

#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY Region 1 5 Post Office Square, Suite 100 BOSTON, MA 02109-3912

#### **CERTIFIED MAIL RETURN RECEIPT REQUESTED**

MAR 1 5 2013

Mike Casasanta, Project Manager W.L. French Excavation Corporation 3 Survey Circle Billerica, MA 01862

Re: Authorization to discharge under the Remediation General Permit (RGP) – MAG910000. East Pier - Building 7 site located at 50 Lewis Street, East Boston, MA 02128, Suffolk County; Authorization # MAG910569

Dear Mr. Casasanta:

Based on the review of a Notice of Intent (NOI) submitted on behalf of Roseland Property Company by the firm Lockwood Remediation Technologies LLC (LRT), for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Operator, to discharge in accordance with the provisions of the RGP at that site. Your authorization number is listed above.

The checklist enclosed with this RGP authorization indicates the pollutants which you are required to monitor. Also indicated on the checklist are the effluent limits, test methods and minimum levels (MLs) for each pollutant. Please note that the checklist does not represent the complete requirements of the RGP. Operators must comply with all of the applicable requirements of this permit, including influent and effluent monitoring, narrative water quality standards, record keeping, and reporting requirements, found in Parts I and II, and Appendices I – VIII of the RGP. See EPA's website for the complete RGP and other information at: <u>http://www.epa.gov/region1/npdes/mass.html#dgp</u>.

Please note the enclosed checklist includes parameters that exceeded Appendix III limits. The checklist also includes other parameters for which your laboratory reports indicated there was insufficient sensitivity to detect these parameters at the minimum levels established in Appendix VI of the RGP.

Also, please note that the metals included on the checklist are dilution dependent pollutants and subject to limitations based on selected dilution ranges and technologybased ceiling limitations. With the absence of dilution of freshwater into tidal water, EPA determined that the Dilution Factor Range (DFR) for each parameter for this site is in the one and five (1-5) range. (See the RGP Appendix IV for Massachusetts facilities). Therefore, the limits for antimony of 5.6 ug/L, arsenic of 36 ug/L, copper of 3.7 ug/L, lead of 8.5 ug/L, nickel of 8.2 ug/L, zinc of 85.6 ug/L and iron of 1,000ug/L, are required to achieve permit compliance at your site.

Finally, please note the checklist of pollutants attached to this authorization is subject to a recertification if the operations at the site result in a discharge lasting longer than six months. A recertification can be submitted to EPA within six (6) to twelve (12) months of operations in accordance with the 2010 RGP regulations.

This general permit and authorization to discharge will expire on September 9, 2015. You have reported that this project will terminate on March 15, 2014. If for any reason the discharge terminates sooner you are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within 30 days of project completion.

Thank you in advance for your cooperation in this matter. Please contact Victor Alvarez at 617-918-1572 or Alvarez.Victor@epa.gov, if you have any questions.

Sincerely,

Milma Murphy

Thelma Murphy, Manager Storm Water and Construction Permits Section

#### Enclosure

cc: Robert Kubit, MassDEP Paul Canavan, BWSC Paul Lockwood, LRT

## 2010 Remediation General Permit Summary of Monitoring Parameters<sup>[1]</sup>

NPDES Authorization Number:		MAG910569				
Authorization Issued:	March	, 2013				
Facility/Site Name:	East P	Pier – Building 7				
Facility/Site Address:	50 Le	50 Lewis Street, East Boston, MA 02128				
	Email	Email address of owner: Not Provided				
Legal Name of Operator:		W.L. French Excavation Corporation				
Operator contact name, title,		Mike Casasanta, Project Manager, 3 Survey Circle, Billerica, MA 01862				
1.062	14.2	Email: mcasasanta@wlfrench.com				
Estimated date of Com	pletion	September 1, 2013				
Category and Sub-Category:		Contaminated Construction Dewatering. Sub-category A. General Urban Fill Sites				
RGP Termination Date:		September 10, 2015				
Receiving Water:		Boston Harbor				
The Provide States	64					

