
7440-43-9	Cadmium	5.0	ס		P
7440-70-2	Calcium	259000			P
7440-47-3	Chromium	10.0	ס		P
7440-48-4	Cobalt	50.0	ש		P
7440-50-8	Copper	20.0	ס		P
7439-89-6	Iron	8710		l	P
7439-92-1	Lead	16.4			P
7439-95-4	Magnesium	84500			P
7439-96-5	Manganese	665			P
7439-97-6	Mercury	0.20	ס		CV
7440-02-0	Nickel	40.0	ס		P
7440-09-7	Potassium	27700			P
7782-49-2	Selenium	5.0	ס		P
7440-22-4	Silver	10.0	ס		P
7440-23-5	Sodium	53000			P
7440-28-0	Thallium	10.0	<u>ס</u>		P
7440-62-2	Vanadium	50.0	<b>0</b>		P
7440-66-6	Zinc	28.0		E	P

Color Before: YELLOW

Clarity Before:

CLEAR

Texture:

Color After: YELLOW

Clarity After:

CLEAR

Artifacts:

-3-

#### **BLANKS**

Contract: R2318130

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW18R

Preparation Blank Matrix (soil/water): WATER

No allest a	Initial Calib. Blank			Preparation Blank								
Analyte	(ug/L)	С	1	C	2	C	3	С		C	$\coprod$	M
Aluminum	100.0	σ	100.0	ט	100.0	U	100.0	ש	100.000	ט	Ш	P
Antimony	60.0	σ	60.0	U	_60.0	ש	60.0	ש	60.000	σ	Ц	P
Arsenic	10.0	σ	10.0	ש	10.0	ש	10.0	ש	10.000	σ	Ц	P
Barium	20.0	ש	20.0	ש	20.0	ש	20.0	ש	20.000	σ	Ш	P
Beryllium	5.0	σ	5.0	U	_5.0	ט	5.0	ש	5.000	σ	Ц	P
Cadmium	5.0	<b>ט</b>	5.0	σ	5.0	σ	5.0	ש	5.000	σ	Ц	P
Calcium	500.0	ט	500.0	ש	500.0	ס	500.0	ש	500.000	σ	Ц	P
Chromium	10.0	σ	10.0	U	10.0	ַ	10.0	ַ ס	10.000	σ	Ц	P
Cobalt	50.0	ט	50.0	υ	50.0	σ	50.0	ט	50.000	σ	Ц	P
Copper	20.0	ט	20.0	σ	20.0	ָּט	20.0	ש	20.000	ט	Ц	P
Iron	100.0	Ū	100.0	U	100.0	ט	100.0	ש	100.000	σ	Ц	P
Lead	5.0	ש	5.0	υ	5.0	σ	5.0	ש	5.000	σ	Ц	P
Magnesium	500.0	ַ ד	500.0	σ	500.0	σ	500.0	ט	500.000	υ	Ц	P
Manganese	10.0	ט	10.0	U	10.0	ש	10.0	ש	10.000	σ	Ц	Р
Mercury	0.20	U	0.20	ש	0.20	ש	0.20	ש	0.200	U	Ц	CV
Nickel	40.0	ש	40.0	ט	40.0	σ	40.0	ש	40.000	σ	Ц	P
Potassium	2000.0	ש	2000.0	ט	2000.0	σ	2000.0	ש	2000.000	ש	Ш	P
Selenium	5.0	σ	5.0	ש	5.0	ט	5.0	ט	5.000	σ	Ц	P
Silver	10.0	ש	10.0	σ	10.0	σ	10.0	ש	10.000	σ	LÌ	P
Sodium	500.0	ט	500.0	Ū	500.0	ט	500.0	ש	500.000	σ	Ū	P
Thallium	10.0	ט	10.0	U	10.0	σ	10.0	ש	10.000	ש	Ц	P
Vanadium	50.0	σ	50.0	U	50.0	ט	50.0	ַ	50.000	σ		P
Zinc	20.0	σ	20.0	σ	20.0	ט	20.0	ש	20.000	σ	Ш	P

-3-

**BLANKS** 

Contract: R2318130

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW18R

Preparation Blank Matrix (soil/water): WATER

	Initial Calib. Blank			C	ontinuing Ca Blank (u	Preparation Blank					
Analyte	(ug/L)	С	_ 1	C	2	C	3	С		c	M
Aluminum			100.0	ש	100.0	ט					P
Antimony	<u></u>	$\perp$	60.0	ש	60.0	ט					P
Arsenic	<u> </u>		10.0	ש	10.0	ש					P
Barium	<u> </u>		20.0	ש	20.0	ש	_	Щ			P
Beryllium			5.0	ש	5.0	ט		Ш			P
Cadmium	<u> </u>		5.0	ש	5.0	ס					P
Calcium			500.0	ש	500.0	ט	500.0	ש			P
Chromium	<u> </u>		10.0	ש	10.0	σ					P
Cobalt	<u> </u>	$\perp$	50.0	ס	50.0	ש		Щ			P
Copper	<u> </u>	$\perp$	_20.0	σ	20.0	ט					P
Iron			100.0	ד	100.0	ש		Щ		L	P
Lead	<u></u>		5.0	ש	5.0	ט					P
Magnesium	<u> </u>		500.0	ש	500.0	υ	_				P
Manganese		$\perp$	10.0	ש	10.0	ש					P
Mercury			0.20	ש	0.20	ש	0.20	ט			CV
Nickel	<u> </u>		40.0	ס	40.0	ש		Щ			P
Potassium			2000.0	ט	2000.0	ד	2000.0	U			P
Selenium	<u> </u>	$\perp$	5.0	ש	5.0	ש					P
Silver	<u> </u>		_10.0	ש	10.0	ש					P
Sodium	l		500.0	ש	500.0	ש	500.0	<u>ס</u>	<u></u>	$oxed{oxed}$	P
Thallium	l		10.0	σ	10.0	σ					P
Vanadium			50.0	σ	50.0	ש					P
Zinc	<u> </u>		20.0	ש	20.0	ט					P

-3-

**BLANKS** 

Contract: R2318130

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW18R

Preparation Blank Matrix (soil/water): WATER

Analyte	Initial Calib. Blank		Continuing Calibration Blank (ug/L)						Preparation Blank	_		м
	(ug/L)	С			2	C		С	<u> </u>	С	<u> </u>	
Potassium	2000.	이 ㅠ	2000.	ַ ט ט	2000.	0   U	2000.0	ט				P
Thallium	10.	이 ㅁ	10.	0   υ	10.	0   0	10.0	ש			<u> </u>	Ρĺ

**METALS** 

-3-

**BLANKS** 

Contract: R2318130

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW18R

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	С	1	Con	tinuing Blank 2		ration 3	С	Preparation Blank	С	М
Potassium			2000.	0 0	2000.	0 0	2000.0	ט			l P
Thallium			10.	0 σ							P

### METALS -5A-

### SPIKE SAMPLE RECOVERY

SAMPLE	NO.
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GW22S	
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Contract: R2318130

Lab Code:

Case No.:

SAS No.:

SDG NO.: GW18R

Matrix (soil/water):WATER

Level (low/med):

LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight):  $\mu$ G/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	С	Sample Result (SR)	С	Spike Added (SA)	%R	Q	м
Aluminum		82329.0391		86535.0078		2000.00	-210.3		P
Antimony	75 - 125	532.4425		79.3970		500.00	90.6		P
Arsenic	75 - 125	81.3682		44.3138		40.00	92.6		P
Barium	75 - 125	2781.6262		877.7886	l	2000.00	95.2		P
Beryllium	75 - 125	48.0227		5.0000	ס	50.00	96.0		P
Cadmium	75 - 125	49.3263		5.0000	ט	50.00	98.7		P
Calcium		649569.1797		657931.8750		2000.00	-418.1		P
Chromium	75 - 125	345.9819		164.7212		200.00	90.6		P
Cobalt	75 - 125	500.8821		50.0000	ש	500.00	100.2		P
Copper	75 - 125	635.2899		410.9124		250.00	89.8		P
Iron		117651.1875		119664.0156		1000.00	-201.3		P
Lead	75 - 125	1697.0819		1261.2146		500.00	87.2		P
Magnesium		200199.3906		201105.4063		2000.00	-45.3		P
Manganese		4683.8799		4268.0010		500.00	83.2		P
Mercury	75 - 125	2.9817		2.0704		1.00	91.1		cv
Nickel	75 - 125	558.1971		115.0518		500.00	88.6		P
Potassium	75 - 125	59114.2031		42185.3086		20000.00	84.6		P
Selenium	75 - 125	1007.5565		5.0000	ס	1010.00	99.8		P
Silver	75 - 125	43.0246		10.0000	ש	50.00	86.0		P
Sodium	75 - 125	68444.6250		49153.7539		20000.00	96.5		P
Thallium	75 - 125	1856.5379		50.0000	ש	2000.00	92.8		P
Vanadium	75 - 125	638.2900		168.5310		500.00	94.0		P
Zinc	75 - 125	1581.7679		1167.1798		500.00	82.9		P

Comments:				



### A FULL SERVICE ENVIRONMENTAL LABORATORY

September 26, 2003

Mr. Glenn Netuschil Roux Associates Inc. 1377 Motor Parkway Islandia, NY 11749

PROJECT: HONEYWELL/OUTER HARBOR 25203404

Submission #:R2318129

Dear Mr. Netuschil

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (585) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Mark Wilson

Client Service Manager

Enc.



1 Mustard ST. Suite 250 Rochester, NY 14609 (585) 288-5380

### THIS IS AN ANALYTICAL TEST REPORT FOR:

Client

: Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Lab Submission # : R2318129

Project Manager : Mark Wilson

Reported

: 09/26/03

Report Contains a total of 45 pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. Ilive

### CASE NARRATIVE

COMPANY: Roux Associates
PROJECT: Honeywell/Outer Harbor
SUBMISSION #: R2318129

Soil samples were collected on 08/23-24/03 and received at CAS on 08/25/03 in good condition at a cooler temperatures of 1 and 2 °C. See CAS CLP Batching sheets for a cross-reference between Client ID and CAS Job # and analyses requested.

### **TOTAL ORGANIC CARBON**

Soil samples were analyzed for Total Organic Carbon by the Lloyd Kahn Method.

The Blank Spike (Reference Check) recoveries were all within QC limits. The Matrix Spike recoveries from sample PTSB-10(4-6') were all within QC limits. The RPD from the duplicate analyses were all within QC.

No analytical or QC problems were encountered.

### **SEMIVOLATILE ORGANICS**

Soil samples were analyzed for Nitrobenzene by SW-846 method 8270C.

All DFTPP tuning criteria were within acceptance limits.

The initial and continuing calibration criteria were met for all analytes.

All internal standard areas were within QC limits.

All surrogate standard recoveries were within QC limits. Surrogates were diluted out in several samples due to high levels of target compounds in the samples.

The Blank Spike (Reference Check) were all within QC limits. The Matrix Spike/Matrix Spike Duplicate recoveries and RPD from sample PTSB-10(4-6') were all within QC limits.

No analytical or QC problems were encountered.

