June 24, 2011

Ms. Gretchen Fitzgerald
Construction Group
NYSDOT Region 8
4 Burnett Boulevard
Poughkeepsie, NY 12603

RE: PIN 8807.31.101, Harrison Spill Site (NYSDEC #94-07349)
Harrison Sub-Residency, Westchester County, New York
Fifth-Quarter Sampling Results, April 2011

Dear Ms. Fitzgerald,

The following letter report summarizes the field investigative procedures and results of the fifth-quarter groundwater sampling event at the above referenced site (see Figure 1) by Cashin Associates, P.C. (CA). The sampling was performed in accordance with CA's Scope of Work and Cost Estimate dated March 2011 and approved by the New York State Department of Transportation (NYSDOT) on March 9, 2011. The scope was developed in accordance with the NYSDOT's *Operation and Maintenance Plan for the Harrison Sub-Residency, Landfill and Petroleum Spill Area, February 2010.*

The previous spill at the Harrison Sub-Residency site was closed by the New York State Department of Conservation (NYSDEC) on October 10, 2002 when the air sparge/soil vapor extraction (AS/SVE) system was shut down. The recent groundwater sampling was performed to meet monitoring requirements of the NYSDOT relating to NYSDEC Spill #94-07349. A discussion of the methodology and analytical results of the recent groundwater sampling round (April 2011) is presented in this letter.

GROUNDWATER SAMPLING METHODOLOGY

The April 2011 monitoring event consisted of the collection and laboratory analysis of groundwater samples from the six existing monitoring wells (MW-1, MW-11 through MW-13, GP-1 and GP2) at the spill site (see Figure 2). CA met with NYSDOT prior to the monitoring event to discuss field activities and locate the monitoring wells.

The groundwater sampling methodology performed by CA was consistent with the methodology used in prior sampling events at the site.

Prior to commencing site activities, CA conducted a visual inspection of the monitoring well casings and well heads to note any signs of damage or tampering. Static water level measurements and total depth measurements from all groundwater monitoring wells were recorded. During sampling, groundwater was purged from each monitoring well until the hydraulic equilibrium between casing water and the aquifer was achieved, in order to obtain a representative sample of the aquifer. This was accomplished by calculating the relative contribution from stagnant casing water to the total discharged from the well.

Well volumes were purged using a Whale pump equipped with a Rheostat (for adjustable flow), in-line flow cell and dedicated tubing. Groundwater samples were collected when the well recovered to approximately 75% of its initial volume or within two hours (whichever came first) using a dedicated disposable polyethylene bailer. Well purge water was discharged immediately downgradient of the well sampled. Field parameters of temperature, turbidity, dissolved oxygen (DO), pH, specific conductivity, and oxidation-reduction potential (Eh) were recorded for each well during purging and at the time of sample collection using a Horiba U-22 water quality monitor equipped with an in-line flow-through cell.

All samples were transferred to clean, pre-preserved laboratory-supplied containers to be submitted and analyzed by a New York State certified laboratory (Hampton-Clarke Veritech, Farifield, New Jersey) for the presence of BTEX compounds (benzene, toluene, ethylbenzene and total xylenes) plus MTBE (methyl tertiary butyl ether) and the natural attenuation parameters: iron (dissolved, Fe-II), manganese (dissolved, Mn-II), bicarbonate alkalinity (as HCO_3), alkalinity (total), nitrate (NO_3) and sulfate (SO_4). For quality control/assurance purposes, one trip blank and one groundwater field duplicate were submitted to the laboratory. The field duplicate was collected from monitoring well PC-1 at the same time as the original sample and analyzed for the same parameters. The duplicate sample was identified as SP-1, as not to indicate to the laboratory that it was a duplicate sample of well PC-1.

During field sampling activities, it was found that the well casing of the upgradient well (MW-1) was obstructed at approximately one foot below land surface (bls); preventing the passageway for tubing down the casing of the well. After several attempts to dislodge the obstruction, it was determined that MW-1 was unable to be sampled. CA could not verify the type of obstruction in the well.

RESULTS

Analytical results of the groundwater samples were compared to the NYSDEC Class GA Standards or Guidance Values. No floating product was detected in any of the wells; however a sheen and odor were detected from purged water in well MW-12.

Monitoring wells MW-13, GP-1, GP-2 and PC-1 contained no VOC detections. BTEX compounds were detected in two wells, MW-11 and MW-12. Of the BTEX compounds detected, only MW-11 had detections exceeding NYSDEC Standards for ethylbenzene and m&p xylenes. MTBE was not detected in any of the wells sampled.

Dissolved iron and dissolved manganese were detected in wells MW-11 and MW-12 at concentrations exceeding NYSDEC Standards. Neither metal was detected in any of the remaining wells.

Nitrate was detected in well MW-13 only, at a concentration below the NYSDEC Standard. Sulfate was detected in all wells sampled at concentrations below the NYSDEC Standard.

Total alkalinity and alkalinity biocarbonate were the same at each of the wells, ranging from a concentration of 190 mg/l in MW-11 to 270 mg/l in wells MW-13 and PC-1.

The QA/QC results of the duplicate sample (SP-1) to the original sample (PC-1) indicates an acceptable degree of precision and accuracy of the analytical results reported by the laboratory and confirms the adequacy of decontamination, handling and transportation procedures to meet quality requirements for the monitoring program. In addition, one trip blank was submitted for analysis of BTEX and MTBE. The analytical results of the trip blank were all non-detect.

A summary of the analytical data for the monitoring wells and QA/QC results for the April 2011 monitoring round, in tabular form, are presented in Table 1. Copies of the laboratory analytical results and sample chain-of-custody documents are enclosed as Appendix A. Groundwater sampling logs are attached as Appendix B.

DISCUSSION

Compared to the previous sampling round conducted in January 2010, the results of the April 2011 groundwater monitoring show a decline in BTEX concentrations in wells MW-11 and MW-12 where volatile compounds were detected. Monitoring wells MW-13, GP-1, GP-2, and PC-1 (downgradient well) were all reported as non-detect for BTEX and MTBE. The decrease in BTEX concentrations in MW-11 and the absence of BTEX detections in GP-1 and GP-2 indicate that the plume is not migrating off-site.

Evidence of redox potential (ORP), dissolved oxygen (DO), alkalinity, metals (iron and manganese), anions (nitrate and sulfate), and pH were measured to characterize the site's groundwater with respect to biodegradation. Field indications of biological activity were identified by aerobic conditions present based on DO values (>2.0 mg/L) at all wells with pH values ranging between 6.7 and 7.52. An increase in ferrous iron concentrations was noted for wells MW-11 and MW-12. Sulfate concentrations increased in wells MW-11 and MW-13, but remain at highest concentrations in downgradient wells (MW-13, GP-1, GP-2 and PC-1). Alkalinity increased in MW-12 and MW-13 and was reported at higher

concentrations in downgradient wells. Iron and manganese concentrations were detected in MW-11 and MW-12, but not in any of the downgradient wells.

The groundwater monitoring of the Harrison Spill Site will be continued on a fifth-quarter basis unless otherwise decided by NYSDEC.

If you have any questions, or require any additional information, please feel free to contact me.

Sincerely,

CASHIN ASSOCIATES, P.C.

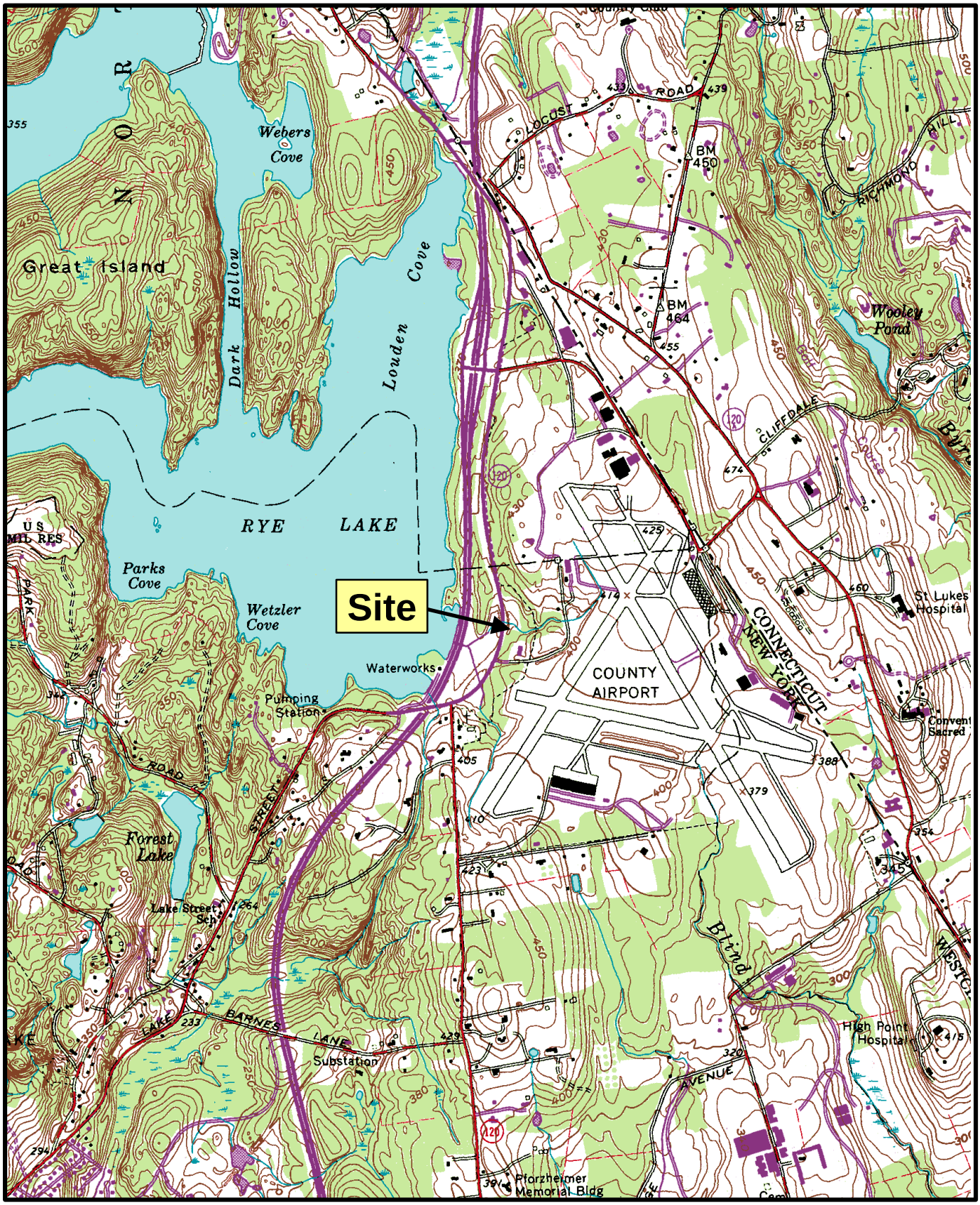
Gregory T. Greene
Director of Environmental Programs

cc: Anjan Sen, NYSDOT Consultant Management Bureau
Carl Kochersberger, NYSDOT Environmental Science Bureau

Table 1. Analytical Results of Groundwater Monitoring Wells, April 2011

			CLIENT ID:	MW-11	MW-12	MW-13	GP-1	GP-2	PC-1	SP-1
			COLLECTION DATE:	4/20/2011	4/20/2011	4/20/2011	4/20/2011	4/20/2011	4/20/2011	4/20/2011
			SAMPLE MATRIX:	Aqueous	Aqueous	Aqueous	Aqueous	Aqueous	Aqueous	Aqueous
			SAMPLE UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Analyte	Units	NYSDEC Class GA Standard								
Metals										
Iron (filtered)	ug/L	300		610	4,100	ND	ND	ND	ND	ND
Manganese (filtered)	ug/L	300		3,400	10,000	ND	ND	ND	ND	ND
Volatiles										
Benzene	ug/L	1		ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/L	5		**53**	3.4	ND	ND	ND	ND	ND
m&p-Xylenes	ug/L	5		**12**	ND	ND	ND	ND	ND	ND
Methyl-t-butyl ether	ug/L	50		ND	ND	ND	ND	ND	ND	ND
o-Xylene	ug/L	5		1.2	ND	ND	ND	ND	ND	ND
Toluene	ug/L	5		ND	ND	ND	ND	ND	ND	ND
Wet Chemistry										
Alkalinity	mg CaCO3/l	NA		190	220	270	230	240	270	270
Alkalinity	ug/L	NA		190,000	220,000	270,000	230,000	240,000	270,000	270,000
Nitrate	ug/L	10,000		ND	ND	1,300	ND	ND	ND	ND
Sulfate	ug/L	250,000		14,000	13,000	25,000	17,000	21,000	13,000	13,000
Field Parameters										
pH		NA		6.7	7	7.1	7.34	7.11	7.52	
Temperature	Celcius	NA		9	9.74	9.59	8.9	9.5	9.5	
Specific Conductivity	umhos	NA		0.806	1.97	0.802	0.646	0.576	0.591	
Dissolved Oxygen	mg/L	NA		16.25	4.51	5.87	18.71	16.79	16.57	
Turbidity	NTUs	NA		0.96	0	35.1	57.2	16.9	5.6	
ORP		NA		-8	-93	31	118	116	105	

Notes:
Highlight indicates a concentration exceeding NYSDEC Class GA Standard
ND – Non Detect
NA – Not Applicable



Cashin Associates, P.C.

