N62578.AR.002050
NCBC DAVISVILLE
5090.3a

EA Engineering, Science, and Technology, Inc.

Southborough Technology Park
333 Turnpike Road (Route 9)
Southborough, MA 01772
Telephone: 508-485-2982
Fax: 508-485-5742
www.eaest.com

27 December 2004

Mr. Fred Evans
Department of the Navy
Engineering Field Activity Northeast
Naval Facilities Engineering Command
10 Industrial Highway, Mail Stop No. 82
Lester, Pennsylvania 19113-2090

RE: Surface Water and Pore Water Sampling at Site 07 Piezometer Locations P07-06 through P07-10 Letter Report, NCBC Davisville, North Kingstown, Rhode Island
EA Project No. 29600.99.3207

Dear Mr. Evans,

EA Engineering, Science, and Technology, Inc. (EA) is pleased to provide three copies of this letter report documenting the 27 May 2004 sampling activities and observations.

1. INTRODUCTION

On 27 May 2004, at the request of the Navy, EA collected surface water and near surface sediment pore water samples from Site 07 piezometer locations P07-06 through P07-10. These piezometers are located along a portion of the north side of the Allen Harbor entrance channel (Figure 1). The following sections document the sampling procedures used and related field observations at each of the five sampling locations. Photographs of each of the locations at approximately low tide on 27 May 2004 are included as Attachment A. The piezometers are part of the Site 07 long-term monitoring (LTM) sampling program and they are removed after each LTM sampling event. Each of the piezometer locations is marked with a stake and is in the immediate vicinity of the related surface water samples and near surface sediment pore water samples that were collected on 27 May 2004.

2. SAMPLING PROCEDURES

The following general procedures for collecting both the surface water and the pore water samples were repeated at each of the five staked piezometers locations.

2.1 Pore Water Sampling

Low tide on 27 May 2004 was at 0808 hrs in nearby Wickford, Rhode Island. The pore water samples were collected at approximately low tide (between 0800 hrs and 0845 hrs), at which time the tide (surface water of the entrance channel) was no more than 18 in. from a related piezometer stake location. Within a 1-ft radius of each of the related piezometer location stakes, a shallow hole (approximately 6–8 in. in depth) was dug using a decontaminated shovel. Prior to digging and in between each location, the shovel was decontaminated in the following manner:

1. Washed thoroughly (at each location) using a brush and Liquinox, plus distilled water.
2. Rinsed thoroughly with distilled water.
3. Rinsed with isopropyl alcohol by spray bottle and allow to air dry.
4. Flushed with distilled water to remove isopropyl alcohol.

Once a hole was dug and pore water had recharged from the near surface sediment into the open hole, water was carefully scooped out using a 4-oz jar supplied by Ceimic Laboratory to allow a second recharge of pore water prior to sample collection in an effort to obtain a representative sample. A sample was collected using the same 4-oz jar and transferred into laboratory-provided 40-mL vials preserved with HCl, that were then labeled and stored in a cooler on ice at 4°C for delivery to the laboratory the same day the samples were collected (27 May 2004).

Upon the completion of pore water sampling, a rinsate blank was collected from the decontaminated shovel to assess the effectiveness of the decontamination procedure.

2.2 Surface Water Sampling

Following the collection of the five pore water samples, it was necessary to wait for mid to high tide in order to have a sufficient amount of surface water from which to collect a sample above each of the five piezometer stake locations. High tide on 27 May 2004 was at 1450 hrs in nearby Wickford, Rhode Island. The surface water samples were collected between 1330 hrs and 1400 hrs, when the tide was approximately knee deep at the piezometer stake locations. Five new Teflon® bailers were used to collect the surface water samples, one at each of the five related piezometer stake locations. The hand of one of the sampling staff covered the top of the bailer to preclude water entering the bailer while it was lowered into the water adjacent to the stake marking the piezometer location. The bailer was lowered to a depth of 6–12 in. above the sediment surface, at which point the sampling staff's hand was removed from the top of the bailer and the bailer filled with water. Water was then carefully poured into laboratory-provided 40-mL vials preserved with HCl, which were then labeled and stored in a cooler on ice at 4°C for delivery to the laboratory the same day the samples were collected (27 May 2004).

3. PIEZOMETER LOCATIONS

The following is a brief statement of the general conditions at each of the five piezometer locations. These observations are generally for the area located within an approximately 1-ft radius surrounding the stake at each location. A wrack line was present and observed to be a line of washed-up reeds in the area (Photos 1 and 2). The staked locations are within the vegetated area shown on these two photographs; however, directly south from them, the surface of the vegetated area drops off several inches and gives way to a sandy area (under the low tide water as shown in Photos 1 and 2) containing broken oyster and clam shells. The conditions around each of the five staked locations were recorded following the collection of pore water during the transition between low and mid tide.

P07-06

Mussels and/or snails were present in this area and the area was vegetated as shown in Photos 3 and 4. The stake is located approximately 18 ft south of the wrack line and the vegetation ends approximately 1 ft south of the stake. The sediment surface surrounding this location is firm and stable to walk on (Photo 4).

P07-07

Mussels were present in this area and the area was vegetated as shown in Photos 5 and 6. The staked location is roughly 13 ft south of the wrack line and the vegetation ends approximately 8 ft south of the stake. The sediment surface surrounding this location is firm and stable to walk on (Photo 6).

P07-08

Mussels or snails were present in this area and the area was vegetated as shown in Photos 7 and 8. This area was marked by several burrows created by fiddler crabs. The staked location is approximately 21 ft south of the wrack line and the vegetation ends approximately 6 ft south of the stake. The sediment surrounding this location is firm and stable to walk on (Photo 8).

P07-09

Mussels beds were present in this area and the area was thickly vegetated as shown in Photos 9 and 10. The staked location is approximately 7 ft south of the wrack line and the vegetation ends approximately 4 ft south of the stake. The sediment surrounding this location is firm and stable to walk on (Photo 10).

P07-10

Mussels beds were present in this area and the area was vegetated as shown in Photos 11 and 12. The staked location is approximately 3 ft south of the wrack line and the vegetation ends approximately 15 ft south of the stake. The sediment surrounding this location is firm and stable to walk on (Photo 12).