## CAS ASP/CLP BATCHING FORM / LUGIN SHEE!

av Associates Inc.  by Associates Inc.  custody Seal: PRES  DATE: 08/25/03  Custody Seal: PRES  Bart (14'-16')  Sult Seal: 18' Se		-10	RATCH	RATCH COMPLETE: Ves		DATE REVIS	1/2/0 CI2/	Y <	,
ates Inc. DATE: 08/25/03  CUSTODY SEAL: PRESENT/ABSENT: SUMMARY PKG: Y  LOUTER HARBOR: CHAIN OF CUSTODY: PRESENT/ABSENT: SUMMARY PKG: Y  LOUTER HARBOR: CHAIN OF CUSTODY: PRESENT/ABSENT: SUMMARY PKG: Y  LOUTER HARBOR: CHAIN OF CUSTODY: PRESENT/ABSENT: SUMMARY PKG: Y  LOUTER HARBOR: CHAIN OF CUSTODY: PRESENT/ABSENT: SUMMARY PKG: Y  LOUTER HARBOR: CHAIN OF CUSTODY: PRESENT/ABSENT: SUMMARY PKG: Y  LOUTER HARBOR: CHAIN OF CUSTODY: PRESENT/ABSENT: SUMMARY PKG: Y  SOIL BEZTOTTOC 8/23/03 8/25/03  (14-1\(\beta\) SOIL BEZTOTTOC 8/23/03 8/25/03  SOIL BEZTOTTOC 8/23/03 8/25/03  (14-1\(\beta\) SOIL BEZTO	SUBMISSION	R2318129	DISKETT	TED: Y		DATE DUF	75. 01. 09/22/03	) )	•
CUSTOOY SEAL: PRESENT/ABSENT: SHIPPING NO. CUSTOOY SEAL: PRESENT/ABSENT: SHIPPING NO. CUSTOOY SEAL: PRESENT/ABSENT: SUMMARY PKG: Y AND ATRIX REQUESTED PARAMETERS DATE SHIPPING NO. CUSTOOY: PRESENT/ABSENT: SUMMARY PKG: Y SOIL BY STOOTOC 8123/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 8125/03 81	C. IENT:	Roux Associates Inc	DATE	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			846		
LOUTER HARBOR: CHAIN OF CUSTODY: PRESENTTABSENT: SUMMARY PKG: Y	CLIENT REP.	Mark Wilson	CUSTOD	SESSON SERVICE SENTING SERVICE		SHIPPINGN	2		
CLIENTEPA ID   MATRIX REQUESTED PARAMETERS   DATE   DATE	PROJECT:	HONEYWELL/OUTER HARBOR:	CHAIN OF	CUSTODY: PRESENT/ABSENT	Γ:	SUMMARY F		- 1	
PTSB-10(4-6') PTSB-10(4-6') PTSB-10(4-6') PTSB-10(4-16') PTSB-10(4-16') PTSB-10(4-16') PTSB-10(4-16') PTSB-1(14-16') PTSB-1(1	CAS JOB#	CLIENT/EPA ID	MATRIX	REQUESTED PARAMETERS	DATE SAMPLED	DATE RECEIVED((		% NLIDS AMP	REMARKS LE CONDITIC
PTSB-10(14'-16')	666622	PTSB-10(4'-6')	SOIL	<b>QC</b> 8270/TOC	8/23/03	8/25/03			
PTSB-20(14-16)         SOIL         8270/TOC         8/23/03           PTSB-1(14-16)         SOIL         8270/TOC         8/23/03           PTSB-1(14-16)         SOIL         8270/TOC         8/23/03           PTSB-1(14-16)         SOIL         8270/TOC         8/23/03           PTSB-13(16-18)         SOIL         8270/TOC         8/24/03           PTSB-13(16-18)         SOIL         8270/TOC         8/24/03           PTSB-13(16-18)         SOIL         8270/TOC         8/24/03           PTSB-13(16-20)         SOIL         8270/TOC         8/24/03           PTSB-13(18-20)         SOIL         8270/TOC         8/24/03           PTSB-16(18-20)         SOIL         8270/TOC         8/24/03           PTSB-16(18-20)         SOIL         8270/TOC         8/24/03           PTSB-6(12-14)         SOIL         8270/TOC         8/24/03           PTSB-2(12-14)         SOIL         8270/TOC         8/24/03           PTSB-2(12-14)         SOIL         8270/TOC         8/24/03           PTSB-2(12-14)         SOIL         8270/TOC         8/24/03           PTSB-2(12-14)         SOIL         8/270/TOC         8/24/03           PTSB-2(14-16)         SOIL	666624	PTSB-10(14'-16')	SOIL	8270/TOC	8/23/03	8/25/03			
PTSB-1(14'-16)         SOIL         8270/TOC         8/23/03           PTSB-11(4'-6')         SOIL         8270/TOC         8/23/03           PTSB-11(18-20')         SOIL         8270/TOC         8/24/03           PTSB-13(16'-18')         SOIL         8270/TOC         8/24/03           PTSB-14(18-20')         SOIL         8270/TOC         8/24/03           PTSB-14(18-20')         SOIL         8270/TOC         8/24/03           PTSB-14(18-20')         SOIL         8270/TOC         8/24/03           PTSB-16(18-20')         SOIL         8270/TOC         8/24/03           PTSB-6(12-14')         SOIL         8270/TOC         8/24/03           PTSB-6(12-14')         SOIL         8/270/TOC         8/24/03           PTSB-5(12-14')         SOIL         8/270/TOC         8/24/03           PTSB-5(12-14')         SOIL         8/270/TOC         8/24/03           PTSB-5(12-14')         SOIL         8/270/TOC         8/24/03           PTSB-5(12-14')         SOIL         8/24/03           PTSB-5(12-14')         SOIL         8/270/TOC           PTSB-5(14-16')         SOIL         8/24/03           PTSB-5(18-16')         SOIL         8/24/03           PTSB	666625	PTSB-20(14'-16')	SOIL	8270/TOC	8/23/03	8/25/03			
PTSB-11(4'-6')         SOIL         8270/TOC         8/23/03           PTSB-11(18-20')         SOIL         8270/TOC         8/23/03           PTSB-12(16-18')         SOIL         8270/TOC         8/24/03           PTSB-13(16-18')         SOIL         8270/TOC         8/24/03           PTSB-13(16-18')         SOIL         8270/TOC         8/24/03           PTSB-13(18-20')         SOIL         8270/TOC         8/24/03           PTSB-6(6-8')         SOIL         8270/TOC         8/24/03           PTSB-6(12-14')         SOIL         8270/TOC         8/24/03           PTSB-6(12-14')         SOIL         8270/TOC         8/24/03           PTSB-2(12-14')         SOIL         8270/TOC         8/24/03           PTSB-5(12-14')         SOIL         8270/TOC         8/24/03           PTSP-5(14-1b,)         SOIL         8270/TOC         8/24/03           PTSP-5(14-1b,)         SOIL         8/24/03         8/24/03           PTSP-5(14-1b,)         SOIL         8/24/03         8/24/03           PTSP-5(14-1b,)         SOIL         8/24/03         8/24/03           PTSP-5(14-1b,)         SOIL         8/24/03         8/24/03           PTSP-5(14-1b,)         SOIL <td>666626</td> <td>PTSB-1(14'-16')</td> <td>SOIL</td> <td>8270/TOC</td> <td>8/23/03</td> <td>8/25/03</td> <td></td> <td></td> <td></td>	666626	PTSB-1(14'-16')	SOIL	8270/TOC	8/23/03	8/25/03			
PTSB-11(18-20)         SOIL         8270/ΓОС         8/23/03           PTSB-12(16-18)         SOIL         8270/ΓОС         8/24/03           PTSB-13(16-18)         SOIL         8270/ГОС         8/24/03           PTSB-14(18-20)         SOIL         8270/ГОС         8/24/03           PTSB-15(18-20')         SOIL         8270/ГОС         8/24/03           PTSB-16(18-20')         SOIL         8270/ГОС         8/24/03           PTSB-6(6-8')         SOIL         8270/ГОС         8/24/03           PTSB-6(12-14')         SOIL         8270/ГОС         8/24/03           PTSB-2(12-14')         SOIL         820/ГОС         8/24/03           PTSB-2(14-1b')         SOI         8/270, ГОС         8/24/03           PTSB-2(14-1b')         SOI         8/270, ГОС         8/24/03           PTSB-2(14-1b')         SOIL         8/270, ГОС         8/24/03           PTSB-2(14-1b')         SOI	666628	PTSB-11(4'-6')	SOIL	8270/TOC	8/23/03	8/25/03			
PTSB-12(16-18)         SOIL         8270/TOC         8/24/03           PTSB-13(16-18)         SOIL         8270/TOC         8/24/03           PTSB-13(16-18)         SOIL         8270/TOC         8/24/03           PTSB-14(18-20)         SOIL         8270/TOC         8/24/03           PTSB-19(18-20)         SOIL         8270/TOC         8/24/03           PTSB-16(12-14)         SOIL         8270/TOC         8/24/03           PTSB-2(12-14)         SOIL         8/270/TOC         8/24/03           PTSB-2(14-16)         SOIL         8/270/TOC         8/24/03           PTSB-2(14-16)         SOIL         8/270/TOC         8/24/03           PTSB-2(14-16)         SOIL         8/24/03         8/24/03           PTSB-2(14-16)         SOIL         8/24/03         8/24/03           PTSB-2(14-16)         SOIL         8/24/03         8/24/03           PTSB-2(14-16)         SOIL	666630	PTSB-11(18'-20')	SOIL	8270/TOC	8/23/03	8/25/03			
PTSB-13(16-18)         SOIL         8270/TOC         8/24/03           PTSB-14(18-20')         SOIL         8270/TOC         8/24/03           PTSB-15(18-20')         SOIL         8270/TOC         8/24/03           PTSB-19(18-20')         SOIL         8270/TOC         8/24/03           PTSB-19(18-20')         SOIL         8270/TOC         8/24/03           PTSB-6(6-8')         SOIL         8270/TOC         8/24/03           PTSB-6(12-14')         SOIL         8270/TOC         8/24/03           PTSB-2(12-14')         SOIL         8270/TOC         8/24/03           PTSB-5(14-14')         SOIL         8/27/Do, TOC         8/23/p3	666632	PTSB-12(16'-18')	SOIL	8270/TOC	8/24/03	8/25/03			
PTSB-14(18-20')   SOIL   8270/TOC   8/24/03     PTSB-15(18-20')   SOIL   8270/TOC   8/24/03     PTSB-19(18-20')   SOIL   8270/TOC   8/24/03     PTSB-6(6-8')   SOIL   8270/TOC   8/24/03     PTSB-6(12-14')   SOIL   8270/TOC   8/24/03     PTSB-2(12-14')   SOIL   8270/TOC   8/24/03     PTSB-2(12-14')   SOIL   8270/TOC   8/24/03     PTSB-2(14-1\bullet)   SOIL   SOI	666633	PTSB-13(16'-18')	SOIL	8270/TOC	8/24/03	8/25/03			
PTSB-15(18-20')   SOIL   8270/TOC   8/24/03   PTSB-19(18-20')   SOIL   8270/TOC   8/24/03   BTSB-6(6'-8')   SOIL   8270/TOC   8/24/03   BTSB-2(12'-14')   SOIL   8270/TOC   8/24/03   BTSB-2(12'-14')   SOIL   8270/TOC   8/24/03   BTSB-2(12'-14')   SOIL   8270/TOC   8/24/03   BTSB-2(12'-14')   SOIL   8/270,   TOC   S/23/b3   BTSB-2(12'-14')   SOIL   8/270,   TOC   S/23/b3   BTSB-2(12'-14')   SOIL   BTSB-2(14-11¢)   SOIL   BTSB-2(14-1	666635	PTSB-14(18'-20')	SOIL	8270/TOC	8/24/03	8/25/03			
PTSB-19(18'-20') SOIL 8270/TOC 8/24/03 PTSB-6(6'-8') SOIL 8270/TOC 8/24/03 PTSB-6(12'-14') SOIL 8270/TOC 8/24/03 PTSB-2(12'-14') SOIL 8270/TOC 8/24/03 PTSB-2(12'-14') SOIL 8270/TOC 8/24/03 PTSB-2(14-14) SOIL 8270/TOC 8/24/03 PTSB-2(14-14) SOIL 8270/TOC 8/24/03 PTSB-2(14-14) SOIL 8270/TOC 8/23/03 PTSB-2(14-14) PTSB-2(14-1	666637	PTSB-15(18'-20')	SOIL	8270/TOC	8/24/03	8/25/03			
PTSB-6(6'-8') SOIL 8270/TOC 8/24/03 PTSB-6(12'-14') SOIL 8270/TOC 8/24/03 PTSB-2(12'-14') SOIL 8270/TOC 8/24/03 PTSB-2(14-14') SOIL 8270/TOC 8/24/03 PTSB-2(14-14') SOIL 8270/TOC 8/23/03 PTSB-2(1	666641	PTSB-19(18'-20')	SOIL	8270/TOC	8/24/03	8/25/03			
PTSB-6(12·14') SOIL 8270/TOC 8/24/03 PTSB-2(12·14') SOIL 8270/TOC 8/24/03 タアシーン(14-14) SOIL 8270/TOC 8/24/03 タアンシーン(14-14) SOIL 8270/TOC 8/23/03 03 タアンシーン(14-14) SOIL 8270/TOC 8/23/03 タアンシーン(14-14) SOIL 8270/	666642	PTSB-6(6'-8')	SOIL	8270/TOC	8/24/03	8/25/03			
PTSB-2(12-14') SOIL 8270/TOC 8/24/03 PTSβ - 5(14-14) SOI	666643	PTSB-6(12'-14')	SOIL	8270/TOC	8/24/03	8/25/03			
F4EAB 5070, 102 (41-14) & 5270, 103 (41-41) & 64549	666644	PTSB-2(12'-14')	SOIL	8270/TOC	8/24/03	8/25/03			
	10/06/185	-14)	501	82.70, 1750	8123183	8/25/63			
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Effective 6/12/2003

### **ORGANIC QUALIFIERS**

- U Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- N Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search.
- P This flag is used for a pesticide/Aroclor target analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank as well as in the sample.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and ALL concentration values reported on that Form I are flagged with the "D" flag.
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- X As specified in Case Narrative.
- This flag identifies compounds associated with a quality control parameter which exceeds laboratory limits.

### CAS/Rochester Lab ID # for State Certifications

Army Corp of Engineers Validated
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited

NELAP Accredited New York ID # 10145 New Jersey ID # NY004 New Hampshire ID # 294100 A/B Pennsylvania Registration 68-786 Rhode Island ID # 158 South Carolina ID #91012 West Virginia ID # 292







Effective 6/12/2003

### **INORGANIC QUALIFIERS**

### C (Concentration) qualifier -

- B if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but was greater than or equal to the Instrument Detection Limit (IDL).
- U if the analyte was analyzed for, but not detected

### Q qualifier - Specified entries and their meanings are as follows:

- D Spike was diluted out
- E The reported value is estimated because of the presence of interference.
- J Estimated Value
- M Duplicate injection precision not met.
- N Spiked sample recovery not within control limits.
- S The reported value was determined by the Method of Standard Additions (MSA).
- W Post-digestion spike for Furnace AA Analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
- * Duplicate analysis not within control limits.
- +- Correlation coefficient for the MSA is less than 0.995.

### M (Method) qualifier:

- "P" for ICP
- "A" for Flame AA
- "F" for Furnace AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for Flame AA when Microwave Digestion is used
- "FM" for Furnace M when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for Automated Cold Vapor AA
- "CA" for Midi-Distillation Spectrophotometric
- "AS" for Semi-Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- " " where no data has been entered
- "NR" if the analyte is not required to be analyzed.

### CAS/Rochester Lab ID # for State Certifications

Army Corp of Engineers Validated
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited
NELAP Accredited

New York ID # 10145 New Jersey ID # NY004 New Hampshire ID # 294100 A/B Pennsylvania Registration 68-786 Rhode Island ID # 158 South Carolina ID #91012 West Virginia ID # 292

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Columbia	Service

# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

An Employee - Owned Company One Mustard St., Suite 250 • Rochester, NY 14609-0859 • (585) 288-5380 • 800-695-7222 x1

X (585) 288-8475 PAGE

P.

CAS Contact

Other CE Preservative Key 0. NONE REMARKS/ ALTERNATE DESCRIPTION NaHSO₄ INVOICE INFORMATION ANALYSIS REQUESTED (inciude Method Number and Container Preservative) Printed Name BILL TO: Signature Date/Time ë B Firm IV. Data Validation Report with Raw Data V. Speicalized Forms / Custom Report ŝ II. Results + QC Summarles (LCS, DUP, MS/MSD as required) REPORT REQUIREMENTS II. Results + QC and Calibration RELINQUISHED BY  $\infty$ Yes With a bey can t I. Results Only Printed Name Date/Time Signature TURNAROUND REQUIREMENTS 5 day RUSH (SURCHARGES APPLY) RECEIVED BY REQUESTED REPORT DATE REQUESTED FAX DATE STANDARD 24 hr PRESERVATIVE Firm > NUMBER OF CONTAINERS CUSTODY SEALS: MATRIX 8/23 13 350 8/23 13 350 8,73 10:45 14.30 St b 0 8= Š 8123 8(23 8124 DATE 4218 FOR OFFICE USE ONLY 7 0 LAB ID 2 CONDITION/COOLER TEMP *550CF 0092 SPECIAL INSTRUCTIONS/COMMENTS ,02-18-18 CLIENT SAMPLE ID oun Haber 8-8 Prs8-10(4/6) 20% 25/ PT 52-10 SAMPLE RECEIPT PTSTS - 20 [B-13 1513 - [ 88-14 1371-15 See QAPP

Distribution; White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

ROUX	CHAIN OF JUSTODY	LO ON	351
ROUX ASSOCIATES, INC. 209 SHAFTER STREET Environmental Consulting ISLANDIA, NEW YORK 1 & Management (631) 232-2600 FAX: (63	11749-5074 31) 232-9898	ANALYSES PAGE	OF
HOUSECT NAME 1 Octo fator	PROJECT NUMBER  25 20 SVO 4   AT   CO	\\ \( \sigma \) \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	
2	W FION!	TOB JATO	
PROJECT MANAGER  SAMPLER(S),  SLIM HO	1 10 XX 8	2/	
AMPLE DATE OOLLECTED	❤ . Ⅱ	/ / NOTES	
1230	1 32	177999 2	
715K-6 6-8 62 13 13	8/24/3   ( )	75	
2(12-14, 645) 143°	E 1921	<i>λh</i> 2	
PTSB-5(14-16) (1350	8/23/03 1 1	C66 183	
Sample addres as			
per John Huber			
OCI	CATE TIME SEAI RECEIVED BY: (SIGNATURE)	FOR DATE TIME	SEAL
RELINOUSHED BY: ASSOCIATIONE)	3 14 % Y OR N	1/20/21/4	NTACT Y OR N
RELINQUISHED BY (SIGNATURE) FOR	DATE TIME SEAL RECEIVED W. (SIGNATURE)	FOR ' DATE TIME	SEAL INTACT Y OR (NA)
RELINGUISHED BY: (SIGNATURE) FOR	DATE TIME SEAL RECEIVED BY: (SIGNATURE) Y OR N	FOR DATE TIME	SEAL INTACT Y OR N
DELIVERY METHOD	COMMENTS	077704	
ANALYTICAL LABORATORY			

