

September 22, 2011
File No. 05.0043654.00-C



Mr. Joseph Martella
Rhode Island Department of Environmental Management
Office of Waste Management
235 Promenade Street
Providence, Rhode Island 02908

530 Broadway
Providence
Rhode Island
02909
401-421-4140
Fax: 401-751-8613
<http://www.gza.com>

Re: *Short-Term Response Action Completion Report*
Former Process Pipe Removal
Former Tidewater Facility
Pawtucket, Rhode Island
RIDEM Case No. 95-022

Dear Mr. Martella:

On behalf of The Narragansett Electric Company d/b/a National Grid (National Grid), GZA GeoEnvironmental, Inc. (GZA) is pleased to provide you with this *Short Term Response Action Completion Report* for the Former Tidewater Facility located in Pawtucket, Rhode Island (herein referred to as the "Site"). This report has been prepared in general accordance with the requirements of Sections 6.09 and 6.10 of the Rhode Island Department of Environmental Management's (RIDEM) Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases (Remediation Regulations, DEM-DSR-01-93, as amended). Response actions were completed consistent with GZA's October 2010 (Revised January 2011) *Short Term Response Action Plan* (STRAP), which was approved by RIDEM in their letter dated August 17, 2011.

The activities described herein were implemented to address an above ground portion of a former steel process pipe associated with former Manufactured Gas Plant (MGP) facility operations. This section of piping ran parallel to the Seekonk River and was located in close proximity to the edge of the adjacent river. Certain sections of this piping were noted to be in disrepair and contained residual coal tar-like material. Coal tar-like materials were also observed on the ground surface and river embankment proximate to certain sections of this piping. The Short Term Response involved removal and off-Site disposal of the above ground portions of this former process pipe and residual coal tar-impacted surface materials. An engineered cap was installed over the areas where these surface materials were removed.

This report is subject to the limitations presented in Attachment A and is subject to modification if subsequent information is established by GZA or any other party.

BACKGROUND

This Site was the location of the former Tidewater MGP and the former Pawtucket No. 1 Power Station. The majority of the Site is currently vacant with the exception of an active natural gas regulating station and active switching and electrical substations, which are



both owned and operated by National Grid. The Site consists of approximately 23 acres located on the western bank of the Seekonk River. A Site *Locus Plan* is included as Figure 1.

A multi-colored sheen has been intermittently observed by GZA since approximately May 2010 on the water surface of the Seekonk River adjacent to the Former Gas Plant Area (FGPA). These sheens have been observed approximately 150 feet north of the existing temporary shoreline cap installed in December 2009 to mitigate a sheen area migrating from this portion of the riverbank (see Figure 2). National Grid responded by placing oil snares along the area of the observed intermittent sheen; however a specific source of the sheen was not initially identified. During a waterfront survey conducted on August 30, 2010, an approximately 150-foot long above ground steel pipe, varying in diameter from 4 to 6 inches, was observed running parallel to the Seekonk River, along the FGPA portion of the Site (approximately 150 feet south of the existing temporary cap area), as shown on Figure 2. The southern end of the pipe was observed to be capped above grade and the northern end terminated below grade. Upon further evaluation, certain sections of this piping were noted to be in disrepair and solidified coal tar-like materials were observed on the ground surface and river embankment beneath the piping. As described above, the presence of this piping and coal tar residuals were identified as possibly contributing to the intermittent sheens observed in adjacent portions of the Seekonk River.

On October 1, 2010, a STRAP presenting a request to remove the former process pipe and associated impacted material was submitted to RIDEM. Additional information was provided in a STRAP (Revised) dated January 17, 2011. Additionally, a Request for Evaluation of the Applicability of Air Pollution Control (APC) Regulation No. 9 was submitted to RIDEM Office of Air Resources (OAR) on June 23, 2011, with supplemental materials provided on August 3 and 4, 2011. On August 10, 2011 RIDEM determined that the STRAP did not require a minor source permit and that air monitoring consistent with the April 2011 Air Quality Monitoring Plan (AQMP) was sufficient for the proposed work. RIDEM subsequently approved the STRAP on August 17, 2011. Public notification was provided on August 1, 2011. A Coastal Resource Management Council (CRMC) Assent was secured for the approved work prior to implementation of the response action: A2010-10-014. Additionally, a Hot Work permit was issued by the City of Pawtucket Fire Department (#0675173) to cover the planned activities.

SHORT TERM RESPONSE ACTIONS (STRA)

The STRA activities described herein were implemented between August 22, 2011 and August 24, 2011. These activities included the dismantling and disposal of the former process steel pipe. The northern end of the pipe which extended below grade was capped with an expandable plug. Surface impacted materials below the pipe and along the embankment were removed and disposed off-Site. Following the removal of the limited surface materials, the area of disturbed surface soil was restored via placement of a geotextile fabric that was backfilled with approximately 12 inches of crushed stone to pre-existing grade. Figure 2 depicts the location and limits of the final capped surface.

Pipe removal and earthwork activities were performed by Clean Harbors Environmental Services (CHES) of East Providence, Rhode Island. A GZA representative was on-Site to observe and document all remedial activities. As described further below, GZA also



performed the required air quality monitoring during this work. Refer to Attachment B for representative photographs of the work completed. The following sections present further details of the activities performed as part of this STRA.

PIPE REMOVAL

Pipe removal activities were completed between August 22 and August 24, 2011. Erosion and sedimentation controls, consisting of hay bales and silt fence were installed along the fence line to the east of the work area, adjacent to the waterfront area prior to this project. Refer to Figure 2 for approximate location of the installed erosion controls.

On August 22, the pipe was cut with a demolition saw and each cut section was wrapped in 20-mil polyethylene sheeting. The sheeting was used to ensure that no impacted material leaked from the pipe after cutting. The pipe was left in place, cut and wrapped with polyethylene sheeting. On August 23, the pipe was moved using a small excavator to a lined, closed-top 10 cubic yard (CY) roll-off for subsequent off-Site disposal at a licensed receiving facility. Each end of the pipe was wrapped with sheeting to ensure that no leakage occurred during transport. The northern remaining end of the pipe was cut in place above ground and wrapped with sheeting. On August 24, this end of the pipe was capped with an expandable plug.

EARTHWORK

The earthwork activities associated with the STRA were completed on August 23. Earthwork included excavation of a small area of impacted soil directly beneath the former pipe to the depth of visual impacts, removal of residual hardened coal tar-like material on the river embankment, the removal of the former pipe rack, the installation of a limited engineered cap, and the restoration of the bank area. A small excavator was used to remove the upper ± 1 -foot of visually impacted surface soil over an approximately 3 foot by 5 foot area. Hand shovels and chisels were used to remove hardened coal-tar materials from the bank. All removed material was immediately containerized in labeled 55-gallon drums for subsequent off-Site disposal at a licensed receiving facility. A total of two drums (approximately 0.5 CY) were generated during the earthwork activities. A geotextile was placed over the excavated area and backfilled with crushed stone. The area was graded to match the former existing slope of the bank. Refer to Figure 2 for the location of this capped area.

IMPORTED MATERIAL

Imported material used for this STRA consisted of approximately 3.75 CY of dense grade crushed stone. The material is classified as virgin material, consisting of bank gravel, shot rock and bank sand. This material was used to construct the limited engineered cap in the embankment area described above. The material was obtained from G. Lopes Construction of Taunton, Massachusetts. Clean fill documentation from the providing facility is included in Attachment C.

TRANSPORT AND DISPOSAL



Remediation waste generated during the course of activities associated with the STRA included the removed process piping and coal tar-impacted surface material. The following table summarizes these waste stream types, quantities and ultimate disposal facilities that received the wastes. Transportation and disposal documentation for the remediation waste are included in Appendix F.

Waste Stream	Disposal Quantity	Ship Date	Facility
Coal Tar-impacted Surface Material	2 Drums (600 pounds)	8/26/11	Clean Harbors of Braintree, Inc. Braintree, Massachusetts

Note: Disposal paperwork associated with the off-Site transport and disposal of the 10 CY closed roll-off containing the removed process piping has not been received at the time of this submittal and will be forward under separate over.

AIR QUALITY MONITORING

In accordance with the approvals from RIDEM, air quality monitoring was performed during intrusive activities¹ consistent with the April 2011 AQMP. The AQMP was designed to be protective by using a two- tiered approach: real-time air monitoring and time integrated sampling using US EPA approved sampling and analytical methods. The AQMP established actions levels for both tiers requiring certain responses (additional sampling, changes in work practices, etc.) in the event of exceedances. The following sections summarize the results of both the real-time and time integrated air monitoring performed during this activity. As described below, no action level exceedances resulting from this activity were detected.

REAL-TIME MONITORING

Real-time monitoring completed by GZA consisted of the following: Total Volatile Organic Compounds (TVOCs) using a Mini Rae 2000 Photoionization Detector (PID); Benzene using a Photovac Voyager portable Gas Chromatograph (GC); Respirable Dust (PM10) Levels using a DustTrak dust meter; Hydrogen Cyanide (HCn) using a Gas Badge HCn meter. The PID and GC were calibrated at the beginning of each day and the HCn meter and dust meter were calibrated at the beginning of the project. Regular monitoring was conducted at the work zone and the perimeter monitoring locations shown on the attached Figure 3. Air monitoring equipment was moved periodically (approximately once every two hours) between perimeter sampling locations to check parameters at the Site perimeter. During the remainder of time, the equipment was stationed proximate to the work zone. Graphs presenting the recorded TVOC, dust, benzene and hydrogen cyanide concentrations are included in Attachment D.

¹ On August 22, Site activities were limited to mobilization, clearing of vegetation and cutting of the pipe sections. The intrusive response actions (*i.e.*, removal of cut pipe sections and excavation of impacted surface materials) was performed on August 23. As the only work performed on April 24 was capping the exposed end of the pipe, no air monitoring was performed.



As presented in the data graphs, in general, results of the real time monitoring were below the action levels for the constituents monitored. Periodic exceedances of TVOCs and one exceedance of respirable dust were reported at perimeter locations Location 2B, 3, 4 and 5. Given that no exceedances were detected within the immediate work zone, these perimeter exceedances are unlikely related to this STRA activity and are consistent with typical Site background conditions. The following provides details regarding each of the recorded exceedances:

Respirable Dust

As noted in data graphs for respirable dust, there was one exceedance on August 23 at 2:52 PM at Location 2B. As noted, this exceedance was outside the time of work on Site and therefore is considered to be unrelated to the STRA activity.

TVOCs

As indicated in the data graphs for TVOCs, exceedances of the threshold limit of 0.1 ppm for TVOCs were recorded for short durations at several monitoring locations. These threshold exceedances were limited to concentrations ranging from 0.2 to 0.3 ppmv. These relatively low TVOC levels are unlikely related to any specific Site activity and are caused by background conditions, other environmental factors including vehicle exhaust, or are a result of the limitations of the field instrument.

TIME-INTEGRATED MONITORING

Consistent with the April 2011 AQMP, two VOC air samples, one upwind and one downwind from the workzone, were collected during each day when intrusive activities were being performed. In addition, a field blank was collected on each day and submitted along with the field samples to the laboratory. The sampling locations, as shown on the attached Figure 3, were chosen based on actual and predicted wind conditions for the sampling day. VOC samples were collected using SUMMA stainless steel canisters in conjunction with US EPA Method TO-15 GC/MS Full Scan, as presented in “The Compendium of Methods for the Determination of Toxic Organic Compounds in the Ambient Air.”

As indicated previously, there were not sustained real-time monitoring levels which triggered the specified action levels. As such, submittal of the collected SUMMA canisters for laboratory analysis was not performed each day. However, consistent with the AQMP, one set of SUMMA canisters (those collected on August 22, 2011) was submitted for laboratory during this activity. The VOC air samples were analyzed for the compounds presented in the table below by Alpha Analytical of Mansfield, Massachusetts. The laboratory certificate of analysis is presented in Attachment E.



Units	ACTION LEVELS (24 HOUR AVERAGE)	Summa – Upgradient L1113402-01 08/22/2011		Summa – Downgradient L1113402-02 08/22/2011		Summa - Blank L1113402-03 08/22/2011		
		Result	RL	Result	RL	Result	RL	
		TO-15 Modified – VOLATILE ORGANICS IN AIR						
Benzene	ppbv	6.2	<	0.2	<	0.2	<	0.2
Toluene	ppbv	80	0.418	0.2	0.299	0.2	<	0.2
Ethylbenzene	ppbv	230	<	0.2	<	0.2	<	0.2
m&p-Xylene	ppbv	23	<	0.4	<	0.4	<	0.4
o-Xylene	ppbv	23	<	0.2	<	0.2	<	0.2
Naphthalene	ppbv	20	<	0.2	<	0.2	<	0.2

As presented above, results of the time-integrated VOC air samples were generally non-detect. Only one compound (toluene) was detected above the method detection limit in both the upgradient and downgradient air samples. All constituents were well below the Action Levels established in the AQMP.