# Monitoring & Limits are applicable if checked. All samples are to be collected as grab samples

×	Parameter	Effluent Limit/Method#/ML (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
$\checkmark$	1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/L) **, 50 mg/L for hydrostatic testing ** Me#160.2/ML5ug/L
	2. Total Residual Chlorine (TRC) <sup>1</sup>	Freshwater = 11 ug/L ** Saltwater = 7.5 ug/L **/ Me#330.5/ML 20ug/L
$\checkmark$	3. Total Petroleum Hydrocarbons (TPH)	5.0 mg/L/ Me# 1664A/ML 5.0mg/L
$\checkmark$	4. Cyanide (CN) <sup>2,3</sup>	Freshwater = 5.2 ug/l ** Saltwater = 1.0 ug/L **/ Me#335.4/ML 10ug/L
1	5. Benzene (B)	5ug/L /50.0 ug/L for hydrostatic testing only/ Me#8260C/ML 2 ug/L
_	6. Toluene (T)	(limited as ug/L total BTEX)/ Me#8260C/ ML 2ug/L
	7. Ethylbenzene (E)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L
11	8. (m,p,o) Xylenes (X)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L

	Parameter	Effluent Limit/Method#/ML (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) <sup>4</sup>	100 ug/L/ Me#8260C/ ML 2ug/L
	10. Ethylene Dibromide (EDB) (1,2- Dibromoethane)	0.05 ug/l/ Me#8260C/ ML 10ug/L
	11. Methyl-tert-Butyl Ether (MtBE)	70.0 ug/l/Me#8260C/ML 10ug/L
	12.tert-Butyl Alcohol (TBA) (TertiaryButanol)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
- 11	13. tert-Amyl Methyl Ether (TAME)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
	14. Naphthalene <sup>5</sup>	20 ug/L /Me#8260C/ML 2ug/L
	15. Carbon Tetrachloride	4.4 ug/L /Me#8260C/ ML 5ug/L
	16. 1,2 Dichlorobenzene (o- DCB)	600 ug/L /Me#8260C/ ML 5ug/L
	17. 1,3 Dichlorobenzene (m- DCB)	320 ug/L /Me#8260C/ ML 5ug/L
	18. 1,4 Dichlorobenzene (p- DCB)	5.0 ug/L /Me#8260C/ ML 5ug/L
	18a. Total dichlorobenzene	763 ug/L - NH only /Me#8260C/ ML 5ug/L
	19. 1,1 Dichloroethane (DCA)	70 ug/L /Me#8260C/ ML 5ug/L
	20. 1,2 Dichloroethane (DCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
1	21. 1,1 Dichloroethene (DCE)	3.2 ug/L/Me#8260C/ ML 5ug/L
	22. cis-1,2 Dichloroethene (DCE)	70 ug/L/Me#8260C/ ML 5ug/L
	23. Methylene Chloride	4.6 ug/L/Me#8260C/ ML 5ug/L
	24. Tetrachloroethene (PCE)	5.0 ug/L/Me#8260C/ ML 5ug/L
263	25. 1,1,1 Trichloro-ethane (TCA)	200 ug/L/Me#8260C/ ML 5ug/L
	26. 1,1,2 Trichloro-ethane (TCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
1714	27. Trichloroethene (TCE)	5.0 ug/L /Me#8260C/ ML 5ug/L
	28. Vinyl Chloride (Chloroethene)	2.0 ug/L /Me#8260C/ ML 5ug/L
	29. Acetone	Monitor Only(ug/L)/Me#8260C/ML 50ua/L
/	30. 1,4 Dioxane	Monitor Only /Me#1624C/ML 50ug/L
1	31. Total Phenols	300 ug/L Me#420.1&420.2/ML 2 ug/L/ Me# 420.4 /ML 50ug/L
1	32. Pentachlorophenol (PCP)	1.0 ug/L /Me#8270D/ML 5ug/L,Me#604 &625/ML 10ug/L
1	33. Total Phthalates	3.0 ug/L ** /Me#8270D/ML 5ug/L
-36	(Phthalate esters) <sup>6</sup>	Me#606/ML 10ug/L& Me#625/ML 5ug/L
6	34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl)	6.0 ug/L /Me#8270D/ML 5ug/L,Me#606/ML 10ug/L & Me#625/ML