CHAINDF.COR 12AUG98

### Cooler Receipt And Preservation Check Form

Project/Client	Boux		S	ubmission Number	1812	9		
Cooler received on_	<u> </u>	30	COUI	RIER: CAS UPS	FEDEX	CD&L	CLIENT	
<ol> <li>Were custod</li> <li>Did all bottle</li> <li>Did any VOA</li> <li>Were Ice or I</li> <li>Where did th</li> </ol>	y seals on outside of papers properly for a sarrive in good control of the packs present? The bottles originate of cooler(s) upon	filled of ondition icant and a	ut (ink n (unb ir bubt	roken)?	YES YES YES YES CAS/RO	NO NO NO NO CC CLII	N/A ENT	
Is the temper	ature within 0° - 6	° C?:		Yes Yes	Yes	Yes	Yes	
If No, Explain Below No No No No No								
Date/Time Temperatures Taken: 8/25/03 1535								
Thermometer ID: 161 or IR GUN Reading From: Temp Blank or Sample Bottle								
If out of Temperature, Client Approval to Run Samples								
	containers used for Cassettes / Tub		ct (	Canisters Pressurized	YES Tedlar	NO B Bags Inf	flated N/A	
		YES	NO	Sample I.D.	Reagent	Vol	l. Added	
pH_	Reagent							
12	NaOH	<u> </u>						
2	HNO ₃							
2	H₂SO₄							
Residual Chlorine (+/-)	for TCN & Phenol							
5-9**	P/PCBs (608 only)							
YES = All samples OK **If pH adjustment is req				ved at lab as listed	PC OK to adju	st pH	-	
VO	OC Vial pH Verification Tested after Analysis) Following Samples Exhibited pH > 2							
1								
		_						

8

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-10(4'-6')

Date Sampled: 08/23/03 Order #: 666622 Sample Matrix: SOIL/Date Received: 08/25/03 Submission #: R2318129 Percent Solid: 67.5 Sample Matrix: SOIL/SEDIMENT

ANALYTE			PQL	RESULT	UNITS
	08/26/03 08/27/03 5.00				Dry Weight
NITROBENZENE			330	12000	UG/KG
SURROGATE RECOVERIES	QC	LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	- 137 - 120 - 115	왕)	93 70 85	જ જ જ

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-10(14'-16')

Date Sampled: 08/23/03 Order #: 666624 Sample Matrix: SOIL/SEDIMENT

Date Received: 08/25/03 Submission #: R2318129 Percent Solid: 76.1

2400 100021041 00,23,	° 5 Danie 10 10 10 1	• "			Tereene Borre	, , , , , ,	
ANALYTE				PQL	RESULT	UNITS	
	08/26/03 08/27/03 3.00					Dry Weight	
NITROBENZENE				330	9100	UG/KG	
SURROGATE RECOVERIES	QC	LIN	/ITS				
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	-	137 120 115	용)	94 70 86	% % %	,

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 09/26/03

- Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-20(14'-16')

Date Sampled: 08/23/03 Order #: 666625 Sample Matrix: SOIL/SEDIMENT Date Received: 08/25/03 Submission #: R2318129 Percent Solid: 76.8

						, , , ,
ANALYTE				PQL	RESULT	UNITS
DATE EXTRACTED : DATE ANALYZED : ANALYTICAL DILUTION:	08/26/03 08/27/03 5.00					Dry Weight
NITROBENZENE				330	14000	UG/KG
SURROGATE RECOVERIES	QC	LI	MITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	-	137 120 115	<b>%</b> )	74 64 74	ે એ એ

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 09/26/03

➤ Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-1(14'-16')

Date Sampled: 08/23/03 Order #: 666626 Sample Matrix: SOIL/SEDIMENT Date Received: 08/25/03 Submission #: R2318129 Percent Solid: 78.2

<b>Date</b> Necessia. 00/25/	os bubilibbion in . It.	2310123	rereeme borra.	70.2
ANALYTE	-	PQL	RESULT	UNITS
DATE EXTRACTED : DATE ANALYZED : ANALYTICAL DILUTION:	08/26/03 08/27/03 5.00			Dry Weight
NITROBENZENE		330	7500	UG/KG
SURROGATE RECOVERIES	QC LIMITS	5		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 - 13' (23 - 120 (30 - 11!	) ક)	87 73 84	જ જ જ

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-11(4'-6')

Date Sampled: 08/23/03 Order #: 666628 Sample Matrix: SOIL/SEDIMENT Date Received: 08/25/03 Submission #: R2318129 Percent Solid: 67.7

ANALYTE			PQL	RESU	LT	UNITS	
DATE EXTRACTED : DATE ANALYZED : ANALYTICAL DILUTION:	08/26/03 08/28/03 25.00					Dry Weight	
NITROBENZENE			330	100000		UG/KG	
SURROGATE RECOVERIES	QC	LIMITS					
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	- 137 - 120 - 115	웅)		D D D	ું જ જ	

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-11(18'-20')

Date Sampled: 08/23/03 Order #: 666630 Sample Matrix: SOIL/SEDIMENT

Date Received: 08/25/03 Submission #: R2318129 Percent Solid: 76.5

•					_		
ANALYTE				PQL	F	RESULT	UNITS
	08/26/03 08/28/03 10.00						Dry Weight
NITROBENZENE				330	430	000	UG/KG
SURROGATE RECOVERIES	QC	LI	MITS				
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	-	137 120 115	용)	1	105 67 91	જ જ જ

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-12(16'-18')

Date Sampled: 08/24/03 Order #: 666632 Sample Matrix: SOIL/SEDIMENT Date Received: 08/25/03 Submission #: R2318129 Percent Solid: 77.9

Date Received: 08/25/0	3 Submission	#: R23	10129	Percent Soll	id: 77.9	
ANALYTE			PQL	RESUL	UNITS	
	08/26/03 08/28/03 250.00				Dry Weig	jht
NITROBENZENE			330	760000	UG/KG	
SURROGATE RECOVERIES	QC L	IMITS				
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL		- 137 - 120 - 115	웅)	D D D	०१० ०५० ०५०	

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-13(16'-18')

Date Sampled: 08/24/03 Order #: 666633 Sample Matrix: SOIL/Date Received: 08/25/03 Submission #: R2318129 Percent Solid: 74.5 Sample Matrix: SOIL/SEDIMENT

ANALYTE		PQL	RESULT	UNITS
	08/26/03 08/28/03 500.00			Dry Weight
NITROBENZENE		330	1200000	UG/KG
SURROGATE RECOVERIES	QC LIMI	TS		
TERPHENYL-d14 NITROBENZENE-d5° 2-FLUOROBIPHENYL	(23 - 1	 37 %) 20 %) 15 %)	D D D	ભ ભ ભ

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-14(18'-20')

Date Sampled: 08/24/03 Order #: 666635 Sample Matrix: SOIL/SEDIMENT Date Received: 08/25/03 Submission #: R2318129 Percent Solid: 77.6

Date Received: 06/25/	03 Submission	#: R2310129	Percent Solia:	//.6
ANALYTE		PQL	RESULT	UNITS
DATE EXTRACTED : DATE ANALYZED : ANALYTICAL DILUTION:	08/26/03 08/28/03 200.00			Dry Weight
NITROBENZENE		330	590000	UG/KG
SURROGATE RECOVERIES	QC I	LIMITS		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	- 137 %) - 120 %) - 115 %)	D D D	06 06 06

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-15(18'-20')

Date Sampled: 08/24/03 Order #: 666637 Sample Matrix: SOIL/SEDIMENT Date Received: 08/25/03 Submission #: R2318129 Percent Solid: 72.8

					·
ANALYTE			PQL	RESULT	UNITS
DATE EXTRACTED : DATE ANALYZED : ANALYTICAL DILUTION:	08/26/03 08/28/03 50.00				Dry Weight
NITROBENZENE			330	220000	UG/KG
SURROGATE RECOVERIES	QC	LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	- 120	용)	D D D	% % % %

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-19(18'-20')

Date Sampled: 08/24/03 Order #: 666641 Sample Matrix: SOIL/SEDIMENT Date Received: 08/25/03 Submission #: R2318129 Percent Solid: 78.2

Date Received: 00/25/		. 11 • 1(2)	510125	rereeme borre.	. 70.2
ANALYTE	_		PQL	RESULT	UNITS
	08/26/03 08/28/03 100.00				Dry Weight
NITROBENZENE			330	230000	UG/KG
SURROGATE RECOVERIES	QC	LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	- 120	<b>%</b> )	D D D	ું જ જ

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-6(6'-8')

Date Sampled: 08/24/03 Order #: 666642 Sample Matrix: SOIL/SEDIMENT Date Received: 08/25/03 Submission #: R2318129 Percent Solid: 69.6

ANALYTE			PQL	RESULT	UNITS
	08/26/03 08/28/03 20.00				Dry Weight
NITROBENZENE			330	110000	UG/KG
SURROGATE RECOVERIES	QC	LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	- 137 - 120 - 115	웅)	D D D	જ જ જ જ

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-6(12'-14')

Date Sampled: 08/24/03 Order #: 666643 Sample Matrix: SOIL/SEDIMENT Date Received: 08/25/03 Submission #: R2318129 Percent Solid: 72.2

Date Received: 00/25/	3 Bubiliasion	π• 1(2)	510125	rercent borra.	72.2
ANALYTE			PQL	RESULT	UNITS
	08/26/03 08/28/03 20.00				Dry Weight
NITROBENZENE			330	76000	UG/KG
SURROGATE RECOVERIES	QC :	LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	- 137 - 120 - 115	용)	D D D	op op op

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-2(12'-14')

Date Sampled: 08/24/03 Order #: 666644 Sample Matrix: SOIL/SEDIMENT Date Received: 08/25/03 Submission #: R2318129 Percent Solid: 75.0

ANALYTE			PQL	RESULT	UNITS
	08/26/03 08/28/03 10.00				Dry Weight
NITROBENZENE			330	23000	UG/KG
SURROGATE RECOVERIES	QC	LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	- 137 - 120 - 115	<b>%</b> )	75 53 62	% % %

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-5(14-16')

Date Sampled: 08/23/03 Order #: 666785 Sample Matrix: SOIL/SEDIMENT Date Received: 08/25/03 Submission #: R2318129 Percent Solid: 76.6

					, 5 . 5
ANALYTE			PQL	RESULT	UNITS
	08/26/03 08/28/03 10.00				Dry Weight
NITROBENZENE			330	27000	UG/KG
SURROGATE RECOVERIES	QC	LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	- 137 - 120 - 115	용)	73 54 69	oo oo

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 09/26/03

Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled : Date Received:	Order #: Submission #:	667188	Sample Matrix: Percent Solid:	
ANALYTE		PQL	RESULT	UNITS
	08/26/03 08/27/03 1.00			Dry Weight
NITROBENZENE		330	120 J	UG/KG
SURROGATE RECOVERIES	QC LIM	ITS		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 -	137 %) 120 %) 115 %)	87 57 63	% % %

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 09/26/03

Project Reference:

Client Sample ID : METHOD BLANK

Sample Matrix: SOIL/SEDIMENT Order #: 667188 Date Sampled:

Date Received:	Submission #:		Percent Solid:	100
ANALYTE		PQL	RESULT	UNITS
	08/26/03 08/28/03 1.00			Dry Weight
NITROBENZENE		330	130 Ј	UG/KG
SURROGATE RECOVERIES	QC LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 - 137 (23 - 120 (30 - 115	<b>%</b> )	93 59 65	op op op

QUALITY CONTROL SUMMARY MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY SOIL/SEDIMENT

Spiked Order No. : 666622 Roux Associates Inc.

Client ID: PTSB-10(4'-6')

Test: 8270 NITROBENZENE

Analytical Units: UG/KG

Run Number : 94711

Percent Solid : 67.5

	SPIKE		MATRIX :	SPIKE	MATRIX S	SPIKE D	JP.		QC LIMITS
ANALYTE		CONCENT.     SAMPLE	FOUND	% REC.	FOUND	% REC.	RPD	RPD	REC.
NITROBENZENE	4930	11900	16300	89	14800	59	10	30	46 - 102

## QUALITY CONTROL SUMMARY LABORATORY CONTROL SAMPLE SOIL/SEDIMENT

Spiked Order No. : 667189

Client ID:

Test: 8270 NITROBENZENE

Analytical Units: UG/KG

Run Number : 94711

	SPIKE	SAMPLE	BLANK SI	PIKE	QC LIMITS
ANALYTE	ADDED	CONCENT.	FOUND	% REC.	REC.
NITROBENZENE	3330	0	2800	84	46 - 102

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-10(4'-6')

Date Sampled: 08/23/03 Date Received: 08/25/03

Order #: 666622

Sample Matrix: SOIL/SEDIMENT Submission #: R2318129

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBON	160.0 TOC.LK	1.0	67.5 18200	% MG/KG	08/27/03 09/02/03		1.0

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-10(14'-16')

Sample Matrix: SOIL/SEDIMENT

Date Sampled: 08/23/03 Date Received: 08/25/03 Order #: 666624 Submission #: R2318129

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBON	160.0 TOC.LK	1.0	76.1 12800	% MG/KG	08/27/03 09/02/03		1.0

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-20(14'-16')

Date Sampled: 08/23/03

Order #: 666625

Sample Matrix: SOIL/SEDIMENT

Date Received: 08/25/03 Submission #: R2318129

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS		TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBON	160.0 TOC.LK	1.0	76.8 16600	% MG/KG	08/27/03 09/02/03		1.0

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-1(14'-16')

Date Sampled: 08/23/03 Order #: 666626 Sample Matrix: SOIL/SEDIMENT

Date Received: 08/25/03 Submission #: R2318129

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBON	160.0 TOC.LK	1.0	78.2 12800	% MG/KG	08/27/03 09/02/03		1.0

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-11(4'-6')

Date Sampled: 08/23/03 Date Received: 08/25/03 Order #: 666628 Submission #: R2318129 Sample Matrix: SOIL/SEDIMENT

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBON	160.0 TOC.LK	1.0	67.7 24100	% MG/KG	08/27/03 09/02/03		1.0

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-11(18'-20')