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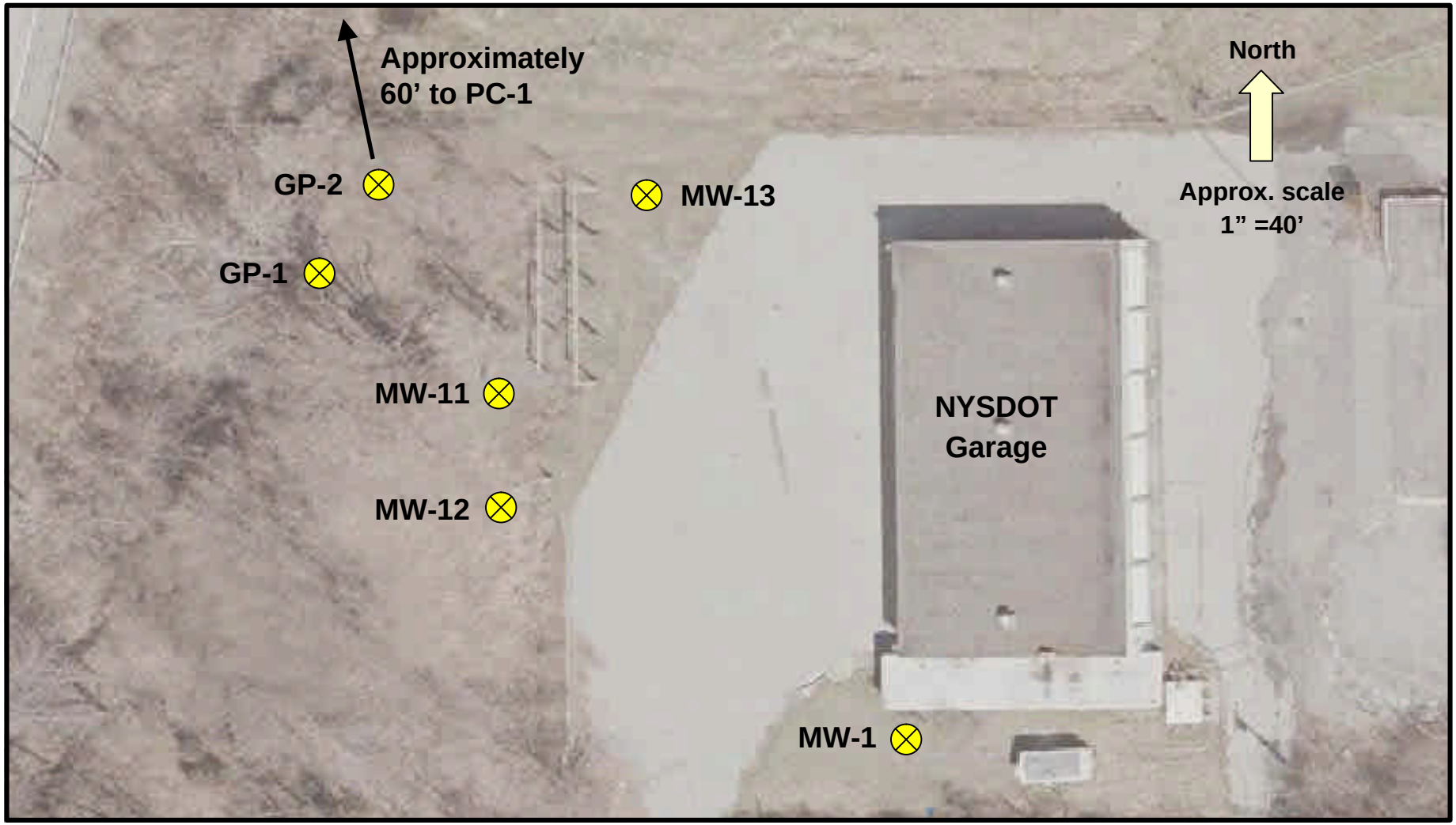
Figure 1

Harrison Subresidency Site



Note:
PC-1 is located north of the site within the Harrison landfill area.

⊗ Monitoring Well Location

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Figure 2
Harrison Subresidency Spill Site
Monitoring Well Locations
NYSDOT Harrison, N.Y.

HC·V
HAMPTONCLARKE·VERITECH

175 ROUTE 46 WEST, UNIT D · FAIRFIELD, NJ 07004
2 MADISON ROAD, FAIRFIELD, NJ 07004
800-426-9992 · 973-244-9770
FAX: 973-244-9787

WWW.HCVLAB.COM

Project: 9051.003

Client PO: 9051.003

Report To: Cashin Associates
1200 Veterans Memorial Highway
Hauppauge, NY 11788

Attn: Kimberly Somers

Received Date: 4/20/2011

Report Date: 5/19/2011

Deliverables: NYDOH-CatA

Lab ID: AC58546

Lab Project No: 1042015

Jeri Rossi - Quality Assurance Director OR Stanley Gilewicz - Laboratory Director

NJ	(07071 and 07069)	NY	(ELAP11408 and 11939)	CT	(PH-0671)	USACE
PA	(68-00463 and 68-04409)	KY	(90124)	WV	(353)	

NELAP ACCREDITED TNI LABORATORY

HC·V
HAMPTONCLARKE·VERITECH

THIS CATEGORY "A" REPORT
IS NUMBERED FROM
1 to 56

HCV Case Narrative/Conformance Summary

Client: Cashin Associates **HCV Project:** 1042015
Project: 9051.003

Hampton-Clarke/Veritech (HC·V) received the following samples on April 20, 2011:

Client ID	HCV Sample ID	Matrix	Analysis
MW-11 U	AC58546-001	Aqueous	VO (624), Alkalinity (SM2320B), Sulfate/Nitrate (300.0)
MW-11 F	AC58546-002	Aqueous	Metals (200.7/8)
MW-12 U	AC58546-003	Aqueous	VO (624), Alkalinity (SM2320B), Sulfate/Nitrate (300.0)
MW-12 F	AC58546-004	Aqueous	Metals (200.7/8)
MW-13 U	AC58546-005	Aqueous	VO (624), Alkalinity (SM2320B), Sulfate/Nitrate (300.0)
MW-13 F	AC58546-006	Aqueous	Metals (200.7/8)
GP-1 U	AC58546-007	Aqueous	VO (624), Alkalinity (SM2320B), Sulfate/Nitrate (300.0)
GP-1 F	AC58546-008	Aqueous	Metals (200.7/8)
GP-2 U	AC58546-009	Aqueous	VO (624), Alkalinity (SM2320B), Sulfate/Nitrate (300.0)
GP-2 F	AC58546-010	Aqueous	Metals (200.7/8)
PC-1 U	AC58546-011	Aqueous	VO (624), Alkalinity (SM2320B), Sulfate/Nitrate (300.0)
PC-1 F	AC58546-012	Aqueous	Metals (200.7/8)
SP-1 U	AC58546-013	Aqueous	VO (624), Alkalinity (SM2320B), Sulfate/Nitrate (300.0)
SP-1 F	AC58546-014	Aqueous	Metals (200.7/8)

Volatile Organic Analysis:

2-Chloroethylvinylether did not recover in the Matrix Spike and Matrix Spike Duplicate in batch 7430 due to acid preservation of sample. 2-Chloroethylvinylether readily decomposes under acidic conditions. The recovery of 2-Chloroethylvinylether is within QC limits in the Laboratory Control Sample (MBS).

Metals Analysis:

Data conforms to method requirements.

Wet Chemistry Analysis:

Data conforms to method requirements.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Jeri Rossi
Quality Assurance Director

Or

Stanley Gilewicz
Laboratory Director

5/19/11
Date

0003

Veritech/Division of Hampton-Clarke
175 US Hwy 46 West, Fairfield, New Jersey 07004
198 Route 46 East, Fairfield, NJ 07004
Ph: 800-426-9992 Fax: 973-439-1458

HC-V Hampton-Clarke-Veritech

CHAIN OF CUSTODY RECORD

Project# (Lab Use Only): 1042015

Page 1 of ____

NELAC/NJ #07071 & 07069 | CT #PH-0671 | NY #11408 & 11939 | PA #68-00463 & 68-04409 | WV #353 | KY #90124

Customer Information

1a) Customer: Cashin Associates
Address: 1200 Veterans Mem. Hwy Hauppauge, NY 11788
1b) Email/Cell/Fax/Ph: ksomers@ca-pc.com
1c) Send Invoice to: ~~Kim Somers~~ Debbie Young
1d) Send Report to: Kim Somers

Project Information

2a) Project: 9051.003
2b) Project Mgr: Greg Greene
2c) Project Location (City/State): Harrison, NY
2d) Quote/PO # (If Applicable): 9051.003

3) Reporting Requirements (Please Circle)

Turnaround	Report Type	Electronic Deliv.
24 Hours (100%)	Data Summary	Hazsite/CSV
48 Hours (75%)	Waste	EQuIS 4-File
72 Hours (50%)	Red - NJ / NY / PA	EQuIS EZ
4 Days (35%; TPH)	CLP	Excel - NJCC
1 Week (25%; EPH)	Full / Category B	Excel - NY TAGM
10 Days (10%)	Category A	Excel - PA Act 2
2 Weeks	Other: ____	PDF
Other: STD.		Other: ____

Expedited TAT Not Always Available (Please Check with Lab)!

FOR LAB USE ONLY

Batch # AC58546

Check If Contingent ===>

Matrix Codes
DW - Drinking Water; GW - Ground Water; WW - Waste Water; S - Soil; SL - Sludge; OL - Oil; A - Air; OT - Other

7) Analysis Request

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample Date	6) Sample Time	Sample Type: Composite (C)	Sample Type: Grab (G)	HCO3	BTEX + MTBE	Total Alkalinity	Metals - lab filtered Fe II, Mn II	For EPH Analysis: EPH Cat 1	EPH Cat 2 Screen/Total	EPH Cat 2 Fractionation	8) # of Bottles: None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other:	9b) Comments
001/002	MW-11	GW	4/20	920			+	+	+	+				6				2				
003/004	MW-12			915			+	+	+	+				6				2				
005/006	MW-13			930			+	+	+	+				6				2				
007/008	GP-1			1050			+	+	+	+				6				2				
009/010	GP-2			1100			+	+	+	+				6				2				
011/012	PC-1			215			+	+	+	+				6				2				
013/014	SP-1	↓	↓	200			+	+	+	+				6				2				
	~~MW-14~~																					

M/F

9a) Methanol Bottle Numbers (If Applicable)

10) Relinquished by:	Accepted by:	Date	Time
K Somers		04/20/11	1430
		04/20/11	1530

Comments, Notes, Special Requirements, HAZARDS

Note: Check if low-level groundwater methods required to meet current standards in NJ or PA:
- ☐ BN or BNA (8270C SIM)
- ☐ VOC (8260B SIM or 8011)
- ☐ Metals (ICP-MS 200.8 or 6020)

Note: Check if applicable:
- ☐ Project-Specific Reporting Limits
- ☐ High Contaminant Concentrations

Cooler Temperature: 2.5 2.1, 3.1, 3.0

11) Sampler (print name): Kim Somers Date: 4/20/11

Please circle required parameter list (refer to HC-V summary): i) NJ 2008 SRS; ii) Current TCL; iii) HC-V 2010 Merged; iv) PA; v) NY; vi) Project-Specific

Please note NUMBERED items. If not completed your analytical work may be delayed.

A fee of $5/sample will be assessed for storage should sample not be activated for any analysis.