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	<u>Parameter</u>	Effluent Limit/Method#/ML (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	10.0 ug/L
	a. Benzo(a) Anthracene <sup>7</sup>	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	b. Benzo(a) Pyrene <sup>7</sup>	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	c. Benzo(b)Fluoranthene <sup>7</sup>	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	d. Benzo(k)Fluoranthene 7	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	e. Chrysene <sup>7</sup>	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	f. Dibenzo(a,h)anthracene 7	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	g. Indeno(1,2,3-cd) Pyrene <sup>7</sup>	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML5ug/L
	36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	100 ug/L
145	h. Acenaphthene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
$\checkmark$	i. Acenaphthylene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	j. Anthracene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
- Cl	k. Benzo(ghi) Perylene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
$\checkmark$	I. Fluoranthene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
$\checkmark$	m. Fluorene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	n. Naphthalene <sup>5</sup>	20 ug/l / Me#8270/ML 5ug/L, Me#610/MI 5ug/L & Me#625/ML 5ug/L
	o. Phenanthrene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	p. Pyrene	X/Me#8270D/ML5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	37. Total Polychlorinated Biphenyls (PCBs) <sup>8,9</sup>	0.000064 ug/L/Me# 608/ ML 0.5 ug/L
	38. Chloride	Monitor only/Me# 300.0/ ML 100 ug/L

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1. J.		discharges in	Reimineren
	<u>Metal parameter</u>	Massachusetts (ug/I)	level=ML

	and a second the second the	Freshwater	Saltwater	
$\checkmark$	39. Antimony	5.6/M	L 10	
$\checkmark$	40. Arsenic **	10/ML20	36/ML 20	
	41. Cadmium **	0.2/ML10	8.9/ML 10	
	42. Chromium III (trivalent) **	48.8/ML15	100/ML 15	82 - 4£
	43. Chromium VI (hexavalent) **	11.4/ML10	50.3/ML 10	osted e -
$\checkmark$	44. Copper **	5.2/ML15	3.7/ML 15	
$\checkmark$	45. Lead **	1.3/ML20	8.5/ML 20	S2169 G
	46. Mercury **	0.9/ML0.2	1.1/ML 0.2	(2084. )
$\checkmark$	47. Nickel **	29/ML20	8.2/ML 20	
	48. Selenium **	5/ML20	71/ML 20	33/108 B
	49. Silver	1.2/ML10	2.2/ML 10	
$\checkmark$	50. Zinc **	66.6/ML15	85.6/ML 15	830314- X
$\checkmark$	51. Iron	1,000/1	ML 20	nosana u

	Other Parameters	Limit
$\checkmark$	52. Instantaneous Flow	Site specific in CFS
$\checkmark$	53. Total Flow	Site specific in CFS
	54. pH Range for Class A & Class B Waters in MA	6.5-8.3; 1/Month/Grab <sup>13</sup>
	55. pH Range for Class SA & Class SB Waters in MA	6.5-8.3; 1/Month/Grab <sup>13</sup>
	56. pH Range for Class B Waters in NH	6.5-8; 1/Month/Grab <sup>13</sup>
	57. Daily maximum temperature - Warm water fisheries	83°F; 1/Month/Grab <sup>14</sup>
	58. Daily maximum temperature - Cold water fisheries	68°F; 1/Month/Grab <sup>14</sup>
	59. Maximum Change in Temperature in MA - Any Class A water body	1.5°F; 1/Month/Grab <sup>14</sup>
	60. Maximum Change in Temperature in MA - Any Class B water body- Warm Water	5°F; 1/Month/Grab <sup>14</sup>
- 1	61. Maximum Change in Temperature in MA – Any Class B water body - Cold water and Lakes/Ponds	3°F; 1/Month/Grab <sup>14</sup>
	62. Maximum Change in Temperature in MA – Any Class SA water body - Coastal	1.5°F; 1/Month/Grab <sup>14</sup>
	63. Maximum Change in Temperature in MA – Any Class SB water body - July to September	1.5°F; 1/Month/Grab <sup>14</sup>
	64. Maximum Change in Temperature in MA – Any Class SB water body - October to June	4°F; 1/Month/Grab <sup>14</sup>
$\checkmark$	2-MethInaphthalene	Monitoring only

#### Footnotes:

<sup>1</sup> Although the maximum values for TRC are 11ug/l and 7.5ug/l for freshwater, and saltwater respectively, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., Method 330.5, 20ug/l).

<sup>2</sup> Limits for cyanide are based on EPA's water quality criteria expressed as micrograms per liter. There is currently no EPA approved test method for free cyanide. Therefore, total cyanide must be reported.

<sup>3</sup> Although the maximum values for cyanide are 5.2 ug/l and 1.0 ug/l for freshwater and saltwater, respectively, the compliance limits are equal to the minimum level (ML) of the Method 335.4 as listed in Appendix VI (i.e., 10 ug/l).