Date Sampled: 08/23/03 Order #: 666630 Sample Matrix: SOIL/SEDIMENT

Date Received: 08/25/03 Submission #: R2318129

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS		TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.0	1.0	76.5	å MC /KC	08/27/03		1.0
TOTAL ORGANIC CARBON		300	14800	MG/KG	09/02/03		

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-12(16'-18')

Date Sampled: 08/24/03 Date Received: 08/25/03

Order #: 666632 Submission #: R2318129 Sample Matrix: SOIL/SEDIMENT

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS		TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBON	160.0 TOC.LK	1.0	77.9 19500	% MG/KG	08/27/03 09/02/03		1.0

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-13(16'-18')

Date Sampled: 08/24/03 Order #: 666633
Date Received: 08/25/03 Submission #: R2318129 Sample Matrix: SOIL/SEDIMENT

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS		TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBON	160.0 TOC.LK	1.0	74.5 21300	% MG/KG	08/27/03 09/02/03		1.0

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-14(18'-20')

Date Sampled: 08/24/03 Order #: 666635 Sample Matrix: SOIL/SEDIMENT

Date Received: 08/25/03 Submission #: R2318129

ANALYTE	METHOD	bðr	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBON	160.0 TOC.LK	1.0	77.6 33900	% MG/KG	08/27/03 09/02/03		1.0

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-15(18'-20')

Sample Matrix: SOIL/SEDIMENT Date Sampled: 08/24/03 Order #: 666637

Date Received: 08/25/03	<u> </u>	Submission	#: R2318129				
ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBON	160.0 TOC.LK	1.0	72.8 14000	% MG/KG	08/27/03 09/02/03		1.0

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-19(18'-20')

Date Sampled: 08/24/03 Date Received: 08/25/03

Order #: 666641 Submission #: R2318129 Sample Matrix: SOIL/SEDIMENT

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBON	160.0 TOC.LK	1.0	78.2 15800	% MG/KG	08/27/03 09/02/03		1.0

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404 Client Sample ID : PTSB-6(6'-8')

Date Sampled: 08/24/03 Order #: 666642
Date Received: 08/25/03 Submission #: R2318129 Sample Matrix: SOIL/SEDIMENT

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.0	1.0	69.6	*	08/27/03	10:38	1.0
TOTAL ORGANIC CARBON	TOC.LK	300	19600	MG/KG	09/02/03	11:49	1.0

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-6(12'-14')

Date Sampled: 08/24/03 Date Received: 08/25/03

Order #: 666643 Submission #: R2318129 Sample Matrix: SOIL/SEDIMENT

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBON	160.0 TOC.LK	1.0	72.2 19400	% MG/KG	08/27/03 09/02/03		1.0

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-2(12'-14')

Date Sampled: 08/24/03 Date Received: 08/25/03 Sample Matrix: SOIL/SEDIMENT Order #: 666644

Submission #: R2318129

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBON	160.0 TOC.LK	1.0	75.0 13900	% MG/KG	08/27/03 09/02/03		1.0

Reported: 09/26/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-5(14-16')

Date Sampled: 08/23/03 Order #: 666785 Sample Matrix: SOIL/SEDIMENT

Date Received: 08/25/03 Submission #: R2318129

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBON	160.0 TOC.LK	1.0 300	76.6 10300	% MG/KG	08/27/03 09/02/03		1.0

Report Date CAS Order # Client

09/26/03 666622 - PTSB-10(4'-6') Roux Associates Inc. HONEYWELL/OUTER HARBOR 25203404

Reported Units: Run # :

94710

PRECISION

RPD	1
DUPLICATE	68.2
ORIGINAL	67.5

ERCENT SOLIDS

## INORGANIC QUALITY CONTROL SUMMARY

Report Date CAS Order # Client

09/26/03 666622 - PTSB-10(4'-6') Roux Associates Inc. HONEYWELL/OUTER HARBOR 25203404

Reported Units: MG/KG Run # : 94861 Percent Solid : 67.5

TOTAL ORGANIC CARBON

PRECISION

ACCURACY

LIMITS	30 - 168
% REC.	59
ADDED	15200
FOUND	27100
RPD	16
DUPLICATE	21400
ORIGINAL	18200

41

CAS Submission #: R2318129 Client: Roux Associates Inc. HONEYWELL/OUTER HARBOR 25203404

### BLANK SPIKES

LANK	FOUND	ADDED	% REC	LIMITS	RUN	UNITS
<b>D</b>	1800	250	06	80 - 120	94861	MG/KG

FOTAL ORGANIC CARBON



### A FULL SERVICE ENVIRONMENTAL LABORATORY

October 2, 2003

Mr. Glenn Netuschil Roux Associates Inc. 1377 Motor Parkway Islandia, NY 11749

PROJECT: HONEYWELL/OUTER HARBOR 25203404

Submission #:R2318167

Dear Mr. Netuschil

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (585) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Mark Wilson

Client Service Manager

Enc.



1 Mustard ST. Suite 250 Rochester, NY 14609 (585) 288-5380

### THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Lab Submission # : R2318167

Project Manager : Mark Wilson

Reported : 10/02/03

Report Contains a total of  $\frac{20}{1000}$  pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

### **CASE NARRATIVE**

COMPANY: Roux Associates
PROJECT: Honeywell/Outer Harbor
SUBMISSION #: R2318167

Soil samples were collected on 08/25-27/03 and received at CAS on 08/27/03 in good condition at a cooler temperatures 2 °C. See CAS CLP Batching sheets for a cross-reference between Client ID and CAS Job # and analyses requested.

### **TOTAL ORGANIC CARBON**

Soil samples were analyzed for Total Organic Carbon by the Lloyd Kahn Method.

The Blank Spike (Reference Check) recoveries were all within QC limits.

No analytical or QC problems were encountered.

### **SEMIVOLATILE ORGANICS**

Soil samples were analyzed for Nitrobenzene by SW-846 method 8270C.

All DFTPP tuning criteria were within acceptance limits.

The initial and continuing calibration criteria were met for all analytes.

All internal standard areas were within QC limits.

All surrogate standard recoveries were within QC limits. Surrogates were diluted out in several samples due to high levels of target compounds in the samples.

The Blank Spike (Reference Check) were all within QC limits.

No analytical or QC problems were encountered.

## CAS ASP/CLP BATCHING P 7M / LOGIN SHEET

		T	<u> </u>	Τ	Ī			T	T								ľ							
		REMARKS																						
		× % %																						
/ISED: E: 09/24/03	No.:	pH (SOLIOS)	(COFIEDS)																					
DATE REVISED: DATE DUE: 09/24/03	PROTOCOL:846 SHIPPING No.:	DATE	8/27/03	8/27/03	8/27/03	8/27/03	8/27/03	8/27/03	8/27/03	8/27/03	8/27/03	8/27/03												
		DATE SAMPLED	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/27/03	8/27/03	8/27/03	8/25/03	8/25/03									-		•	
BATCH COMPLETE:yes DISKETTE REQUESTED: YX_ N	Roux Associates Inc.  Mark Wilson  CUSTODY SEAL: PRESENT/ABSENT: HONFYWELLOUTER HARBOR: CHAIN OF CLISTODY: PRESENT/ABSENT	REQUESTED PARAMETERS	8270/TOC	8270/TOC	8270/TOC	8270/TOC	8270/TOC	8270/TOC	8270/TOC	8270/TOC	8270/TOC	8270/TOC												
BATCH C DISKETTI	DATE: 08/27/03 CUSTODY SEA	MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL												
-16 R2318167	Roux Associates Inc. Mark Wilson HONEYWELLOUTER HARBOR	CAS JOB #   CLIENT/EPA ID	PTSB-16(4'-8')	PTSB-16(16'-18')	PTSB-7(14'-16')	PTSB-7(4'-8')	PTSB-8(16'-20')	PTSB-9(16'-20')	PTSB-4(16'-20')	PTSB-3(16'-18')	PTSB-17(16'-20')	PTSB-18(16'-20')												
SDG #: PTSB-16 SUBMISSION R2318167	CLIENT: Roux Associ CLIENT REP: Mark Wilson PROJECT: HONFYWFI	#	667395	962299	667397	667398	667400	667403	667405	667407	667504	667505												







Effective 6/12/2003

### **ORGANIC QUALIFIERS**

- U Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- N Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search.
- P This flag is used for a pesticide/Aroclor target analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank as well as in the sample.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and ALL concentration values reported on that Form I are flagged with the "D" flag.
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- X As specified in Case Narrative.
- * This flag identifies compounds associated with a quality control parameter which exceeds laboratory limits.

### CAS/Rochester Lab ID # for State Certifications

Army Corp of Engineers Validated
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited

NELAP Accredited New York ID # 10145 New Jersey ID # NY004 New Hampshire ID # 294100 A/B Pennsylvania Registration 68-786 Rhode Island ID # 158 South Carolina ID #91012 West Virginia ID # 292







Effective 6/12/2003

### **INORGANIC QUALIFIERS**

### C (Concentration) qualifier -

- B if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but was greater than or equal to the Instrument Detection Limit (IDL).
- U if the analyte was analyzed for, but not detected

### Q qualifier - Specified entries and their meanings are as follows:

- D Spike was diluted out
- E The reported value is estimated because of the presence of interference.
- J Estimated Value
- M Duplicate injection precision not met.
- N Spiked sample recovery not within control limits.
- S The reported value was determined by the Method of Standard Additions (MSA).
- W Post-digestion spike for Furnace AA Analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
- * Duplicate analysis not within control limits.
- +- Correlation coefficient for the MSA is less than 0.995.

### M (Method) qualifier:

- "P" for ICP
- "A" for Flame AA
- "F" for Furnace AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for Flame AA when Microwave Digestion is used
- "FM" for Furnace M when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for Automated Cold Vapor AA
- "CA" for Midi-Distillation Spectrophotometric
- "AS" for Semi-Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- " " where no data has been entered
- "NR" if the analyte is not required to be analyzed.

### CAS/Rochester Lab ID # for State Certifications

Army Corp of Engineers Validated
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited
NELAP Accredited

New York ID # 10145 New Jersey ID # NY004 New Hampshire ID # 294100 A/B Pennsylvania Registration 68-786 Rhode Island ID # 158 South Carolina ID #91012 West Virginia ID # 292

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Columbia Analytical Services	

# CHAIN OF CUSTODY/LABORATORY AIL .YSIS REQUEST FORM

# ES
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An Employee - Owned Company One Mustard St., Suite 250 • Rochester, NY 14609-0859 • (585) 288-5380 • 800-695-7222 x11 • FAX (585) 288-8475 PAGE

other Co. eservative Key Zn. Acetate MeOH NaHSO₄ REMARKS/ ALTERNATE DESCRIPTION INVOICE INFORMATION ANALYSIS REQUESTED (Include Method Number and Container Preservative) BILL TO: <u>#</u> IV. Data Validation Report with Raw Data REPORT REQUIREMENTS II. Results + QC Summarles (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration ÒC I. Results Only TURNAROUND REQUIREMENTS RUSH (SUBCHARGES APPLY) REQUESTED REPORT DATE 24 hr 48 hr REQUESTED FAX DATE PRESERVATIVE NUMBER OF CONTAINERS MATRIX John Hoba SAMPLING DATE TIME 8/25 II Cos 000 030 8/25 Project Number 55203704 282 (189) FOR OFFICE USE ONLY LAB ID Report CC 209 Shafter Street Sandia Associatios, Inc 0092 282 (189 SPECIAL INSTRUCTIONS/COMMENTS Metals % 7', ₹ **CLIENT SAMPLE ID** 644 Project Name Company/Address

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

Printed Name

Printed Name

Smerian

14:15

8/12/03

201

Firm 8/20/07

rinted Name

Count

Signature

V. Speicalized Forms / Custom Report

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RELINQUISHED BY

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CUSTODY SEALS: Y

SAMPLE RECEIPT: CONDITION/COOLER TEMP:

See OAPP

Sohn Hub A

12001 ASSOC

Date/Time

Cooler Receipt And Preservat	ion Check Forn
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Project/Client	Project/Client								
Cooler received on §	;-27-03 by:_	JE.	_COU	RIER: CAS UPS	FEDEX	CD&L CLIENT			
1. Were custody seals on outside of cooler? 2. Were custody papers properly filled out (ink, signed, etc.)? 3. Did all bottles arrive in good condition (unbroken)? 4. Did any VOA vials have significant air bubbles? 5. Were Ice or Ice packs present? 6. Where did the bottles originate? 7. Temperature of cooler(s) upon receipt:  YES NO YES NO N/A YES NO CAS/ROC CLIENT									
Is the tempera	ature within 0° - 6	° C?:	(	Yes Yes	Yes	Yes Yes			
If No, Explai	n Below		]	No No	No	No No			
Date/Time Te	mperatures Take	n:	4-0	3/03 (4) 14	? da				
Thermometer	ID: 161 or	IR GŪ		Reading From: Temp	p Blank or	Sample Bottle			
If out of Temperatur	re, Client Appro	val to	Run S	Samples					
<ul><li>Were correct of</li><li>Air Samples:</li></ul>									
		YES	NO	Sample I.D.	Reagent	Vol. Added			
pH	Reagent								
12	NaOH								
2	HNO ₃		1						
2	H₂SO₄	<u> </u>	1						
	for TCN & Phenol								
5-9** YES = All samples OK	P/PCBs (608 only)	nles wer	e preser	ved at lab as listed	PC OK to adjust	pH			
**If pH adjustment is requi				Ted at the as histed	- T				
(Te	C Vial pH Verification ested after Analysis) Following Samples								
	Exhibited pH > 2		_						
	Exhibited pH > 2								
	Exhibited pH > 2								

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### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-16(4'-8')

Date Sampled: 08/25/03 Order #: 667395 Sample Matrix: SOIL/SEDIMENT
Date Received: 08/27/03 Submission #: R2318167 Percent Solid: 66.8

Date Received: 08/27/0	3 Submission #	#: R2318167	Percent Solid:	66.8
ANALYTE		PQL	RESULT	UNITS
	08/28/03 08/28/03 500.00			Dry Weight
NITROBENZENE		330	1500000	UG/KG
SURROGATE RECOVERIES	QC LI	IMITS		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 -	- 137 %) - 120 %) - 115 %)	D D D	% % %

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-16(16'-18')

Date Sampled: 08/25/03 Order #: 667396 Sample Matrix: SOIL/SEDIMENT Date Received: 08/27/03 Submission #: R2318167 Percent Solid: 78.5

Date Received: 00/2//	03 Submission	π: R2310107	rercent borr	<b>u:</b> 70.5
ANALYTE		PQL	RESULT	UNITS
	08/28/03 08/29/03 250.00			Dry Weight
NITROBENZENE		330	920000	UG/KG
SURROGATE RECOVERIES	QC I	LIMITS		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	- 137 %) - 120 %) - 115 %)	D D D	96 96 96

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-7(14'-16')

Date Sampled: 08/25/03 Order #: 667397 Sample Matrix: SOIL/SEDIMENT
Date Received: 08/27/03 Submission #: R2318167 Percent Solid: 78.0