CONCLUSION

The activities described herein were completed in general accordance with the RIDEM-approved *Short Term Response Action Plan* dated October 2010 (Revised January 2011) with no significant deviations.

CERTIFICATION

To address Section 6.10 of the Remediation Regulations, the following certifications of completeness are provided.

GZA certifies that the information provided in this Short Term Response Action Completion Report is complete and accurate to the best of GZA's knowledge.

Margaret S. Kilpatrick, P.E.
Senior Project Manager
GZA GeoEnvironmental, Inc.

Ms. Michele Leone, representative of Narragansett Electric Company d/b/a National Grid, certifies to the best of her knowledge that this Short Term Response Action Completion Report is complete and an accurate representation of the circumstances known about the release and the subsequent response activities.

Michele V. Leone
Manager, New England Site Investigation & Remediation
National Grid



We trust this information fulfills your needs. We formally request the issuance of a *No Further Action Letter* to conclude this response action. If you have any questions or comments please feel free to call Margaret Kilpatrick 401-421-2719.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

A handwritten signature in blue ink, appearing to read 'Margaret S. Kilpatrick'.

Margaret S. Kilpatrick, P.E.
Senior Project Manager

A handwritten signature in blue ink, appearing to read 'John P. Hartley'.

John P. Hartley
Project Reviewer

A handwritten signature in blue ink, appearing to read 'James J. Clark'.

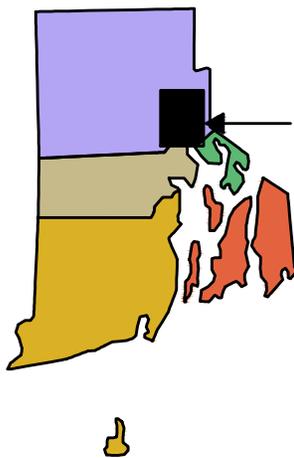
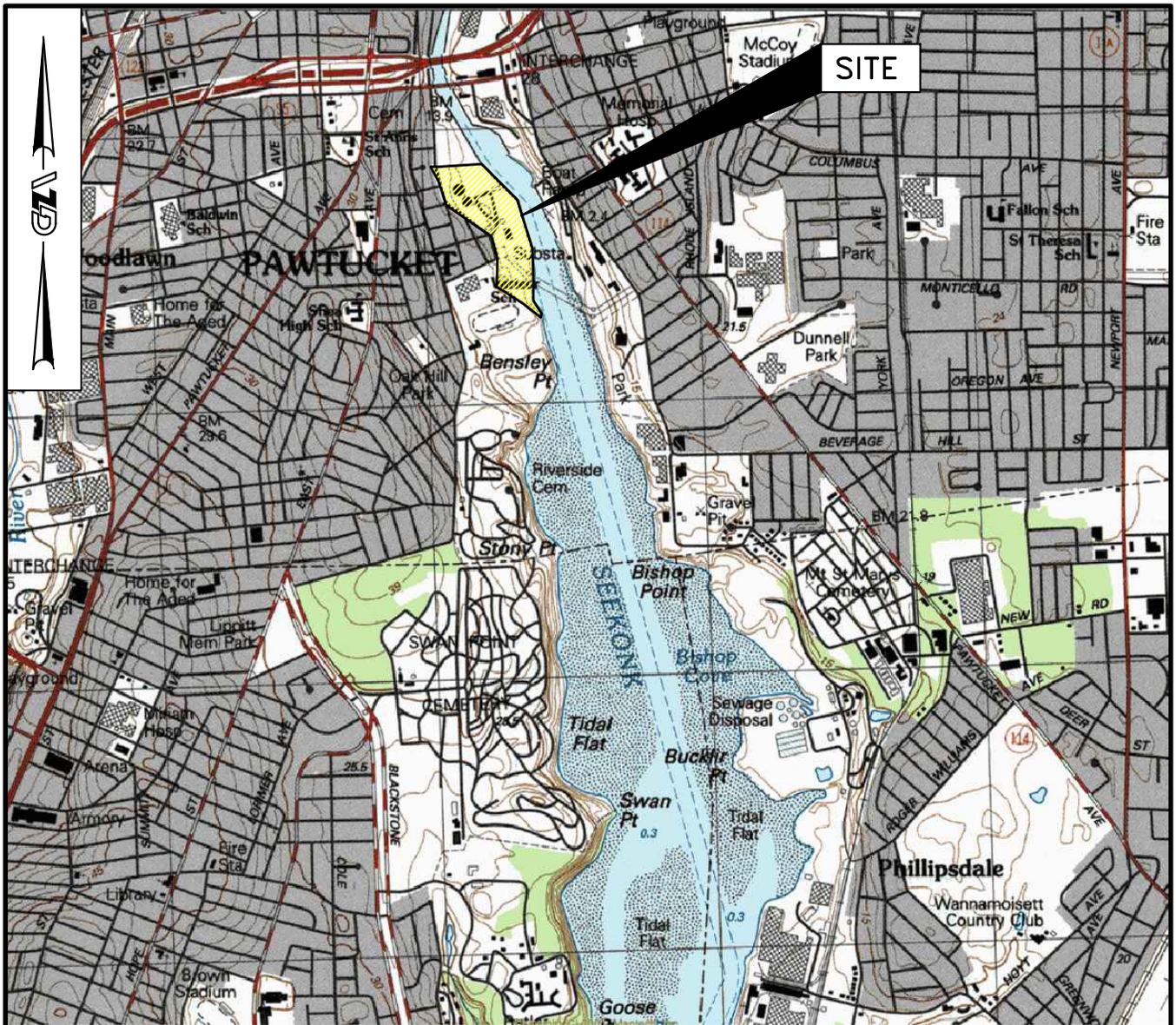
James J. Clark, P.E.
Principal

MSK/JJC:tja

Attachments: Figure 1 – *Locus Plan*
Figure 2 – *Short Term Response Completion Report Site Plan*
Figure 3 – *Air Monitoring and SUMMA Canister Locations*
A – Limitations
B – Photographs
C – Clean Fill Documentation
D – Real-time Air Monitoring
E – SUMMA Canister Laboratory Certificates of Analysis
F - Disposal Documentation

cc: Michele Leone, National Grid

FIGURES

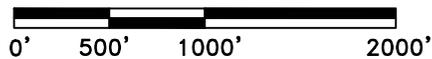


BASE MAP FROM THE FOLLOWING USGS QUADRANGLE MAP:
PROVIDENCE, RI (2001)

DIGITAL TOPOGRAPHIC MAPS PROVIDED BY MAPTECH. INC.

CONTOUR ELEVATIONS REFERENCE NGVD 29,
CONTOURS ARE SHOWN IN METERS ABOVE NGVD AT 3 METER INTERVALS

APPROXIMATE SCALE IN FEET



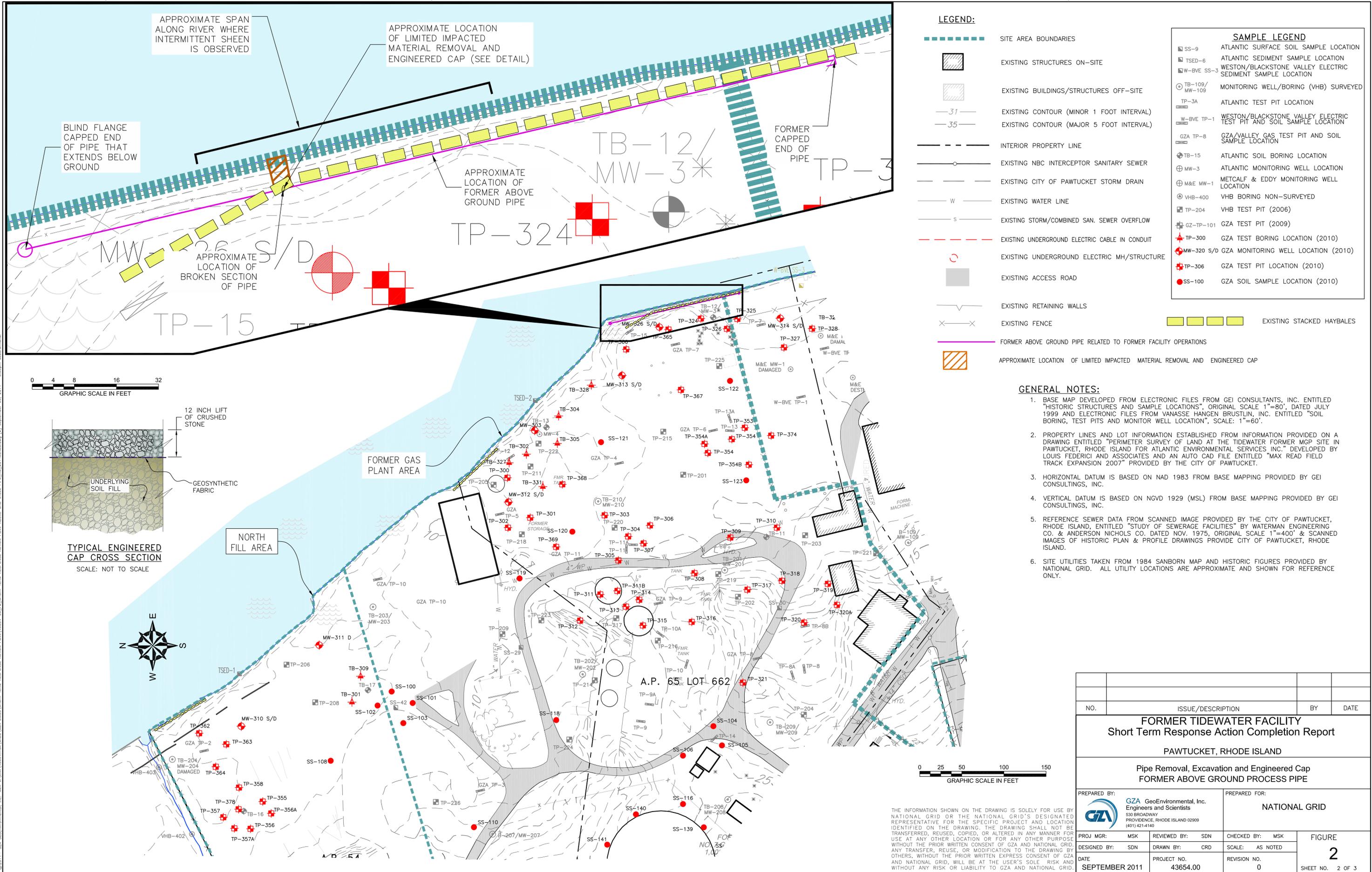
TIDEWATER FACILITY

PAWTUCKET, RHODE ISLAND

LOCUS PLAN

SEPTEMBER 2011

FIGURE NO. 1



LEGEND:

- SITE AREA BOUNDARIES
- EXISTING STRUCTURES ON-SITE
- EXISTING BUILDINGS/STRUCTURES OFF-SITE
- EXISTING CONTOUR (MINOR 1 FOOT INTERVAL)
- EXISTING CONTOUR (MAJOR 5 FOOT INTERVAL)
- INTERIOR PROPERTY LINE
- EXISTING NBC INTERCEPTOR SANITARY SEWER
- EXISTING CITY OF PAWTUCKET STORM DRAIN
- EXISTING WATER LINE
- EXISTING STORM/COMBINED SAN. SEWER OVERFLOW
- EXISTING UNDERGROUND ELECTRIC CABLE IN CONDUIT
- EXISTING UNDERGROUND ELECTRIC MH/STRUCTURE
- EXISTING ACCESS ROAD
- EXISTING RETAINING WALLS
- EXISTING FENCE
- FORMER ABOVE GROUND PIPE RELATED TO FORMER FACILITY OPERATIONS
- APPROXIMATE LOCATION OF LIMITED IMPACTED MATERIAL REMOVAL AND ENGINEERED CAP