PROJECT MODIFICATIONS

Client: CASHIN
Project: 9051.003

HCV Project #: 1042015

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joy192.168.1.31
4/21/2011 6:01:12 PM

Per Kim Somers run NO3 and SO4. JK 4/21/11

CONDITION UPON RECEIPT

Batch Number AC58546 Entered By: Frantz

Date Entered 4/20/2011 4:19:00 PM

1	Yes	Is there a corresponding COC included with the samples?
2	Yes	Are the samples in a container such as a cooler or Ice chest?
3	Yes	Are the COC seals intact?
4	Yes	Please specify the Temperature inside the container (in degC) 2.5,2.4,3.1,3.0
5	Yes	Are the samples refrigerated (where required)/have they arrived on ice?
6	Yes	Are the samples within the holding times for the parameters listed on the COC? IF no, list parameters and samples:
7	Yes	Are all of the sample bottles intact? If no, specify sample numbers broken/leaking
8	Yes	Are all of the sample labels or numbers legible? If no specify:
9	NO	Do the contents match the COC? If no, specify NO3 and SO4 received for all samples but was not on the COC.
10	Yes	Is there enough sample sent for the analyses listed on the COC? If no, specify:
11	Yes	Are samples preserved correctly?
12	Yes	Was temperature blank present (Place comment below if not)? If not was temperature of samples verified?
13	NA	Other comments ...Specify
14	YES	Corrective actions (Specify item number and corrective action taken). 9. Per Kim Somers run NO3 and SO4. JK 4/21/11

PRESERVATION DOCUMENT

Batch Number AC58546

Entered By: Frantz
Date Entered 4/20/2011 4:19:00 PM

Lab#:	Container Siz	Container Typ	Parameter	Preservative	PH
AC58546-001	40ml	G	VO+10	HCL	1
AC58546-002	NA	NA	NA	NA	NA
AC58546-003	40ml	G	VO+10	HCL	1
AC58546-004	NA	NA	NA	NA	NA
AC58546-005	40ml	G	VO+10	HCL	1
AC58546-006	NA	NA	NA	NA	NA
AC58546-007	40ml	G	VO+10	HCL	1
AC58546-008	NA	NA	NA	NA	NA
AC58546-009	40ml	G	VO+10	HCL	1
AC58546-010	NA	NA	NA	NA	NA
AC58546-011	40ml	G	VO+10	HCL	1
AC58546-012	NA	NA	NA	NA	NA
AC58546-013	40ml	G	VO+10	HCL	1
AC58546-014	NA	NA	NA	NA	NA

Internal Chain of Custody

Lab#:	DateTime:	Loc or User	Bot Nu	A/M	Analysis
AC58546-001	04/20/11 15:30	FRAN	0	M	Received
AC58546-001	04/20/11 16:19	FRAN	0	M	Login
AC58546-001	04/21/11 07:55	R22	2	A	NONE
AC58546-001	04/22/11 14:33	SG	2	A	VOA
AC58546-001	04/22/11 18:10	R22	2	M	NONE
AC58546-001	04/25/11 15:04	SG	2	A	VOA
AC58546-001	04/26/11 08:22	R22	2	A	NONE
AC58546-001	04/26/11 09:04	WP	2	A	VOA
AC58546-001	04/21/11 07:55	R22	3	A	NONE
AC58546-001	04/26/11 15:44	SG	3	A	VOA
AC58546-001	04/20/11 16:24	R12	4	A	NONE
AC58546-001	04/20/11 19:10	NNM	4	M	ic
AC58546-001	04/20/11 21:07	R12	4	A	NONE
AC58546-001	04/20/11 16:24	R12	5	A	NONE
AC58546-001	05/02/11 09:49	JAR	5	A	alkalinity
AC58546-001	05/02/11 18:41	R12	5	A	NONE
AC58546-001	05/03/11 11:57	JW	5	A	alkalinity
AC58546-001	05/03/11 16:32	R12	5	A	NONE
AC58546-001	04/20/11 16:24	R12	6	A	NONE
AC58546-001	04/29/11 09:28	JAR	6	A	alkalinity
AC58546-001	04/29/11 18:29	R12	6	A	NONE
AC58546-001	04/20/11 16:24	R12	7	A	NONE
AC58546-001	04/20/11 16:24	R12	8	A	NONE
AC58546-001	04/29/11 09:28	JAR	8	A	alkalinity
AC58546-001	04/29/11 18:29	R12	8	A	NONE
AC58546-002	04/20/11 15:30	FRAN	0	M	Received
AC58546-002	04/20/11 16:19	FRAN	0	M	Login
AC58546-002	04/20/11 16:24	R12	1	A	NONE
AC58546-002	04/22/11 14:17	JPC	1	A	FILTERING
AC58546-002	04/22/11 16:01	R12	1	A	NONE
AC58546-002	04/25/11 11:32	JPC	1	A	TDWI-HG
AC58546-002	04/25/11 13:07	R12	1	A	NONE
AC58546-003	04/20/11 15:30	FRAN	0	M	Received
AC58546-003	04/20/11 16:19	FRAN	0	M	Login
AC58546-003	04/21/11 07:55	R22	2	A	NONE
AC58546-003	04/22/11 14:33	SG	2	A	VOA
AC58546-003	04/22/11 18:10	R22	2	M	NONE
AC58546-003	04/25/11 15:04	SG	2	A	VOA
AC58546-003	04/26/11 08:22	R22	2	A	NONE
~~AC58546-003~~	~~04/26/11 09:04~~	~~WP~~	~~2~~	~~A~~	~~VOA~~
AC58546-003	04/21/11 07:55	R22	3	A	NONE
AC58546-003	04/26/11 15:44	SG	3	A	VOA
AC58546-003	04/20/11 16:24	R12	4	A	NONE
AC58546-003	05/02/11 09:49	JAR	4	A	alkalinity
AC58546-003	05/02/11 18:41	R12	4	A	NONE
AC58546-003	05/03/11 11:57	JW	4	A	alkalinity
AC58546-003	05/03/11 16:32	R12	4	A	NONE
AC58546-003	04/20/11 16:24	R12	5	A	NONE
AC58546-003	04/20/11 16:24	R12	6	A	NONE
AC58546-003	04/29/11 09:28	JAR	6	A	alkalinity
AC58546-003	04/29/11 18:29	R12	6	A	NONE
AC58546-003	05/03/11 16:32	R12	6	A	NONE
AC58546-003	04/20/11 16:24	R12	7	A	NONE
AC58546-003	04/29/11 09:28	JAR	7	A	alkalinity
AC58546-003	04/29/11 18:29	R12	7	A	NONE
AC58546-003	04/20/11 16:24	R12	8	A	NONE
AC58546-003	04/20/11 19:10	NNM	8	M	ic
AC58546-003	04/20/11 21:07	R12	8	A	NONE
AC58546-004	04/20/11 15:30	FRAN	0	M	Received
AC58546-004	04/20/11 16:19	FRAN	0	M	Login
AC58546-004	04/20/11 16:24	R12	1	A	NONE
AC58546-004	04/22/11 14:17	JPC	1	A	FILTERING
AC58546-004	04/22/11 16:01	R12	1	A	NONE
AC58546-004	04/25/11 11:32	JPC	1	A	TDWI-HG
AC58546-004	04/25/11 13:07	R12	1	A	NONE
AC58546-005	04/20/11 15:30	FRAN	0	M	Received
AC58546-005	04/20/11 16:19	FRAN	0	M	Login
AC58546-005	04/21/11 07:55	R22	2	A	NONE
AC58546-005	04/22/11 14:46	SG	2	A	VOA
AC58546-005	04/21/11 07:55	R22	3	A	NONE
AC58546-005	04/20/11 16:24	R12	4	A	NONE
AC58546-005	05/02/11 09:49	JAR	4	A	alkalinity
AC58546-005	05/02/11 18:41	R12	4	A	NONE
AC58546-005	04/20/11 16:24	R12	5	A	NONE
AC58546-005	04/20/11 16:24	R12	6	A	NONE

Lab#:	DateTime:	Loc or User	Bot Nu	A/M	Analysis
AC58546-005	04/29/11 09:28	JAR	6	A	alkalinity
AC58546-005	04/29/11 18:29	R12	6	A	NONE
AC58546-005	04/20/11 16:24	R12	7	A	NONE
AC58546-005	04/29/11 09:28	JAR	7	A	alkalinity
AC58546-005	04/29/11 18:29	R12	7	A	NONE
AC58546-005	05/03/11 11:57	JW	7	A	alkalinity
AC58546-005	05/03/11 16:32	R12	7	A	NONE
AC58546-005	04/20/11 16:24	R12	8	A	NONE
AC58546-005	04/20/11 19:10	NNM	8	M	ic
AC58546-005	04/20/11 21:07	R12	8	A	NONE
AC58546-006	04/20/11 15:30	FRAN	0	M	Received
AC58546-006	04/20/11 16:19	FRAN	0	M	Login
AC58546-006	04/20/11 16:24	R12	1	A	NONE
AC58546-006	04/22/11 14:17	JPC	1	A	FILTERING
AC58546-006	04/22/11 16:01	R12	1	A	NONE
AC58546-006	04/25/11 11:32	JPC	1	A	TDWI-HG
AC58546-006	04/25/11 13:07	R12	1	A	NONE
AC58546-007	04/20/11 15:30	FRAN	0	M	Received
AC58546-007	04/20/11 16:19	FRAN	0	M	Login
AC58546-007	04/21/11 07:55	R22	2	A	NONE
AC58546-007	04/22/11 14:46	SG	2	A	VOA
AC58546-007	04/21/11 07:55	R22	3	A	NONE
AC58546-007	04/20/11 16:24	R12	4	A	NONE
AC58546-007	04/29/11 09:28	JAR	4	A	alkalinity
AC58546-007	04/29/11 18:29	R12	4	A	NONE
AC58546-007	05/03/11 11:57	JW	4	A	alkalinity
AC58546-007	05/03/11 16:32	R12	4	A	NONE
AC58546-007	04/20/11 16:24	R12	5	A	NONE
AC58546-007	04/29/11 09:28	JAR	5	A	alkalinity
AC58546-007	04/29/11 18:29	R12	5	A	NONE
AC58546-007	04/20/11 16:24	R12	6	A	NONE
AC58546-007	04/20/11 16:24	R12	7	A	NONE
AC58546-007	05/02/11 09:49	JAR	7	A	alkalinity
AC58546-007	05/02/11 18:41	R12	7	A	NONE
AC58546-007	05/03/11 11:57	JW	7	A	alkalinity
AC58546-007	05/03/11 16:32	R12	7	A	NONE
AC58546-007	04/20/11 16:24	R12	8	A	NONE
AC58546-007	04/20/11 19:10	NNM	8	M	ic
AC58546-007	04/20/11 21:07	R12	8	A	NONE
~~AC58546-008~~	~~04/20/11 15:30~~	~~FRAN~~	~~0~~	~~M~~	~~Received~~
AC58546-008	04/20/11 16:19	FRAN	0	M	Login
AC58546-008	04/20/11 16:24	R12	1	A	NONE
AC58546-008	04/22/11 14:17	JPC	1	A	FILTERING
AC58546-008	04/22/11 16:01	R12	1	A	NONE
AC58546-008	04/25/11 11:32	JPC	1	A	TDWI-HG
AC58546-008	04/25/11 13:07	R12	1	A	NONE
AC58546-009	04/20/11 15:30	FRAN	0	M	Received
AC58546-009	04/20/11 16:19	FRAN	0	M	Login
AC58546-009	04/21/11 07:55	R22	2	A	NONE
AC58546-009	04/22/11 14:46	SG	2	A	VOA
AC58546-009	04/21/11 07:55	R22	3	A	NONE
AC58546-009	04/20/11 16:24	R12	4	A	NONE
AC58546-009	04/20/11 19:10	NNM	4	M	ic
AC58546-009	04/20/11 21:07	R12	4	A	NONE
AC58546-009	04/20/11 16:24	R12	5	A	NONE
AC58546-009	04/29/11 09:28	JAR	5	A	alkalinity
AC58546-009	04/29/11 18:29	R12	5	A	NONE
AC58546-009	04/20/11 16:24	R12	6	A	NONE
AC58546-009	04/20/11 16:24	R12	7	A	NONE
AC58546-009	04/29/11 09:28	JAR	7	A	alkalinity
AC58546-009	04/29/11 18:29	R12	7	A	NONE
AC58546-009	04/20/11 16:24	R12	8	A	NONE
AC58546-009	05/02/11 09:49	JAR	8	A	alkalinity
AC58546-009	05/02/11 18:41	R12	8	A	NONE
AC58546-009	05/03/11 11:57	JW	8	A	alkalinity
AC58546-009	05/03/11 16:32	R12	8	A	NONE
AC58546-010	04/20/11 15:30	FRAN	0	M	Received
AC58546-010	04/20/11 16:19	FRAN	0	M	Login
AC58546-010	04/20/11 16:24	R12	1	A	NONE
AC58546-010	04/22/11 14:17	JPC	1	A	FILTERING
AC58546-010	04/22/11 16:01	R12	1	A	NONE
AC58546-010	04/25/11 11:32	JPC	1	A	TDWI-HG
AC58546-010	04/25/11 13:07	R12	1	A	NONE
AC58546-011	04/20/11 15:30	FRAN	0	M	Received
AC58546-011	04/20/11 16:19	FRAN	0	M	Login

Samples marked as received are stored in coolers or refrigerator R12, or R24 at 4 deg C until Login