Date Received: 08/2//0	3 Submission #:	R2318167	Percent Solia:	78.0
ANALYTE		PQL	RESULT	UNITS
	08/28/03 08/28/03 250.00			Dry Weight
NITROBENZENE		330	590000	UG/KG
SURROGATE RECOVERIES	QC LIM	TTS		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 - 1	137 %) 120 %) 115 %)	D D D	% %

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-7(4'-8')

Date Sampled: 08/25/03 Order #: 667398 Sample Matrix: SOIL/SEDIMENT
Date Received: 08/27/03 Submission #: R2318167 Percent Solid: 74.3

Date Received: 08/27/	03 Submission #	: R2318167	Percent Solid:	74.3
ANALYTE		PQL	RESULT	UNITS
DATE EXTRACTED : DATE ANALYZED : ANALYTICAL DILUTION:	08/28/03 08/28/03 100.00			Dry Weight
NITROBENZENE		330	150000	UG/KG
SURROGATE RECOVERIES	QC LI	MITS		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 -	137 %) 120 %) 115 %)	D D D	०५० ०५०

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404
Client Sample ID : PTSB-8(16'-20')

Date Sampled: 08/25/03 Order #: 667400 Sample Matrix: SOIL/SEDIMENT

Date Received: 08/27/	03 Submission #:	R2318167	Percent Solid:	79.2
ANALYTE		PQL	RESULT	UNITS
	08/28/03 08/29/03 100.00			Dry Weight
NITROBENZENE		330	120000	UG/KG
SURROGATE RECOVERIES	QC LIM	ITS		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 -	 137 %) 120 %) 115 %)	D D D	e e e

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-9(16'-20')

Date Sampled: 08/27/03 Order #: 667403 Sample Matrix: SOIL/Date Received: 08/27/03 Submission #: R2318167 Percent Solid: 77.7 Order #: 667403 Sample Matrix: SOIL/SEDIMENT

ANALYTE	•		PQL	RESULT	UNITS
	08/28/03 08/28/03 1.00			·.	Dry Weight
NITROBENZENE	•		330	46 J	UG/KG
SURROGATE RECOVERIES	QC	LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	- 137 - 120 - 115	용)	67 46 59	o6 o6 o6

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-4(16'-20')

Date Sampled: 08/27/03 Order #: 667405 Sample Matrix: SOIL/SEDIMENT

Date Received: 08/27/	03 Submission #:	R2318167	Percent Solid:	76.0
ANALYTE		PQL	RESULT	UNITS
DATE EXTRACTED : DATE ANALYZED : ANALYTICAL DILUTION:	08/28/03 08/28/03 2.00			Dry Weight
NITROBENZENE		330	1400	UG/KG
SURROGATE RECOVERIES	QC LIM	IITS		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 -	137 %) 120 %) 115 %)	80 69 86	જ જ જ

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-3(16'-18')

Date Sampled: 08/27/03 Order #: 667407 Sample Matrix: SOIL/SEDIMENT

Date Received: 08/27/03 Submission #: R2318167 Percent Solid: 81.2

2000 11000210021 007277	00 000000000000000000000000000000000000	. ,,	- 01 000 50114.	01.5
ANALYTE		PQL	RESULT	UNITS
	08/28/03 08/28/03 3.00		; ·	Dry Weight
NITROBENZENE		330	1200 U	UG/KG
SURROGATE RECOVERIES	QC	LIMITS		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	- 137 %) - 120 %) - 115 %)	76 62 56	२ २ २

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-17(16'-20')

Date Sampled: 08/25/03 Order #: 667504 Sample Matrix: SOIL/SEDIMENT

Date Received: 08/27/	03 Submission #:	R2318167	Percent Solid:	74.2
ANALYTE		PQL	RESULT	UNITS
	08/28/03 08/29/03 500.00		·	Dry Weight
NITROBENZENE		330	650000	UG/KG
SURROGATE RECOVERIES	QC LIM	ITS		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 -	137 %) 120 %) 115 %)	р р р	ે જ જ

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-18(16'-20')

Date Sampled: 08/25/03 Order #: 667505

Date Received: 08/27/03 Submission #: R2318167 Sample Matrix: SOIL/SEDIMENT Percent Solid: 78.3

Date Received: 08/27/	03 Submission	#: R23	318167	Percent Sol	id: 78.3	
ANALYTE			PQL	RESUL	T UNI	rs
DATE EXTRACTED : DATE ANALYZED : ANALYTICAL DILUTION:	08/28/03 08/29/03 200.00				Dry We	eight
NITROBENZENE			330	1000000	UG/K	G
SURROGATE RECOVERIES	QC	LIMITS				
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	- 137 - 120 - 115	<b>%</b> )	D D D	૪	

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 10/02/03

Project Reference: Client Sample ID : METHOD BLANK

Date Sampled : Date Received:	Order # Submission #	: 667633 :	Sample Matrix: Percent Solid:	
ANALYTE		PQL	RESULT	UNITS
	08/28/03 08/28/03 1.00		:	Dry Weight
NITROBENZENE		330	330 U	UG/KG
SURROGATE RECOVERIES	QC LI	MITS		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 -	137 %) 120 %) 115 %)	61 43 53	90 90 90

QUALITY CONTROL SUMMARY: LABORATORY CONTROL SAMPLE

SOIL/SEDIMENT

Spiked Order No. : 667634

Dup Spiked Order No. : 667635

Client ID:

Test: 8270 NITROBENZENE

Analytical Units: UG/KG

Run Number : 94789

	<u> </u>		BLANK S	PIKE	BLANK S	PIKE DUP.	Q	C LIMITS
ANALYTE	ADDED	SAMPLE   CONCENT.	FOUND	% REC.	FOUND	% REC. RPD	RPD	REC.
NITROBENZENE	3300	0	2500	75	2100	63   17	30	46 - 102

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-16(4'-8')

Date Sampled: 08/25/03 Date Received: 08/27/03 Order #: 667395 Sample Matrix: SOIL/SEDIMENT

Submission #: R2318167

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBON	160.0 TOC.LK	1.0 300	66.8 24700	% MG/KG	08/29/03 09/02/03		1.0

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-16(16'-18')

Date Sampled: 08/25/03 Date Received: 08/27/03 Order #: 667396 Submission #: R2318167 Sample Matrix: SOIL/SEDIMENT

Date Received: 08/2//0.	<del> </del>	Submission	#: R231816/				_
ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBON	160.0 TOC.LK	1.0	78.5 18200	% MG/KG	08/29/03 09/03/03		1.0

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-7(14'-16')

Date Sampled: 08/25/03 Date Received: 08/27/03 Order #: 667397 Sample Matrix: SOIL/SEDIMENT

Submission #: R2318167

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBON	160.0 TOC.LK	1.0	78.0 20200	% MG/KG	08/29/03 09/03/03		1.0 1.0

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-7(4'-8')

Date Sampled: 08/25/03 Date Received: 08/27/03 Order #: 667398 Sample Matrix: SOIL/SEDIMENT

Submission #: R2318167

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBON	160.0 TOC.LK	1.0	74.3 16000	% MG/KG	08/29/03 09/03/03		1.0

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-8(16'-20')

Date Sampled: 08/25/03 Date Received: 08/27/03 Order #: 667400 Submission #: R2318167 Sample Matrix: SOIL/SEDIMENT

Date Received. 00/2//	05	D COMT P P T OI	1 #. K231010/				
ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.0	1.0	79.2	*	08/29/03	12:03	1.0
TOTAL ORGANIC CARBON	TOC.LK	300	18900	MG/KG	09/03/03	10:42	1.0

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-9(16'-20')

Date Sampled: 08/27/03 Date Received: 08/27/03 Order #: 667403 Submission #: R2318167 Sample Matrix: SOIL/SEDIMENT

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBON	160.0 TOC.LK	1.0 300	77.7 4960	% MG/KG	08/29/03 09/03/03		1.0

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-4(16'-20')

Date Sampled: 08/27/03 Date Received: 08/27/03 Order #: 667405 Submission #: R2318167 Sample Matrix: SOIL/SEDIMENT

Date Received: 08/2	27/03	SUDMISSION	1 #: R231816/				
ANALYTE	метно	D PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBO	160.0 ON TOC.1		76.0 7920	% MG/KG	08/29/03 09/03/03		1.0

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-3(16'-18')

Date Sampled: 08/27/03 Date Received: 08/27/03 Order #: 667407 Submission #: R2318167 Sample Matrix: SOIL/SEDIMENT

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBON	160.0 TOC.LK	1.0 300	81.2 11800	% MG/KG	08/29/03 09/03/03		1.0

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID : PTSB-17(16'-20')

Date Sampled: 08/25/03 Order #: 667504 Sample Matrix: SOIL/SEDIMENT

Date Received: 08/27/03 Submission #: R2318167

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBON	160.0 TOC.LK	1.0	74.2 21000	% MG/KG	08/29/03 09/03/03		1.0

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203404

Client Sample ID: PTSB-18(16'-20')

Date Sampled: 08/25/03
Date Received: 08/27/03 Order #: 667505 Submission #: R2318167 Sample Matrix: SOIL/SEDIMENT

Date Received: U8/2		Submission	#: R2318167			•	
ANALYTE	метно	D PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBO	160.0 N TOC.L		78.3 22800	% MG/KG	08/29/03 09/03/03		1.0 1.0

CAS Submission #: R2318167 Client: Roux Associates Inc. HONEYWELL/OUTER HARBOR 25203404

### BLANK SPIKES

	BLANK	FOUND	ADDED	% REC	LIMITS	RON	UNITS
OTAL ORGANIC CARBON	зоо п	1800	250	90	80 - 120	19876	MG/KG
OTAL ORGANIC CARBON	зоо п	1750	250	88	80 - 120	94943	MG/KG



### A FULL SERVICE ENVIRONMENTAL LABORATORY

October 2, 2003

Mr. Glenn Netuschil Roux Associates Inc. 1377 Motor Parkway Islandia, NY 11749

PROJECT: HONEYWELL/OUTER HARBOR

Submission #:R2318212

Dear Mr. Netuschil

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (585) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Mark Wilson

Client Service Manager

Enc.



1 Mustard ST. Suite 250 Rochester, NY 14609 (585) 288-5380

### THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR

Lab Submission # : R2318212

Project Manager : Mark Wilson

Reported : 10/02/03

Report Contains a total of 12 pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

### **CASE NARRATIVE**

COMPANY: Roux Associates PROJECT: Honeywell/Outer Harbor SUBMISSION #: R2318212

Soil samples were collected on 08/27/03 and received at CAS on 08/29/03 in good condition at a cooler temperatures 6 °C. See CAS CLP Batching sheets for a cross-reference between Client ID and CAS Job # and analyses requested.

### **TOTAL ORGANIC CARBON**

Soil samples were analyzed for Total Organic Carbon by the Lloyd Kahn Method.

The Blank Spike (Reference Check) recoveries were all within QC limits.

No analytical or QC problems were encountered.

### **SEMIVOLATILE ORGANICS**

Soil samples were analyzed for Nitrobenzene by SW-846 method 8270C.

All DFTPP tuning criteria were within acceptance limits.

The initial and continuing calibration criteria were met for all analytes.

All internal standard areas were within QC limits.

All surrogate standard recoveries were within QC limits.

The Blank Spike (Reference Check) were all within QC limits.

No analytical or QC problems were encountered.

## CAS ASP/CLP BATCHING FORM / LOGIN SHEET

DATE: 09/03/03  BOUTON SEAL: PRESENTABSENT:  BUILOUTER HARBOR CUSTODY: PRESENTABSENT:  BUILOUTER HARBOR CHAIN OF CUSTODY: PRESENTABSENT:  SUMMARY PKG: Y X N  SOIL  BANNEEDRECEIVED (SOLIDS) SOLIDS)  SOIL  BANNEEDRECEIVED (SOLIDS) SOLIDS  SOIL  BANNEEDRECEIVED (SOLIDS) SOLIDS  SO	SDG #:PTSB-21 SUBMISSION R2318212	-21 v R2318212	BATCH C DISKETTI	BATCH COMPLETE: yes DISKETTE REQUESTED: Y X N		DATE REVISED: DATE DUE: 09/26/03	1SED: :: 09/26/03		
CLIENT/EPA ID  CLIENT/EPA ID  CLIENT/EPA ID  SOIL  SOI	CLIENT: CLIENT REP PROJECT:	Roux Associates Inc. : Mark Wilson HONEYWELL/OUTER HARBOR	DATE: 09 CUSTOD CHAIN OI	/03/03 Y SEAL: PRESENT/ABSENT: = CUSTODY: PRESENT/ABSENT	,	PROTOCC SHIPPING SUMMARY	)L: 136 No.: 'PKG: Y	×	
PTSB-21(14-18) SOIL, 8270/TOC 8/27/03 8/29/03	CAS JOB#		MATRIX		DATE SAMPLED	DATE RECEIVED	(SOLIDS)	SOLIDS %	REMARKS AMPLE CONDITION
	667992	PTSB-21(14'-18')	SOIL		8/27/03	8/29/03			_
		,							







Effective 6/12/2003

### **ORGANIC QUALIFIERS**

- U Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- N Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search.
- P This flag is used for a pesticide/Aroclor target analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank as well as in the sample.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and ALL concentration values reported on that Form I are flagged with the "D" flag.
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- X As specified in Case Narrative.
- * This flag identifies compounds associated with a quality control parameter which exceeds laboratory limits.

### CAS/Rochester Lab ID # for State Certifications

Army Corp of Engineers Validated
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited

NELAP Accredited New York ID # 10145 New Jersey ID # NY004 New Hampshire ID # 294100 A/B Pennsylvania Registration 68-786 Rhode Island ID # 158 South Carolina ID #91012 West Virginia ID # 292







Effective 6/12/2003

### **INORGANIC QUALIFIERS**

### C (Concentration) qualifier -

- B if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but was greater than or equal to the Instrument Detection Limit (IDL).
- U if the analyte was analyzed for, but not detected

### Q qualifier - Specified entries and their meanings are as follows:

- D Spike was diluted out
- E The reported value is estimated because of the presence of interference.
- J Estimated Value
- M Duplicate injection precision not met.
- N Spiked sample recovery not within control limits.
- S The reported value was determined by the Method of Standard Additions (MSA).
- W Post-digestion spike for Furnace AA Analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
- * Duplicate analysis not within control limits.
- +- Correlation coefficient for the MSA is less than 0.995.

### M (Method) qualifier:

- "P" for ICP
- "A" for Flame AA
- "F" for Furnace AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for Flame AA when Microwave Digestion is used
- "FM" for Furnace M when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for Automated Cold Vapor AA
- "CA" for Midi-Distillation Spectrophotometric
- "AS" for Semi-Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- " " where no data has been entered
- "NR" if the analyte is not required to be analyzed.