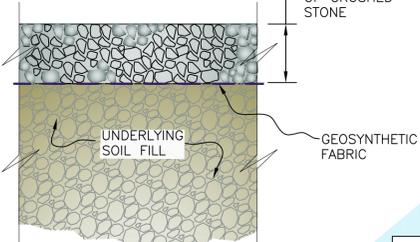
SAMPLE LEGEND

- SS-9 ATLANTIC SURFACE SOIL SAMPLE LOCATION
- TS-6 ATLANTIC SEDIMENT SAMPLE LOCATION
- W-BVE SS-3 WESTON/BLACKSTONE VALLEY ELECTRIC SEDIMENT SAMPLE LOCATION
- TB-109/MW-109 MONITORING WELL/BORING (VHB) SURVEYED
- TP-3A ATLANTIC TEST PIT LOCATION
- W-BVE TP-1 WESTON/BLACKSTONE VALLEY ELECTRIC TEST PIT AND SOIL SAMPLE LOCATION
- GZA TP-8 GZA/VALLEY GAS TEST PIT AND SOIL SAMPLE LOCATION
- TB-15 ATLANTIC SOIL BORING LOCATION
- MW-3 ATLANTIC MONITORING WELL LOCATION
- M&E MW-1 METCALF & EDDY MONITORING WELL LOCATION
- VHB-400 VHB BORING NON-SURVEYED
- TP-204 VHB TEST PIT (2006)
- GZ-TP-101 GZA TEST PIT (2009)
- TP-300 GZA TEST BORING LOCATION (2010)
- MW-320 S/D GZA MONITORING WELL LOCATION (2010)
- TP-306 GZA TEST PIT LOCATION (2010)
- SS-100 GZA SOIL SAMPLE LOCATION (2010)

GENERAL NOTES:

1. BASE MAP DEVELOPED FROM ELECTRONIC FILES FROM GEI CONSULTANTS, INC. ENTITLED "HISTORIC STRUCTURES AND SAMPLE LOCATIONS", ORIGINAL SCALE 1"=80', DATED JULY 1999 AND ELECTRONIC FILES FROM VANASSE HANGEN BRUSTLIN, INC. ENTITLED "SOIL BORING, TEST PITS AND MONITOR WELL LOCATION", SCALE: 1"=60'.
2. PROPERTY LINES AND LOT INFORMATION ESTABLISHED FROM INFORMATION PROVIDED ON A DRAWING ENTITLED "PERIMETER SURVEY OF LAND AT THE TIDEWATER FORMER MGP SITE IN PAWTUCKET, RHODE ISLAND FOR ATLANTIC ENVIRONMENTAL SERVICES, INC." DEVELOPED BY LOUIS FEDERICI AND ASSOCIATES AND AN AUTO CAD FILE ENTITLED "MAX READ FIELD TRACK EXPANSION 2007" PROVIDED BY THE CITY OF PAWTUCKET.
3. HORIZONTAL DATUM IS BASED ON NAD 1983 FROM BASE MAPPING PROVIDED BY GEI CONSULTANTS, INC.
4. VERTICAL DATUM IS BASED ON NGVD 1929 (MSL) FROM BASE MAPPING PROVIDED BY GEI CONSULTANTS, INC.
5. REFERENCE SEWER DATA FROM SCANNED IMAGE PROVIDED BY THE CITY OF PAWTUCKET, RHODE ISLAND, ENTITLED "STUDY OF SEWERAGE FACILITIES" BY WATERMAN ENGINEERING CO. & ANDERSON NICHOLS CO. DATED NOV. 1975, ORIGINAL SCALE 1"=400' & SCANNED IMAGES OF HISTORIC PLAN & PROFILE DRAWINGS PROVIDE CITY OF PAWTUCKET, RHODE ISLAND.
6. SITE UTILITIES TAKEN FROM 1984 SANBORN MAP AND HISTORIC FIGURES PROVIDED BY NATIONAL GRID. ALL UTILITY LOCATIONS ARE APPROXIMATE AND SHOWN FOR REFERENCE ONLY.

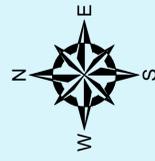
TYPICAL ENGINEERED CAP CROSS SECTION
SCALE: NOT TO SCALE



NO.	ISSUE/DESCRIPTION	BY	DATE
FORMER TIDEWATER FACILITY			
Short Term Response Action Completion Report			
PAWTUCKET, RHODE ISLAND			
Pipe Removal, Excavation and Engineered Cap			
FORMER ABOVE GROUND PROCESS PIPE			
PREPARED BY:		PREPARED FOR:	
GZA GeoEnvironmental, Inc. Engineers and Scientists 530 BROADWAY PROVIDENCE, RHODE ISLAND 02909 (401) 421-4140		NATIONAL GRID	
PROJ MGR: MSK	REVIEWED BY: SDN	CHECKED BY: MSK	FIGURE
DESIGNED BY: SDN	DRAWN BY: CRD	SCALE: AS NOTED	2
DATE: SEPTEMBER 2011	PROJECT NO. 43654.00	REVISION NO. 0	SHEET NO. 2 OF 3

THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY NATIONAL GRID OR THE NATIONAL GRID'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA AND NATIONAL GRID. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA AND NATIONAL GRID, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA AND NATIONAL GRID.

© 2011 - GZA GeoEnvironmental, Inc. GZA-J:\ENV\43654.msk\CAD\GZA DWGS\SHORT TERM RESPONSE ACTION PLAN\43654-00_F2_SHORT TERM RESPONSE ACTION PLAN-ABOVE GRD STEEL PIPE_RO_2011\UNEB.dwg [2] September 09, 2011 - 3:33pm deborah.landi



Seekonk River

FORMER GAS PLANT AREA

WORK ZONE

LOCATION 5
SUMMA-UPGRADIENT

LOCATION 4

LOCATION 2B

LOCATION 1

LOCATION 3

LOCATION 2A

A.P. 54B LOT 826

A.P. 65B LOT 662

FORMER NO. 8 GAS HOLDER
3,000,000 CU.FT.

FORMER NO. 7 GAS HOLDER
1,000,000 CU.FT.

RESIDENTIAL APARTMENTS

STREET



LEGEND:

- SITE AREA BOUNDARIES
- EXISTING BUILDINGS ON-SITE
- EXISTING FOUNDATION/PAD ON-SITE
- EXISTING BUILDINGS/STRUCTURES OFF-SITE
- EXISTING CONTOUR (MINOR 1 FOOT INTERVAL)
- EXISTING CONTOUR (MAJOR 5 FOOT INTERVAL)
- PROPERTY LINE
- APPROX. 200 FT. CRMC JURISDICTION LIMIT
- APPROX. WATERS EDGE
- EXISTING NBC INTERCEPTOR SANITARY SEWER
- EXISTING CITY OF PAWTUCKET STORM DRAIN
- EXISTING WATER LINE
- EXISTING STORM/COMBINED SAN. SEWER OVERFLOW
- EXISTING UNDERGROUND ELECTRIC CABLE IN CONDUIT
- EXISTING UNDERGROUND ELECTRIC MH/STRUCTURE
- EXISTING ACCESS ROAD
- EXISTING RETAINING WALLS
- EXISTING FENCE
- EXISTING CATCH BASIN LOCATIONS

GENERAL NOTES:

1. EXISTING CONDITIONS BASE MAP DEVELOPED FROM THE FOLLOWING:
 - ELECTRONIC FILES FROM GEI CONSULTANTS, INC. (FORMERLY AES) ENTITLED "HISTORIC STRUCTURES AND SAMPLE LOCATIONS", ORIGINAL SCALE 1"=80', DATED JULY 1999
 - ELECTRONIC FILES FROM VANASSE HANGEN BRUSTLIN, INC. ENTITLED "SOIL BORING, TEST PIT AND MONITOR WELL LOCATIONS", SCALE: 1"=60', UNDATED
 - ELECTRONIC FILES FROM WELSH ASSOCIATES LAND SURVEYORS, INC. ENTITLED "TOPOGRAPHIC SURVEY (AS-BUILT), FORMER TIDEWATER FACILITY, DEMOLITION OF GAS HOLDERS NOS. 7 & 8", DATED DECEMBER 17, 2010
 - ON-SITE INVESTIGATIONS AND SURVEYS BY GZA PERSONNEL DURING VARIOUS SITE VISITS DURING 2009 AND 2010.
2. PROPERTY LINES AND LOT INFORMATION ESTABLISHED FROM INFORMATION PROVIDED ON A DRAWING ENTITLED "PERIMETER SURVEY OF LAND AT THE TIDEWATER FORMER MGP SITE IN PAWTUCKET, RHODE ISLAND FOR ATLANTIC ENVIRONMENTAL SERVICES INC." DEVELOPED BY LOUIS FEDERICI AND ASSOCIATES AND AN AUTO CAD FILE ENTITLED "MAX READ FIELD TRACK EXPANSION 2007" PROVIDED BY THE CITY OF PAWTUCKET.
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6. SITE UTILITIES TAKEN FROM 1984 SANBORN MAP AND HISTORIC FIGURES PROVIDED BY NATIONAL GRID. ALL UTILITY LOCATIONS ARE APPROXIMATE AND SHOWN FOR REFERENCE ONLY.

SAMPLE LEGEND	
	ATLANTIC SURFACE SOIL SAMPLE LOCATION
	ATLANTIC SEDIMENT SAMPLE LOCATION
	WESTON/BLACKSTONE VALLEY ELECTRIC SEDIMENT SAMPLE LOCATION
	RIDEM SURFACE SOIL SAMPLE LOCATION
	MONITORING WELL/BORING (VHB) SURVEYED
	ATLANTIC TEST PIT LOCATION
	WESTON/BLACKSTONE VALLEY ELECTRIC TEST PIT LOCATION
	GZA/VALLEY GAS TEST PIT LOCATION
	ATLANTIC SOIL BORING LOCATION
	ATLANTIC MONITORING WELL LOCATION
	M&E MW-1 MONITORING WELL LOCATION
	VHB SURFACE SOIL SAMPLE LOCATION NON-SURVEYED
	VHB TEST PIT (2006)
	GZA TEST PIT (2009)
	GZA TEST BORING LOCATION (2010)
	GZA MONITORING WELL LOCATION (2010)
	GZA TEST PIT LOCATION (2010)
	GZA SURFACE SOIL SAMPLE LOCATION (2010)
	ARCADIS SEDIMENT SAMPLE LOCATION (2008)
	GZA RESIDUAL MATERIAL SAMPLE (2010)
	GZA WORK ZONE AIR MONITORING LOCATION
	GZA PERIMETER AIR MONITORING LOCATION
	SUMMA-UPGRADIENT SUMMA CANISTER LOCATION

NO.	ISSUE/DESCRIPTION	BY	DATE
FORMER TIDEWATER FACILITY			
Short Term Response Action Completion Report			
PAWTUCKET, RHODE ISLAND			
Air Monitoring Locations and SUMMA Canister Locations			
PREPARED BY:	GZA GeoEnvironmental, Inc. Engineers and Scientists		PREPARED FOR:
			NATIONAL GRID
PROJ MGR:	MSK	REVIEWED BY:	MSK
DESIGNED BY:	SDN	DRAWN BY:	CRD
DATE:	SEPTEMBER 2011	CHECKED BY:	MSK
	PROJECT NO.	SCALE:	1" = 60'
	43654.00	REVISION NO.	0
		FIGURE	3
		SHEET NO.	3 OF 3

THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY NATIONAL GRID OR THE NATIONAL GRID'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA AND NATIONAL GRID. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA AND NATIONAL GRID, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA AND NATIONAL GRID.

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APPENDIX A
LIMITATIONS

LIMITATIONS

1. This Short-Term Response Action Completion Report has been prepared on behalf of and for the exclusive use of The Narragansett Electric Company d/b/a National Grid (National Grid), solely for documenting the work completed as described herein at the Former Tidewater MGP and Power Plant Site ("Site") under the applicable provisions of the State of Rhode Island Department of Environmental Management Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (Remediation Regulations). This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party in whole or in part, without the prior written consent of GZA GeoEnvironmental, Inc.(GZA) or National Grid.
2. GZA's work was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area, and GZA observed that degree of care and skill generally exercised by other consultants under similar circumstances and conditions. GZA's findings and conclusions must be considered not as scientific certainties, but rather as our professional opinion concerning the significance of the limited data gathered during the course of the study. No other warranty, express or implied is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during the work described herein.
3. The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based upon services performed and observations made by GZA.
4. In the event that National Grid or others authorized to use this report obtain information on environmental or hazardous waste issues at the Site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this report.
5. The conclusions and recommendations contained in this report are based in part upon the data obtained from environmental samples obtained from relatively widely spread subsurface explorations. The nature and extent of variations between these explorations may not become evident until further exploration. If variations or other latent conditions then appear evident, it will be necessary to reevaluate the conclusions and recommendations of this report.
6. The generalized soil profile described in the text is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized and have been developed by interpretations of widely spaced explorations and samples; actual soil transitions are probably more gradual. For specific information, refer to the boring logs.