Internal Chain of Custody

Lab#:	DateTime:	Loc or User	Bot Nu	A/M	Analysis
AC58546-011	04/21/11 07:55	R22	2	A	NONE
AC58546-011	04/22/11 14:46	SG	2	A	VOA
AC58546-011	04/21/11 07:55	R22	3	A	NONE
AC58546-011	04/20/11 16:24	R12	4	A	NONE
AC58546-011	04/29/11 09:28	JAR	4	A	alkalinity
AC58546-011	04/29/11 18:29	R12	4	A	NONE
AC58546-011	04/20/11 16:24	R12	5	A	NONE
AC58546-011	05/03/11 11:57	JW	5	A	alkalinity
AC58546-011	05/03/11 16:32	R12	5	A	NONE
AC58546-011	04/20/11 16:24	R12	6	A	NONE
AC58546-011	04/29/11 09:28	JAR	6	A	alkalinity
AC58546-011	04/29/11 18:29	R12	6	A	NONE
AC58546-011	05/02/11 09:49	JAR	6	A	alkalinity
AC58546-011	05/02/11 18:41	R12	6	A	NONE
AC58546-011	04/20/11 16:24	R12	7	A	NONE
AC58546-011	04/20/11 16:24	R12	8	A	NONE
AC58546-011	04/20/11 19:10	NNM	8	M	ic
AC58546-011	04/20/11 21:07	R12	8	A	NONE
AC58546-012	04/20/11 15:30	FRAN	0	M	Received
AC58546-012	04/20/11 16:19	FRAN	0	M	Login
AC58546-012	04/20/11 16:24	R12	1	A	NONE
AC58546-012	04/22/11 14:17	JPC	1	A	FILTERING
AC58546-012	04/22/11 16:01	R12	1	A	NONE
AC58546-012	04/25/11 11:32	JPC	1	A	TDWI-HG
AC58546-012	04/25/11 13:07	R12	1	A	NONE
AC58546-013	04/20/11 15:30	FRAN	0	M	Received
AC58546-013	04/20/11 16:19	FRAN	0	M	Login
AC58546-013	04/21/11 07:55	R22	2	A	NONE
AC58546-013	04/22/11 14:46	SG	2	A	VOA
AC58546-013	04/21/11 07:55	R22	3	A	NONE
AC58546-013	04/20/11 16:24	R12	4	A	NONE
AC58546-013	05/02/11 09:49	JAR	4	A	alkalinity
AC58546-013	05/02/11 18:41	R12	4	A	NONE
AC58546-013	04/20/11 16:24	R12	5	A	NONE
AC58546-013	04/20/11 16:24	R12	6	A	NONE
AC58546-013	04/29/11 09:28	JAR	6	A	alkalinity
AC58546-013	04/29/11 18:29	R12	6	A	NONE
AC58546-013	04/20/11 16:24	R12	7	A	NONE
AC58546-013	04/29/11 09:28	JAR	7	A	alkalinity
~~AC58546-013~~	~~04/29/11 18:29~~	~~R12~~	~~7~~	~~A~~	~~NONE~~
AC58546-013	05/03/11 11:57	JW	7	A	alkalinity
AC58546-013	05/03/11 16:32	R12	7	A	NONE
AC58546-013	04/20/11 16:24	R12	8	A	NONE
AC58546-013	04/20/11 19:10	NNM	8	M	ic
AC58546-013	04/20/11 21:07	R12	8	A	NONE
AC58546-014	04/20/11 15:30	FRAN	0	M	Received
AC58546-014	04/20/11 16:19	FRAN	0	M	Login
AC58546-014	04/20/11 16:24	R12	1	A	NONE
AC58546-014	04/22/11 14:17	JPC	1	A	FILTERING
AC58546-014	04/22/11 16:01	R12	1	A	NONE
AC58546-014	04/25/11 11:32	JPC	1	A	TDWI-HG
AC58546-014	04/25/11 13:07	R12	1	A	NONE

Lab#:	DateTime:	Loc or User	Bot Nu	A/M	Analysis

Samples marked as received are stored in coolers or refrigerator R12, or R24 at 4 deg C until Login

Laboratory Chronicle

Client: Cashin Associates
Project: 9051.003

HCV Project #: 1042015

Lab#: AC58546-001 **Sample ID: MW-11 U**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Alkalinity-Bicarbonate (SM2320B-97)		5/3/11	jw	SM2320B-97	5/3/11 00:00	jw
Alkalinity-Total (SM2320B-97)		4/29/11	JW	SM2320B-97	4/29/11 00:00	JW
BTEX (624)	EPA 624			EPA 624	4/26/11 11:31	WP
Nitrate-N (Water) 300.0				300.0 rev2.1	4/21/11 00:54	nnm
Sulfate (Water) 300.0				300.0 rev2.1	4/21/11 00:54	nnm

Lab#: AC58546-002 **Sample ID: MW-11 F**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Metals Pair 200.7/8	EPA 200.2	4/25/11	Joelly	200.7/200.8	4/27/11 16:45	SRB

Lab#: AC58546-003 **Sample ID: MW-12 U**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Alkalinity-Bicarbonate (SM2320B-97)		5/3/11	jw	SM2320B-97	5/3/11 00:00	jw
Alkalinity-Total (SM2320B-97)		4/29/11	JW	SM2320B-97	4/29/11 00:00	JW
BTEX (624)	EPA 624			EPA 624	4/26/11 11:48	WP
Nitrate-N (Water) 300.0				300.0 rev2.1	4/21/11 02:25	nnm
Sulfate (Water) 300.0				300.0 rev2.1	4/21/11 02:25	nnm

Lab#: AC58546-004 **Sample ID: MW-12 F**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Metals Pair 200.7/8	EPA 200.2	4/25/11	Joelly	200.7/200.8	4/27/11 16:50	SRB

Laboratory Chronicle

Client: Cashin Associates
Project: 9051.003

HCV Project #: 1042015

Lab#: AC58546-005 **Sample ID: MW-13 U**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Alkalinity-Bicarbonate (SM2320B-97)		5/3/11	jw	SM2320B-97	5/3/11 00:00	jw
Alkalinity-Total (SM2320B-97)		4/29/11	JW	SM2320B-97	4/29/11 00:00	JW
BTEX (624)	EPA 624			EPA 624	4/23/11 02:34	SG
Nitrate-N (Water) 300.0				300.0 rev2.1	4/21/11 02:56	nnm
Sulfate (Water) 300.0				300.0 rev2.1	4/21/11 02:56	nnm

Lab#: AC58546-006 **Sample ID: MW-13 F**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Metals Pair 200.7/8	EPA 200.2	4/25/11	Joelly	200.7/200.8	4/27/11 16:54	SRB

Lab#: AC58546-007 **Sample ID: GP-1 U**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Alkalinity-Bicarbonate (SM2320B-97)		5/3/11	jw	SM2320B-97	5/3/11 00:00	jw
Alkalinity-Total (SM2320B-97)		4/29/11	JW	SM2320B-97	4/29/11 00:00	JW
BTEX (624)	EPA 624			EPA 624	4/23/11 02:51	SG
Nitrate-N (Water) 300.0				300.0 rev2.1	4/21/11 03:26	nnm
Sulfate (Water) 300.0				300.0 rev2.1	4/21/11 03:26	nnm

Lab#: AC58546-008 **Sample ID: GP-1 F**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Metals Pair 200.7/8	EPA 200.2	4/25/11	Joelly	200.7/200.8	4/27/11 16:57	SRB

Laboratory Chronicle

Client: Cashin Associates
Project: 9051.003

HCV Project #: 1042015

Lab#: AC58546-009 **Sample ID: GP-2 U**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Alkalinity-Bicarbonate (SM2320B-97)		5/3/11	jw	SM2320B-97	5/3/11 00:00	jw
Alkalinity-Total (SM2320B-97)		4/29/11	JW	SM2320B-97	4/29/11 00:00	JW
BTEX (624)	EPA 624			EPA 624	4/23/11 03:07	SG
Nitrate-N (Water) 300.0				300.0 rev2.1	4/21/11 03:56	nnm
Sulfate (Water) 300.0				300.0 rev2.1	4/21/11 03:56	nnm

Lab#: AC58546-010 **Sample ID: GP-2 F**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Metals Pair 200.7/8	EPA 200.2	4/25/11	Joelly	200.7/200.8	4/27/11 17:01	SRB

Lab#: AC58546-011 **Sample ID: PC-1 U**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Alkalinity-Bicarbonate (SM2320B-97)		5/3/11	jw	SM2320B-97	5/3/11 00:00	jw
Alkalinity-Total (SM2320B-97)		4/29/11	JW	SM2320B-97	4/29/11 00:00	JW
BTEX (624)	EPA 624			EPA 624	4/23/11 03:23	SG
Nitrate-N (Water) 300.0				300.0 rev2.1	4/21/11 04:27	nnm
Sulfate (Water) 300.0				300.0 rev2.1	4/21/11 04:27	nnm

Lab#: AC58546-012 **Sample ID: PC-1 F**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Metals Pair 200.7/8	EPA 200.2	4/25/11	Joelly	200.7/200.8	4/27/11 17:04	SRB

Laboratory Chronicle

Client: Cashin Associates
Project: 9051.003

HCV Project #: 1042015

Lab#: AC58546-013 **Sample ID: SP-1 U**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Alkalinity-Bicarbonate (SM2320B-97)		5/3/11	jw	SM2320B-97	5/3/11 00:00	jw
Alkalinity-Total (SM2320B-97)		4/29/11	JW	SM2320B-97	4/29/11 00:00	JW
BTEX (624)	EPA 624			EPA 624	4/23/11 03:40	SG
Nitrate-N (Water) 300.0				300.0 rev2.1	4/21/11 05:58	nnm
Sulfate (Water) 300.0				300.0 rev2.1	4/21/11 05:58	nnm

Lab#: AC58546-014 **Sample ID: SP-1 F**

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Metals Pair 200.7/8	EPA 200.2	4/25/11	Joelly	200.7/200.8	4/27/11 17:07	SRB

HCV Reporting Limit Definitions/Data Qualifiers

REPORTING DEFINITIONS

DF = Dilution Factor

MDL = Method Detection Limit

RL = Reporting Limit *

RT = Retention Time

NA = Not Applicable

ND = Not Detected

DATA QUALIFIERS

B- Indicates analyte was present in the Method Blank and sample.

d- For Pesticide and PCB analysis, the concentration between primary and secondary columns is greater than 40%. The lower concentration is generally reported.

E- Indicates the concentration exceeded the upper calibration range of the instrument.

J- Indicates the concentration is below the Reporting Limit (RL) but above the MDL (Method Detection Limit). The concentration reported is an estimate.

*For Clean Water Act and SW846 Organic Methods and Metals Methods, the Reporting Limit is determined by the concentration of the lowest standard in the calibration curve.

*For Clean Water Act and SW846 Wet Chemistry methods, the Reporting Limit is determined by the concentration of the lowest standard in the calibration curve. For most gravimetric methods the Reporting Limit is defined as a value 3 to 5 times the MDL.

HCV Report Of Analysis

Client: Cashin Associates
HCV Project #: 1042015
Project: 9051.003

Sample ID: MW-11 U
Lab#: AC58546-001
Matrix: Aqueous
Collection Date: 4/20/2011
Receipt Date: 4/20/2011

Alkalinity-Bicarbonate (SM2320B-97)

Analyte	DF	Units	RL	Result
Alkalinity	1	mg caco3/l	10	190

Alkalinity-Total (SM2320B-97)

Analyte	DF	Units	RL	Result
Alkalinity	1	mg caco3/l	10	190

BTEX (624)

Analyte	DF	Units	RL	Result
Benzene	1	ug/l	0.50	ND
Ethylbenzene	1	ug/l	1.0	53
m&p-Xylenes	1	ug/l	1.0	12
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	1.2
Toluene	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	13.2

Nitrate-N (Water) 300.0

Analyte	DF	Units	RL	Result
Nitrate	1	mg/l	1.0	ND

Sulfate (Water) 300.0

Analyte	DF	Units	RL	Result
Sulfate	1	mg/l	1.0	14

Sample ID: MW-11 F
Lab#: AC58546-002
Matrix: Aqueous

Collection Date: 4/20/2011
Receipt Date: 4/20/2011

Metals Pair 200.7/8

Analyte	DF	Units	RL	Result
Iron	1	ug/l	150	610
Manganese	1	ug/l	25	3400

Sample ID: MW-12 U
Lab#: AC58546-003
Matrix: Aqueous

Collection Date: 4/20/2011
Receipt Date: 4/20/2011

Alkalinity-Bicarbonate (SM2320B-97)

Analyte	DF	Units	RL	Result
Alkalinity	1	mg caco3/l	10	220

Alkalinity-Total (SM2320B-97)

Analyte	DF	Units	RL	Result
Alkalinity	1	mg caco3/l	10	220

BTEX (624)

Analyte	DF	Units	RL	Result
Benzene	1	ug/l	0.50	ND
Ethylbenzene	1	ug/l	1.0	3.4
m&p-Xylenes	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Nitrate-N (Water) 300.0