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NELAP Accredited

New York ID # 10145 New Jersey ID # NY004 New Hampshire ID # 294100 A/B Pennsylvania Registration 68-786 Rhode Island ID # 158 South Carolina ID #91012 West Virginia ID # 292

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Columbia (Analylical Services	

# CHAIN OF CUSTODY/LABORATORY AF LYSIS REQUEST FORM

CAS Contact * HS

An Employee - Owned Company One Mustard St., Suite 250 • Rochester, NY 14609-0859 • (565) 288-5380 • 800-695-7222 x11 • FAX (585) 288-8475 PAGE

TOTAL MATERY  TO	1 25203VQ		NECEDIATIO		REQUESTED (III	ANALYSIS REQUESTED (include Method Number and Container Preservative)	ber and Contain	er Preservative)
Control   Cont			PHESEHVALIVE	Е.		g~	<i>S</i>	
Comparison   Com			SHE			G. Broad	///	Preservative Key 0. NONE 1. HCL 2. HNO3
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ALTERNAFE DESCRIPTION   ALTE			3150	2. AO/ 1.0/12/ 21/21/1	~ s			
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Project/Client	KOUX	42		Submission Numb			
Cooler received on	<i>B/24/3</i> by: <u>A</u>	B	_cou	RIER: CAS	UPS FEDEX	CD&L	CLIENT
<ol> <li>Were custod</li> <li>Did all bottl</li> <li>Did any VO</li> <li>Were Ice or</li> <li>Where did th</li> </ol>	ly seals on outside ly papers properly es arrive in good of A vials have signi Ice packs present the bottles originate e of cooler(s) upon	filled ondition ficant and a second and a second	out (inl on (unt air bub	oroken)?	YES YES YES YES CAS/RO	NO NO NO NO NO CLIEN	T
Is the tempe	rature within 0° - 0	5° C?:	<	Yes Yes	Yes	Yes	Yes
If No, Expla	ain Below		-/	No / No	No	No	No
Date/Time T	Temperatures Take	n:	3/2	9/03		9.3	5
Thermomete	er ID: 161 or	IR GI	M	Reading From:	Femp Blank o	r Sampl	e Bottle
If out of Temperat	ure Client Annre	oval to	Run	Samples			
<ol> <li>Did all bottle</li> <li>Were correct</li> </ol>	tle labels complete e labels and tags ag t containers used f : Cassettes / Tub	e (i.e. a gree water for the t	nalysis ith cus tests in	tody papers?		NO NO NO Bags Inflato	ed N/A
		3700	1 270		I		
	_	YES	NO	Sample I.D.	Reagent	Vol. Ad	lded
рН	Reagent	YES	NO	Sample I.D.	Reagent	Vol. Ad	lded
pH 12	Reagent NaOH	YES	NO	Sample I.D.	Reagent	Vol. Ad	ided
12	NaOH HNO ₃	163	NO		Reagent	Vol. Ad	ided
12 2 2	NaOH HNO ₃ H ₂ SO ₄	YES	NO	Sample I.D.	Reagent	Vol. Ad	ided
12 2 2 Residual Chlorine (+/-)	NaOH HNO ₃ H ₂ SO ₄ for TCN & Phenol	YES	NO		Reagent	Vol. Ad	ided
12 2 2 Residual Chlorine (+/-) 5-9**	NaOH HNO ₃ H ₂ SO ₄ for TCN & Phenol P/PCBs (608 only)			A			ided
12 2 2 Residual Chlorine (+/-)	NaOH HNO ₃ H ₂ SO ₄ for TCN & Phenol P/PCBs (608 only) NO = Sam	ples wer			PC OK to adjust		Ided
2 2 Residual Chlorine (+/-) 5-9** YES = All samples OK **If pH adjustment is req	NaOH HNO ₃ H ₂ SO ₄ for TCN & Phenol P/PCBs (608 only) NO = Sam	ples wer		A			Ided
2 2 Residual Chlorine (+/-) 5-9** YES = All samples OK **If pH adjustment is req	NaOH  HNO ₃ H ₂ SO ₄ for TCN & Phenol  P/PCBs (608 only)  NO = Samured, use NaOH and/once NaOH and NaOH	ples wer		A			Ided
2 2 Residual Chlorine (+/-) 5-9** YES = All samples OK **If pH adjustment is req	NaOH  HNO ₃ H ₂ SO ₄ for TCN & Phenol  P/PCBs (608 only)  NO = Samured, use NaOH and/once NaOH and NaOH	ples wer		A			Ided
2 2 Residual Chlorine (+/-) 5-9** YES = All samples OK **If pH adjustment is req	NaOH  HNO ₃ H ₂ SO ₄ for TCN & Phenol  P/PCBs (608 only)  NO = Samured, use NaOH and/once NaOH and NaOH	ples wer		A			Ided

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR

Client Sample ID : PTSB-21(14'-18')

Date Sampled: 08/27/03 Order #: 667992 Sample Matrix: SOIL/SEDIMENT

Date Received: 08/29/03 Submission #: R2318212 Percent Solid: 83.2

ANALYTE		_		PQL	•	RESULT	UNITS
	08/29/03 09/03/03 5.00						Dry Weight
NITROBENZENE				330	)	10000	UG/KG
SURROGATE RECOVERIES	QC	LI	MITS				
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	-	137 120 115	<b>%</b> )		76 59 66	% % %

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 10/02/03

Project Reference:

Client Sample ID : METHOD BLANK

	Date Sampled:	Order #: 668494	Sample Matrix: SOIL/SEDIMENT
--	---------------	-----------------	------------------------------

ate Received: Submission #: Percent Solid: 100

Date Received:	Submission #:		Percent Solid:	100	
ANALYTE		PQL	RESULT	UNITS	
	08/29/03 09/02/03 1.00		:	Dry Weight	_
NITROBENZENE		330	330 U	UG/KG	
SURROGATE RECOVERIES	QC LIMITS				
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 - 137 (23 - 120 (30 - 115	용)	84 64 68	opo opo	

QUALITY CONTROL SUMMARY: LABORATORY CONTROL SAMPLE

SOIL/SEDIMENT

Spiked Order No. : 668495

Dup Spiked Order No. : 668496

Client ID:

Test: 8270 NITROBENZENE

Analytical Units: UG/KG

Run Number : 94914

			BLANK S	PIKE	BLANK S	PIKE DUP	. ]	QC LIMITS
ANALYTE		SAMPLE   CONCENT.	FOUND	REC.	FOUND	% REC.	RPD   RPD	REC.
NITROBENZENE	3300	0	2800	84	2700	81	4  30	46 - 102

Reported: 10/02/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR

Client Sample ID : PTSB-21(14'-18')

Date Sampled: 08/27/03 Date Received: 08/29/03

Order #: 667992

Sample Matrix: SOIL/SEDIMENT Submission #: R2318212

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS TOTAL ORGANIC CARBON	160.0 TOC.LK	1.0	83.2 9950	% MG/KG	09/05/03 09/03/03		1.0

CAS Submission #: R2318212 Client: Roux Associates Inc. HONEYWELL/OUTER HARBOR

### BLANK SPIKES

UNITS	r.
NO.	MG/KG
RUN	94943
LIMITS	80 - 120
% REC	88
ADDED	250
FOUND	1750
BLANK	300 U



### A FULL SERVICE ENVIRONMENTAL LABORATORY

October 2, 2003

Mr. Glenn Netuschil Roux Associates Inc. 1377 Motor Parkway Islandia, NY 11749

PROJECT: HONEYWELL/OUTER HARBOR Submission #:R2318212

Dear Mr. Netuschil

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (585) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Mark Wilson

Client Service Manager

Enc.



### A FULL SERVICE ENVIRONMENTAL LABORATORY

December 12, 2003

Mr. Glenn Netuschil Roux Associates Inc. 1377 Motor Parkway Islandia, NY 11749

PROJECT:HONEYWELL OUTER HARBOR 25203Y04 Submission #:R2319164

Dear Mr. Netuschil

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (585) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Mark Wilson

Client Service Manager

Enc.



1 Mustard ST. Suite 250 Rochester, NY 14609 (585) 288-5380

### THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Lab Submission # : R2319164

Project Manager : Mark Wilson

Reported : 12/12/03

Report Contains a total of 14 pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

### **CASE NARRATIVE**

COMPANY: Roux Associates PROJECT: Honeywell/Outer Harbor SUBMISSION #: R2319164

Soil samples were collected on 11/12/03 and received at CAS on 11/13/03 in good condition at a cooler temperatures 3 °C. See CAS CLP Batching sheets for a cross-reference between Client ID and CAS Job # and analyses requested.

### SEMIVOLATILE ORGANICS

Soil samples were analyzed for Nitrobenzene by SW-846 method 8270C.

An MS/MSD was performed on PTSB-23 (14-16'). Due to the high concentration of Nitrobenzene in the sample, recoveries could not be calculated and have been flagged "D". RPD was within limits.

All Blank Spike recoveries were all within QC limits.

All DFTPP tuning criteria were within acceptance limits.

The initial and continuing calibration criteria were met for all analytes.

All internal standard areas were within QC limits.

Surrogates were diluted out in several samples due to high levels of target compounds in the samples.

No analytical or QC problems were encountered.

## CAS ASP/CLP BATCHING FORM / LOGIN SHEET

Ň	SUBMISSION R2319164	DISKETT	DISKETTE REQUESTED: Y X N		DATE DUE: 12/10/03	7.255. = 12/10/03		
Soux /	CLIENT: Roux Associates Inc. DATE: CLIENT REP: Mark Wilson CUSTC	DATE: 11 CUSTOD	DATE: 11/18/03 CUSTODY SEAL: PRESENT/ABSENT:	ن	PROTOCOL: 846 SHIPPING No.:	No.:	:	
삕	CLIENT/EPA ID	MATRIX	REQUESTED PARAMETERS	DATE SAMPLED	DATE DATE PH SAMPLEDRECEIVED (SOLIDS)	PHG PH (SOLIDS)	% SOI IOS	REMARKS SAMPI E CONDITION
TS	PTSB-22(16-20')	SOIL	8270	11/12/03	11/13/03			
ΣL	PTSB-23(14-16')	SOIL	8270	11/12/03	11/13/03			
J								
J								
- [								
							•	

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Effective 6/12/2003

### **ORGANIC QUALIFIERS**

- U Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- N Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search.
- P This flag is used for a pesticide/Aroclor target analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank as well as in the sample.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and ALL concentration values reported on that Form I are flagged with the "D" flag.
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- X As specified in Case Narrative.
- This flag identifies compounds associated with a quality control parameter which exceeds laboratory limits.

### CAS/Rochester Lab ID # for State Certifications

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Connecticut ID # PH0556
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Nebraska Accredited

NELAP Accredited New York ID # 10145 New Jersey ID # NY004 New Hampshire ID # 294100 A/B Pennsylvania Registration 68-786 Rhode Island ID # 158 South Carolina ID #91012 West Virginia ID # 292







Effective 6/12/2003

### **INORGANIC QUALIFIERS**

### C (Concentration) qualifier -

- B if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but was greater than or equal to the Instrument Detection Limit (IDL).
- U if the analyte was analyzed for, but not detected

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- D Spike was diluted out
- E The reported value is estimated because of the presence of interference.
- J Estimated Value
- M Duplicate injection precision not met.
- N Spiked sample recovery not within control limits.
- S The reported value was determined by the Method of Standard Additions (MSA).
- W Post-digestion spike for Furnace AA Analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
- * Duplicate analysis not within control limits.
- +- Correlation coefficient for the MSA is less than 0.995.

### M (Method) qualifier:

- "P" for ICP
- "A" for Flame AA
- "F" for Furnace AA
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- "AM" for Flame AA when Microwave Digestion is used
- "FM" for Furnace M when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for Automated Cold Vapor AA
- "CA" for Midi-Distillation Spectrophotometric
- "AS" for Semi-Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- " " where no data has been entered
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Army Corp of Engineers Validated
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited
NELAP Accredited

New York ID # 10145 New Jersey ID # NY004 New Hampshire ID # 294100 A/B Pennsylvania Registration 68-786 Rhode Island ID # 158 South Carolina ID #91012 West Virginia ID # 292

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# IN OF CUSTODY/LABORATORY # 1LYSIS REQUEST FORM

# #	CASC
JEST FORM	OF

CAS Contact

ner Preservative)		Preservative Key O. NONE 1. HCL 2. HNO3 3. H-SO4 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO4 7. NaHSO4 8. Other K.C.	HEMARKS/ ALTERNATE DESCRIPTION			INVOICE INFORMATION	PO# BILL TO:		7/16/27/2008 INMANS	RECÉIVED BY	Signature	Printed Name Firm	Date/Time
ANALYSIS REQUESTED (include Method Number and Container Preservative)	>	Commonis below)  Solomonis below)  Solomonis below)  Solomonis below)	المراقع			REPORT REQUIREMENTS  1. Results Only	II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries	N. Data Validation Report with Raw Data     V. Speicalized Forms / Custom Report	Edata Yes No	RELINQUISHED BY	Signature	Firm	Date/Time
ANALYSIS REQUESTED (I	АТІVЕ	SZID DISSORVED  IN COMMUNITA DELOWIN  IN COM	08 D 08 D 09 D			TURNAROUND REQUIREMENTS  RUSH, (STREPHARGES APPLY)	24 hr ( 249 hr 5 day STANDARD PROUESTED FAX DATE	REQUESTED REPORT DATE		Prints Con	Standing Man Collection	Firm 1/1/3/03 143/5	Date/Time
31/64	PRESERVATIVE	NUMBER OF CONTRINERS	SAMPLING DATE TIME MATRIX   O   S   S   S   S   S   S   S   S   S				48hs		CUSTODY SEALS: Y N		Signature (13.11) H. H.	Firm (1/1/15/03 ) 4 15	Date/Time /
(1) to the Project Number 2570 3 VOG		Standia W. Street Standia W. Sampler & Printed Name Sampler & Printed Name Sampler & Printed Name	=				85	-	OLER TEMP:	A HANK	Signature ( L Britt	Firm 4 1.3/07 112	Date/Time /
Project Name	Z S	Cox 1550	CLIENT SAMPLE ID			SPECIAL INSTRUCTIONS/COMMENTS Metals				M AM WOUISHED BY	200	Firm (COUV 15501 1/120	$\prod$