<sup>4</sup> BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.

<sup>5</sup> Naphthalene can be reported as both a purgeable (VOC) and extractable (SVOC) organic compound. If both VOC and SVOC are analyzed, the highest value must be used unless the QC criteria for one of the analyses are not met. In such cases, the value from the analysis meeting the QC criteria must be used.

<sup>6</sup> The sum of individual phthalate compounds(not including the #34, Bis (2-Ethylhexyl) Phthalate . The compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.

Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measurement of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.

<sup>7</sup> Although the maximum value for the individual PAH compounds is 0.0038ug/l, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.

<sup>8</sup> In the November 2002 WQC, EPA has revised the definition of Total PCBs for aquatic life as total PCBs is the sum of all homologue, all isomer, all congener, or all "Oroclor analyses."Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measure of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.

<sup>9</sup>Although the maximum value for total PCBs is 0.000064 ug/l, the compliance limit is equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., 0.5 ug/l for Method 608 or 0.00005 ug/l when Method 1668a is approved). <sup>10</sup> Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.

<sup>11</sup> For a Dilution Factor (DF) from 1 to 5, metals limits are calculated using DF times the base limit for the metal. See Appendix IV. For example, iron limits are calculated using DF x 1,000ug/L (the iron base limit). Therefore DF is 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit =1,000 x 2 =2,000 ug/L., etc. not to exceed the DF=5.

<sup>12</sup> Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B).

<sup>13</sup>pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.

Temperature sampling per Method 170.1



127 Hartwell Street, Suite 3 West Boylston, Massachusetts 01583 Tel: 774.450.7177 Fax: 888.835.0617 www.lrt-llc.net

February 28, 2013

U.S. Environmental Protection Agency-Region 15 Post Office Square, Suite 100Mail Code OEP06-4Boston, Massachusetts 02109-3912Attn.: Remediation General Permit NOI Processing

Reference: Notice of Intent NPDES Remediation General Permit East Pier – Building 7 Boston, Massachusetts LRT Reference #2-1074

To whom it may concern:

On behalf of W.L. French Excavation Corporation (French), Lockwood Remediation Technologies, LLC (LRT) has prepared this Notice of Intent (NOI) for coverage under the National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP), Massachusetts General Permit (MAG910000). This NOI was prepared in accordance with the general requirements of the NPDES and related guidance documentation provided by the US Environmental Protection Agency (EPA). The completed NOI form is provided in Appendix A.

#### Site Information

This NOI has been prepared for the management of water generated from an excavation during the building construction at East Pier – Building 7 in East Boston, Massachusetts (the Site); please refer to Figure 1 for a locus map and an overview of the immediate area surrounding the Site. The work area, located along the former Pier One site on Marginal Street, is depicted in Figure 2 along with the proposed treated water discharge location.

#### Work Summary

Previous construction efforts in 2007 and 2008 completed the installation of steel sheeting piles at the Site. The new work scope at the site includes the installation of approximately 60 additional piles, foundation systems, building construction and roadway and sidewalk improvements. In order to complete portions of this work, dewatering is required. Water generated from the excavation will be handled in accordance with a Best Management Practices Plan included in Appendix B. To characterize water from the excavation, LRT collected a representative groundwater sample on February 21, 2013. This sample was analyzed for the parameters in accordance with the NPDES RGP Appendix III, Category 3B *known contaminated sites dewatering*. Laboratory data reports for this sample are provided in Appendix C.

#### **Discharge and Receiving Surface Water Information**

A groundwater sample collected by LRT was submitted for the following analyses; Total Suspended Solids (TSS), Total Residual Chlorine (TRC), Total Petroleum Hydrocarbons (TPH), Volatile Organic Carbons (VOCs), Semi-Volatile Organic Carbons (SVOCs) including Polycyclic Aromatic Hydrocarbons (PAH), Total Polychlorinated Biphenyls (PCBs), Chloride, and Metals including: Antimony, Arsenic, Cadmium, Chromium III (trivalent), Chromium VI (hexavalent), Copper, Lead, Mercury, Nickel, Selenium, Silver, Zinc and Iron.

Groundwater at the site was based on analytical results of samples collected by LRT, there were detectable concentrations of TSS, SVOCs, cyanide and metals. SVOCs will be reduced via granular activated carbon (GAC). Cyanide will be reduced with an ion exchange media. Several metals currently exceed the proposed discharge criteria. These elevated concentrations detected in the water characterization however are assumed to be associated with the TSS. The TSS is expected to be significantly reduced via settling occurring in influent equalization tank and also by the filtration that occurs as part of the wastewater treatment plant provided. Refer to Figure 3 for a proposed water treatment system layout.