Analyte	DF	Units	RL	Result
Nitrate	1	mg/l	1.0	ND

Sulfate (Water) 300.0

Analyte	DF	Units	RL	Result
Sulfate	1	mg/l	1.0	13

Sample ID: MW-12 F
Lab#: AC58546-004
Matrix: Aqueous

Collection Date: 4/20/2011
Receipt Date: 4/20/2011

Metals Pair 200.7/8

Analyte	DF	Units	RL	Result
Iron	1	ug/l	150	4100
Manganese	1	ug/l	25	10000

Sample ID: MW-13 U
Lab#: AC58546-005
Matrix: Aqueous
Collection Date: 4/20/2011
Receipt Date: 4/20/2011

Alkalinity-Bicarbonate (SM2320B-97)

Analyte	DF	Units	RL	Result
Alkalinity	1	mg caco3/l	10	270

Alkalinity-Total (SM2320B-97)

Analyte	DF	Units	RL	Result
Alkalinity	1	mg caco3/l	10	270

BTEX (624)

Analyte	DF	Units	RL	Result
Benzene	1	ug/l	0.50	ND
Ethylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Nitrate-N (Water) 300.0

Analyte	DF	Units	RL	Result
Nitrate	1	mg/l	1.0	1.3

Sulfate (Water) 300.0

Analyte	DF	Units	RL	Result
Sulfate	1	mg/l	1.0	25

Sample ID: MW-13 F
Lab#: AC58546-006
Matrix: Aqueous

Collection Date: 4/20/2011
Receipt Date: 4/20/2011

Metals Pair 200.7/8

Analyte	DF	Units	RL	Result
Iron	1	ug/l	150	ND
Manganese	1	ug/l	25	ND

Sample ID: GP-1 U
Lab#: AC58546-007
Matrix: Aqueous
Collection Date: 4/20/2011
Receipt Date: 4/20/2011

Alkalinity-Bicarbonate (SM2320B-97)

Analyte	DF	Units	RL	Result
Alkalinity	1	mg caco3/l	10	230

Alkalinity-Total (SM2320B-97)

Analyte	DF	Units	RL	Result
Alkalinity	1	mg caco3/l	10	230

BTEX (624)

Analyte	DF	Units	RL	Result
Benzene	1	ug/l	0.50	ND
Ethylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Nitrate-N (Water) 300.0

Analyte	DF	Units	RL	Result
Nitrate	1	mg/l	1.0	ND

Sulfate (Water) 300.0

Analyte	DF	Units	RL	Result
Sulfate	1	mg/l	1.0	17

Sample ID: GP-1 F
Lab#: AC58546-008
Matrix: Aqueous

Collection Date: 4/20/2011
Receipt Date: 4/20/2011

Metals Pair 200.7/8

Analyte	DF	Units	RL	Result
Iron	1	ug/l	150	ND
Manganese	1	ug/l	25	ND

Sample ID: GP-2 U
Lab#: AC58546-009
Matrix: Aqueous
Collection Date: 4/20/2011
Receipt Date: 4/20/2011

Alkalinity-Bicarbonate (SM2320B-97)

Analyte	DF	Units	RL	Result
Alkalinity	1	mg caco3/l	10	240

Alkalinity-Total (SM2320B-97)

Analyte	DF	Units	RL	Result
Alkalinity	1	mg caco3/l	10	240

BTEX (624)

Analyte	DF	Units	RL	Result
Benzene	1	ug/l	0.50	ND
Ethylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Nitrate-N (Water) 300.0

Analyte	DF	Units	RL	Result
Nitrate	1	mg/l	1.0	ND

Sulfate (Water) 300.0

Analyte	DF	Units	RL	Result
Sulfate	1	mg/l	1.0	21

Sample ID: GP-2 F
Lab#: AC58546-010
Matrix: Aqueous

Collection Date: 4/20/2011
Receipt Date: 4/20/2011

Metals Pair 200.7/8

Analyte	DF	Units	RL	Result
Iron	1	ug/l	150	ND
Manganese	1	ug/l	25	ND

Sample ID: PC-1 U
Lab#: AC58546-011
Matrix: Aqueous

Collection Date: 4/20/2011
Receipt Date: 4/20/2011

Alkalinity-Bicarbonate (SM2320B-97)

Analyte	DF	Units	RL	Result
Alkalinity	1	mg caco3/l	10	270

Alkalinity-Total (SM2320B-97)

Analyte	DF	Units	RL	Result
Alkalinity	1	mg caco3/l	10	270

BTEX (624)

Analyte	DF	Units	RL	Result
Benzene	1	ug/l	0.50	ND
Ethylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Nitrate-N (Water) 300.0

Analyte	DF	Units	RL	Result
Nitrate	1	mg/l	1.0	ND

Sulfate (Water) 300.0

Analyte	DF	Units	RL	Result
Sulfate	1	mg/l	1.0	13

Sample ID: PC-1 F
Lab#: AC58546-012
Matrix: Aqueous

Collection Date: 4/20/2011
Receipt Date: 4/20/2011

Metals Pair 200.7/8

Analyte	DF	Units	RL	Result
Iron	1	ug/l	150	ND
Manganese	1	ug/l	25	ND

Sample ID: SP-1 U
Lab#: AC58546-013
Matrix: Aqueous

Collection Date: 4/20/2011
Receipt Date: 4/20/2011

Alkalinity-Bicarbonate (SM2320B-97)

Analyte	DF	Units	RL	Result
Alkalinity	1	mg caco3/l	10	270

Alkalinity-Total (SM2320B-97)

Analyte	DF	Units	RL	Result
Alkalinity	1	mg caco3/l	10	270

BTEX (624)

Analyte	DF	Units	RL	Result
Benzene	1	ug/l	0.50	ND
Ethylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Nitrate-N (Water) 300.0

Analyte	DF	Units	RL	Result
Nitrate	1	mg/l	1.0	ND

Sulfate (Water) 300.0

Analyte	DF	Units	RL	Result
Sulfate	1	mg/l	1.0	13

Sample ID: SP-1 F
Lab#: AC58546-014
Matrix: Aqueous

Collection Date: 4/20/2011
Receipt Date: 4/20/2011

Metals Pair 200.7/8

Analyte	DF	Units	RL	Result
Iron	1	ug/l	150	ND
Manganese	1	ug/l	25	ND

Form1

ORGANICS VOLATILE REPORT

Sample Number: DAILY BLANK
Client Id:
Data File: 8M67221.D
Analysis Date: 04/22/11 07:02
Date Rec/Extracted:
Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624
Matrix: Aqueous
Initial Vol: 5ml
Final Vol: NA
Dilution: 1.00
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-43-2	Benzene	0.50	U	1634-04-4	Methyl-t-butyl ether	0.50	U
100-41-4	Ethylbenzene	1.0	U	95-47-6	o-Xylene	1.0	U
136777612	m&p-Xylenes	1.0	U	108-88-3	Toluene	1.0	U

Worksheet #: 188791

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the instrument.
R - Retention Time Out
J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Form1

ORGANICS VOLATILE REPORT

Sample Number: DAILY BLANK
Client Id:
Data File: 3M91239.D
Analysis Date: 04/26/11 08:46
Date Rec/Extracted:
Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624
Matrix: Aqueous
Initial Vol: 5ml
Final Vol: NA
Dilution: 1.00
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-43-2	Benzene	0.50	U	1634-04-4	Methyl-t-butyl ether	0.50	U
100-41-4	Ethylbenzene	1.0	U	95-47-6	o-Xylene	1.0	U
136777612	m&p-Xylenes	1.0	U	108-88-3	Toluene	1.0	U

Worksheet #: 188791

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the instrument.
R - Retention Time Out
J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Form1

ORGANICS VOLATILE REPORT

Sample Number: AC58546-001
Client Id: MW-11 U
Data File: 3M91249.D
Analysis Date: 04/26/11 11:31
Date Rec/Extracted: 04/20/11-NA
Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624
Matrix: Aqueous
Initial Vol: 5ml
Final Vol: NA
Dilution: 1.00
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-43-2	Benzene	0.50	U	1634-04-4	Methyl-t-butyl ether	0.50	U
100-41-4	**Ethylbenzene**	**1.0**	**53**	**95-47-6**	**o-Xylene**	**1.0**	**1.2**
136777612	**m&p-Xylenes**	**1.0**	**12**	108-88-3	Toluene	1.0	U
1330-20-7	**Xylenes (Total)**	**1.0**	**13.2**				

U - Indicates the compound was analyzed but not detected.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the instrument.
R - Retention Time Out
J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Form1

ORGANICS VOLATILE REPORT

Sample Number: AC58546-003
Client Id: MW-12 U
Data File: 3M91250.D
Analysis Date: 04/26/11 11:48
Date Rec/Extracted: 04/20/11-NA
Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624
Matrix: Aqueous
Initial Vol: 5ml
Final Vol: NA
Dilution: 1.00
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-43-2	Benzene	0.50	U	1634-04-4	Methyl-t-butyl ether	0.50	U
100-41-4	**Ethylbenzene**	**1.0**	**3.4**	95-47-6	o-Xylene	1.0	U
136777612	m&p-Xylenes	1.0	U	108-88-3	Toluene	1.0	U
1330-20-7	Xylenes (Total)	1.0	U				

Worksheet #: 188791

Total Target Concentration 3.4

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the instrument.
R - Retention Time Out
J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Form1

ORGANICS VOLATILE REPORT

Sample Number: AC58546-005
Client Id: MW-13 U
Data File: 8M67291.D
Analysis Date: 04/23/11 02:34
Date Rec/Extracted: 04/20/11-NA
Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624
Matrix: Aqueous
Initial Vol: 5ml
Final Vol: NA
Dilution: 1.00
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-43-2	Benzene	0.50	U	1634-04-4	Methyl-t-butyl ether	0.50	U
100-41-4	Ethylbenzene	1.0	U	95-47-6	o-Xylene	1.0	U
136777612	m&p-Xylenes	1.0	U	108-88-3	Toluene	1.0	U
1330-20-7	Xylenes (Total)	1.0	U				

Worksheet #: 188791

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the instrument.
R - Retention Time Out
J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
d - Pesticide %Diff>40% between columns due to coelution. Lower concentration usea

Form1

ORGANICS VOLATILE REPORT

Sample Number: AC58546-007
Client Id: GP-1 U
Data File: 8M67292.D
Analysis Date: 04/23/11 02:51
Date Rec/Extracted: 04/20/11-NA
Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624
Matrix: Aqueous
Initial Vol: 5ml
Final Vol: NA
Dilution: 1.00
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-43-2	Benzene	0.50	U	1634-04-4	Methyl-t-butyl ether	0.50	U
100-41-4	Ethylbenzene	1.0	U	95-47-6	o-Xylene	1.0	U
136777612	m&p-Xylenes	1.0	U	108-88-3	Toluene	1.0	U
1330-20-7	Xylenes (Total)	1.0	U				

Worksheet #: 188791

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the instrument.
R - Retention Time Out
J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Form1

ORGANICS VOLATILE REPORT

Sample Number: AC58546-009
Client Id: GP-2 U
Data File: 8M67293.D
Analysis Date: 04/23/11 03:07
Date Rec/Extracted: 04/20/11-NA
Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624
Matrix: Aqueous
Initial Vol: 5ml
Final Vol: NA
Dilution: 1.00
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-43-2	Benzene	0.50	U	1634-04-4	Methyl-t-butyl ether	0.50	U
100-41-4	Ethylbenzene	1.0	U	95-47-6	o-Xylene	1.0	U
136777612	m&p-Xylenes	1.0	U	108-88-3	Toluene	1.0	U
1330-20-7	Xylenes (Total)	1.0	U				

Worksheet #: 188791

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the instrument.
R - Retention Time Out
J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Form1

ORGANICS VOLATILE REPORT

Sample Number: AC58546-011
Client Id: PC-1 U
Data File: 8M67294.D
Analysis Date: 04/23/11 03:23
Date Rec/Extracted: 04/20/11-NA
Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624
Matrix: Aqueous
Initial Vol: 5ml
Final Vol: NA
Dilution: 1.00
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-43-2	Benzene	0.50	U	1634-04-4	Methyl-t-butyl ether	0.50	U
100-41-4	Ethylbenzene	1.0	U	95-47-6	o-Xylene	1.0	U
136777612	m&p-Xylenes	1.0	U	108-88-3	Toluene	1.0	U
1330-20-7	Xylenes (Total)	1.0	U				

Worksheet #: 188791

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the instrument.
R - Retention Time Out
J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Form1

ORGANICS VOLATILE REPORT

Sample Number: AC58546-013
Client Id: SP-1 U
Data File: 8M67295.D
Analysis Date: 04/23/11 03:40
Date Rec/Extracted: 04/20/11-NA
Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624
Matrix: Aqueous
Initial Vol: 5ml
Final Vol: NA
Dilution: 1.00
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-43-2	Benzene	0.50	U	1634-04-4	Methyl-t-butyl ether	0.50	U
100-41-4	Ethylbenzene	1.0	U	95-47-6	o-Xylene	1.0	U
136777612	m&p-Xylenes	1.0	U	108-88-3	Toluene	1.0	U
1330-20-7	Xylenes (Total)	1.0	U				

Worksheet #: 188791

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the instrument.
R - Retention Time Out
J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Form3
Recovery Data
QC Batch: MBS7430