### Cooler Receipt And Preservation Check Form

Project/Client	ROUX			Submission Numbe			
Cooler received on	<i>11/13/0</i> 73 by: <u>£</u>	K	_cou	RIER CAS U	PS FEDEX	CD&L	CLIENT
<ol> <li>Were custod</li> <li>Did all bottle</li> <li>Did any VO</li> <li>Were Ice or</li> <li>Where did the</li> </ol>	ly seals on outside ly papers properly es arrive in good co A vials have signifiant Ice packs present ne bottles originate e of cooler(s) upon	filled ondition ficant as ??	out (inl on (unb air bub	oroken)?	YES YES YES YES YES CAS/RO	NO NO NO NO CLIE	N/A ENT
Is the temper	rature within 0° - 6	5° C?:	$\leq$	Yes Yes	Yes	Yes	Yes
If No, Expla	ain Below		)	No / No	No	No	No
Date/Time T	emperatures Take	n:	<u> </u>	3/03		14:15	
Thermomete	er ID: 161 or	1R GI	N)	Reading From: Te	emp Blank o	or Sam	ple Bottle
If out of Temperat	ure, Client Appro	oval to	Run S	Samples			
<ol><li>Did all bottle</li></ol>	e labels and tags ag	rree wi	th ciici				
3. Were correct	t containers used for Cassettes / Tub	or the t	ests in	• • •	YES YES ed Tedlar®	NO ) NO ) Bags Infl	ated N/A
<ul><li>Were correct</li><li>Air Samples</li></ul>	t containers used for Cassettes / Tub	or the t	ests in	dicated?	YES	) NO Bags Infl	Added N/A
<ul><li>Were correct</li><li>Air Samples</li></ul>	t containers used for Cassettes / Tub	or the tes Inta	ests in	dicated? Canisters Pressuriz	YES ed Tedlar®	) NO Bags Infl	
<ol> <li>Were correct</li> <li>Air Samples</li> <li>Explain any discrepa</li> </ol>	t containers used for a containers used for a containers ancies:	or the tes Inta	ests in	dicated? Canisters Pressuriz	YES ed Tedlar®	) NO Bags Infl	
Were correct     Air Samples     Explain any discrepa	t containers used for the containers used for the containers and the containers used for the container	or the tes Inta	ests in	dicated? Canisters Pressuriz	YES ed Tedlar®	) NO Bags Infl	
3. Were correct 4. Air Samples Explain any discrepa	t containers used for the cont	or the tes Inta	ests in	dicated? Canisters Pressuriz	YES ed Tedlar®	) NO Bags Infl	
3. Were correct 4. Air Samples Explain any discrepa	t containers used for the cont	or the tes Inta	ests in	dicated? Canisters Pressuriz	YES ed Tedlar®	) NO Bags Infl	
3. Were correct 4. Air Samples Explain any discrepa  pH  12  2  2  Residual Chlorine (+/-) 5-9**	Reagent NaOH HNO3 H ₂ SO ₄ for TCN & Phenol P/PCBs (608 only)	or the tes Inta	NO	dicated? Canisters Pressuriz	YES ed Tedlar®  Reagent	) NO Bags Infl Vol.	
3. Were correct 4. Air Samples Explain any discrepa  pH  12  2  Residual Chlorine (+/-)	Reagent NaOH HNO3 H ₂ SO ₄ for TCN & Phenol P/PCBs (608 only) NO = Sam	YES Ples wer	NO	dicated? Canisters Pressuriz	YES ed Tedlar®	) NO Bags Infl Vol.	
3. Were correct 4. Air Samples Explain any discrepa  pH  12  2  Residual Chlorine (+/-)  5-9**  YES = All samples OK  **If pH adjustment is required.	Reagent NaOH HNO3 H ₂ SO ₄ for TCN & Phenol P/PCBs (608 only) NO = Sam	YES  Ples were H ₂ SO ₄	NO	dicated? Canisters Pressuriz	YES ed Tedlar®  Reagent	) NO Bags Infl Vol.	
3. Were correct 4. Air Samples Explain any discrepa  pH  12  2  Residual Chlorine (+/-)  5-9**  YES = All samples OK  **If pH adjustment is required.	Reagent NaOH HNO3 H ₂ SO ₄ for TCN & Phenol P/PCBs (608 only) NO = Samurred, use NaOH and/or C Vial pH Verification Tested after Analysis) Following Samples	YES  Ples were H ₂ SO ₄	NO	dicated? Canisters Pressuriz	YES ed Tedlar®  Reagent	) NO Bags Infl Vol.	
3. Were correct 4. Air Samples Explain any discrepa  pH  12  2  Residual Chlorine (+/-)  5-9**  YES = All samples OK  **If pH adjustment is required.	Reagent NaOH HNO3 H ₂ SO ₄ for TCN & Phenol P/PCBs (608 only) NO = Samurred, use NaOH and/or C Vial pH Verification Tested after Analysis) Following Samples	YES  Ples were H ₂ SO ₄	NO	dicated? Canisters Pressuriz	YES ed Tedlar®  Reagent	) NO Bags Infl Vol.	

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 12/12/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : PTSB-22(16-20')

Date Sampled: 11/12/03 Order #: 688315
Date Received: 11/13/03 Submission #: R2319164 Sample Matrix: SOIL/SEDIMENT

Percent Solid: 81.9

ANALYTE	·		PQL	RESULT	UNITS
DATE EXTRACTED : DATE ANALYZED : ANALYTICAL DILUTION:	11/14/03 11/14/03 250.00				Dry Weight
NITROBENZENE			330	420000	UG/KG
SURROGATE RECOVERIES	QC	LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	- 137 - 120 - 115	웅)	D D D	୧୦ ୧୦ ୧୦

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 12/12/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : PTSB-23(14-16')

Date Sampled : 11/12/03	Order #: 688316	Sample Matrix: SOIL/SEDIMENT
-------------------------	-----------------	------------------------------

Date Received: 11/13/03 Submission #: R2319164 Percent Solid: 80.8

Date Received: 11/13/0	R2319164	R2319164 Percent Solid:				
ANALYTE		PQL	RESULT	UNITS		
	11/14/03 11/14/03 200.00	_		Dry Weight		
NITROBENZENE		330	590000	UG/KG		
SURROGATE RECOVERIES	QC LIM	MITS				
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 -	137 %) 120 %) 115 %)	D D D	oo oo		

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 12/12/03

Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled : Date Received:	Order : Submission :	#: 688665 #:	Sample Matrix: SOIL/SEDIME Percent Solid: 100			
ANALYTE		PQL	RESULT	UNITS		
	11/14/03 11/14/03 1.00			Dry Weight		
NITROBENZENE		330	330 U	UG/KG		
SURROGATE RECOVERIES	QC L	IMITS				
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23	- 137 %) - 120 %) - 115 %)	82 69 71	% % %		

QUALITY CONTROL SUMMARY MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY SOIL/SEDIMENT

Spiked Order No. : 688316 Roux Associates Inc.

Client ID: PTSB-23(14-16')

Test: 8270 NITROBENZENE

Analytical Units: UG/KG

Run Number : 97705

Percent Solid : 80.8

	SPIKE   ADDED	CONCENT.	MATRIX S	SPIKE	MATRIX	SPIKE D	JP.		QC LIMITS
ANALYTE		SAMPLE	FOUND	% REC.	FOUND	  % REC.	RPD	RPD	REC.
NITROBENZENE	4120	594000	681000	D	656000	Г д	4	30	46 - 102

QUALITY CONTROL SUMMARY: LABORATORY CONTROL SAMPLE

SOIL/SEDIMENT

Spiked Order No. : 688670

Dup Spiked Order No. : 688671

Client ID:

Test: 8270 NITROBENZENE

Analytical Units: UG/KG

Run Number : 97705

	    SPIKE	    SAMPLE	BLANK SI	PIKE	BLANK S	PIKE DUP.		QC LIMITS
		CONCENT.	FOUND	% REC.	FOUND	* REC. RPI	RPD	REC.
NITROBENZENE	3300	0	2700	81	2800	84 4	30	46 - 102

Reported: 12/12/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : PTSB-22(16-20!)

Date Sampled: 11/12/03 Order #: 688315 Sample Matrix: SOIL/SEDIMENT

Date Received: 11/13/03 Submission #: R2319164

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.0	1.0	81.9	8	11/17/03	10:30	1.0

Reported: 12/12/03

Roux Associates Inc.

Project Reference: HONEYWELL OUTER HARBOR 25203Y04

Client Sample ID : PTSB-23(14-16')

Order #: 688316 Submission #: R2319164 Date Sampled: 11/12/03 Date Received: 11/13/03 Sample Matrix: SOIL/SEDIMENT

								_
ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS		TIME ANALYZED	DILUTION	
PERCENT SOLIDS	160.0	1.0	80.8	8	11/17/03	10:30	1.0	



### A FULL SERVICE ENVIRONMENTAL LABORATORY

November 10, 2003

Mr. Glenn Netuschil Roux Associates Inc. 1377 Motor Parkway Islandia, NY 11749

PROJECT: HONEYWELL/OUTER HARBOR 25203Y04

Submission #:R2318866

Dear Mr. Netuschil:

Enclosed are the analytical results of the analyses requested. The analytical data was provided to you on 10/27/03 per a Facsimile transmittal. All data has been reviewed prior to report submission.

Should you have any questions please contact me at (585) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Mark Wilson

Client Service Manager

Enc.

### **CASE NARRATIVE**

COMPANY: Roux Associates PROJECT: Honeywell/Outer Harbor SUBMISSION #: R2318866

Soil samples were collected on 10/20-21/03 and received at CAS on 10/23/03 in good condition at a cooler temperatures 5 °C. See CAS CLP Batching sheets for a cross-reference between Client ID and CAS Job # and analyses requested.

### **SEMIVOLATILE ORGANICS**

Soil samples were analyzed for Nitrobenzene by SW-846 method 8270C.

An MS/MSD was performed on PTSB-29 0-8'. Due to the high concentration of Nitrobenzene in the sample, recoveries could not be calculated and have been flagged "D". RPD was within limits.

All Blank Spike recoveries were all within QC limits.

All DFTPP tuning criteria were within acceptance limits.

The initial and continuing calibration criteria were met for all analytes.

All internal standard areas were within QC limits.

All surrogate standard recoveries were within QC limits. Surrogates were diluted out in several samples due to high levels of target compounds in the samples.

No analytical or QC problems were encountered.

## CAS ASP/CLP BATCHING TORM / LOGIN SHEET

		Τź	ĪΓ	Τ	Т	Γ	Γ	Τ		Γ.	Т	Γ	Т	Γ	Т	Т			Г	Г				-		_
		REMARKS AMPLE CONDITION																								
	2	% E																								
/ISED: E: 11/20/03	)L: 846 No.:	Hd (SOLIOS)																								
DATE REVISED: DATE DUE: 11/20/03	PROTOCOL: 846 SHIPPING No.:	DATE DATE PH SAMPLEDRECEIVED(SOLIDS)	10/23/03	10/23/03	10/23/03	10/23/03	10/23/03	10/23/03	10/23/03	10/23/03	10/23/03	10/23/03	10/23/03													
		DATE	10/20/03	10/21/03	10/21/03	10/21/03	10/21/03	10/21/03	10/21/03	10/21/03	10/21/03	10/21/03	10/21/03													
COMPLETE: yes TE REQUESTED: Y X N	ון אַ אַ	REQUESTED PARAMETERS	8270	QC 8270	8270	8270	8270	8270	8270	8270	8270	8270	8270													
BATCH DISKET	DATE: 1 CUSTO	MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL													
B-30 N R2318866	CLIENT: Roux Associates Inc. DATE: 1 CLIENT REP: Mark Wilson CUSTOI	CLIENT/EPA ID	PTSB-30 14-16'	PTSB-29 0-8'	PTSB-24 0-8'	PTSB-28 12-14'	PTSB-29 14-16'	PTSB-27 16-18'	PTSB-31 8-10'	PTSB-24 12-14'	PTSB-31 0-8'	PTSB-26 10-12'	PTSB-25 12-14'													
SDG #: PTSB-30 SUBMISSION R2318866	CLIENT: CLIENT REF	CAS JOB#	682115	682116	682117	682118	682119	682120	682121	682122	682123	682124	682125													

3







Effective 6/12/2003

### **ORGANIC QUALIFIERS**

- U Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- N Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search.
- P This flag is used for a pesticide/Aroclor target analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank as well as in the sample.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and ALL concentration values reported on that Form I are flagged with the "D" flag.
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- X As specified in Case Narrative.
- * This flag identifies compounds associated with a quality control parameter which exceeds laboratory limits.

### CAS/Rochester Lab ID # for State Certifications

Army Corp of Engineers Validated
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited

NELAP Accredited New York ID # 10145 New Jersey ID # NY004 New Hampshire ID # 294100 A/B Pennsylvania Registration 68-786 Rhode Island ID # 158 South Carolina ID #91012 West Virginia ID # 292



1 Mustard ST. Suite 250 Rochester, NY 14609 (585) 288-5380

### THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Lab Submission # : R2318866

Project Manager : Mark Wilson

Reported : 11/10/03

Report Contains a total of _32 pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

### **ALYSIS REQUEST FORM** CHAIN OF CUSTODY/LABORATORY 🧸

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CAS Contact # HS

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reservative Key Other ICE REMARKS/ ALTERNATE DESCRIPTION MeOH NaHSO₄ INVOICE INFORMATION OMPOSITU 2KAB COMPOS のの人 GRAB GRA 500 ANALYSIS REQUESTED (include Method Number and Container Preservative) Printed Name Signature BILL TO: Date/Time IV. Data Validation Report with Raw Data V. Speicalized Forms / Custom Report £ REPORT REQUIREMENTS (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration RELINQUISHED BY Results + QC Summaries Xes I. Results Only rinted Name Signature Date/Time TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) REQUESTED REPORT DATE REQUESTED FAX DATE PRESERVATIVE SUSTODY SEALS: Y MATRIX 501 05:7 (optio) 5.4 3 9:30 3,30 00: 2 [2/17/0] 877170 Þ. SAMPLING DATE TIM 10/2/ 10/2 | \chi_{\chi} 17 [0] 170 FOR OFFICE USE ONLY 204 SluftesStar Project Number Report CC Spiralie #SSC. SAMPLE RECEIPT: CONDITION/COOLER TEMP rinted Name SPECIAL INSTRUCTIONS/COMMENTS 11749 CLIBAT SAMPLE ID ケーケ 4/16 3 18-10  $\mathcal{C}$ 7 158-38 PTSB-30 758-29 とろうと 755 42 156-2 156-2 756-29 See QAPP Project Name 5

Distribution; White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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Columbia	Services	An Employee - Owned Company

# CHAIN OF CUSTODY/LABORATORY A LYSIS REQUEST FORM

One Mustard St., Suite 250 • Rochester, NY 14609-0859 • (585) 288-5380 • 800-695-7222 x11 • FAX (585) 288-8475 PAGE OF OF