7. In the event this work included the collection of water level data, these readings have been made in the test pits, borings and/or observation wells at times and under conditions stated on the exploration logs. These data have been reviewed and interpretations have been made in the text of this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall and other factors different from those prevailing at the time measurements were made.

8. The conclusions contained in this report are based in part upon various types of chemical data and are contingent upon their validity. These data have been reviewed and interpretations made in the report. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, these data should be reviewed by GZA and the conclusions and recommendations presented herein modified accordingly.

APPENDIX B
PHOTOGRAPHS

APPENDIX A
PIPE REMOVAL PHOTOGRAPHS
Former Tidewater Facility
Pawtucket, Rhode Island

File No. 05.0043654.00
9/22/2011



Coal-tar impacts from broken section of pipe. August 30, 2010, 12:24 pm.



Broken section of pipe. September 1, 2010, 11:23 am.

APPENDIX A
PIPE REMOVAL PHOTOGRAPHS
Former Tidewater Facility
Pawtucket, Rhode Island

File No. 05.0043654.00
9/22/2011



Stockpiled and wrapped cut sections of pipe. August 23, 2011. 9:18 am.



Material beneath broken section of pipe. August 23, 2011. 9:23 am.

APPENDIX A
PIPE REMOVAL PHOTOGRAPHS
Former Tidewater Facility
Pawtucket, Rhode Island

File No. 05.0043654.00
9/22/2011



Area of soil removal after impacted material removal. August 23, 2011. 12:43 pm.



Geotextile placement over area of soil removal. August 23, 2011. 12:46 pm.

APPENDIX A
PIPE REMOVAL PHOTOGRAPHS
Former Tidewater Facility
Pawtucket, Rhode Island

File No. 05.0043654.00
9/22/2011



Crushed stone placement over excavated area and geotextile. August 25, 2011. 8:17 am.



Capped end of above ground end of pipe. August 25, 2011. 8:20 am.

APPENDIX A
PIPE REMOVAL PHOTOGRAPHS
Former Tidewater Facility
Pawtucket, Rhode Island

File No. 05.0043654.00
9/22/2011



Typical air quality monitoring set up.



SUMMA canister placement. August 22, 2011. 8:22 am.

APPENDIX C

CLEAN FILL DOCUMENTATION



September 6, 2011

Clean Harbors Environmental Services
Eight Dexter Road
East Providence, RI 02914

Attn: Peter
Re: Taft Street, Pawtucket, RI

Dear Peter:

This letter is written to attest the soil product, (3/4" Dense Grade), that was shipped to the Taft Street, Pawtucket, RI site is a "clean" product.

The product is manufactured with three virgin components, two products being bank gravel and shot rock which comes from Grant's Pit, Plympton Street, Middleboro, MA, and the other product being bank sand which comes from Black Cat Pit, Black Cat Road, Plymouth, MA.

We transport these products to Murby's Pit, Raynham, MA, where we mechanically fracture these products to manufacture a spec. gravel.

To the best of our knowledge, the sites for the source materials were never used as dump sites for chemical, toxic, hazardous or radioactive materials (Grant's Pit, Black Cat Pit, Murby's Pit).

In addition, the source sites are not now, or ever have been listed as a suspected depository for chemical, toxic, hazardous or radioactive materials by any Federal, State or other government agency, department or bureau.

This affidavit applies to the soil product that was provided to Clean Harbors Environmental Services and any sub contractors.

G. Lopes Construction Inc. certifies the material meets specifications within specified limits.

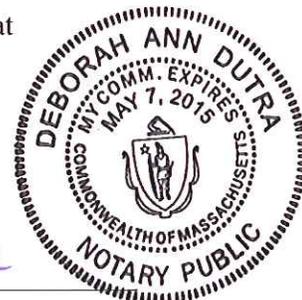
Should you have any questions or need further information, please do not hesitate to call me directly at 508-813-1278.

Very truly yours,

Steve Goldstein, Sales Manager

Notarized by:

Deborah Ann Dutra
DEBORAH ANN DUTRA
MY COMMISSION EXPIRES 5-7-15





ASPHALT • CONSTRUCTION DEBRIS • ROOFING MATERIALS • STUMPS & BRUSH
WOOD DEMOLITION • TRUCKING & CONTAINERS AVAILABLE • PORTABLE GRINDING

569 Winthrop Street
Taunton, Massachusetts 02780
Phone: (508) 822-4345 • (866) NER-CANS (637-2267)
Fax: (508) 823-8838

DATE	TIME
03/23/11	6:46 am

NEW ENGLAND RECYCLING

SOLD TO:

Clean Harbors, Inc.
8 Dexter Road
East Providence, RI 02914

SHIP TO:

MERRY & TAFT STREET
PAWTUCKET, RI
8:00 AM

BILL

RI 3716733

CUST. I.D. NO.	PURCHASE ORDER NO.	CONTRACT NO.	JOB NO.	TERMS	SWORN WEAVER	TICKET NO.	
07639	RI -371-6733		019700	NET 30	NC NORMAN C	289859	
GROSS WT. (TONS)	TARE WT. (TONS)	NET WT. (TONS)	PRODUCT CODE	DESCRIPTION		UNIT PRICE	AMOUNT
10.16	4.10	6.06	209	3/4" DENSE GRADE/TON			
		1.00	55	DELIVERY CHGE			
				SALES TAX - RI 7.0000			
Drop		Pick-up		Recycling Percentage Wood _____ Steel _____ Debris _____ Plastic _____ Cardboard _____ Concrete _____			
TRUCK NO.	TRUCK NAME	DELIVERY TRUCK TYPE		TOTAL			
WAITING TIME	Received by signature hereby guarantees that all materials represented herein are free from hazardous and/or contaminated materials and will bear all responsibilities for removal and disposal of same. We assume no responsibility for damage to property when delivery is made inside curbing. If you fail to pay pursuant to terms above, purchaser, signatory and/or guarantor will also be responsible to pay all costs of collection, including attorney's fees and interest on any delinquent balance at a rate of 1.5% per month commencing with the period of default.			RECEIVED BY - signifies the acceptance of the quantity and quality of delivered load, and that the undersigned is authorized to purchase said load and guarantee the payment for the same. <input checked="" type="checkbox"/>			

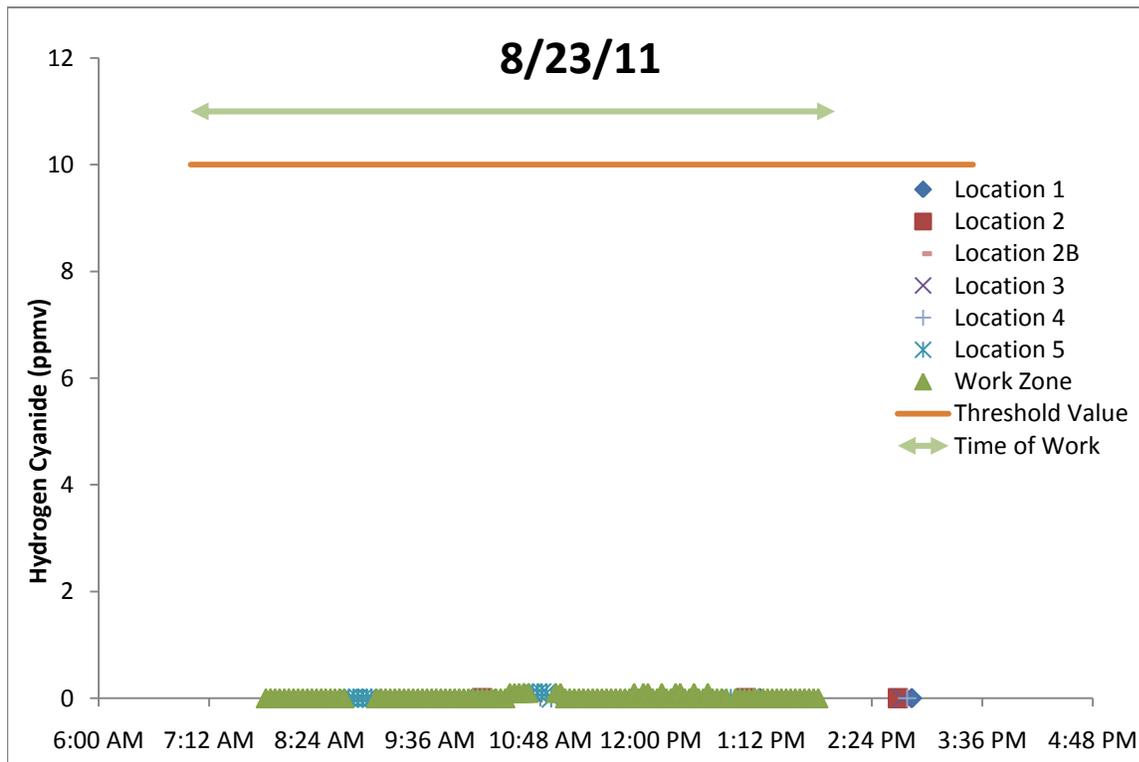
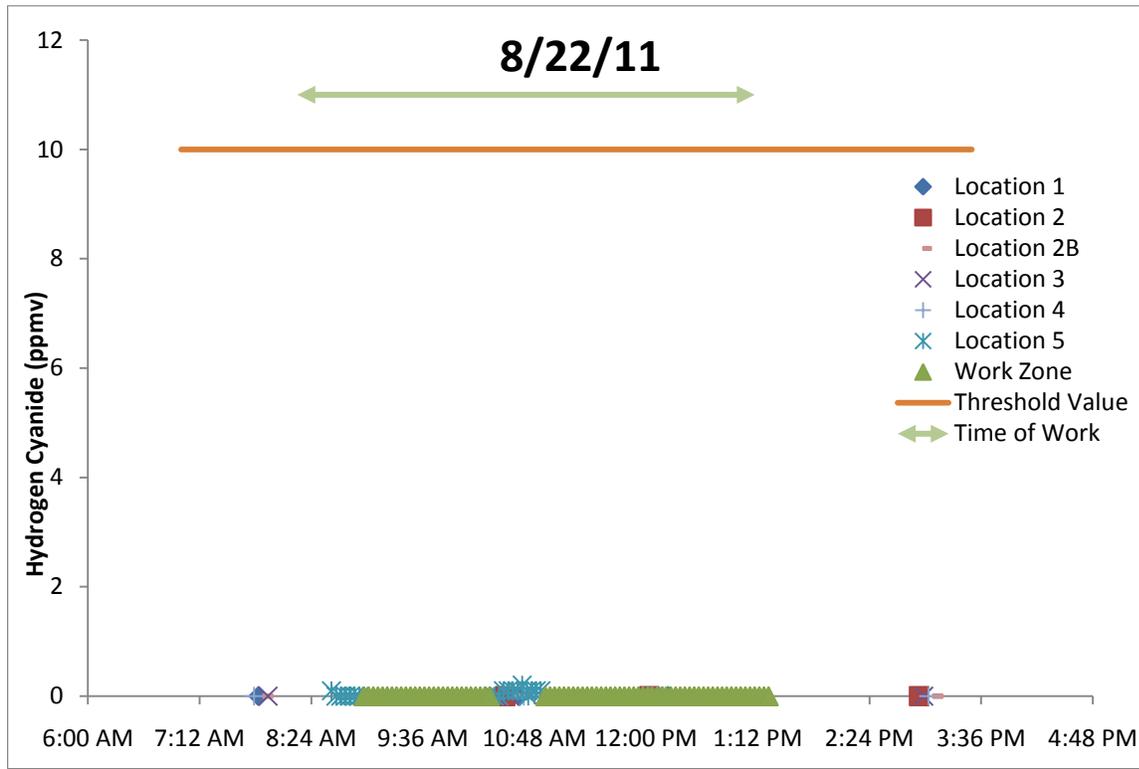
25M 9/07 D/TP