#### **Calculation of Dilution Criteria**

For applications in Massachusetts, the following formula is used to calculate site specific dilution criteria:

 $\begin{array}{l} DF = (Qd + Qs)/Qd \\ DF = Dilution Factor \\ Qd = Maximum flow rate of the discharge in cubic feet per second (cfs) \\ Qs = Receiving water 7Q10 flow (cfs) where 7Q10 is the minimum flow for seven consecutive days with a reoccurrence interval of 10 years \end{array}$ 

The receiving water for the dewatering discharge for the site is the Inner Boston Harbor. Since the receiving body is salt water, dilution calculations are not applicable. The applicable discharge standards for the site will be defined as saltwater standards in accordance with Appendix III of the NPDES RGP.

#### **Consultation with Federal Services**

LRT reviewed online electronic data viewers and databases from the Massachusetts Geographical Information System (MassGIS) and the Massachusetts Division of Fisheries and Wildlife (MassWildlife; Natural Heritage and Endangered Species Program), and the U.S. National Parks Service Natural Historic Places (NPS). Based on this review, neither the Site nor the point where the proposed discharge reaches the receiving surface water body are Areas of Critical Environmental Concern (ACEC), Habitats of Rare Wetland Wildlife, Habitats of Rare Species or Estimated Habitats of Rare Wildlife or listed as a National Historic Place.

#### **Coverage under NPDES RGP**

It is our opinion that the proposed discharge is eligible for coverage under the NPDES RGP. On behalf of French, we are requesting coverage under the NPDES RGP for the discharge of wastewater during construction activities to the Inner Boston Harbor.

The enclosed NOI form provides required information on the general site conditions, discharge, treatment system, receiving water, and consultation with federal services. For this project, French is the operator that has operational control over the construction plans and specifications, including the ability to make modifications to those plans and specifications.

Please feel free to contact us at 774-450-7177 or at plockwood@lrt-llc.net if you have any questions or if you require additional information.

Sincerely, Lockwood Remediation Technologies, LLC

Paul Lockwood

Paul Lockwood President

Attachments:

Figure 1 Locus Plan Figure 2 Site Plan Figure 3 Proposed Water Treatment System Schematic Appendix A – NOI Form Appendix B – Best Management Practices Plan Appendix C – Laboratory Data Figures



Source: USGS Topographic Map 1987, US Department of the Interior

**Site Location:** Latitude: 42.367335 Longitude: -71.040671



127 Hartwell Street, Suite 3 West Boylston, Massachusetts 01583 Tel: 774.450.7177 Fax: 888.835.0617 www.lrt-llc.net **Figure 1 – Locus Plan** W.L. French Excavation Corporation East Pier – Building 7 Boston, MA Ν



Approximate Site Boundary Discharge Location



127 Hartwell Street, Suite 3 West Boylston, Massachusetts 01583 Tel: 774.450.7177 Fax: 888.835.0617 www.lrt-llc.net **Figure 2 – Site Plan** W.L. French Excavating Corporation East Pier – Building 7 Boston, Massachusetts Ν



West Boylston, Massachusetts 01583 Tel: 774.450.7177 Fax: 888.835.0617 www.lrt-llc.net

## W.L. French Excavation Corporation

East Pier – Building 7 Boston, Massachusetts Appendix A – NOI Form

#### **<u>B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit</u>**

a) Name of <b>facility/site</b> :	Facility/site address:					
Location of <b>facility/site</b> : longitude: latitude:	Facility SIC cod	e(s):	Street:			
b) Name of <b>facility/site owner:</b>			Town:			
Email address of owner:			State:	Zip:	County:	
Telephone no.of facility/site <b>owner</b> :						
Fax no. of facility/site <b>owner</b> :		<b>Owner</b> is (check one): 1. Fed	eral2. State/Triba	ıl		
Address of <b>owner</b> (if different from site):			3. Private 4. other, if so, describe:			
Street:						
Town: State:			Zip:	County:		
c) Legal name of <b>operator</b> :		<b>Operator</b> telep	phone no:			
		<b>Operator</b> fax no.:		<b>Operator</b> email:		
<b>Operator</b> contact name and title:						
Address of <b>operator</b> (if different from owner):		Street:				
Town: State:			Zip:	County:		
<ul> <li>d) Check "yes" or "no" for the following:</li> <li>1. Has a prior NPDES permit exclusion been grantee</li> <li>2. Has a prior NPDES application (Form 1 &amp; 2C) er</li> <li>3. Is the discharge a "new discharge" as defined by 4</li> <li>4. For sites in Massachusetts, is the discharge covered</li> </ul>	e? Yes No the discharge? Y es No Contingency Plan	, if "yes," number: es No, if "yes," date a n (MCP) and exempt from state	nd tracking #: permitting? Yes No			