4. SUMMARY OF RESULTS

The samples were submitted to Ceimic Corporation for analysis of the targeted volatile organic compounds (VOC) (as defined in EA 2001[1]) by EPA Method 8260B. Data validation of the results was performed in accordance with the Final LTM Quality Assurance Project Plan (QAPP) (EA 2001). A copy of the data validation report is provided as Attachment B. The validated results of the pore water and surface water samples are summarized in Tables 1 and 2,

[1] EA Engineering, Science, and Technology. 2001. *Final: Quality Assurance Project Plan for Long-Term Monitoring of Site 07 (Calf Pasture Point) (including Revision 1 dated May 2002), Naval Construction Battalion Center Davisville, North Kingstown, Rhode Island.* July.

respectively. The results were compared to the surface water risk-based screening concentrations that were developed as the Project Action Levels (PAL) for ground-water samples collected from the Site 07 piezometers (EA 2001). These PAL are included in both Tables 1 and 2 for comparison to the sample results. As shown on Tables 1 and 2, only traces of a few of the targeted VOC were detected and those detected, concentrations were considerably less than the related PAL.

Should you have questions regarding this letter report, please contact Mr. Fred Evans, Remedial Project Manager for the Navy, at (610) 595-0557 ext. 159.

Sincerely yours,

EA Engineering, Science, and Technology, Inc.

James A. Shultz
Project Manager

JAS/dk
Attachments

cc: D. Barney, Navy CSO (1 copy)
C. Williams, EPA (5 copies)
L. Maccarone, RIDEM (2 copies)
M. Cohen, ToNK (1 copy)
S. King, RIEDC (1 copy)
K. Finklestein, NOAA (1 copy)
A. Major, USF&W (1 copy)
K. Kilmer, EA PMO (1 copy)
Project File, EA Boston (1 copy)

EA ENGINEERING, SCIENCE, AND TECHNOLOGY

70 0 70 140 210 280 Feet

EFANE
LONG-TERM MONITORING PROGRAM
FORMER NCBC DAVISVILLE FACILITY
NORTH KINGSTOWN, RHODE ISLAND

LOCATIONS OF LONG TERM MONITORING PROGRAM MONITORING WELLS AND PIEZOMETERS

FIGURE 1

TABLE 1 TARGETED VOLATILE ORGANIC COMPOUNDS DETECTED IN POREWATER SAMPLES (MAY 2004)

Chemical Name	Unit	Location ID	PW07-06	PW07-07	PW07-08	PW07-09	PW07-10
		Sample Date	5/27/2004	5/27/2004	5/27/2004	5/27/2004	5/27/2004
		Action Level					
1,1,2,2-Tetrachloroethane	µg/L	13.9	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
1,1,2-Trichloroethane	µg/L	60.2	< 0.4 U	0.169 J	< 0.4 U	< 0.4 U	< 0.4 U
1,1-Dichloroethene	µg/L	4.29	< 0.6 U	< 0.6 U	< 0.6 U	< 0.6 U	< 0.6 U
1,2-Dichloroethane	µg/L	84.3	< 0.2 U	0.264	< 0.2 U	< 0.2 U	< 0.2 U
Benzene	µg/L	77.4	< 0.3 U	< 0.3 U	< 0.3 U	< 0.3 U	< 0.3 U
Chloroform	µg/L	646	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
cis-1,2-Dichloroethene	µg/L		1.9	6.42	0.113 J	0.121 J	< 0.5 U
Tetrachloroethene	µg/L	10.2	< 0.4 U	< 0.4 U	< 0.4 U	< 0.4 U	< 0.4 U
trans-1,2-Dichloroethene	µg/L		0.637	0.505	< 0.5 U	< 0.5 U	< 0.5 U
Total-1,2-Dichloroethene *	µg/L	986	2.537	6.925	0.113 J	0.121 J	< 1.0 U
Trichloroethene	µg/L	184	< 0.4 U	0.12 J	< 0.4 U	< 0.4 U	< 0.4 U
Vinyl Chloride	µg/L	3.78	< 0.6 U	< 0.6 U	< 0.6 U	< 0.6 U	< 0.6 U

NOTES:
µg/L = Micrograms per liter.
J = Estimated value below sample qualification limit.
U = Analyte analyzed for but not detected (concentration is less than Instrument Detection Limit [IDL]).
* = *Total*-1,2-Dichloroethene equals the hand calculated sum of the validated values for *cis*-1,2-Dichloroethene and *trans*-1,2-Dichloroethene. The values for *Total*-1,2-Dichloroethene were not validated.
The Action Levels are the Trigger Values developed for the piezometer samples from Site 07 as defined in the LTM Quality Assurance Project Plan (EA 2001).

TABLE 2 TARGETED VOLATILE ORGANIC COMPOUNDS DETECTED IN SURFACE WATER SAMPLES (MAY 2004)

Chemical Name	Unit	Location ID	SW07-06	SW07-07	SW07-07 DUP	SW07-08	SW07-09	SW07-10
		Sample Date	5/27/2004	5/27/2004	5/27/2004	5/27/2004	5/27/2004	5/27/2004
		Action Level						
1,1,2,2-Tetrachloroethane	µg/L	13.9	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
1,1,2-Trichloroethane	µg/L	60.2	< 0.4 U	< 0.4 U	< 0.4 U	< 0.4 U	< 0.4 U	< 0.4 U
1,1-Dichloroethene	µg/L	4.29	< 0.6 U	< 0.6 U	< 0.6 U	< 0.6 U	< 0.6 U	< 0.6 U
1,2-Dichloroethane	µg/L	84.3	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Benzene	µg/L	77.4	< 0.3 U	< 0.3 U	< 0.3 U	< 0.3 U	< 0.3 U	< 0.3 U
Chloroform	µg/L	646	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
cis-1,2-Dichloroethene	µg/L		0.299 J	0.418 J	0.426 J	0.204 J	0.252 J	< 0.5 U
Tetrachloroethene	µg/L	10.2	< 0.4 U	< 0.4 U	< 0.4 U	< 0.4 U	< 0.4 U	< 0.4 U
trans-1,2-Dichloroethene	µg/L		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
Total-1,2-Dichloroethene *	µg/L	986	0.299 J	0.418 J	0.426 J	0.204 J	0.252 J	< 1.0 U
Trichloroethene	µg/L	184	< 0.4 U	< 0.4 U	< 0.4 U	< 0.4 U	< 0.4 U	< 0.4 U
Vinyl Chloride	µg/L	3.78	0.108 J	0.123 J	0.147 J	< 0.6 U	< 0.6 U	< 0.6 U

NOTES:
µg/L = Micrograms per liter.
J = Estimated value below sample qualification limit.
U = Analyte analyzed for but not detected (concentration is less than Instrument Detection Limit [IDL]).
* = *Total*-1,2-Dichloroethene equals the hand calculated sum of the validated values for *cis*-1,2-Dichloroethene and *trans*-1,2-Dichloroethene. The values for *Total*-1,2-Dichloroethene were not validated.
The Action Levels are the Trigger Values developed for the piezometer samples from Site 07 as defined in the LTM Quality Assurance Project Plan (EA 2001).