CUSTOMER COPY

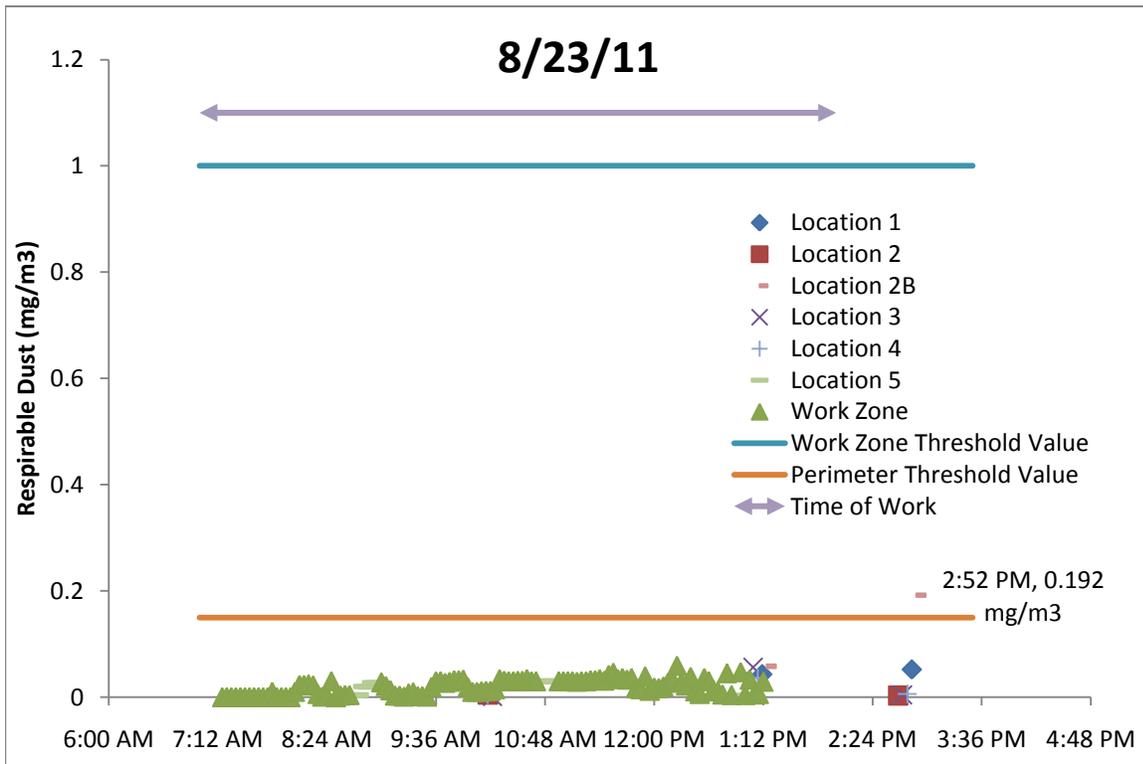
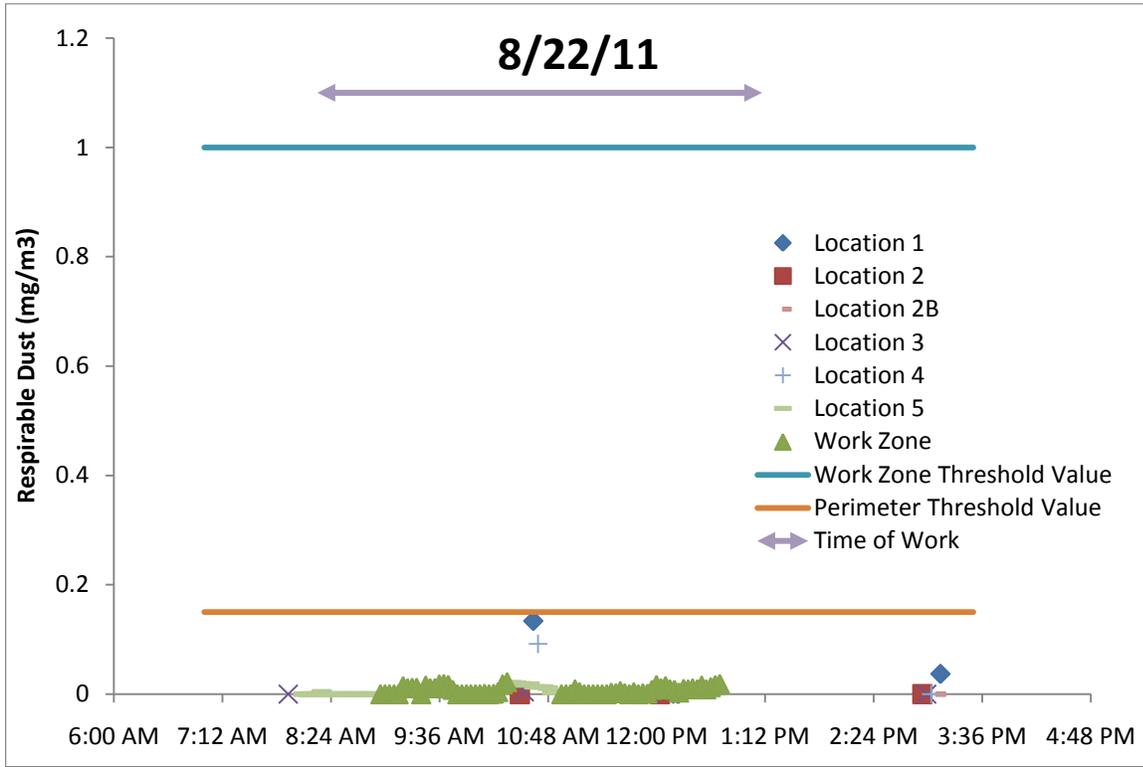
APPENDIX D

REAL-TIME AIR MONITORING

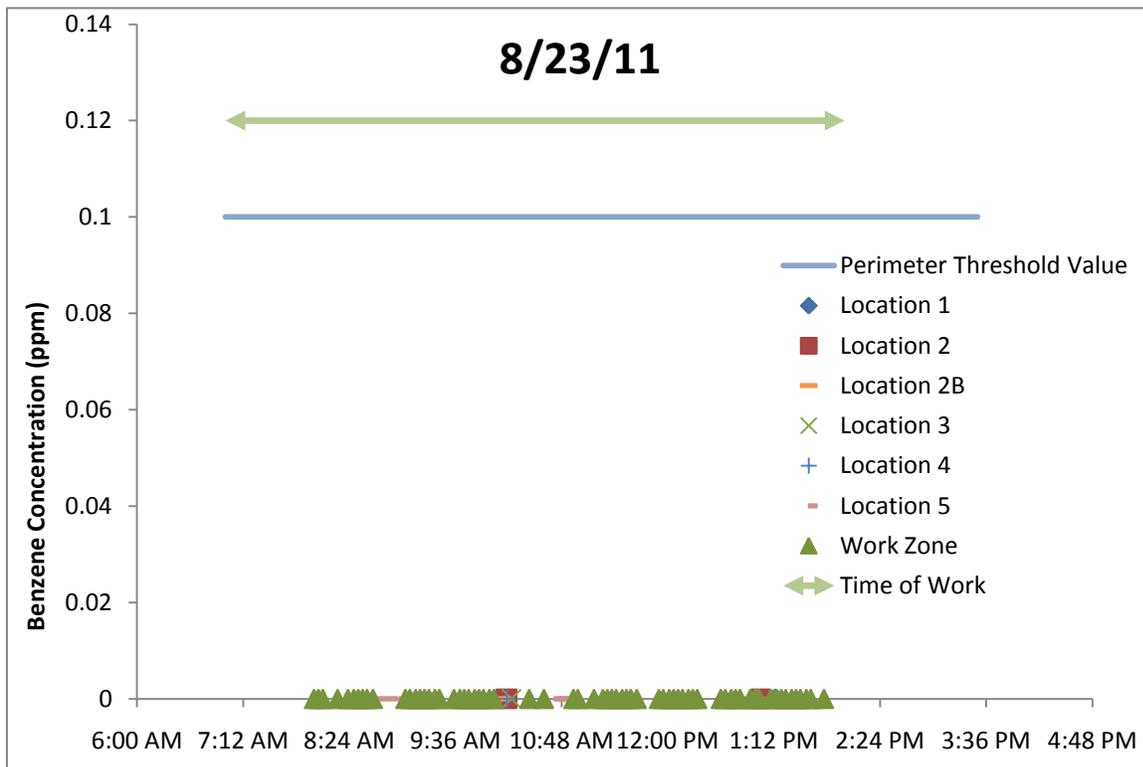
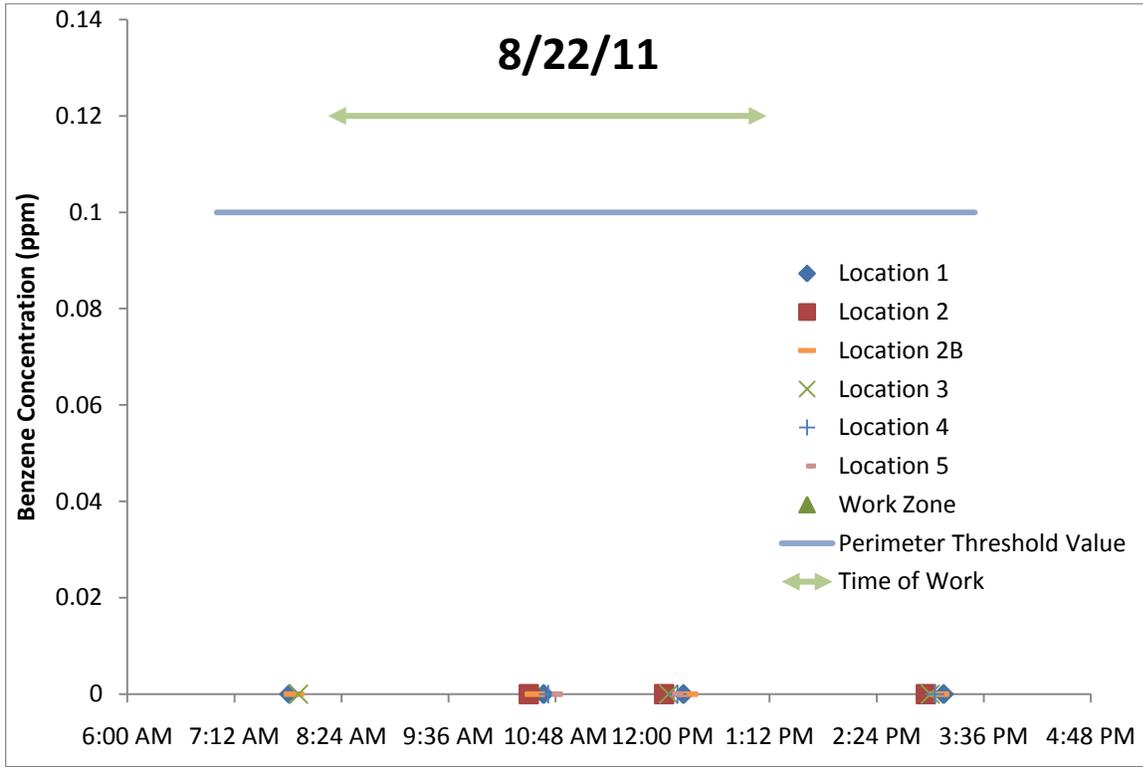
APPENDIX D
AIR QUALITY MONITORING - HCN
PIPE REMOVAL ACTIVITIES
Former Tidewater Facility
Pawtucket, Rhode Island