	Data File	Sample ID:	Analysis Date
Spike or Dup:	3M91276.D	AC58575-011(MS)	4/26/2011 7:27:00 PM
Non Spike(If applicable):	3M91179.D	AC58575-011	4/22/2011 7:09:00 PM
Inst Blank(If applicable):			

Method: 624 | Matrix: Aqueous | QC Type: MS

Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit	ME Low Limit	ME Upper Limit
Chloromethane	1	12.346	0	20	62	1	273	0	0
Bromomethane	1	15.4804	0	20	77	1	242	0	0
Vinyl Chloride	1	14.5051	0	20	73	1	251	0	0
Chloroethane	1	18.492	0	20	92	14	230	0	0
Trichlorofluoromethane	1	19.8029	0	20	99	17	181	0	0
Methylene Chloride	1	16.3197	0	20	82	1	221	0	0
1,1-Dichloroethene	1	15.4669	0	20	77	1	234	0	0
1,1-Dichloroethane	1	17.4546	0	20	87	59	155	0	0
trans-1,2-Dichloroethene	1	18.8327	0	20	94	54	156	0	0
Chloroform	1	18.2411	0	20	91	51	138	0	0
1,2-Dichloroethane	1	15.2706	0	20	76	49	155	0	0
1,1,1-Trichloroethane	1	18.5315	0	20	93	52	162	0	0
Carbon Tetrachloride	1	19.0201	0	20	95	70	140	0	0
Bromodichloromethane	1	16.5325	0	20	83	35	155	0	0
1,2-Dichloropropane	1	17.1321	0	20	86	1	210	0	0
Trichloroethene	1	17.7033	0	20	89	71	157	0	0
Benzene	1	18.6916	0	20	93	37	151	0	0
Dibromochloromethane	1	14.8245	0	20	74	53	149	0	0
2-Chloroethylvinylether	1	0	0	20	0*	1	305	0	0
cis-1,3-Dichloropropene	1	12.5374	0	20	63	1	227	0	0
trans-1,3-Dichloropropene	1	11.0976	0	20	55	17	183	0	0
1,1,2-Trichloroethane	1	16.8085	0	20	84	52	150	0	0
Tetrachloroethene	1	17.7436	0	20	89	64	148	0	0
Toluene	1	17.2918	0	20	86	47	150	0	0
Chlorobenzene	1	17.9822	0	20	90	37	160	0	0
Bromoform	1	13.5823	0	20	68	45	169	0	0
Ethylbenzene	1	19.6749	0	20	98	37	162	0	0
1,1,2,2-Tetrachloroethane	1	16.1941	0	20	81	46	157	0	0
1,3-Dichlorobenzene	1	18.3	0	20	92	59	156	0	0
1,4-Dichlorobenzene	1	16.1296	0	20	81	18	190	0	0
1,2-Dichlorobenzene	1	17.9256	0	20	90	18	190	0	0

* - Indicates outside of limits # - Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data
QC Batch: MBS7430

	Data File	Sample ID:	Analysis Date
Spike or Dup:	3M91277.D	AC58575-011(MSD)	4/26/2011 7:45:00 PM
Non Spike(If applicable):	3M91179.D	AC58575-011	4/22/2011 7:09:00 PM
Inst Blank(If applicable):			

Method: 624 | Matrix: Aqueous | QC Type: MSD

Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit	ME Low Limit	ME Upper Limit
Chloromethane	1	14.2528	0	20	71	1	273	0	0
Bromomethane	1	14.3586	0	20	72	1	242	0	0
Vinyl Chloride	1	9.8566	0	20	49	1	251	0	0
Chloroethane	1	17.2898	0	20	86	14	230	0	0
Trichlorofluoromethane	1	18.6924	0	20	93	17	181	0	0
Methylene Chloride	1	16.1624	0	20	81	1	221	0	0
1,1-Dichloroethene	1	15.0806	0	20	75	1	234	0	0
1,1-Dichloroethane	1	17.0147	0	20	85	59	155	0	0
trans-1,2-Dichloroethene	1	17.7561	0	20	89	54	156	0	0
Chloroform	1	17.6648	0	20	88	51	138	0	0
1,2-Dichloroethane	1	16.0158	0	20	80	49	155	0	0
1,1,1-Trichloroethane	1	18.9889	0	20	95	52	162	0	0
Carbon Tetrachloride	1	19.2402	0	20	96	70	140	0	0
Bromodichloromethane	1	16.4294	0	20	82	35	155	0	0
1,2-Dichloropropane	1	17.2668	0	20	86	1	210	0	0
Trichloroethene	1	17.1078	0	20	86	71	157	0	0
Benzene	1	18.6814	0	20	93	37	151	0	0
Dibromochloromethane	1	15.2065	0	20	76	53	149	0	0
2-Chloroethylvinylether	1	0	0	20	0*	1	305	0	0
cis-1,3-Dichloropropene	1	12.6524	0	20	63	1	227	0	0
trans-1,3-Dichloropropene	1	11.1955	0	20	56	17	183	0	0
1,1,2-Trichloroethane	1	15.4825	0	20	77	52	150	0	0
Tetrachloroethene	1	18.6294	0	20	93	64	148	0	0
Toluene	1	17.1621	0	20	86	47	150	0	0
Chlorobenzene	1	17.8678	0	20	89	37	160	0	0
Bromoform	1	13.5402	0	20	68	45	169	0	0
Ethylbenzene	1	17.9376	0	20	90	37	162	0	0
1,1,2,2-Tetrachloroethane	1	16.5263	0	20	83	46	157	0	0
1,3-Dichlorobenzene	1	18.1795	0	20	91	59	156	0	0
1,4-Dichlorobenzene	1	16.2508	0	20	81	18	190	0	0
1,2-Dichlorobenzene	1	16.6135	0	20	83	18	190	0	0

* - Indicates outside of limits # - Indicates outside of standard limits but within method exceedance limits

Form3
RPD DATA
QC Batch: MBS7430

	Data File	Sample ID:	Analysis Date
Spike or Dup:	3M91277.D	AC58575-011(MSD)	4/26/2011 7:45:00 PM
Duplicate(If applicable):	3M91276.D	AC58575-011(MS)	4/26/2011 7:27:00 PM
Inst Blank(If applicable):			

Method: 624 Matrix: Aqueous QC Type: MSD

Analyte:	Column	Dup/MSD/MBSD Conc	Sample/MS/MBS Conc	RPD	Limit
Chloromethane	1	14.2528	12.346	14	66
Bromomethane	1	14.3586	15.4804	7.5	42
Vinyl Chloride	1	9.8566	14.5051	38*	30
Chloroethane	1	17.2898	18.492	6.7	50
Trichlorofluoromethane	1	18.6924	19.8029	5.8	41
Methylene Chloride	1	16.1624	16.3197	0.97	38
1,1-Dichloroethene	1	15.0806	15.4669	2.5	34
1,1-Dichloroethane	1	17.0147	17.4546	2.6	30
trans-1,2-Dichloroethene	1	17.7561	18.8327	5.9	48
Chloroform	1	17.6648	18.2411	3.2	37
1,2-Dichloroethane	1	16.0158	15.2706	4.8	34
1,1,1-Trichloroethane	1	18.9889	18.5315	2.4	33
Carbon Tetrachloride	1	19.2402	19.0201	1.2	32
Bromodichloromethane	1	16.4294	16.5325	0.63	30
1,2-Dichloropropane	1	17.2668	17.1321	0.78	30
Trichloroethene	1	17.1078	17.7033	3.4	30
Benzene	1	18.6814	18.6916	0.05	29
Dibromochloromethane	1	15.2065	14.8245	2.5	30
2-Chloroethylvinylether	1	0	0	NA	40
cis-1,3-Dichloropropene	1	12.6524	12.5374	0.91	34
trans-1,3-Dichloropropene	1	11.1955	11.0976	0.88	31
1,1,2-Trichloroethane	1	15.4825	16.8085	8.2	37
Tetrachloroethene	1	18.6294	17.7436	4.9	27
Toluene	1	17.1621	17.2918	0.75	33
Chlorobenzene	1	17.8678	17.9822	0.64	30
Bromoform	1	13.5402	13.5823	0.31	30
Ethylbenzene	1	17.9376	19.6749	9.2	41
1,1,2,2-Tetrachloroethane	1	16.5263	16.1941	2	29
1,3-Dichlorobenzene	1	18.1795	18.3	0.66	30
1,4-Dichlorobenzene	1	16.2508	16.1296	0.75	30
1,2-Dichlorobenzene	1	16.6135	17.9256	7.6	34

* - Indicates outside of limits NA - Both concentrations=0... no result can be calculated

Form1
Inorganic Analysis Data Sheet

Sample ID:	AC58546-002	% Solid:	0	Lab Name:	Veritech	Nras No:	
Client Id:	MW-11 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	4/20/2011	Contract:		Case No:	
Level:	LOW						

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-89-6	Iron	150	610	1	100	50	04/27/11	6699	A12564F	14	P	PEICP1A
7439-96-5	Manganese	25	3400	1	100	50	04/27/11	6699	A12564F	14	P	PEICP1A

Comments: _____

_____

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit
P - ICP-AES
CV -ColdVapor
MS - ICP-MS

Form1
Inorganic Analysis Data Sheet

Sample ID:	AC58546-004	% Solid:	0	Lab Name:	Veritech	Nras No:	
Client Id:	MW-12 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	4/21/2011	Contract:		Case No:	
Level:	LOW						

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-89-6	Iron	150	4100	1	100	50	04/27/11	6699	A12564F	15	P	PEICP1A
7439-96-5	Manganese	25	10000	1	100	50	04/27/11	6699	A12564F	15	P	PEICP1A

Comments: _____

_____

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit
P - ICP-AES
CV -ColdVapor
MS - ICP-MS

Form1
Inorganic Analysis Data Sheet

Sample ID:	AC58546-006	% Solid:	0	Lab Name:	Veritech	Nras No:	
Client Id:	MW-13 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	4/21/2011	Contract:		Case No:	
Level:	LOW						

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-89-6	Iron	150	ND	1	100	50	04/27/11	6699	A12564F	16	P	PEICP1A
7439-96-5	Manganese	25	ND	1	100	50	04/27/11	6699	A12564F	16	P	PEICP1A

Comments: _____

_____

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit
P - ICP-AES
CV -ColdVapor
MS - ICP-MS

Form1
Inorganic Analysis Data Sheet

Sample ID:	AC58546-008	% Solid:	0	Lab Name:	Veritech	Nras No:	
Client Id:	GP-1 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	4/21/2011	Contract:		Case No:	
Level:	LOW						

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-89-6	Iron	150	ND	1	100	50	04/27/11	6699	A12564F	17	P	PEICP1A
7439-96-5	Manganese	25	ND	1	100	50	04/27/11	6699	A12564F	17	P	PEICP1A

Comments: _____

_____

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit
P - ICP-AES
CV -ColdVapor
MS - ICP-MS

Form1
Inorganic Analysis Data Sheet

Sample ID:	AC58546-010	% Solid:	0	Lab Name:	Veritech	Nras No:	
Client Id:	GP-2 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	4/21/2011	Contract:		Case No:	
Level:	LOW						

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-89-6	Iron	150	ND	1	100	50	04/27/11	6699	A12564F	18	P	PEICP1A
7439-96-5	Manganese	25	ND	1	100	50	04/27/11	6699	A12564F	18	P	PEICP1A

Comments: _____

_____

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit
P - ICP-AES
CV -ColdVapor
MS - ICP-MS

Form1
Inorganic Analysis Data Sheet

Sample ID:	AC58546-012	% Solid:	0	Lab Name:	Veritech	Nras No:	
Client Id:	PC-1 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	4/21/2011	Contract:		Case No:	
Level:	LOW						

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-89-6	Iron	150	ND	1	100	50	04/27/11	6699	A12564F	19	P	PEICP1A
7439-96-5	Manganese	25	ND	1	100	50	04/27/11	6699	A12564F	19	P	PEICP1A

Comments: _____

_____

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit
P - ICP-AES
CV -ColdVapor
MS - ICP-MS

Form1
Inorganic Analysis Data Sheet

Sample ID:	AC58546-014	% Solid:	0	Lab Name:	Veritech	Nras No:	
Client Id:	SP-1 F	Units:	UG/L	Lab Code:		Sdg No:	
Matrix:	AQUEOUS	Date Rec:	4/21/2011	Contract:		Case No:	
Level:	LOW						

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-89-6	Iron	150	ND	1	100	50	04/27/11	6699	A12564F	20	P	PEICP1A
7439-96-5	Manganese	25	ND	1	100	50	04/27/11	6699	A12564F	20	P	PEICP1A

Comments: _____

_____

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit
P - ICP-AES
CV -ColdVapor
MS - ICP-MS

FORM 3
(ICB/CCB/MB Summary)