Attachment A

Site Photos

Photo 1: West view from the piezometer P07-06 location toward Allen Harbor at approximately low tide on 27 May 2004.

Photo 2: East view from the piezometer P07-10 location toward Narragansett Bay at approximately low tide on 27 May 2004.

Photo 3: View of the piezometer P07-06 location.

Photo 4: View of the piezometer P07-06 location.

Photo 5: View of the piezometer P07-07 location.

Photo 6: View of the piezometer P07-07 location.

Photo 7: View of the piezometer P07-08 location.

Photo 8: View of the piezometer P07-08 location.

Photo 9: View of the piezometer P07-09 location.

Photo 10: View of the piezometer P07-09 location.

Photo 11: View of the piezometer P07-10 location.

Photo 12: View of the piezometer P07-10 location.

Attachment B

Data Validation Report

ENVIRONMENTAL
Data Services, Inc

July 2, 2004

Mr. Jim Shultz
EA Engineering, Science & Technology, Inc.
Southborough Technology Park
333 Turnpike Road
Southborough, Massachusetts 01772

Re: Transmittal of Data Validation Report for NCBC Davisville, Site 07, SDG PW07 (040493)

Dear Mr. Shultz:

Environmental Data Services, Inc. (EDS) is pleased to submit the data validation report with attached completed Region I worksheets and annotated Form Is for the above referenced SDG The updated EDD has been transmitted via email.

Please contact me at (603) 226-0118 or via email at nweaver@env-data.com if you have any questions.

Sincerely,
Environmental Data Services, Inc.

Nancy Weaver
Senior Chemist

EA ENGINEERING, SCIENCE & TECHNOLOGY
JUL 06 2004
RECEIVED

Enclosed

6B Hills Avenue · Concord, NH 03301 · Telephone: 603-226-0118 · Fax 603-226-0128 · www.env-data.com

ENVIRONMENTAL
Data Services, Inc

ORGANIC DATA VALIDATION REPORT
USEPA REGION I - TIER III

SDG No.:	PW07 (040493)
Laboratory:	Ceimic Corporation, Narragansett, Rhode Island
Site:	NCBC Davisville, Site 07
Date:	June 29, 2004
Samples:	
VOC:	13/Aqueous/PW07-06, PW07-07, PW07-08, PW07-09, PW07-10, SW07-06, SW07-07, SW07-08, SW07-09, SW07-10, PW07-RINSE, TB01, SW07-DUP1

A Tier III validation was performed on the organic analytical data for eleven aqueous samples and two aqueous blank samples collected by EA Engineering, Science, & Technology, Inc. at Site 07, NCBC Davisville. The samples were analyzed under USEPA SW-846 Method 8260B for volatile organic compounds (VOCs). The data were evaluated as Tier III in accordance with the "Region I EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses" dated December 1996 and were based on the following parameters:

*	•	Overall Evaluation of Data and Potential Usability Issues.
*	•	Data Completeness.
*	•	Preservation and Technical Holding Times.
*	•	Gas Chromatograph/Mass Spectrometry (GC/MS) and GC/Electron Capture Detector (GC/ECD) Instrument Performance Checks.
*	•	Initial and Continuing Calibration.
*	•	Blanks.
*	•	Surrogate Compounds.
*	•	Internal Standards.
*	•	Matrix Spike (MS)/Matrix Spike Duplicates (MSD).
*	•	Field Duplicates.
NA	•	Sensitivity Check (Method Detection Limit Study or Laboratory Fortified Blank).
*	•	Laboratory Control Sample.
*	•	Target Compound Identification.
*	•	Sample Quantitation and Reported Quantitation Limits.
NA	•	Tentatively Identified Compounds (TICs).
NA	•	SVOC and P/PCB Cleanup.
*	•	System Performance.

*	=	All criteria were met for this parameter.
NA	=	Not Applicable.

6B Hills Avenue · Concord NH 03301 · Telephone: 603-226-0118 · Fax 603-226-0128 · www.env-data.com

Overall Evaluation of Data and Potential Usability Issues

VOC:

VOC sample results were not qualified and are considered valid.

Attachments: Data Validation Worksheets
Annotated Form Is

DATA SUMMARY KEY
ORGANIC DATA VALIDATION

J = The associated numerical value is an estimated quantity.

R = The data are unusable (compound may or may not be present). Resampling and reanalysis are necessary for verification. The R replaces the numerical value or sample quantitation limit.

U = The compound was analyzed for, but not detected. The associated numerical value is the sample quantitation limit or the adjusted sample quantitation limit.

UJ = The compound was analyzed for, but not detected. The associated numerical value is the estimated sample quantitation limit.

TB = The compound was analyzed for and detected in the associated trip blank as well as the sample.