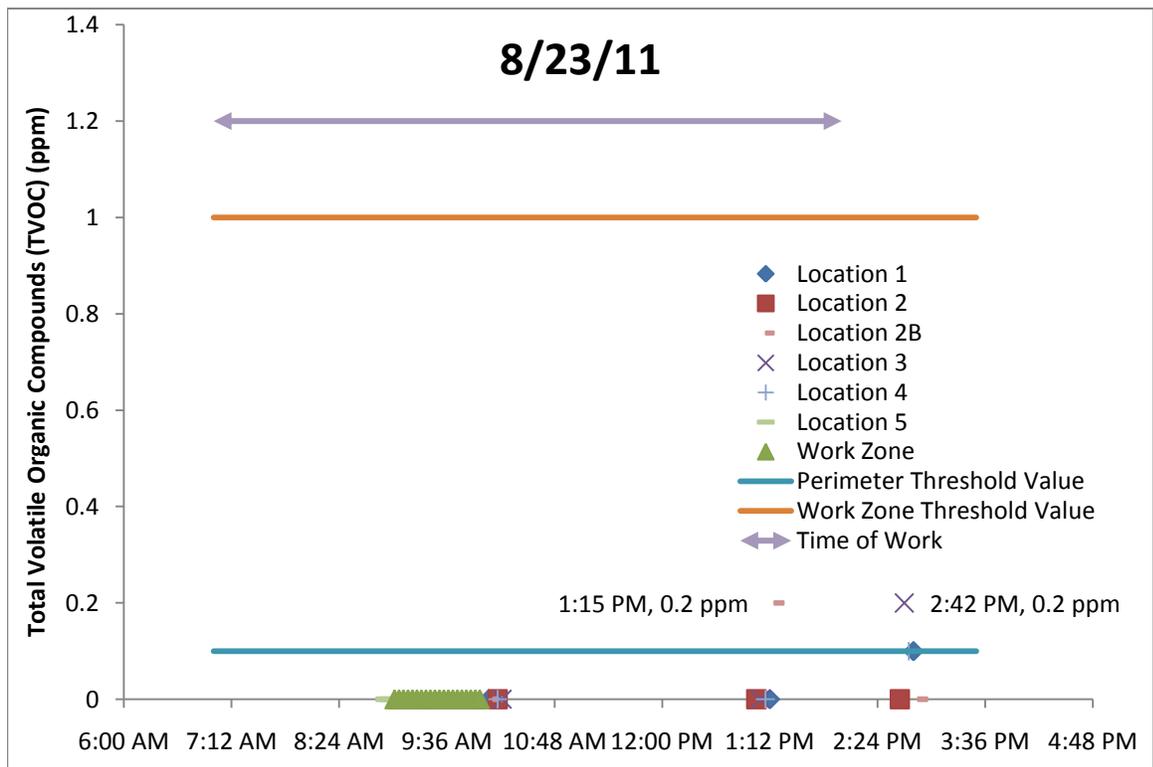
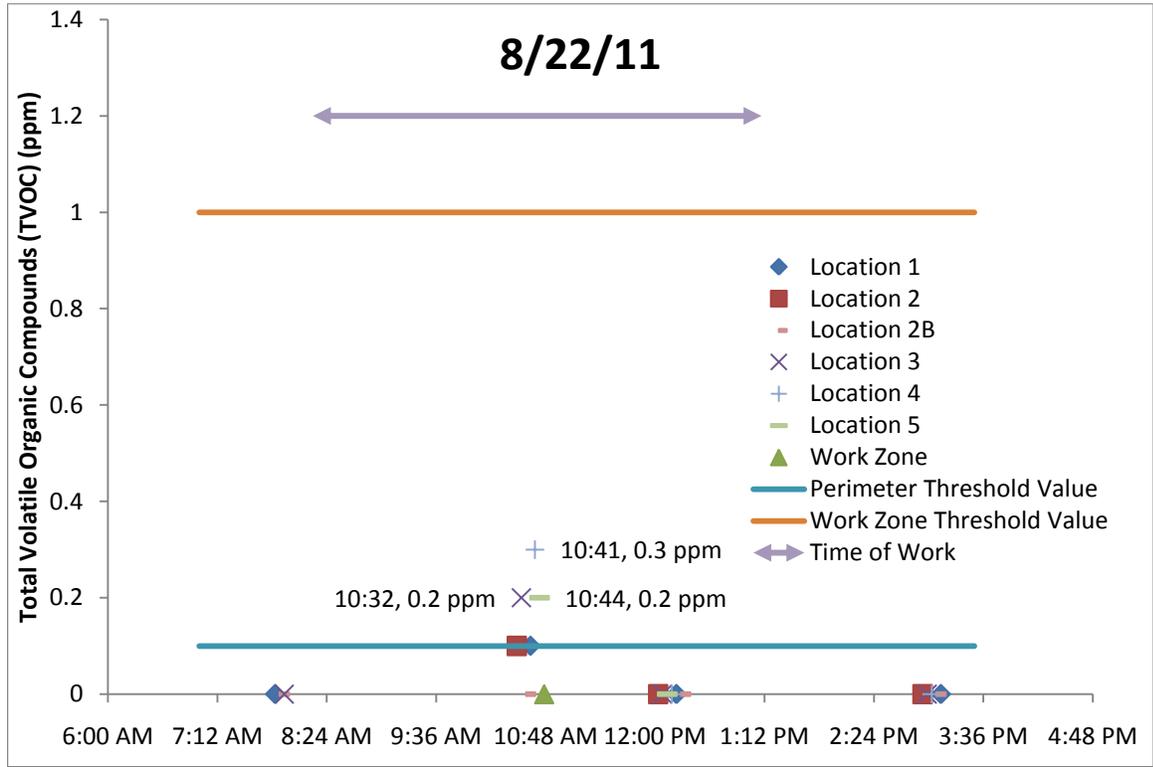
APPENDIX D
AIR QUALITY MONITORING - RESPIRABLE DUST
PIPE REMOVAL ACTIVITIES
Former Tidewater Facility
Pawtucket, Rhode Island



APPENDIX D
AIR QUALITY MONITORING - BENZENE
PIPE REMOVAL ACTIVITIES
Former Tidewater Facility
Pawtucket, Rhode Island



APPENDIX D
AIR QUALITY MONITORING - TVOCs
PIPE REMOVAL ACTIVITIES
Former Tidewater Facility
Pawtucket, Rhode Island



APPENDIX E

SUMMA CANISTER LABORATORY CERTIFICATES OF ANALYSIS



ANALYTICAL REPORT

Lab Number:	L1113402
Client:	GZA GeoEnvironmental, Inc. 530 Broadway Providence, RI 02903
ATTN:	Meg Kilpatrick
Phone:	(401) 421-4140
Project Name:	TIDEWATER
Project Number:	43654-30
Report Date:	09/02/11

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NY (11627), CT (PH-0141), NH (2206), NJ (MA015), RI (LAO00299), ME (MA0030), PA (Registration #68-02089), LA NELAC (03090), FL NELAC (E87814), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: TIDEWATER
Project Number: 43654-30

Lab Number: L1113402
Report Date: 09/02/11

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1113402-01	SUMMA - UPGRAD.	PAWTUCKET, RI	08/22/11 13:27
L1113402-02	SUMMA - DOWN.	PAWTUCKET, RI	08/22/11 13:21
L1113402-03	SUMMA - BLANK	PAWTUCKET, RI	08/22/11 00:00

Project Name: TIDEWATER
Project Number: 43654-30

Lab Number: L1113402
Report Date: 09/02/11

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

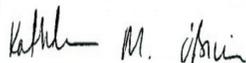
For additional information, please contact Client Services at 800-624-9220.

Volatile Organics in Air

The canister certification results are provided as an addendum.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Kathleen O'Brien

Title: Technical Director/Representative

Date: 09/02/11

AIR

Project Name: TIDEWATER**Lab Number:** L1113402**Project Number:** 43654-30**Report Date:** 09/02/11**SAMPLE RESULTS**

Lab ID: L1113402-01
 Client ID: SUMMA - UPGRAD.
 Sample Location: PAWTUCKET, RI
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 09/01/11 00:08
 Analyst: AR

Date Collected: 08/22/11 13:27
 Date Received: 08/26/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Benzene	ND	0.200	--	ND	0.639	--		1
Toluene	0.418	0.200	--	1.58	0.754	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	70		60-140
Bromochloromethane	69		60-140
chlorobenzene-d5	62		60-140



Project Name: TIDEWATER**Lab Number:** L1113402**Project Number:** 43654-30**Report Date:** 09/02/11**SAMPLE RESULTS**

Lab ID: L1113402-02
 Client ID: SUMMA - DOWN.
 Sample Location: PAWTUCKET, RI
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 09/01/11 21:23
 Analyst: AR

Date Collected: 08/22/11 13:21
 Date Received: 08/26/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Benzene	ND	0.200	--	ND	0.639	--		1
Toluene	0.299	0.200	--	1.13	0.754	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	112		60-140
Bromochloromethane	73		60-140
chlorobenzene-d5	104		60-140



Project Name: TIDEWATER**Lab Number:** L1113402**Project Number:** 43654-30**Report Date:** 09/02/11**SAMPLE RESULTS**

Lab ID: L1113402-03
 Client ID: SUMMA - BLANK
 Sample Location: PAWTUCKET, RI
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 09/01/11 21:59
 Analyst: AR

Date Collected: 08/22/11 00:00
 Date Received: 08/26/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Benzene	ND	0.200	--	ND	0.639	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	63		60-140
chlorobenzene-d5	79		60-140



Project Name: TIDEWATER

Lab Number: L1113402

Project Number: 43654-30

Report Date: 09/02/11

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 08/31/11 15:58

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab for sample(s): 01 Batch: WG487315-4								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.860	--		1
Propane	ND	0.200	--	ND	0.361	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.200	--	ND	0.434	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1



Project Name: TIDEWATER

Lab Number: L1113402

Project Number: 43654-30

Report Date: 09/02/11

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 08/31/11 15:58

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab for sample(s): 01 Batch: WG487315-4								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.590	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1



Project Name: TIDEWATER

Lab Number: L1113402

Project Number: 43654-30

Report Date: 09/02/11

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 08/31/11 15:58

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab for sample(s): 01 Batch: WG487315-4								
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1

Project Name: TIDEWATER

Lab Number: L1113402

Project Number: 43654-30

Report Date: 09/02/11

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 08/31/11 15:58

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab for sample(s): 01 Batch: WG487315-4								
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1



Project Name: TIDEWATER

Lab Number: L1113402

Project Number: 43654-30

Report Date: 09/02/11

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 08/31/11 15:58

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab for sample(s): 01 Batch: WG487315-4								
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: TIDEWATER

Lab Number: L1113402

Project Number: 43654-30

Report Date: 09/02/11

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 09/01/11 18:21

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab for sample(s): 02-03 Batch: WG487315-9								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.860	--		1
Propane	ND	0.200	--	ND	0.361	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.200	--	ND	0.434	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1



Project Name: TIDEWATER

Lab Number: L1113402

Project Number: 43654-30

Report Date: 09/02/11

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 09/01/11 18:21

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab for sample(s): 02-03 Batch: WG487315-9								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.590	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1



Project Name: TIDEWATER

Lab Number: L1113402

Project Number: 43654-30

Report Date: 09/02/11

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 09/01/11 18:21

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab for sample(s): 02-03 Batch: WG487315-9								
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1

Project Name: TIDEWATER

Lab Number: L1113402

Project Number: 43654-30

Report Date: 09/02/11

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 09/01/11 18:21

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab for sample(s): 02-03 Batch: WG487315-9								
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1

Project Name: TIDEWATER

Lab Number: L1113402

Project Number: 43654-30

Report Date: 09/02/11

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 09/01/11 18:21

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab for sample(s): 02-03 Batch: WG487315-9								
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: TIDEWATER

Project Number: 43654-30

Lab Number: L1113402

Report Date: 09/02/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 01 Batch: WG487315-3								
Chlorodifluoromethane	77		-		70-130	-		
Propylene	75		-		70-130	-		
Propane	77		-		70-130	-		
Dichlorodifluoromethane	90		-		70-130	-		
Chloromethane	88		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	94		-		70-130	-		
Methanol	52	Q	-		70-130	-		
Vinyl chloride	91		-		70-130	-		
1,3-Butadiene	88		-		70-130	-		
Butane	65	Q	-		70-130	-		
Bromomethane	93		-		70-130	-		
Chloroethane	95		-		70-130	-		
Ethyl Alcohol	89		-		70-130	-		
Dichlorofluoromethane	70		-		70-130	-		
Vinyl bromide	92		-		70-130	-		
Acrolein	98		-		70-130	-		
Acetone	102		-		70-130	-		
Acetonitrile	110		-		70-130	-		
Trichlorofluoromethane	95		-		70-130	-		
iso-Propyl Alcohol	87		-		70-130	-		
Acrylonitrile	102		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: TIDEWATER