1. General site information. Please provide the following information about the site:

e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes No If "yes," please list:	<ul> <li>f) Is the site/facility covered by any other EPA permit, including:</li> <li>1. multi-sector storm water general permit? Y N, if Y, number:</li> <li>2. phase I or II construction storm water general permit? Y N,</li> </ul>
1. site identification # assigned by the state of NH or MA:	if Y, number:
2. permit or license # assigned:	3. individual NPDES permit? Y N, if Y, number:
3. state agency contact information: name, location, and telephone number:	4. any other water quality related permit? Y N, if Y, number:

#### 2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed) including:

a) Describe the c	lischarge activities	s for which the owner/applicant is seeking coverage:						
b) Provide the following information about each discharge:	b) Provide the following information about each discharge: b) Provide the discharge information discharge information discharge: b) What is the <b>maximum</b> and <b>average flow rate</b> of discharge (in cubic feet per second, ft3/s)? Max. flow Average flow Is maximum flow a <b>design value</b> ? Y N For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.							
3) Latitude and l pt.4:long	3) Latitude and longitude of each discharge within 100 feet: pt.1:long.       lat.       ; pt.2: long.       lat.       ; pt.3: long.       lat.       ;         yt.4:long.       lat.       ; pt.5: long.       lat.       ; pt.7: long.       lat.       ; pt.8:long.       lat.       ; etc.							
4) If hydrostatic	4) If hydrostatic testing, total volume of the discharge (gals):       5) Is the discharge intermittent or seasonal?         Is discharge ongoing       Yes No?							
c) Expected dates of discharge (mm/dd/yy): start end								
<ul><li>d) Please attach</li><li>1. sources of inta</li></ul>	<ul> <li>d) Please attach a line drawing or flow schematic showing water flow through the facility including:</li> <li>1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).</li> </ul>							

3. Contaminant information. In order to complete this section, the applicant will need to take a minimum of one sample of the untreated water and have it analyzed for **all** of the parameters listed in Appendix III. Historical data, (i.e., data taken no more than 2 years prior to the effective date of the permit) may be used if obtained pursuant to: i. Massachusetts' regulations 310 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E"); ii. New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act; or iii. an EPA permit exclusion letter issued pursuant to 40 CFR 122.3, provided the data was analyzed with test methods that meet the requirements of this permit. Otherwise, a new sample shall be taken and analyzed.

a) Based on the analysis of the sample(s) of the untreated influent, the applicant must check the box of the sub-categories that the potential discharge falls within.

Gasoline Only	VOC Only	Primarily Metals	Urban Fill Sites	Contaminated Sumps	Mixed Contaminants	Aquifer Testing
Fuel Oils (and	VOC with Other	Petroleum with Other	Listed Contaminated	Contaminated	Hydrostatic Testing of	Well Development
Other Oils) only	Contaminants	Contaminants	Sites	Dredge Condensates	Pipelines/Tanks	or Rehabilitation

b) Based on the analysis of the untreated influent, the applicant must indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

PARAMETER	Believe Absent	Believe Present	# of Samples	Type of Sample	Analytical Method	Minimum Level (ML) of Test Method	Maximum daily value Avg. daily value			2
			(1 min- imum)	(e.g., grab)	Used (method #)		concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids										
2. Total Residual Chlorine										
3. Total Petroleum Hydrocarbons										
4. Cyanide										
5. Benzene										
6. Toluene										
7. Ethylbenzene										
8. (m,p,o) Xylenes										
9. Total BTEX <sup>4</sup>										