REGION 1, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT (ORDA)*

CASE # 2960099.3207

SITE NAME Davisville Site 7

LAB NAME Chemic Corp Narragansett RI

OF SAMPLES/MATRIX 13 waters

SDG # P0007 10404493

VALIDATION CONTRACTOR Env Data Services Inc

SOW #/CONTRACT # SOW 4/96

VALIDATOR'S NAME Christine Garvey

EPA-NE DV TIER LEVEL III

DATE DP REC'D BY EPA-NE

TPO/PO **ACTION ____ FYI ____

DV COMPLETION DATE: 06/29/04

ANALYTICAL DATA QUALITY SUMMARY

		VOA	SV	Pest/PCB
1	Preservation and Contractual Holding Times	o		
2	GC/MS / GC/ECD Instrument Performance Check	o		
3	Initial Calibration	o		
4	Continuing Calibration	o		
5	Blanks	o		
6	Surrogate Compounds	o		
7	Internal Standards	o		
8	Matrix Spike/Matrix Spike Duplicate	o		
9	Sensitivity Check	NA		
10	PE Samples-Accuracy Check	o		
11	Target Compound Identification	o		
12	Compound Quantitation and Reported QLs	o		
13	Tentatively Identified Compounds	NA		
14	Semivolatile Cleanup/Pesticide/PCB Cleanup	NA		
15	Data Completeness	o		
16	Overall Evaluation of Data	o		

o = Data had no problems or were qualified due to minor contractual problems
m = Data were qualified due to major contractual problems
z = Data were rejected as unusable due major contractual problems

ACTION ITEMS: (z items)

AREAS OF CONCERN: (m items)

COMMENTS:

*This form assesses the analytical data quality in terms of contractual compliance only It does not assess sampling errors and/or non-contractual analytical issues that affect data quality

**Check "ACTION" only if contractual defects resulted in reduced payment/data rejection recommendations

Validator Christine Garvey Date 06/29/04

INSTRUCTIONS ON REVERSE SIDE

12/96

EPA-NE
Data Validation Worksheet Cover Page - Page 1

Site Name Davisville Site 7
Reference No _____

REGION I ORGANIC DATA VALIDATION

The following data package has been validated:

Lab Name Cerwic Corp Narragansett RI
Case/Project No. 29600079.3207
SDG No PW07 10404 93
No. of Samples/Matrix 13 waters

SOW/Method No SW846 8260B
Sampling Date(s) 05/27/04
Shipping Date(s) 05/27/04
Date Rec'd by lab 05/27/04

Traffic Report Sample Nos. PW07-06, PW07-07, PW07-08, PW07-09, PW07-10, SW07-06, SW07-07, SW07-08, SW07-09, SW07-10, PW07-Rinse, TB01, SW07-DUP1
Trip Blank No TB01
Equipment Blank No. PW07-Rinse
Bottle Blank No. —
Field Duplicate Nos SW07-07 / SW07-DUP1
PES Nos —

The Region I, EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses, revision SW846 was used to evaluate the data and/or approved modifications to the EPA-NE Functional Guidelines were used to evaluate the data and are attached to this cover page: (attach modified criteria from EPA approved QAPjP or amendment to QAPjP)

A Tier II or Tier III evaluation was used to validate the data (circle one). If a Tier II validation with a partial Tier III was used, then identify samples, parameters, etc. that received partial Tier III validation

_____

The data were evaluated based upon the following parameters:

- Overall Evaluation of Data
- Data Completeness (CSF Audit - Tier I)
- Preservation & Technical Holding Times
- GC/MS & GC/ECD Instrument Performance Check
- Initial & Continuing Calibrations
- Blanks
- Surrogate Compounds
- Internal Standards
- Matrix Spike/Matrix Spike Duplicate
- Field Duplicates
- Sensitivity Check
- PE Samples/Accuracy Check
- Target Compound Identification
- Compound Quantitation and Reported Quantitation Limits
- TICs
- Semivolatile and Pesticide/PCB Cleanup
- System Performance

Region I Definitions and Qualifiers:

A - Acceptable Data
J - Numerical value associated with compound is an estimated quantity
R - The data are rejected as unusable. The R replaces the numerical value or sample quantitation limit
U - Compound not detected at that numerical sample quantitation limit
UJ - The sample quantitation limit is an estimated quantity
TB, BB, EB - Compound detected in aqueous trip blank, aqueous bottle blank, or aqueous equipment blank associated with soil/sediment samples.

Validator's Name Christine Gervey Company Name Pro Data Serv. Phone Number 603-226-0118

Date Validation Started 06/29/04 Date Validation Completed 06/29/04

Check if all criteria are met and no hard copy worksheet provided Indicate NA if worksheet is not applicable to analytical method Note: there is no standard worksheet for System Performance, however, the validator must document all system performance issues in the Data Validation Memorandum.

VOA/SV worksheets:

VOA/SV-Pest/PCB	COMPLETE SDG FILE (CSF) AUDIT	✓
VOA/SV-Pest/PCB-I	PRESERVATION AND HOLDING TIMES	
VOA/SV-II	GC/MS INSTRUMENT PERFORMANCE CHECK (TUNING)	
VOA/SV-III	INITIAL CALIBRATION	
VOA/SV-IV	CONTINUING CALIBRATION	
VOA/SV-Pest/PCB-V-A	BLANK ANALYSIS	
VOA/SV-Pest/PCB-V-B	BLANK ANALYSIS	
VOA-VI	VOA SURROGATE SPIKE RECOVERIES	
SV-VI	SV SURROGATE SPIKE RECOVERIES	NA
VOA/SV-VII	INTERNAL STANDARD PERFORMANCE	
VOA/SV-Pest/PCB-VIII	MATRIX SPIKE/MATRIX SPIKE DUPLICATE	
VOA/SV-Pest/PCB-IX	FIELD DUPLICATE PRECISION	
VOA/SV-Pest/PCB-X	SENSITIVITY CHECK	NA
VOA/SV-Pest/PCB-XI	ACCURACY CHECK	
VOA/SV-Pest/PCB-XII	TARGET COMPOUND IDENTIFICATION	
VOA/SV-Pest/PCB-XIII	SAMPLE QUANTITATION	
VOA/SV-XIV	TENTATIVELY IDENTIFIED COMPOUNDS	NA
VOA/SV-XV	SEMIVOLATILE CLEANUP	NA
TABLE II-WORKSHEET	OVERALL EVALUATION OF DATA	

Pest/PCB worksheets:

VOA/SV-Pest/PCB	COMPLETE SDG FILE (CSF) AUDIT	
VOA/SV-Pest/PCB-I	PRESERVATION AND HOLDING TIMES	
Pest/PCB-IIA	GC/ECD INSTRUMENT PERFORMANCE CHECK-RESOLUTION	
Pest/PCB-IIB	GC/ECD INSTRUMENT PERFORMANCE CHECK-RETENTION TIMES	
Pest/PCB-IIC	GC/ECD INSTRUMENT PERFORMANCE CHECK-ACCURACY CHECK OF INITIAL CALIBRATION	
Pest/PCB-IID	GC/ECD INSTRUMENT PERFORMANCE CHECK-PESTICIDE DEGRADATION	
Pest/PCB-III	INITIAL CALIBRATION	
Pest/PCB-IV	CONTINUING CALIBRATION	
VOA/SV-Pest/PCB-V-A	BLANK ANALYSIS	
VOA/SV-Pest/PCB-V-B	BLANK ANALYSIS	
Pest/PCB-VI	SURROGATE COMPOUNDS: SPIKE RECOVERIES AND RETENTION TIME SHIFT	
Pest/PCB-VII	PESTICIDE CLEANUP	
VOA/SV-Pest/PCB-VIII	MATRIX SPIKE/MATRIX SPIKE DUPLICATE	
VOA/SV-Pest/PCB-IX	FIELD DUPLICATE PRECISION	
VOA/SV-Pest/PCB-X	SENSITIVITY CHECK	
VOA/SV-Pest/PCB-XI	ACCURACY CHECK	
Pest/PCB-XII	COMPOUND IDENTIFICATION	
VOA/SV-Pest/PCB-XIII	SAMPLE QUANTITATION	
TABLE II-WORKSHEET	OVERALL EVALUATION OF DATA	

I certify that all criteria were met for the worksheets checked above

Signature: [signature] Name: Christine Gerney

Date: 06/29/04

EPA-NE - Data Validation
VOA/SV - Pest/PCB-I

Sampler: Sarah Roberts Company: EA Engineering Contacted: Yes (No) Date: _____

I. PRESERVATION AND HOLDING TIMES - Circle sample numbers with exceeded technical holding times or omitted preservation.
List all required preservation codes and circle omitted preservation codes.
Circle all exceeded technical holding times.
Identify extraction technique after "# of Days"/(*Extraction Code).

Sample No (TR No.)	Matrix	Pres Code	Date Sampled	VOA			BNA					PEST/PCB				
				Date Analyzed	# of Days from Samp. to Anal.	Action	Date Extracted	# of Days from Samp. to Extr /(*)	Date Analyzed	# of Days from Extr. to Anal.	Action	Date Extracted	# of Days from Samp. to Extr /(*)	Date Analyzed	# of Days from Extr to Anal	Action
PW07-06	water	1/2	05/27/04	05/28/04	1	none										
PW07-07	water	1/2	05/27/04	05/28/04	1	none										
PW07-08																
PW07-09																
PW07-10																
SW07-06																
SW07-07																
SW07-08																
SW07-09																
SW07-10																
PW07-Rinse																
TB01																
SW07-PW01				05/29/04	2	none										

Preservation Code:
1. Cool @ 4°C (± 2°)
2. Preserve with HCl to at least pH 2
3. Protect from light
4. Freeze
5. Room Temperature (Avoid excessive heat)

(*Extraction Code:)
L/L - Liquid/Liquid
SON - Sonication
SEP - Separatory Funnel
SOX - Soxhlet
SPE - Solid Phase Extraction

Action Code:
J - Estimate (J) Detected Values
UJ - Estimate (UJ) Non-Detected Values
R Reject (R) Non-Detected Values

Validator: Christine Garvey Date: 06/29/04

II. GC/MS INSTRUMENT PERFORMANCE CHECK (TUNING)

List all Instrument Performance Checks that are outside method QC tuning acceptance criteria.

Volatile Instrument Performance Check (Compound Name)	Analysis Date and Time	Instrument	Ion(s) Affected	Percent Relative Abundance	QC Limits	Samples Affected	Action

Comments:

all acceptance criteria were met

Semivolatile Instrument Performance Check (Compound Name)	Analysis Date and Time	Instrument	Ion(s) Affected	Percent Relative Abundance	QC Limits	Samples Affected	Action

Comments:

If tuning compounds and criteria are different from those specified in CLP SOW OLM03.1, then the validator should include a copy of the method-specific tuning criteria with this worksheet.

Validator: Christine Gomez

Date: 06/28/00

EPA-NE Data Validation Worksheet
VOA/SV-III

III. INITIAL CALIBRATION - List all analytes that are outside calibration criteria.

Date of ICAL	Instrument	Parameter	Matrix	Compound	% RSD	RRF	Samples Affected	Action
05/27/04	MS16	VOA	water	VOA	all ok	all ok	None	None

Comments:

Validator: Christine Gomez

Date: 06/29/04

EPA-NE - Data Validation Worksheet
VOA/SV-IV

IV. CONTINUING CALIBRATION - List all analytes that are outside calibration criteria.

Date of ICAL	Date of CCAL	Instrument	Parameter	Matrix	Compound	%D	RRF	Samples Affected	Action
05/27/04	05/28/04	MS16	VOA	water	VOA	all ok	all ok	None	none
"	05/29/04	"	"	"	VOA	all ok	all ok	None	none

Comments:

Validator: Christine Garvey

Date: 06/29/04

12/96

EPA-NE - Data Validation Worksheet
VOA/SV - Pest/PCB-V-A

V. BLANK ANALYSIS

List the blank contamination below

Concentration Level: low

Sampler: Sarah Richards Company: CA Engineering Contacted: Yes No Date: _____

1. Laboratory: Method, Storage and Instrument Blanks

Date Extracted	Date Analyzed	Parameter/ Matrix	Sample No. (Blank Type)	Instrument/ Column	Compound	Conc. (units)
—	05/28/04	VOA/water	VBLKPR	MS16/DB-624	None	ND
—	05/29/04	d	VBLKPS	d	None	ND

2. Field: Equipment (Rinsate), Trip and Bottle Blanks

Date Extracted	Date Analyzed	Parameter/ Matrix	Sample No. (Blank Type)	Instrument/ Column	Compound	Conc. (units)
—	05/28/04	VOA/water	PW07-Rinse	MS16/DB-624	None	ND
—	05/28/04	VOA/water	TB 01	d	None	ND

Validator: Christine Gorney Date: 06/29/04

all blanks free of contamination

EPA-NE - Data Validation Worksheet
VOA/SV - Pest/PCB-V-B

3. **Blank Actions** - List the maximum concentrations of blank compounds.