Project Number: 43654-30

Lab Number: L1113402

Report Date: 09/02/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 01 Batch: WG487315-3								
Pentane	87		-		70-130	-		
Ethyl ether	98		-		70-130	-		
1,1-Dichloroethene	94		-		70-130	-		
tert-Butyl Alcohol	83		-		70-130	-		
Methylene chloride	97		-		70-130	-		
3-Chloropropene	102		-		70-130	-		
Carbon disulfide	86		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	106		-		70-130	-		
trans-1,2-Dichloroethene	97		-		70-130	-		
1,1-Dichloroethane	106		-		70-130	-		
Methyl tert butyl ether	99		-		70-130	-		
Vinyl acetate	109		-		70-130	-		
2-Butanone	102		-		70-130	-		
cis-1,2-Dichloroethene	111		-		70-130	-		
Ethyl Acetate	114		-		70-130	-		
Chloroform	118		-		70-130	-		
Tetrahydrofuran	78		-		70-130	-		
2,2-Dichloropropane	106		-		70-130	-		
1,2-Dichloroethane	87		-		70-130	-		
n-Hexane	132	Q	-		70-130	-		
Isopropyl Ether	138	Q	-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: TIDEWATER

Project Number: 43654-30

Lab Number: L1113402

Report Date: 09/02/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 01 Batch: WG487315-3								
Ethyl-Tert-Butyl-Ether	100		-		70-130	-		
1,1,1-Trichloroethane	110		-		70-130	-		
1,1-Dichloropropene	114		-		70-130	-		
Benzene	109		-		70-130	-		
Carbon tetrachloride	108		-		70-130	-		
Cyclohexane	103		-		70-130	-		
Tertiary-Amyl Methyl Ether	95		-		70-130	-		
Dibromomethane	110		-		70-130	-		
1,2-Dichloropropane	106		-		70-130	-		
Bromodichloromethane	102		-		70-130	-		
1,4-Dioxane	94		-		70-130	-		
Trichloroethene	111		-		70-130	-		
2,2,4-Trimethylpentane	109		-		70-130	-		
Heptane	104		-		70-130	-		
2,4,4-Trimethyl-1-Pentene	101		-		70-130	-		
cis-1,3-Dichloropropene	104		-		70-130	-		
4-Methyl-2-pentanone	95		-		70-130	-		
2,4,4-Trimethyl-2-Pentene	97		-		70-130	-		
trans-1,3-Dichloropropene	84		-		70-130	-		
1,1,2-Trichloroethane	110		-		70-130	-		
Toluene	108		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: TIDEWATER

Project Number: 43654-30

Lab Number: L1113402

Report Date: 09/02/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 01 Batch: WG487315-3								
1,3-Dichloropropane	108		-		70-130	-		
2-Hexanone	94		-		70-130	-		
Dibromochloromethane	106		-		70-130	-		
1,2-Dibromoethane	105		-		70-130	-		
Butyl Acetate	101		-		70-130	-		
Octane	108		-		70-130	-		
Tetrachloroethene	114		-		70-130	-		
1,1,1,2-Tetrachloroethane	112		-		70-130	-		
Chlorobenzene	109		-		70-130	-		
Ethylbenzene	110		-		70-130	-		
p/m-Xylene	114		-		70-130	-		
Bromoform	97		-		70-130	-		
Styrene	113		-		70-130	-		
1,1,2,2-Tetrachloroethane	115		-		70-130	-		
o-Xylene	121		-		70-130	-		
1,2,3-Trichloropropane	78		-		70-130	-		
Nonane (C9)	108		-		70-130	-		
Isopropylbenzene	119		-		70-130	-		
Bromobenzene	105		-		70-130	-		
o-Chlorotoluene	113		-		70-130	-		
n-Propylbenzene	118		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: TIDEWATER

Project Number: 43654-30

Lab Number: L1113402

Report Date: 09/02/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 01 Batch: WG487315-3								
p-Chlorotoluene	105		-		70-130	-		
4-Ethyltoluene	110		-		70-130	-		
1,3,5-Trimethylbenzene	115		-		70-130	-		
tert-Butylbenzene	119		-		70-130	-		
1,2,4-Trimethylbenzene	119		-		70-130	-		
Decane (C10)	113		-		70-130	-		
Benzyl chloride	80		-		70-130	-		
1,3-Dichlorobenzene	115		-		70-130	-		
1,4-Dichlorobenzene	113		-		70-130	-		
sec-Butylbenzene	118		-		70-130	-		
p-Isopropyltoluene	108		-		70-130	-		
1,2-Dichlorobenzene	117		-		70-130	-		
n-Butylbenzene	114		-		70-130	-		
1,2-Dibromo-3-chloropropane	100		-		70-130	-		
Undecane	112		-		70-130	-		
Dodecane (C12)	101		-		70-130	-		
1,2,4-Trichlorobenzene	109		-		70-130	-		
Naphthalene	102		-		70-130	-		
1,2,3-Trichlorobenzene	107		-		70-130	-		
Hexachlorobutadiene	109		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: TIDEWATER

Project Number: 43654-30

Lab Number: L1113402

Report Date: 09/02/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 02-03 Batch: WG487315-8								
Chlorodifluoromethane	81		-		70-130	-		
Propylene	80		-		70-130	-		
Propane	83		-		70-130	-		
Dichlorodifluoromethane	97		-		70-130	-		
Chloromethane	84		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	93		-		70-130	-		
Methanol	50	Q	-		70-130	-		
Vinyl chloride	89		-		70-130	-		
1,3-Butadiene	87		-		70-130	-		
Butane	97		-		70-130	-		
Bromomethane	96		-		70-130	-		
Chloroethane	93		-		70-130	-		
Ethyl Alcohol	97		-		70-130	-		
Dichlorofluoromethane	104		-		70-130	-		
Vinyl bromide	97		-		70-130	-		
Acrolein	96		-		70-130	-		
Acetone	104		-		70-130	-		
Acetonitrile	98		-		70-130	-		
Trichlorofluoromethane	100		-		70-130	-		
iso-Propyl Alcohol	97		-		70-130	-		
Acrylonitrile	95		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: TIDEWATER

Project Number: 43654-30

Lab Number: L1113402

Report Date: 09/02/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 02-03 Batch: WG487315-8								
Pentane	94		-		70-130	-		
Ethyl ether	99		-		70-130	-		
1,1-Dichloroethene	98		-		70-130	-		
tert-Butyl Alcohol	88		-		70-130	-		
Methylene chloride	98		-		70-130	-		
3-Chloropropene	76		-		70-130	-		
Carbon disulfide	92		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	105		-		70-130	-		
trans-1,2-Dichloroethene	97		-		70-130	-		
1,1-Dichloroethane	98		-		70-130	-		
Methyl tert butyl ether	101		-		70-130	-		
Vinyl acetate	120		-		70-130	-		
2-Butanone	112		-		70-130	-		
cis-1,2-Dichloroethene	107		-		70-130	-		
Ethyl Acetate	123		-		70-130	-		
Chloroform	113		-		70-130	-		
Tetrahydrofuran	86		-		70-130	-		
2,2-Dichloropropane	88		-		70-130	-		
1,2-Dichloroethane	81		-		70-130	-		
n-Hexane	140	Q	-		70-130	-		
Isopropyl Ether	158	Q	-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: TIDEWATER

Project Number: 43654-30

Lab Number: L1113402

Report Date: 09/02/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 02-03 Batch: WG487315-8								
Ethyl-Tert-Butyl-Ether	106		-		70-130	-		
1,1,1-Trichloroethane	107		-		70-130	-		
1,1-Dichloropropene	114		-		70-130	-		
Benzene	106		-		70-130	-		
Carbon tetrachloride	110		-		70-130	-		
Cyclohexane	104		-		70-130	-		
Tertiary-Amyl Methyl Ether	98		-		70-130	-		
Dibromomethane	115		-		70-130	-		
1,2-Dichloropropane	110		-		70-130	-		
Bromodichloromethane	106		-		70-130	-		
1,4-Dioxane	110		-		70-130	-		
Trichloroethene	112		-		70-130	-		
2,2,4-Trimethylpentane	109		-		70-130	-		
Heptane	106		-		70-130	-		
2,4,4-Trimethyl-1-Pentene	103		-		70-130	-		
cis-1,3-Dichloropropene	110		-		70-130	-		
4-Methyl-2-pentanone	114		-		70-130	-		
2,4,4-Trimethyl-2-Pentene	108		-		70-130	-		
trans-1,3-Dichloropropene	92		-		70-130	-		
1,1,2-Trichloroethane	123		-		70-130	-		
Toluene	111		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: TIDEWATER

Project Number: 43654-30

Lab Number: L1113402

Report Date: 09/02/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 02-03 Batch: WG487315-8								
1,3-Dichloropropane	114		-		70-130	-		
2-Hexanone	111		-		70-130	-		
Dibromochloromethane	101		-		70-130	-		
1,2-Dibromoethane	111		-		70-130	-		
Butyl Acetate	110		-		70-130	-		
Octane	110		-		70-130	-		
Tetrachloroethene	115		-		70-130	-		
1,1,1,2-Tetrachloroethane	109		-		70-130	-		
Chlorobenzene	112		-		70-130	-		
Ethylbenzene	110		-		70-130	-		
p/m-Xylene	111		-		70-130	-		
Bromoform	101		-		70-130	-		
Styrene	114		-		70-130	-		
1,1,2,2-Tetrachloroethane	118		-		70-130	-		
o-Xylene	108		-		70-130	-		
1,2,3-Trichloropropane	93		-		70-130	-		
Nonane (C9)	119		-		70-130	-		
Isopropylbenzene	118		-		70-130	-		
Bromobenzene	114		-		70-130	-		
o-Chlorotoluene	120		-		70-130	-		
n-Propylbenzene	119		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: TIDEWATER

Project Number: 43654-30

Lab Number: L1113402

Report Date: 09/02/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 02-03 Batch: WG487315-8								
p-Chlorotoluene	111		-		70-130	-		
4-Ethyltoluene	114		-		70-130	-		
1,3,5-Trimethylbenzene	119		-		70-130	-		
tert-Butylbenzene	123		-		70-130	-		
1,2,4-Trimethylbenzene	126		-		70-130	-		
Decane (C10)	114		-		70-130	-		
Benzyl chloride	87		-		70-130	-		
1,3-Dichlorobenzene	124		-		70-130	-		
1,4-Dichlorobenzene	124		-		70-130	-		
sec-Butylbenzene	124		-		70-130	-		
p-Isopropyltoluene	116		-		70-130	-		
1,2-Dichlorobenzene	127		-		70-130	-		
n-Butylbenzene	127		-		70-130	-		
1,2-Dibromo-3-chloropropane	118		-		70-130	-		
Undecane	119		-		70-130	-		
Dodecane (C12)	124		-		70-130	-		
1,2,4-Trichlorobenzene	128		-		70-130	-		
Naphthalene	123		-		70-130	-		
1,2,3-Trichlorobenzene	129		-		70-130	-		
Hexachlorobutadiene	114		-		70-130	-		

Lab Duplicate Analysis

Batch Quality Control

Project Name: TIDEWATER

Project Number: 43654-30

Lab Number: L1113402

Report Date: 09/02/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG487315-5 QC Sample: L1113438-03 Client ID: DUP Sample						
Propylene	ND	ND	ppbV	NC		25
Dichlorodifluoromethane	0.379	0.443	ppbV	16		25
Chloromethane	0.431	0.507	ppbV	16		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
Vinyl chloride	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethyl Alcohol	ND	ND	ppbV	NC		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	2.90	3.24	ppbV	11		25
Trichlorofluoromethane	ND	0.205	ppbV	NC		25
iso-Propyl Alcohol	0.775	0.757	ppbV	2		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25

Lab Duplicate Analysis

Batch Quality Control

Project Name: TIDEWATER

Project Number: 43654-30

Lab Number: L1113402

Report Date: 09/02/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG487315-5 QC Sample: L1113438-03 Client ID: DUP Sample					
1,1-Dichloroethane	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25
Vinyl acetate	ND	ND	ppbV	NC	25
2-Butanone	0.338	0.373	ppbV	10	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Ethyl Acetate	ND	ND	ppbV	NC	25
Chloroform	ND	ND	ppbV	NC	25
Tetrahydrofuran	ND	ND	ppbV	NC	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
n-Hexane	ND	ND	ppbV	NC	25
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
Benzene	ND	ND	ppbV	NC	25
Carbon tetrachloride	ND	ND	ppbV	NC	25
Cyclohexane	ND	ND	ppbV	NC	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
1,4-Dioxane	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC	25

Lab Duplicate Analysis

Batch Quality Control

Project Name: TIDEWATER

Project Number: 43654-30

Lab Number: L1113402

Report Date: 09/02/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG487315-5 QC Sample: L1113438-03 Client ID: DUP Sample					
Heptane	ND	ND	ppbV	NC	25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	ND	0.259	ppbV	NC	25
2-Hexanone	ND	ND	ppbV	NC	25
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	ND	ND	ppbV	NC	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	ND	ND	ppbV	NC	25
p/m-Xylene	ND	ND	ppbV	NC	25
Bromoform	ND	ND	ppbV	NC	25
Styrene	ND	ND	ppbV	NC	25
1,1,1,2-Tetrachloroethane	ND	ND	ppbV	NC	25
o-Xylene	ND	ND	ppbV	NC	25
4-Ethyltoluene	ND	ND	ppbV	NC	25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC	25