Date Analyzed: 04/26/11
Data File: A12564C
Prep Batch: 6699
Reporting Limits Used: AQUEOUS,200.7(ICP)/200.8(ICPMS)/245.1(Hg)
Instrument: PEICP1A
Units: All units in ppm except Hg and icp-ms in ppb
Project Number: 1042015

Lab Name: Veritech
Lab Code:
Contract:
Nras No:
Sdg No:
Case No:

Analyte	ICB V-112282-8	CCB-20	CCB-29	CCB-39	MB 6699 (0.5)-11			
Aluminum	.2 U	.2 U	.2 U	.2 U	.1 U			
Antimony	.015 U	.015 U	.015 U	.015 U	.0075 U			
Arsenic	.04 U	.04 U	.04 U	.04 U	.02 U			
Barium	.05 U	.05 U	.05 U	.05 U	.025 U			
Beryllium	.008 U	.008 U	.008 U	.008 U	.004 U			
Cadmium	.004 U	.004 U	.004 U	.004 U	.002 U			
Calcium	2 U	2 U	2 U	2 U	1 U			
Chromium	.05 U	.05 U	.05 U	.05 U	.025 U			
Cobalt	.02 U	.02 U	.02 U	.02 U	.01 U			
Copper	.05 U	.05 U	.05 U	.05 U	.025 U			
Iron	.3 U	.3 U	.3 U	.3 U	.15 U			
Lead	.01 U	.01 U	.01 U	.01 U	.005 U			
Magnesium	2 U	2 U	2 U	2 U	1 U			
Manganese	.05 U	.05 U	.05 U	.05 U	.025 U			
Nickel	.02 U	.02 U	.02 U	.02 U	.01 U			
Selenium	.05 U	.05 U	.05 U	.05 U	.025 U			
Silver	.02 U	.02 U	.02 U	.02 U	.01 U			
Thallium	.01 U	.01 U	.01 U	.01 U	.005 U			
Vanadium	.05 U	.05 U	.05 U	.05 U	.025 U			
Zinc	.05 U	.05 U	.05 U	.05 U	.025 U			

Notes: a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB
u-indicates result below reporting limit

FORM 3
(ICB/CCB/MB Summary)

Date Analyzed: 04/27/11
Data File: A12564F
Prep Batch: 6699
Reporting Limits Used: AQUEOUS,200.7(ICP)/200.8(ICPMS)/245.1(Hg)
Instrument: PEICP1A
Units: All units in ppm except Hg and icp-ms in ppb
Project Number: 1042015

Lab Name: Veritech
Lab Code:
Contract:
Nras No:
Sdg No:
Case No:

Analyte	ICB V-112282-8	CCB-12	CCB-24					
Iron	.3 U	.3 U	.3 U					
Manganese	.05 U	.05 U	.05 U					

Notes: a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB
u-indicates result below reporting limit

Carbonate / Bicarbonate

	Analysis	Carbonate / Bicarbonate			Q.C. DATA			
	Batch#	23						Limits
	Date	5/4/2011			LCS RPD			
	Analyst	JW			LCS	104.07	RPD	
					LCSD	104.07	0.00	20
					Carbonate RPD			
		Titrant Result	Carbonate	Bicarbonate	Sample	0.00	RPD	
		P = 0	0	M	Sample Dup	0.00	NA	20
		P < (1/2) M	2P	M-2P				
		P = (1/2) M	2P	0				
		P > (1/2) M	2 (M-P)	0	Bicarbonate RPD			
		P = M	0	0	Sample	190.64	RPD	
					Sample Dup	190.64	0.00000	20

	Samples #	M-Alkalinity (Total)	P-Alkalinity	Carbonate CO3-2 as mg CaCO3/L	Bicarbonate HCO3 as mg CaCO3/L	MDL		% Recovery 75-125%
	MB	0.00	0.00	0.00	0.00	10		
	LCS	104.07	78.59	50.96	0.00	10		104
	LCSD	104.07	76.46	55.22	0.00	10		104
	AC58546-001	190.64	0.00	0.00	190.64	10		
QC Sample	AC58546-001	190.64	0.00	0.00	190.64	10		
	AC58546-003	220.14	0.00	0.00	220.14	10		
	AC58546-005	265.53	0.00	0.00	265.53	10		
	AC58546-007	229.22	0.00	0.00	229.22	10		
	AC58546-009	238.30	0.00	0.00	238.30	10		
	AC58546-011	270.07	0.00	0.00	270.07	10		
	AC58546-013	270.07	0.00	0.00	270.07	10		
	AC58663-002	292.04	0.00	0.00	292.04	10		
	AC58663-004	49.91	0.00	0.00	49.91	10		
	AC58688-010	257.00	0.00	0.00	257.00	10		
	AC58688-014	285.67	0.00	0.00	285.67	10		

SPI
5-4-11

Analysis Type: ALKAL-M

Batch Number: ALKAL-M-214

Units: mg CaCO3/l

Calibration Curve Information

Qc Summary Results

Qc Type	Qc Name	SpkAmt	Rec Lim	Rpd Lim	Raw Result	Recov	Rpd	Flags
DUP	AC58546-001	0	NA	20	190.640436	NA	0	
LCS	LCS	100	75-125	NA	108.937392	109	NA	
LCSD	LCSD	100	75-125	20	107.8026275	108	1	

Analytical Method(s)

SM2320B-97

Sam #	Type	MB	Result	RL	Per Sol	Full Result	ml h2so4	h2so4 (N)	Sam Vol (ml)	Prep Date	Prep By	Anal Date	Anal By
MB-1-04/29/11	MB	MB-1-04/29/11	ND	10	100	2.2695	0.1	.0226952	50	04/29/11	JW	04/29/11	JW
LCS	LCS	MB-1-04/29/11	110	10	100	108.94	4.8	.0226952	50	04/29/11	JW	04/29/11	JW
LCSD	LCSD	MB-1-04/29/11	110	10	100	107.8	4.75	.0226952	50	04/29/11	JW	04/29/11	JW
AC58546-001	DUP	MB-1-04/29/11	190	10	100	190.64	8.4	.0226952	50	04/29/11	JW	04/29/11	JW
AC58546-001	Sample	MB-1-04/29/11	190	10	100	190.64	8.4	.0226952	50	04/29/11	JW	04/29/11	JW
AC58546-003	Sample	MB-1-04/29/11	220	10	100	220.14	9.7	.0226952	50	04/29/11	JW	04/29/11	JW
AC58546-005	Sample	MB-1-04/29/11	270	10	100	265.53	11.7	.0226952	50	04/29/11	JW	04/29/11	JW
AC58546-007	Sample	MB-1-04/29/11	230	10	100	229.22	10.1	.0226952	50	04/29/11	JW	04/29/11	JW
AC58546-009	Sample	MB-1-04/29/11	240	10	100	238.3	10.5	.0226952	50	04/29/11	JW	04/29/11	JW
AC58546-011	Sample	MB-1-04/29/11	270	10	100	270.07	11.9	.0226952	50	04/29/11	JW	04/29/11	JW
AC58546-013	Sample	MB-1-04/29/11	270	10	100	270.07	11.9	.0226952	50	04/29/11	JW	04/29/11	JW

JW
4/29/11

SPL
5-3-11

Flag Codes: Ra - Recovery failed specified criteria (PVS/LCS/MS/MSD/ICV/CAL) Rp - RPD failed specified criteria.
Na - Not Applicable Nc - Not Checked ..either one or both values =ND

Analysis Type: ALKAL-P

Batch Number: ALKAL-P-15

Units: mg CaCO3/l

Calibration Curve Information

Qc Summary Results

Qc Type	Qc Name	SpkAmt	Rec Lim	Rpd Lim	Raw Result	Recov	Rpd	Flags
DUP	AC58663-002	0	NA	20	0	NA	NA	Nc
LCS	LCS	100	75-125	NA	78.586594	79	NA	
LCSD	LCSD	100	75-125	20	76.462632	76	2.7	

Analytical Method(s)

SM2320B-97

Sam #	Type	MB	Result	RL	Per Sol	Full Result	ml h2so4	h2so4 (N)	Sam Vol (ml)	Prep Date	Prep By	Anal Date	Anal By
MB-1-05/03/11	MB	MB-1-05/03/11	ND	10	100	0	0	0.021239	50	05/03/11	jw	05/03/11	jw
LCS	LCS	MB-1-05/03/11	79	10	100	78.587	3.7	0.021239	50	05/03/11	jw	05/03/11	jw
LCSD	LCSD	MB-1-05/03/11	76	10	100	76.463	3.6	0.021239	50	05/03/11	jw	05/03/11	jw
AC58663-002	DUP	MB-1-05/03/11	ND	10	100	0	0	0.021239	50	05/03/11	jw	05/03/11	jw
AC58663-002	Sample	MB-1-05/03/11	ND	10	100	0	0	0.021239	50	05/03/11	jw	05/03/11	jw
AC58663-004	Sample	MB-1-05/03/11	ND	10	100	0	0	0.021239	50	05/03/11	jw	05/03/11	jw
AC58688-010	Sample	MB-1-05/03/11	ND	10	100	0	0	0.021239	50	05/03/11	jw	05/03/11	jw
AC58688-014	Sample	MB-1-05/03/11	ND	10	100	0	0	0.021239	50	05/03/11	jw	05/03/11	jw
AC58546-001	Sample	MB-1-05/03/11	ND	10	100	0	0	0.021239	50	05/03/11	jw	05/03/11	jw
AC58546-003	Sample	MB-1-05/03/11	ND	10	100	0	0	0.021239	50	05/03/11	jw	05/03/11	jw
AC58546-005	Sample	MB-1-05/03/11	ND	10	100	0	0	0.021239	50	05/03/11	jw	05/03/11	jw
AC58546-007	Sample	MB-1-05/03/11	ND	10	100	0	0	0.021239	50	05/03/11	jw	05/03/11	jw
AC58546-009	Sample	MB-1-05/03/11	ND	10	100	0	0	0.021239	50	05/03/11	jw	05/03/11	jw
AC58546-011	Sample	MB-1-05/03/11	ND	10	100	0	0	0.021239	50	05/03/11	jw	05/03/11	jw
AC58546-013	Sample	MB-1-05/03/11	ND	10	100	0	0	0.021239	50	05/03/11	jw	05/03/11	jw

SPT
5-4-11

Flag Codes: Ra - Recovery failed specified criteria (PVS/LCS/MS/MSD/ICV/CAL) Rp - RPD failed specified criteria.
Na - Not Applicable Nc - Not Checked ..either one or both values =ND

MS/MSD Recovery

Prep Batch: W-404 Sample ID: AC58546-001
Method: 300.0 rev2.1 Matrix Aqueous

Qc Type: MS		Limits		MS	Sample			MS/MSD			Non Spike		
Analyte	Amt	Recov	Dil	Conc	Conc	Recov	Flag	Batch	RunID	Analysis Date	Batch	RunID	Analysis Date
Nitrate	5	80-120	1	4.7232	0	94		20110420195	12	04/21/11 01:24	20110420195	11	04/21/11 00:54
Sulfate	5	80-120	1	18.0139	13.7436	85		20110420195	12	04/21/11 01:24	20110420195	11	04/21/11 00:54

Qc Type: MSD		Limits			MSD	Sample				MS/MSD			Non Spike		
Analyte	Amt	Recov	Rpd	Dil	Conc	Conc	Recov	Rpd	Flag	Batch	RunID	Analysis Date	Batch	RunID	Analysis Date
Nitrate	5	80-120	20	1	4.7444	0	95	0.4		20110420195	13	04/21/11 01:55	20110420195	11	04/21/11 00:54
Sulfate	5	80-120	20	1	18.0654	13.7436	86	0.3		20110420195	13	04/21/11 01:55	20110420195	11	04/21/11 00:54

LCS Recoveries

	BatchRunID/RunID:==>			201104201950-10						
	QcBatchID:==>			LCSW-0316						
	Date/Time:==>			04/21/11 00:24						
	Analytical Method:==>			300.0 rev2.1						
	Matrix:==>			Aqueous	Soil		Soil		Soil	
Analyte	300.0 rev2.1 **Amt**	**Limits**	**Amt**	**Limits**	% Rec Flags	% Rec Flags		% Rec Flags		% Rec Flags		% Rec Flags
Nitrate	5	90-110			97							
Sulfate	5	90-110			103							

0054

Calibration Curve

Instrument: IC1
Analysis Date: 04/20/11
Analytical Methods: 300.0 rev2.1;EPA 9056

		Area Found						Concentration Amount						
Batch ID:	Analyte:	Area1	Area2	Area3	Area4	Area5	Area6	Conc1	Conc2	Conc3	Conc4	Conc5	Conc6	rSq
201104201950	Nitrate	0	0.35	1.709	3.594	7.825		0	1	5	10	20		99.894
201104201950	Sulfate	0	0.105	0.478	0.97	1.996	5.312	0	1	5	10	20	50	99.965

Calibration Summary:

Instrument: IC1
Analysis Meth: 300.0 rev2.1

Analyte	Batch ID	Run#	Qc Type	Recov	Spk Amt	Limit
Nitrate	201104201950	7	ICV	106	2.26	90-110
Nitrate	201104201950	19	CCV	96	10	90-110
Nitrate	201104201950	31	CCV	96	10	90-110
Sulfate	201104201950	7	ICV	98	10	90-110
Sulfate	201104201950	19	CCV	97	10	90-110
Sulfate	201104201950	31	CCV	97	10	90-110

Analyte	Batch ID	Run#	Qc Type	Recov	Spk Amt	Limit

Blank Summary

Instrument: IC1

Qc Type: Method Blank Summary Prep Date: 4/20/11

Run Batch ID	Analysis Date/Time	Sample ID	Run#	Analyte	Conc	RL
201104201950	4/20/11 23:53	MBW-0316	9	Nitrate	ND	1.0
201104201950	4/20/11 23:53	MBW-0316	9	Sulfate	ND	1.0

Qc Type: ICB Summary Prep Date: NA

Run Batch ID	Analysis Date/Time	Sample ID	Run#	Analyte	Conc	RL
201104201950	4/20/11 23:23	ICB	8	Nitrate	ND	1.0
201104201950	4/20/11 23:23	ICB	8	Sulfate	ND	1.0

Qc Type: CCB Summary Prep Date: NA

Run Batch ID	Analysis Date/Time	Sample ID	Run#	Analyte	Conc	RL
201104201950	4/21/11 05:28	CCB	20	Nitrate	ND	1.0
201104201950	4/21/11 11:32	CCB	32	Nitrate	ND	1.0
201104201950	4/21/11 05:28	CCB	20	Sulfate	ND	1.0
201104201950	4/21/11 11:32	CCB	32	Sulfate	ND	1.0

GROUNDWATER SAMPLING LOG

Site Name: Harrison Spill Site
Site Location: Harrison Subresidency, Harrison, NY
Date: 4/20/11
Purge Method: Whale Pump
Purge Start Time: 10:10
Purge End Time: 10:50
Well Casing Condition: Good

Well/Sampling Point ID: GP-1
Well Diameter: 2"
Weather: Overcast, 60-65^{O}F

Water Level & Water Column Height (feet)

Depth to Water (DTW)	Depth to Well Bottom (DTB)	Water Column Height (DTB-DTW)	WELL CAPACITY (gal/ft):
1.54	6.26	4.72	0.75

Purge Volume Conversions

0.75"=0.02	1"=0.04	1.25"=0.06	2"=0.16	3"=0.37	4"=0.65	5"=1.02	6"=1.47	12"=5.88

*1 well volume = volume/linear foot x water column height

Well Purge Water Quality

VOLUME PURGED (gal)	PH	TEMP (C)	COND (µmhos)	DO (mg/L)	TURB (NTUs)	ORP
0	7.40	8.6	0.667	18.29	250	91
5	7.34	8.9	0.646	183.71	57.2	118

Groundwater Sampling Data

SAMPLED BY:

Kimberly Somers, Tom LaBanca

SAMPLING METHOD:	SAMPLE COLLECTED AT:	REMARKS:
Dedicated bailer	10:50	Dry at >1 gallon

ANALYSIS:

BTEX & MTBE, Fe II & Mn II (laboratory filtered), HCO_3, total alkalinity, NO_3, SO_4

GROUNDWATER SAMPLING LOG

Site Name: Harrison Spill Site
Site Location: Harrison Subresidency, Harrison, NY
Date: 4/20/11
Purge Method: Whale Pump
Purge Start Time: 10:20
Purge End Time: 11:00
Well Casing Condition: Good

Well/Sampling Point ID: GP-2
Well Diameter: 2"
Weather: Overcast, 60-65^{O}F

Water Level & Water Column Height (feet)

Depth to Water (DTW)	Depth to Well Bottom (DTB)	Water Column Height (DTB-DTW)	WELL CAPACITY (gal/ft):
1.8	4.86	3.06	0.48

Purge Volume Conversions

0.75"=0.02	1"=0.04	1.25"=0.06	2"=0.16	3"=0.37	4"=0.65	5"=1.02	6"=1.47	12"=5.88

*1 well volume = volume/linear foot x water column height

Well Purge Water Quality

VOLUME PURGED (gal)	PH	TEMP (C)	COND (µmhos)	DO (mg/L)	TURB (NTUs)	ORP
0	7.12	9.3	0.552	18.15	146	106
5	7.43	9.7	0.544	18.00	139	86
10	7.11	9.5	0.576	16.79	16.9	116
15	7.19	9.5	0.562	16.80	32	103

Groundwater Sampling Data

SAMPLED BY:

Kimberly Somers, Tom LaBanca

SAMPLING METHOD:	SAMPLE COLLECTED AT:	REMARKS:
Dedicated bailer	11:00	

ANALYSIS:

BTEX & MTBE, Fe II & Mn II (laboratory filtered), HCO_3, total alkalinity, NO_3, SO_4

GROUNDWATER SAMPLING LOG

Site Name: Harrison Spill Site
Site Location: Harrison Subresidency, Harrison, NY
Date: 4/20/11
Well/Sampling Point ID: MW-1
Well Diameter: 1"
Weather: Overcast, 60-65^{O}F
Purge Method: Whale Pump
Purge Start Time: NA
Purge End Time: NA
Well Casing Condition: flush mount cover has no bolts; no cap on well

Water Level & Water Column Height (feet)

Depth to Water (DTW)	Depth to Well Bottom (DTB)	Water Column Height (DTB-DTW)	WELL CAPACITY (gal/ft):

Purge Volume Conversions

0.75"=0.02	1"=0.04	1.25"=0.06	2"=0.16	3"=0.37	4"=0.65	5"=1.02	6"=1.47	12"=5.88

*1 well volume = volume/linear foot x water column height

Well Purge Water Quality

VOLUME PURGED (gal)	PH	TEMP (C)	COND (µmhos)	DO (mg/L)	TURB (NTUs)	ORP

Groundwater Sampling Data

SAMPLED BY:

Kimberly Somers, Tom LaBanca

SAMPLING METHOD:	SAMPLE COLLECTED AT:	REMARKS:
--	--	Obstruction in well @ 1.55' bls

ANALYSIS:

No samples collected

CASHIN ASSOCIATES, P.C.

GROUNDWATER SAMPLING LOG

Site Name: Harrison Spill Site
Site Location: Harrison Subresidency, Harrison, NY
Date: 4/20/11
Purge Method: Whale Pump
Purge Start Time: 8:26
Purge End Time: 9:20
Well Casing Condition: Good

Well/Sampling Point ID: MW-11
Well Diameter: 2"
Weather: Overcast, 60-65^{O}F

Water Level & Water Column Height (feet)

Depth to Water (DTW)	Depth to Well Bottom (DTB)	Water Column Height (DTB-DTW)	WELL CAPACITY (gal/ft):
6.2	18.15	11.95	5.7

Purge Volume Conversions

0.75"=0.02	1"=0.04	1.25"=0.06	2"=0.16	3"=0.37	4"=0.65	5"=1.02	6"=1.47	12"=5.88

*1 well volume = volume/linear foot x water column height

Well Purge Water Quality

VOLUME PURGED (gal)	PH	TEMP (C)	COND (µmhos)	DO (mg/L)	TURB (NTUs)	ORP
0	7.17	8.9	0.620	15.57	91.0	89
3	6.97	8.9	0.674	16.03	2.2	47
6	6.82	8.9	0.687	16.70	5.1	29
10	6.73	9.0	0.786	16.41	0.2	2
15	6.70	9.0	0.806	16.25	0.6	-8

Groundwater Sampling Data

SAMPLED BY:

Kimberly Somers, Tom LaBanca

SAMPLING METHOD:	SAMPLE COLLECTED AT:	REMARKS:
Dedicated bailer	9:20	

ANALYSIS:

BTEX & MTBE, Fe II & Mn II (laboratory filtered), HCO_3, total alkalinity, NO_3, SO_4

GROUNDWATER SAMPLING LOG

Site Name: Harrison Spill Site
Site Location: Harrison Subresidency, Harrison, NY
Date: 4/20/11
Purge Method: Whale Pump
Purge Start Time: 8:42
Purge End Time: 9:15
Well Casing Condition: Good

Well/Sampling Point ID: MW-12
Well Diameter: 2"
Weather: Overcast, 60-65^{O}F

Water Level & Water Column Height (feet)

Depth to Water (DTW)	Depth to Well Bottom (DTB)	Water Column Height (DTB-DTW)	WELL CAPACITY (gal/ft):
6.2	18.15	11.95	5.7

Purge Volume Conversions

0.75"=0.02	1"=0.04	1.25"=0.06	2"=0.16	3"=0.37	4"=0.65	5"=1.02	6"=1.47	12"=5.88

*1 well volume = volume/linear foot x water column height

Well Purge Water Quality

VOLUME PURGED (gal)	PH	TEMP (C)	COND (µmhos)	DO (mg/L)	TURB (NTUs)	ORP
0	6.94	8.72	4.06	5.52	35.4	-141
5	6.77	9.32	3.16	3.95	16.3	-115
10	6.85	9.64	2.21	3.90	0	-90
20	6.86	9.74	1.97	4.51	0	-93

Groundwater Sampling Data

SAMPLED BY:

Kimberly Somers, Tom LaBanca

SAMPLING METHOD:	SAMPLE COLLECTED AT:	REMARKS:
Dedicated bailer	9:15	Slight sheen on purge water; odor

ANALYSIS:

BTEX & MTBE, Fe II & Mn II (laboratory filtered), HCO_3, total alkalinity, NO_3, SO_4

GROUNDWATER SAMPLING LOG

Site Name: Harrison Spill Site
Site Location: Harrison Subresidency, Harrison, NY
Date: 4/20/11
Purge Method: Whale Pump
Purge Start Time: 8:18
Purge End Time: 9:30
Well Casing Condition: Good

Well/Sampling Point ID: MW-13
Well Diameter: 2"
Weather: Overcast, 60-65^{O}F

Water Level & Water Column Height (feet)

Depth to Water (DTW)	Depth to Well Bottom (DTB)	Water Column Height (DTB-DTW)	WELL CAPACITY (gal/ft):
8.5	15.0	6.5	1

Purge Volume Conversions

0.75"=0.02	1"=0.04	1.25"=0.06	2"=0.16	3"=0.37	4"=0.65	5"=1.02	6"=1.47	12"=5.88

*1 well volume = volume/linear foot x water column height

Well Purge Water Quality

VOLUME PURGED (gal)	PH	TEMP (C)	COND (µmhos)	DO (mg/L)	TURB (NTUs)	ORP
0	7.48	8.52	1.10	6.29	50.6	90
3	7.10	9.59	0.802	5.87	35.1	31

Groundwater Sampling Data

SAMPLED BY:		
Kimberly Somers, Tom LaBanca		
SAMPLING METHOD:	**SAMPLE COLLECTED AT:**	**REMARKS:**
Dedicated bailer	9:30	Dry after 2 gallons
ANALYSIS:		
BTEX & MTBE, Fe II & Mn II (laboratory filtered), HCO_3, total alkalinity, NO_3, SO_4		

GROUNDWATER SAMPLING LOG

Site Name: Harrison Spill Site
Site Location: Harrison Subresidency, Harrison, NY
Date: 4/20/11
Well/Sampling Point ID: PC-1
Well Diameter: 2"
Weather: Overcast, 60-65^{O}F
Purge Method: Whale Pump
Purge Start Time: 12:50
Purge End Time: 2:15
Well Casing Condition: Lock rusted; needed to saw casing to access well

Water Level & Water Column Height (feet)

Depth to Water (DTW)	Depth to Well Bottom (DTB)	Water Column Height (DTB-DTW)	WELL CAPACITY (gal/ft):
1.2	16.73	15.53	2.5

Purge Volume Conversions

0.75"=0.02	1"=0.04	1.25"=0.06	2"=0.16	3"=0.37	4"=0.65	5"=1.02	6"=1.47	12"=5.88

*1 well volume = volume/linear foot x water column height

Well Purge Water Quality

VOLUME PURGED (gal)	PH	TEMP (C)	COND (µmhos)	DO (mg/L)	TURB (NTUs)	ORP
0	7.85	9.5	0.591	17.31	257	79
3	7.67	9.6	0.574	17.17	50	90
5	7.56	9.4	0.578	17.22	46	88
8	7.51	9.4	0.578	16.0	39	91
10	7.51	9.5	0.580	16.23	15	97
20	7.52	9.5	0.591	16.57	5.6	105

Groundwater Sampling Data

SAMPLED BY:		
Kimberly Somers, Tom LaBanca		
SAMPLING METHOD:	**SAMPLE COLLECTED AT:**	**REMARKS:**
Dedicated bailer	2:15	Spill Site Duplicate Location (SP-1)
ANALYSIS:		
BTEX & MTBE, Fe II & Mn II (laboratory filtered), HCO_3, total alkalinity, NO_3, SO_4		