Compound	Type of Blank	Date Blank Sampled/Originated	Max. Conc. (units)	Action Level (units)	Sample QL	Samples Affected	Action

Comments: _____

Validator: Christine Garvey

Date: 06/29/04

12/96

all acceptance criteria were met

EPA-NE - Data Validation Worksheet
VOA-VI

VI. VOA SURROGATE SPIKE RECOVERIES - List all surrogate compound recoveries that are outside method QC acceptance criteria.

Method	Volatile Method QC Acceptance Criteria				
	Toluene-d_8	BFB	DCE-d_4	Other:	
OLM03.2	Water 88-110 Soil 84-138	Water 86-115 Soil 59-113	Water 76-114 Soil 70-121		
OLC02.1	NA	80-120	NA		
Other:					
Sample Number/Matrix	% Recovery	% Recovery	% Recovery	% Recovery	Action

Validator: Christine Garvey

Date: 06/29/04

EPA-NE - Data Validation Worksheet
VOA/SV-VII

All acceptance criteria were met

VII. INTERNAL STANDARD PERFORMANCE

List the internal standards that are outside the area count and retention time method QC acceptance criteria.
IS Area Count method QC acceptance criteria: -50% / +100%
IS Retention Time method QC acceptance criteria: ± 0.50 RTUNIT

Sample Number (TR#)	Date and Time Analyzed	Instrument	Parameter	IS Outside Area Count and/or RT Criteria	IS Area	RT Shift	Acceptable Range (IS area or RT shift)	Action

Validator: Christine Garney

Date: 06/29/04

EPA-NE - Data Validation Worksheet
VOA/SV - Pest/PCB-VIII

VIII. MATRIX SPIKE/MATRIX SPIKE DUPLICATE - List all MS/MSD analytes that are outside method QC acceptance criteria.

Use a separate worksheet for each MS/MSD pair.

Sample # SW07-06 Matrix Water Concentration Level low

Parameter	Compound	MS %Rec	MSD %Rec	RPD	Method QC Limits		Concentration			% RSD	Action
					% Rec	RPD	Unspiked Sample	MS	MSD		
VOA	VOA	all ok	all ok	all ok	varies	30	—	—	—	—	none

Validator: Christine Garvey Date: 06/29/06

EPA-NE - Data Validation Worksheet
VOA/SV - Pest/PCB-IX

IX. **FIELD DUPLICATE PRECISION** - List all field duplicate analytes that are outside criteria.

Use a separate worksheet for each field duplicate pair.

Sample Number SW07-07 Duplicate Sample Number SW07-DUP01 Matrix water

Parameter	Compound	Sample Conc.	Sample QL		Duplicate Conc. ug/l	Duplicate QL		RPD	QC Acceptance Criteria RPD or NA*	Action
			SQL	2xSQL		SQL	2xSQL			
VOA	Vinylchloride	0.123ug/l	0.6	1.2	0.147	0.6	1.2	18%	NA	none
L	Cis-1,2-Dichloroethene	0.418ug/l	L	L	0.426	0.6	1.2	2%	L	none

* For instances where one duplicate result is ND (or reported less than the sample QL).

Does the MS/MSD data indicate acceptable laboratory precision? (Y) N

Comments: _____

Sampler Name: Sarah Richards Contractor Name: EA Engineering Date Contacted: —

Reason for Contact and resolution obtained: _____

Validator: Christine Gorney Date: 06/29/04

EPA-NE - Data Validation Worksheet
VOA/SV - Pest/PCB-XI

XI. ACCURACY CHECK (Performance Evaluation Results) - List all analytes that are outside criteria.

SDG No: P4007/040493 CASE: 2960099 3207

Are more than one-half of the PES analytes within criteria for each parameter. (Y) N

PE Sample Number	Ampule Number	Parameter	Type of PES	Matrix	Analyte	Conc. O/U R	Region I EPA PES Scores*	Non-EPA PES Scores**	Samples Affected	Action
VLCSPR	—	VOA	LCS	water	VOA	acceptable	—	various	None	None
VLCSPS	—	VOA	LCS	water	VOA	acceptable	—	various	None	None

* For Region I PESs indicate the Region I PES Score Report Result: Action High; Action Low; TCL MISS, TCL CONTAMINANT, TIC HIT, TIC MISS; TIC CONTAMINANT

** For Non-EPA PESs indicate the Non-EPA PES Score: PES COMPOUND MISS; PES COMPOUND CONTAMINANT, PES COMPOUND HIT (% Recovery Limits)

Validator: Christine Gorney

Date: 06/29/04

EPA-NE - Data Validation Worksheet
VOA/SV - Pest/PCB-XII

all acceptance criteria were met

XII. TARGET COMPOUND IDENTIFICATION - List the analytes that are outside the acceptance criteria.

Sample Number	Compound	MS Ions	RRT	Action

Validator: Christine Gray

Date: 06/28/04

12/96

EPA-NE - Data Validation Worksheet
VOA/SV - Pest/PCB-XIII

XIII. SAMPLE QUANTITATION

Recalculate, from the raw data, the concentrations for one positive detect and one reported sample quantitation limit for a non-detect in a diluted sample or soil sample per fraction. (Note: Although Section XIII, C.1.a, requires that one calculation for each fraction in each sample be performed, the validator is only required to reproduce an example, for each fraction, of one positive detect and one sample quantitation limit calculation on this worksheet.)

Do all soil/sediment samples have % solids greater than 30%? Y N NA
If no, list sample numbers_____

Fraction		Calculation
VOA		trans-1,2-Dichloroethene
Sample No..	PW07-07	$\frac{18349 \times 5}{6558466 \times 0.27709581} = 0.5048$ ug/l
Reported Compound:	trans-1,2-Dichloroethene	
Reported Value:	0.505 ug/l	
Not Detected Compound:	Benzene	
Reported Quantitation Limit:	0.3 ug/l	
BNA		
Sample No..		
Reported Compound:		
Reported Value:		
Not Detected Compound:		
Reported Quantitation Limit:		
Pesticide/PCB		
Sample No..		
Reported Compound:		
Reported Value:		
Not Detected Compound:		
Reported Quantitation Limit:		

Validator: Christine Gancy

Date: 06/29/04

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EA SAMPLE NO.