Lab Duplicate Analysis

Batch Quality Control

Project Name: TIDEWATER

Project Number: 43654-30

Lab Number: L1113402

Report Date: 09/02/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG487315-5 QC Sample: L1113438-03 Client ID: DUP Sample					
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC	25
Benzyl chloride	ND	ND	ppbV	NC	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC	25
Hexachlorobutadiene	ND	ND	ppbV	NC	25

Project Name: TIDEWATER

Project Number: 43654-30

Serial_No:09021116:24
Lab Number: L1113402

Report Date: 09/02/11

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Cleaning Batch ID	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Out mL/min	Flow In mL/min	% RSD
L1113402-01	SUMMA - UPGRAD.	0350	#16 AMB		-	-	3.3	3.3	0
L1113402-01	SUMMA - UPGRAD.	325	2.7L Can	L1111691	-29.5	-15.3	-	-	-
L1113402-02	SUMMA - DOWN.	0004	#16 AMB		-	-	3.9	4.2	7
L1113402-02	SUMMA - DOWN.	450	2.7L Can	L1111691	-29.5	-14.5	-	-	-
L1113402-03	SUMMA - BLANK	118	2.7L Can	L1111691	-29.5	-29.5	-	-	-



Air Volatiles Can Certification

Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1111691**Project Number:** CANISTER QC BAT**Report Date:** 09/02/11**Air Canister Certification Results**

Lab ID: L1111691-01
 Client ID: CAN 145 SHELF 7
 Sample Location:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 08/04/11 17:20
 Analyst: RY

Date Collected: 08/02/11 00:00
 Date Received: 08/02/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.860	--		1
Propane	ND	0.200	--	ND	0.361	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.200	--	ND	0.434	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1111691**Project Number:** CANISTER QC BAT**Report Date:** 09/02/11**Air Canister Certification Results**

Lab ID: L1111691-01

Date Collected: 08/02/11 00:00

Client ID: CAN 145 SHELF 7

Date Received: 08/02/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.590	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1111691**Project Number:** CANISTER QC BAT**Report Date:** 09/02/11**Air Canister Certification Results**

Lab ID: L1111691-01

Date Collected: 08/02/11 00:00

Client ID: CAN 145 SHELF 7

Date Received: 08/02/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1111691**Project Number:** CANISTER QC BAT**Report Date:** 09/02/11**Air Canister Certification Results**

Lab ID: L1111691-01

Date Collected: 08/02/11 00:00

Client ID: CAN 145 SHELF 7

Date Received: 08/02/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1111691**Project Number:** CANISTER QC BAT**Report Date:** 09/02/11**Air Canister Certification Results**

Lab ID: L1111691-01

Date Collected: 08/02/11 00:00

Client ID: CAN 145 SHELF 7

Date Received: 08/02/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		60-140
Bromochloromethane	114		60-140
chlorobenzene-d5	88		60-140

Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1111691**Project Number:** CANISTER QC BAT**Report Date:** 09/02/11**Air Canister Certification Results**

Lab ID: L1111691-01
 Client ID: CAN 145 SHELF 7
 Sample Location:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 08/04/11 17:20
 Analyst: RY

Date Collected: 08/02/11 00:00
 Date Received: 08/02/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1111691**Project Number:** CANISTER QC BAT**Report Date:** 09/02/11**Air Canister Certification Results**

Lab ID: L1111691-01

Date Collected: 08/02/11 00:00

Client ID: CAN 145 SHELF 7

Date Received: 08/02/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1111691**Project Number:** CANISTER QC BAT**Report Date:** 09/02/11**Air Canister Certification Results**

Lab ID: L1111691-01

Date Collected: 08/02/11 00:00

Client ID: CAN 145 SHELF 7

Date Received: 08/02/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1111691**Project Number:** CANISTER QC BAT**Report Date:** 09/02/11**Air Canister Certification Results**

Lab ID: L1111691-01

Date Collected: 08/02/11 00:00

Client ID: CAN 145 SHELF 7

Date Received: 08/02/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	84		60-140
bromochloromethane	112		60-140
chlorobenzene-d5	83		60-140

AIR Petro Can Certification

Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1111691**Project Number:** CANISTER QC BAT**Report Date:** 09/02/11**AIR CAN CERTIFICATION RESULTS**

Lab ID: L1111691-01
Client ID: CAN 145 SHELF 7
Sample Location: Not Specified
Matrix: Air
Analytical Method: 96,APH
Analytical Date: 08/05/11 20:44
Analyst: RY

Date Collected: 08/02/11 00:00
Date Received: 08/02/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
Toluene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Project Name: TIDEWATER

Lab Number: L1113402

Project Number: 43654-30

Report Date: 09/02/11

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal**Cooler**

N/A Present/Intact

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1113402-01A	Canister - 2.7 Liter	N/A	NA		Y	Present/Intact	TO15-LL(30)
L1113402-02A	Canister - 2.7 Liter	N/A	NA		Y	Present/Intact	TO15-LL(30)
L1113402-03A	Canister - 2.7 Liter	N/A	NA		Y	Present/Intact	TO15-LL(30)

*Values in parentheses indicate holding time in days

Project Name: TIDEWATER
Project Number: 43654-30

Lab Number: L1113402
Report Date: 09/02/11

GLOSSARY

Acronyms

EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less

Report Format: Data Usability Report



Project Name: TIDEWATER
Project Number: 43654-30

Lab Number: L1113402
Report Date: 09/02/11

Data Qualifiers

than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Project Name: TIDEWATER
Project Number: 43654-30

Lab Number: L1113402
Report Date: 09/02/11

REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised August 4, 2011 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570B, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA, 245.1, 245.7, 1631E, 180.1, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B. Organic Parameters: EPA 8081, 8082, 8260B, 8270C.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 3060A, 6020A, 7470A, 7471A, 9040B, 9045C, 7196A. Organic Parameters: SW-846 3540C, 3580, 3630C, 3640A, 3660B, 3665A, 5035, 8260B, 8270C, 8015D, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3010, 3020A, 3015, SM2320B, SM2540D, 2540G, , EPA 180.1, 1631E, SW-846 7470A, 9040B, 6020. Organic Parameters: SW-846 3510C, 3580A, 5030B, 5035L, 5035H, 3630C, 3640C, 3660B, 3665A, 8015B 8081A, 8082, 8260B, 8270C)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6020, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9040B, 9045C, 9050A, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 5030B, 5035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 8015B.)

Atmospheric Organic Parameters (EPA TO-15)

Biological Tissue (Inorganic Parameters: SW-846 6020 Organic Parameters: SW-846 8270C, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 245.7, 7470A, 9014, 9040B, 9050, 120.1, 4500CN-E, 4500H-B, EPA 376.2, 180.1, 3020A. Organic Parameters: EPA 8260B, 8270C, 8081A, 8082, 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020, 7196A, 3060A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 1312, 3050B, 3580, 3570, 3051, 5035, 5030B.)

Air & Emissions (EPA TO-15.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via LA-DEQ.**

Refer to LA-DEQ Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 7196, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8260, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 2510B, EPA 120.1, 180.1, 1631E, 245.7.)

Solid & Chemical Materials (Inorganic Parameters: EPA 9040, 9060, 6020, 7470, 7471, 7474. Organic Parameters: EPA 8081, 8082, 8015 Mod, 8270, 8260.)

U.S. Army Corps of Engineers

Department of Defense Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 5030B, 8260B, 8270C, 8270C-ALK-PAH, 8082, 8081A, 8015D-SHC.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 5035A, 8260B, 8270C, 8270-ALK-PAH, 8082, 8081A, 8015D-SHC, 8015-DRO.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.



CHAIN OF CUSTODY

AIR ANALYSIS

PAGE 1 OF 1

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1113402

Client Information

Client: **MEG KILDATRICK**
Address: **62A, 530 BROADWAY**
PROVIDENCE, RI
Phone: **401-421-4140**

Project Information

Project Name: **TIDEWATER**
Project Location: **PAWTCCKET, RI**
Project #: **43654-30**
Project Manager: **MEG KILDATRICK**
ALPHA Quote #:

Report Information - Data Deliverables

- FAX
- ADEX
- Criteria Checker: _____
(Default based on Regulatory Criteria Indicated)
- Other Formats: _____
- EMAIL (standard pdf report)
- Additional Deliverables:

Billing Information

Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria

Turn-Around Time

- Standard
- RUSH (only confirmed if pre-approved!)

Report to: (if different than Project Manager)

AND
Sophia.narkiewicz@alpha.com

Email: **Sophia.narkiewicz@alpha.com**

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection					Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	ANALYSIS						Sample Comments (i.e. PID)	
		Date	Start Time	End Time	Initial Vacuum	Final Vacuum						TO-14A by TO-15	TO-15 Methyl EA	TO-15 SIM	APH	FIXED GASES	TO-13A		TO-4/TO-10
13402.1	SUMMA-UPgrad.	8/22/11	825	1322	-29.79	-15.31	AA	SDN	9	325	350	✓							
2	SUMMA - down.	8/22/11	810	1321	-29.73	-14.85	AA	SDN	9	450	004	✓							
3	SUMMA - blank	8/22/11	-	-	-29.5	-29.5	AA	SDN	9	118	--	✓							

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:

Sophia Narkiewicz
P. Gilbert

Date/Time

8/25/11 1630
8/26/11 1658

Received By:

P. Gilbert
W. F.

Date/Time:

8/26/11 1025
8/30/11 1015

APPENDIX F
DISPOSAL DOCUMENTATION

TRK # 5117

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number RIP000033182	2. Page 1 of 1	3. Emergency Response Phone (800) 483-3718	4. Manifest Tracking Number 004001339 FLE
---	---	-----------------------	--	---

5. Generator's Name and Mailing Address Narragansett Electric company 40 Sylvan Road Waltham, MA 02451	Generator's Site Address (if different than mailing address) 200 Taft Street Pawtucket, RI 02862
Generator's Phone: (781) 907-3647 ATTN: Susan Brochu	

6. Transporter 1 Company Name Clean Harbors Environmental Services Inc	U.S. EPA ID Number MAD039322250
7. Transporter 2 Company Name	U.S. EPA ID Number

8. Designated Facility Name and Site Address Clean Harbors of Braintree Inc 1 Hill Avenue Braintree, MA 02184	U.S. EPA ID Number MAD053452637
Facility's Phone: (781) 380-7100	

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
		No.	Type				
X	1. HA3077. HAZARDOUS WASTE, SOLID, N.O.S., (BENZENE), 9, PG III	02	DM	600	P	R015	D018
X	2. HA3082. HAZARDOUS WASTE, LIQUID, N.O.S., (BENZENE), 9, PG III	01	DM	40	G	R015	D018
	3. NON DOT REGULATED MATERIAL, (OILY DEBRIS)	01	DM	80	P	MA01	R015
	4.						

14. Special Handling Instructions and Additional Information
 1. **US725H 2X55 ERG#171**
 2. **CH075269HX5 ERG#171**
 3. **R40179RIR(X5)**

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offero's Printed/Typed Name: **AGENT FOR THE GENERATOR FRANCISCO BATO** Signature: *Francisco Bato* Month: **8** Day: **26** Year: **11**

16. International Shipments Import to U.S. Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name Francisco Bato	Signature <i>Francisco Bato</i>	Month Day Year 8 26 11
Transporter 2 Printed/Typed Name John Dugan	Signature <i>John Dugan</i>	Month Day Year 8 26 11

18. Discrepancy **NOT AHAZ WASTE IN RE THE WASTE DESCRIBED ONLINE AND 9.2 ARE MOI EXEMPT.**

18a. Discrepancy Indication Space Quantity Type Residue Partial Rejection Full Rejection

Manifest Reference Number: _____

18b. Alternate Facility (or Generator) _____ U.S. EPA ID Number _____

Facility's Phone: _____

18c. Signature of Alternate Facility (or Generator) _____ Month Day Year _____

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. H141	2. H141	3. H141	4.
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20. Designated Facility Owner or Operator. Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: **Keith A. Dwyer, Inc.** Signature: *Keith A. Dwyer* Month Day Year: **08 26 11**