SR #

CAS Contact

HONEYWELL / DYE	HONEYWELL / OVICE MARCA Project Number 25203 Yort	704			ANALYS	IIS REQUESTED (	ANALYSIS REQUESTED (include Method Number and Container Preservative)	Container Preserv	vative)
Froject Manager  GILLENN NETUKHIL	Report CC			PRESERVATIVE	VE		8		
COMPANYADDES COUX ASSOCIATES	CIATES INC						200		Preservative Key 0. NONE
20°) SHAM	SHAFTER ST.			INERS	<u></u>	<u></u>	200	<i></i>	9.2. HNO3
ISLANDIA,	PY 11749			СОИТА	टि इटि इटि	POINT CTD CTD CTD CTD CTD CTD CTD CTD CTD CT	STORY SOLON		5. Zn. Acetate 6. MeOH
COS C/7/2/ (157), ***	FAX#	- 3898			255 525 501/60	D 80	Service of the servic	\ \ \	$/$ 8. Other $\mathcal{C}$
		N HUB	3	ON Si	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	97~~S	26	<i></i>	
CLIENT SAMPLE ID	FOR OFFICE USE ONLY S. LAB ID DAT	SAMPLING DATE TIME	MATRIX	งรื่อ ชื่อย	S34 08 D 1 05	824	/ / /9/	<u></u>	REMARKS/ ALTERNATE DESCRIPTION
PTSB-3110'-8'	10/2/23 10/21		Soil	/				7	COMPOSITE
PTSB-26 10'-12'	21,092,00	05:002/0	50iC	/					GRAS
	22/01	2:50	7105	7					$\sim$
SPECIAL INSTRUCTIONS/COMMENTS					TURNAROUND F	TURNAROUND REQUIREMENTS	REPORT REQUIREMENTS		INVOICE INFORMATION
				ı	HUSH (SUHC)	GES APP	I. Hesuns Only		
				1	—24 hr → 48 hr STANDARD	8 hr 5 day	II. Results + OC Summaries (LCS, DUP, MSAMSD as required)	PO#	
				<u> </u>	REQUESTED FAX DATE	ш	III. Results + QC and Calibration Summaries	BILL TO:	
6				1 12	REQUESTED REPORT DATE	DATE	IV. Data Validation Report with Raw Data	Raw Data	
				l			V. Speicalized Forms / Custom Report		
SAMPLE RECEIPT: CONDITION/COOLER TEMP	OLER TEMP:	CUSTOD	TODY SEALS:	2 >			Edata Yes	No SUBMISSION #	NO #:
1	RECEIVED BY	HELINO!	NOUISHED BY		A RECEIVED BY	VED BY	RELINQUISHED BY		RECEIVED BY
N HUBER	Signature Clark	Signature	1/2/1/11	11	mature /	10/lon	Signature	Signature	
ASSOC.	d Name CAP	Printed Mame	7		Printed Name	W	Printed Name	Printed Name	96
123/23	24,01 Co/82/01	Film 10/23/0	7	355 Fim	9/25/6	3 14120	Firm	Firm	
ate/Time ' ; b 4 c	, ,	Date/Tighe /		ว้	Date/1978	1355	Date/ line	Date/ I me	
	I at Carrie Clark Detailed by Clark								SCOC-1102-0

Cooler Receipt And Preservation Check Form

Project/Client	Roux	···		ubmission Number_	18860	<u>3</u> .
Cooler received on	0/23/03 by	5	cou	RIER: CAS UP	S FEDEX	CD&L CLIENT
<ol> <li>Were custod</li> <li>Did all bottle</li> <li>Did any VO</li> <li>Were Ice or</li> <li>Where did the</li> <li>Temperature</li> </ol>	y seals on outside of y papers properly fives arrive in good contains have significated packs present? The bottles originated of cooler(s) upon the sture within 0° - 6°	filled ondition icant a	ut (ink n (unb ir bubl	roken)?	YES YES YES YES CAS/ROO Yes	NO NO NO NO CLIENT Yes Yes
If No, Expla	1		_	No No	No	No No
	emperatures Taker	1: • /	0/2	23/03		400
Thermomete			N)	Reading From: Ten	np Blank or	Sample Bottle
						7.7.2
If out of Temperate Cooler Breakdown:	Date :	23	0	by:	Be	
<ol> <li>Did all bottle</li> <li>Were correct</li> </ol>	e labels and tags ag t containers used for Cassettes / Tube	ree wi	th cust ests in		YES	NO NO NO Bags Inflated N/A
<ol> <li>Did all bottle</li> <li>Were correct</li> <li>Air Samples</li> </ol>	e labels and tags ag t containers used for Cassettes / Tube	ree wi	th cust ests in	tody papers? dicated?	YES	NO NO
<ol> <li>Did all bottle</li> <li>Were correct</li> <li>Air Samples</li> </ol>	e labels and tags ag t containers used for Cassettes / Tube	ree wi or the t es Inta	th cust ests in ct	dicated? Canisters Pressurize	YES YES d Tedlar®	NO NO Bags Inflated N/A
<ol> <li>Did all bottle</li> <li>Were correct</li> <li>Air Samples</li> <li>Explain any discrepa</li> </ol>	e labels and tags ag t containers used for Cassettes / Tube ancies:	ree wi or the t es Inta	th cust ests in ct	dicated? Canisters Pressurize	YES YES d Tedlar®	NO NO Bags Inflated N/A
<ol> <li>Did all bottle</li> <li>Were correct</li> <li>Air Samples</li> <li>Explain any discrepant</li> </ol>	e labels and tags ag t containers used for Cassettes / Tube ancies:	ree wi or the t es Inta	th cust ests in ct	dicated? Canisters Pressurize	YES YES d Tedlar®	NO NO Bags Inflated N/A
2. Did all bottle 3. Were correct 4. Air Samples Explain any discrepa	e labels and tags ag t containers used for Cassettes / Tube ancies: Reagent NaOH	ree wi or the t es Inta	th cust ests in ct	dicated? Canisters Pressurize	YES YES d Tedlar®	NO NO Bags Inflated N/A
2. Did all bottle 3. Were correct 4. Air Samples Explain any discrepa	Reagent NaOH HNO3 H ₂ SO ₄	ree wi or the t es Inta	th cust ests in ct	dicated? Canisters Pressurize  Sample I.D.	YES YES d Tedlar®	NO NO Bags Inflated N/A
2. Did all bottle 3. Were correct 4. Air Samples Explain any discrepa	Reagent NaOH HNO3 H ₂ SO ₄	ree wi or the t es Inta	th cust ests in ct	dicated? Canisters Pressurize  Sample I.D.	YES YES d Tedlar®	NO NO Bags Inflated N/A
2. Did all bottle 3. Were correct 4. Air Samples Explain any discrepa  pH  12  2  Residual Chlorine (+/-)	Reagent NaOH HNO3 H ₂ SO ₄ for TCN & Phenol P/PCBs (608 only) NO = Sam	yes were	th cust ests in ct NO	dicated? Canisters Pressurize  Sample I.D.	YES YES d Tedlar®	NO NO Bags Inflated N/A  Vol. Added
2. Did all bottle 3. Were correct 4. Air Samples Explain any discrepa  pH  12  2  Residual Chlorine (+/-)  5-9**  YES = All samples OK  **If pH adjustment is reco	Reagent NaOH HNO3 H ₂ SO ₄ for TCN & Phenol P/PCBs (608 only) NO = Sam	YES  Ples were H2SO4	th cust ests in ct NO	dicated? Canisters Pressurize  Sample I.D.	TES YES YES TENDER TO THE TEND	NO NO Bags Inflated N/A  Vol. Added
2. Did all bottle 3. Were correct 4. Air Samples Explain any discrepa  pH  12  2  Residual Chlorine (+/-)  5-9**  YES = All samples OK  **If pH adjustment is reco	Reagent NaOH HNO3 H ₂ SO ₄ for TCN & Phenol P/PCBs (608 only) NO = Samurired, use NaOH and/or Tested after Analysis) Following Samples	YES  Ples were H2SO4	th cust ests in ct NO	dicated? Canisters Pressurize  Sample I.D.	TES YES YES TENDER TO THE TEND	NO NO Bags Inflated N/A  Vol. Added
2. Did all bottle 3. Were correct 4. Air Samples Explain any discrepa  pH  12  2  Residual Chlorine (+/-)  5-9**  YES = All samples OK  **If pH adjustment is reco	Reagent NaOH HNO3 H ₂ SO ₄ for TCN & Phenol P/PCBs (608 only) NO = Samurired, use NaOH and/or Tested after Analysis) Following Samples	YES  Ples were H2SO4	th cust ests in ct NO	dicated? Canisters Pressurize  Sample I.D.	TES YES YES TENDER TO THE TEND	NO NO Bags Inflated N/A  Vol. Added

Other Comments:

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 11/10/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID : PTSB-30 14-16'

Date Sampled:	10/20/03	Order #:	682115	Sample Matrix:	SOIL/SEDIMENT
Date Received:	10/23/03	Submission #:	R2318866	Percent Solid:	72.6

PQL ANALYTE RESULT UNITS DATE EXTRACTED : 10/23/03 DATE ANALYZED : 10/24/03 ANALYTICAL DILUTION: 100.00 Dry Weight UG/KG NITROBENZENE 330 430000 SURROGATE RECOVERIES QC LIMITS - 137 %) TERPHENYL-d14 (18 D 용 NITROBENZENE-d5 (23 - 120 %) D કૃ 용 2-FLUOROBIPHENYL (30 - 115 %)D

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 11/10/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID : PTSB-29 0-8'

Date Sampled: 10/21/03 Order #: 682116 Sample Matrix: SOIL/Date Received: 10/23/03 Submission #: R2318866 Percent Solid: 72.8 Order #: 682116 Sample Matrix: SOIL/SEDIMENT

ANALYTE			PQL	RESULT	UNITS
	10/23/03 10/24/03 400.00				Dry Weight
NITROBENZENE			330	1600000	UG/KG
SURROGATE RECOVERIES	QC	LIMITS			
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	- 137 - 120 - 115	<b>%</b> )	D D D	% %

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 11/10/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID: PTSB-24 0-8'

Date Sampled: 10/21/03 Order #: 682117 Sample Matrix: SOIL/Date Received: 10/23/03 Submission #: R2318866 Percent Solid: 70.7 Sample Matrix: SOIL/SEDIMENT

Date Received: 10/23/	3 Submission #:	R2310000	Percent Solid:	70.7
ANALYTE		PQL	RESULT	UNITS
	10/23/03 10/24/03 100.00			Dry Weight
NITROBENZENE		330	500000	UG/KG
SURROGATE RECOVERIES	QC LIM	ITS		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 - :	137 %) 120 %) 115 %)	D D D	क क क

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 11/10/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID : PTSB-28 12-14'

Sample Matrix: SOIL/SEDIMENT Date Sampled: 10/21/03 Order #: 682118 Sample Matrix: SOIL/Date Received: 10/23/03 Submission #: R2318866 Percent Solid: 73.2 Order #: 682118

ANALYTE	_		PQL	RESU	ЉТ	UNITS
DATE EXTRACTED : DATE ANALYZED : ANALYTICAL DILUTION:	10/23/03 10/24/03 100.00			-		Dry Weight
NITROBENZENE			330	410000		UG/KG
SURROGATE RECOVERIES	QC	LIMITS				
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	- 137 - 120 - 115	용)		D D D	<del>૦</del>

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 11/10/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID: PTSB-29 14-16'

Date Sampled: 10/21/03 Order #: 682119 Sample Matrix: SOIL/SEDIMENT Date Received: 10/23/03 Submission #: R2318866 Percent Solid: 77.0

Date Received: 10/23/0	3 Submission #:	K2318866	Percent Solid:	77.0
ANALYTE		PQL	RESULT	UNITS
	10/23/03 10/24/03 50.00	-		Dry Weight
NITROBENZENE		330	120000	UG/KG
SURROGATE RECOVERIES	QC LIM	IITS		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 -	137 %) 120 %) 115 %)	D D D	જ જ જ

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 11/10/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID: PTSB-27 16-18'

Date Sampled: 10/21/03 Order #: 682120 Sample Matrix: SOIL, Date Received: 10/23/03 Submission #: R2318866 Percent Solid: 77.2 Order #: 682120 Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 10/23/03 DATE ANALYZED : 10/24/03 ANALYTICAL DILUTION: 100.00			Dry Weight
NITROBENZENE	330	520000	UG/KG
SURROGATE RECOVERIES QC LIMIT	S		
TERPHENYL-d14 (18 - 13 NITROBENZENE-d5 (23 - 12 2-FLUOROBIPHENYL (30 - 11	0 %)	D D D	96 96

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 11/10/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID : PTSB-31 8-10'

Date Sampled: 10/21/03 Order #: 682121 Sample Matrix: SOIL/SEDIMENT
Date Received: 10/23/03 Submission #: R2318866 Percent Solid: 77.1

Date Received: 10/23/0	3 Submission	#: R2.	318866	Percent So	ııa: /	7.1
ANALYTE			PQL	RESU	LT	UNITS
	10/23/03 10/27/03 25.00			_		Dry Weight
NITROBENZENE			330	64000		UG/KG
SURROGATE RECOVERIES	QC	LIMITS				
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	- 137 - 120 - 115	ક)		D D D	જ જ જ

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 11/10/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID : PTSB-24 12-14'

Date Sampled: 10/21/03 Order #: 682122 Sample Matrix: SOIL/SEDIMENT Date Received: 10/23/03 Submission #: R2318866 Percent Solid: 77.4

Date Received: 10/23/0	3 Submission #:	K2310000	Percent Solid:	//.4
ANALYTE	· · · · · · · · · · · · · · · · · · ·	PQL	RESULT	UNITS
	10/23/03 10/24/03 50.00			Dry Weight
NITROBENZENE		330	63000	UG/KG
SURROGATE RECOVERIES	QC LIM	ITS		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(23 -	137 %) 120 %) 115 %)	D D D	op op op

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 11/10/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID: PTSB-31 0-8'

Date Sampled: 10/21/03 Order #: 682123 Sample Matrix: SOIL/SEDIMENT Date Received: 10/23/03 Submission #: R2318866 Percent Solid: 70.2

Date Received: 10/23/03 Submission #: R2310000 Percent Solid: 70.2				
ANALYTE		PQL	RESULT	UNITS
DATE EXTRACTED : DATE ANALYZED : ANALYTICAL DILUTION:	10/23/03 10/24/03 200.00			Dry Weight
NITROBENZENE		330	500000	UG/KG
SURROGATE RECOVERIES	QC I	LIMITS		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 (23 (30	- 137 %) - 120 %) - 115 %)	D D D	op op op

### EXTRACTABLE ORGANICS

METHOD 8270 NITROBENZENE

Reported: 11/10/03

Roux Associates Inc.

Project Reference: HONEYWELL/OUTER HARBOR 25203Y04

Client Sample ID : PTSB-26 10-12'

Date Sampled: 10/21/03 Order #: 682124 Sample Matrix: SOIL/SEDIMENT Date Received: 10/23/03 Submission #: R2318866 Percent Solid: 75.0

Date Received: 10/23/	os submission #: N	2310000	rercent borra.	73.0
ANALYTE		PQL	RESULT	UNITS
	10/23/03 10/27/03 400.00			Dry Weight
NITROBENZENE		330	1600000	UG/KG
SURROGATE RECOVERIES	QC LIMIT	s		
TERPHENYL-d14 NITROBENZENE-d5 2-FLUOROBIPHENYL	(18 - 13 (23 - 12 (30 - 11	0 %)	D D D	op op op