PW07-06

Lab Name: CEIMIC CORP Project: CALFPASTURE

Lab Code: CEIMIC Case No.: 052704 SDG No.: PW07

Matrix: (soil/water) WATER Lab Sample ID: 040493-01

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: PB786

Level: (low/med) LOW Date Received: 05/27/04

% Moisture: not dec. _____ Date Analyzed: 05/28/04

GC Column: DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	0.600	U
75-35-4	1,1-Dichloroethene	0.600	U
156-60-5	trans-1,2-Dichloroethene	0.637	
156-59-2	cis-1,2-Dichloroethene	1.90	
67-66-3	Chloroform	0.200	U
107-06-2	1,2-Dichloroethane	0.200	U
71-43-2	Benzene	0.300	U
79-01-6	Trichloroethene	0.400	U
79-00-5	1,1,2-Trichloroethane	0.400	U
127-18-4	Tetrachloroethene	0.400	U
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U

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FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EA SAMPLE NO.

PW07-07

Lab Name: CEIMIC CORP Project: CALFPASTURE

Lab Code: CEIMIC Case No.: 052704 SDG No.: PW07

Matrix: (soil/water) WATER Lab Sample ID: 040493-02

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: PB785

Level: (low/med) LOW Date Received: 05/27/04

% Moisture: not dec. _____ Date Analyzed: 05/28/04

GC Column: DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	0.600	U
75-35-4	1,1-Dichloroethene	0.600	U
156-60-5	trans-1,2-Dichloroethene	0.505	
156-59-2	cis-1,2-Dichloroethene	6.42	
67-66-3	Chloroform	0.200	U
107-06-2	1,2-Dichloroethane	0.264	
71-43-2	Benzene	0.300	U
79-01-6	Trichloroethene	0.120	J
79-00-5	1,1,2-Trichloroethane	0.169	J
127-18-4	Tetrachloroethene	0.400	U
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U

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EA SAMPLE NO.

PW07-08

Lab Name: CEIMIC CORP Project: CALFPASTURE

Lab Code: CEIMIC Case No.: 052704 SDG No.: PW07

Matrix: (soil/water) WATER Lab Sample ID: 040493-03

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: PB787

Level: (low/med) LOW Date Received: 05/27/04

% Moisture: not dec. _____ Date Analyzed: 05/28/04

GC Column: DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	0.600	U
75-35-4	1,1-Dichloroethene	0.600	U
156-60-5	trans-1,2-Dichloroethene	0.500	U
156-59-2	cis-1,2-Dichloroethene	0.113	J
67-66-3	Chloroform	0.200	U
107-06-2	1,2-Dichloroethane	0.200	U
71-43-2	Benzene	0.300	U
79-01-6	Trichloroethene	0.400	U
79-00-5	1,1,2-Trichloroethane	0.400	U
127-18-4	Tetrachloroethene	0.400	U
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U

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FORM 1
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EA SAMPLE NO.

PW07-09

Lab Name: CEIMIC CORP Project: CALFPASTURE

Lab Code: CEIMIC Case No.: 052704 SDG No.: PW07

Matrix: (soil/water) WATER Lab Sample ID: 040493-04

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: PB788

Level: (low/med) LOW Date Received: 05/27/04

% Moisture: not dec. _____ Date Analyzed: 05/28/04

GC Column: DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	0.600	U
75-35-4	1,1-Dichloroethene	0.600	U
156-60-5	trans-1,2-Dichloroethene	0.500	U
156-59-2	cis-1,2-Dichloroethene	0.121	J
67-66-3	Chloroform	0.200	U
107-06-2	1,2-Dichloroethane	0.200	U
71-43-2	Benzene	0.300	U
79-01-6	Trichloroethene	0.400	U
79-00-5	1,1,2-Trichloroethane	0.400	U
127-18-4	Tetrachloroethene	0.400	U
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U

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FORM 1
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EA SAMPLE NO.

PW07-10

Lab Name: CEIMIC CORP Project: CALFPASTURE

Lab Code: CEIMIC Case No.: 052704 SDG No.: PW07

Matrix: (soil/water) WATER Lab Sample ID: 040493-05

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: PB784

Level: (low/med) LOW Date Received: 05/27/04

% Moisture: not dec. _____ Date Analyzed: 05/28/04

GC Column: DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	0.600	U
75-35-4	1,1-Dichloroethene	0.600	U
156-60-5	trans-1,2-Dichloroethene	0.500	U
156-59-2	cis-1,2-Dichloroethene	0.500	U
67-66-3	Chloroform	0.200	U
107-06-2	1,2-Dichloroethane	0.200	U
71-43-2	Benzene	0.300	U
79-01-6	Trichloroethene	0.400	U
79-00-5	1,1,2-Trichloroethane	0.400	U
127-18-4	Tetrachloroethene	0.400	U
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U

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EA SAMPLE NO.

SW07-06

Lab Name: CEIMIC CORP Project: CALFPASTURE

Lab Code: CEIMIC Case No.: 052704 SDG No.: PW07

Matrix: (soil/water) WATER Lab Sample ID: 040493-06

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: PB776

Level: (low/med) LOW Date Received: 05/27/04

% Moisture: not dec. _____ Date Analyzed: 05/28/04

GC Column: DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	0.108	J
75-35-4	1,1-Dichloroethene	0.600	U
156-60-5	trans-1,2-Dichloroethene	0.500	U
156-59-2	cis-1,2-Dichloroethene	0.299	J
67-66-3	Chloroform	0.200	U
107-06-2	1,2-Dichloroethane	0.200	U
71-43-2	Benzene	0.300	U
79-01-6	Trichloroethene	0.400	U
79-00-5	1,1,2-Trichloroethane	0.400	U
127-18-4	Tetrachloroethene	0.400	U
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U

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EA SAMPLE NO.

SW07-07

Lab Name: CEIMIC CORP Project: CALFPASTURE

Lab Code: CEIMIC Case No.: 052704 SDG No.: PW07

Matrix: (soil/water) WATER Lab Sample ID: 040493-07

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: PB780

Level: (low/med) LOW Date Received: 05/27/04

% Moisture: not dec. _____ Date Analyzed: 05/28/04

GC Column: DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	0.123	J
75-35-4	1,1-Dichloroethene	0.600	U
156-60-5	trans-1,2-Dichloroethene	0.500	U
156-59-2	cis-1,2-Dichloroethene	0.418	J
67-66-3	Chloroform	0.200	U
107-06-2	1,2-Dichloroethane	0.200	U
71-43-2	Benzene	0.300	U
79-01-6	Trichloroethene	0.400	U
79-00-5	1,1,2-Trichloroethane	0.400	U
127-18-4	Tetrachloroethene	0.400	U
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U

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EA SAMPLE NO.

SW07-08

Lab Name: CEIMIC CORP Project: CALFPASTURE

Lab Code: CEIMIC Case No.: 052704 SDG No.: PW07

Matrix: (soil/water) WATER Lab Sample ID: 040493-08

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: PB781

Level: (low/med) LOW Date Received: 05/27/04

% Moisture: not dec. _____ Date Analyzed: 05/28/04

GC Column: DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	0.600	U
75-35-4	1,1-Dichloroethene	0.600	U
156-60-5	trans-1,2-Dichloroethene	0.500	U
156-59-2	cis-1,2-Dichloroethene	0.204	J
67-66-3	Chloroform	0.200	U
107-06-2	1,2-Dichloroethane	0.200	U
71-43-2	Benzene	0.300	U
79-01-6	Trichloroethene	0.400	U
79-00-5	1,1,2-Trichloroethane	0.400	U
127-18-4	Tetrachloroethene	0.400	U
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U

06/29/04
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EA SAMPLE NO.

SW07-09

Lab Name: CEIMIC CORP Project: CALFPASTURE

Lab Code: CEIMIC Case No.: 052704 SDG No.: PW07

Matrix: (soil/water) WATER Lab Sample ID: 040493-09

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: PB782

Level: (low/med) LOW Date Received: 05/27/04

% Moisture: not dec. _____ Date Analyzed: 05/28/04

GC Column: DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	0.600	U
75-35-4	1,1-Dichloroethene	0.600	U
156-60-5	trans-1,2-Dichloroethene	0.500	U
156-59-2	cis-1,2-Dichloroethene	0.252	J
67-66-3	Chloroform	0.200	U
107-06-2	1,2-Dichloroethane	0.200	U
71-43-2	Benzene	0.300	U
79-01-6	Trichloroethene	0.400	U
79-00-5	1,1,2-Trichloroethane	0.400	U
127-18-4	Tetrachloroethene	0.400	U
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U

06/29/04
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FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EA SAMPLE NO.

SW07-10

Lab Name: CEIMIC CORP Project: CALFPASTURE

Lab Code: CEIMIC Case No.: 052704 SDG No.: PW07

Matrix: (soil/water) WATER Lab Sample ID: 040493-10

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: PB779

Level: (low/med) LOW Date Received: 05/27/04

% Moisture: not dec. _____ Date Analyzed: 05/28/04

GC Column: DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	0.600	U
75-35-4	1,1-Dichloroethene	0.600	U
156-60-5	trans-1,2-Dichloroethene	0.500	U
156-59-2	cis-1,2-Dichloroethene	0.500	U
67-66-3	Chloroform	0.200	U
107-06-2	1,2-Dichloroethane	0.200	U
71-43-2	Benzene	0.300	U
79-01-6	Trichloroethene	0.400	U
79-00-5	1,1,2-Trichloroethane	0.400	U
127-18-4	Tetrachloroethene	0.400	U
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U

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FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EA SAMPLE NO.

PW07-RINSE

Lab Name: CEIMIC CORP Project: CALFPASTURE

Lab Code: CEIMIC Case No.: 052704 SDG No.: PW07

Matrix: (soil/water) WATER Lab Sample ID: 040493-11

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: PB774

Level: (low/med) LOW Date Received: 05/27/04

% Moisture: not dec. _____ Date Analyzed: 05/28/04

GC Column: DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	0.600	U
75-35-4	1,1-Dichloroethene	0.600	U
156-60-5	trans-1,2-Dichloroethene	0.500	U
156-59-2	cis-1,2-Dichloroethene	0.500	U
67-66-3	Chloroform	0.200	U
107-06-2	1,2-Dichloroethane	0.200	U
71-43-2	Benzene	0.300	U
79-01-6	Trichloroethene	0.400	U
79-00-5	1,1,2-Trichloroethane	0.400	U
127-18-4	Tetrachloroethene	0.400	U
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U

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FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EA SAMPLE NO.

TB01

Lab Name: CEIMIC CORP Project: CALFPASTURE

Lab Code: CEIMIC Case No.: 052704 SDG No.: PW07

Matrix: (soil/water) WATER Lab Sample ID: 040493-12

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: PB775

Level: (low/med) LOW Date Received: 05/27/04

% Moisture: not dec. _____ Date Analyzed: 05/28/04

GC Column: DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	0.600	U
75-35-4	1,1-Dichloroethene	0.600	U
156-60-5	trans-1,2-Dichloroethene	0.500	U
156-59-2	cis-1,2-Dichloroethene	0.500	U
67-66-3	Chloroform	0.200	U
107-06-2	1,2-Dichloroethane	0.200	U
71-43-2	Benzene	0.300	U
79-01-6	Trichloroethene	0.400	U
79-00-5	1,1,2-Trichloroethane	0.400	U
127-18-4	Tetrachloroethene	0.400	U
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U

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EA SAMPLE NO.

SW07-DUP1

Lab Name: CEIMIC CORP Project: CALFPASTURE

Lab Code: CEIMIC Case No.: 052704 SDG No.: PW07

Matrix: (soil/water) WATER Lab Sample ID: 040493-13

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: PB794

Level: (low/med) LOW Date Received: 05/27/04

% Moisture: not dec. _____ Date Analyzed: 05/29/04

GC Column: DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	0.147	J
75-35-4	1,1-Dichloroethene	0.600	U
156-60-5	trans-1,2-Dichloroethene	0.500	U
156-59-2	cis-1,2-Dichloroethene	0.426	J
67-66-3	Chloroform	0.200	U
107-06-2	1,2-Dichloroethane	0.200	U
71-43-2	Benzene	0.300	U
79-01-6	Trichloroethene	0.400	U
79-00-5	1,1,2-Trichloroethane	0.400	U
127-18-4	Tetrachloroethene	0.400	U
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U

06/29/04
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