<sup>&</sup>lt;sup>4</sup>BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

Remediation General Permit - Notice of Intent

PARAMETER	Believe Absent	Believe Present	# of Samples	Type of Sample (e.g.,	Analytical Method	Minimum Level (ML) of	Maximum daily value		Avg. daily value	
			(1 min- imum)	grab)	Used (method #)	Test Method	concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide <sup>5</sup> (1,2- Dibromo-methane)										
11. Methyl-tert-Butyl Ether (MtBE)										
12. tert-Butyl Alcohol (TBA)										
13. tert-Amyl Methyl Ether (TAME)										
14. Naphthalene										
15. Carbon Tetra- chloride										
16. 1,4 Dichlorobenzene										
17. 1,2 Dichlorobenzene										
18. 1,3 Dichlorobenzene										
19. 1,1 Dichloroethane										
20. 1,2 Dichloroethane										
21. 1,1 Dichloroethylene										
22. cis-1,2 Dichloro- ethylene										
23. Dichloromethane (Methylene Chloride)										
24. Tetrachloroethylene										

<sup>&</sup>lt;sup>5</sup>EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

PARAMETER	Believe Absent	Believe Present	# of Samples	Type of Sample (e.g.,	Analytical Method Used	Minimum Level (ML) of Test	Maximum daily value		Avg. daily Value	
			(1 min- imum)	grab)	(method #)	Method	concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane										
26. 1,1,2 Trichloroethane										
27. Trichloroethylene										
28. Vinyl Chloride										
29. Acetone										
30. 1,4 Dioxane										
31. Total Phenols										
32. Pentachlorophenol										
33. Total Phthalates <sup>6</sup> (Phthalate esthers)										
34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]										
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)										
a. Benzo(a) Anthracene										
b. Benzo(a) Pyrene										
c. Benzo(b)Fluoranthene										
d. Benzo(k) Fluoranthene										
e. Chrysene										

<sup>&</sup>lt;sup>6</sup>The sum of individual phthalate compounds.

Remediation General Permit - Notice of Intent

PARAMETER	Believe Absent	Believe Present	# of Samples	Type of Sample (e.g.,	Analytical Method Used	Minimum Level (ML) of	Maximum daily value		Average daily value	
			(1 min- imum)	grab)	(method #)	Test Method	concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h) anthracene										
g. Indeno(1,2,3-cd) Pyrene										
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)										
h. Acenaphthene										
i. Acenaphthylene										
j. Anthracene										
k. Benzo(ghi) Perylene										
l. Fluoranthene										
m. Fluorene										
n. Naphthalene-										
o. Phenanthrene										
p. Pyrene										
37. Total Polychlorinated Biphenyls (PCBs)										
38. Antimony										
39. Arsenic										
40. Cadmium										
41. Chromium III										
42. Chromium VI										

PARAMETER	Believe Absent	Believe Present	# of Samples	Type of Sample (e.g.,	Analytical Method	Minimum Level (ML) of	Maximum daily value		Avg. daily value	
			(1 min- imum)	grab)	Used (method #)	Test Method	concentration (ug/l)	mass (kg)	<b>concentration</b> (ug/l)	mass (kg)
43. Copper										
44. Lead										
45. Mercury										
46. Nickel										
47. Selenium										
48. Silver										
49. Zinc										
50. Iron										
Other (describe):										

c) For discharges where **metals** are believed present, please fill out the following:

Step 1: Do any of the metals in the influent have a <b>reasonable potential</b> to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y N	If yes, which metals?
Step 2: For any metals which have reasonable potential to exceed the Appendix III limits, calculate the dilution factor (DF) using the formula in Part I.A.3.c) (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI.         What is the dilution factor for applicable metals?         Metals:         DF:         DF:	Look up the limit calculated at the corresponding dilution factor in <b>Appendix IV.</b> Do any of the metals in the <b>influent</b> have the potential to exceed the corresponding <b>effluent</b> limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y N If "Yes," list which metals:

#### 4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:											
b) Identify each applicable treatment unit (check all that apply):	Frac. tank	Air stripper	Oil/water separator	Equalization tanks	Bag filter	GAC filter					
	Chlorination	Dechlorination	-								
c) Proposed <b>average</b> and <b>maximum flow rates</b> (gallons per minute) for the discharge and the <b>design flow rate</b> (s) (gallons per minute) of the treatment system: Average flow rate of discharge Maximum flow rate of treatment system Design flow rate of treatment system											
d) A description of chemical additives being used or planned to be used (attach MSDS sheets):											

5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:

a) Identify the discharge pathway:	ntify the discharge pathway: Direct Within facility Storm drain River/brook Wetlands Other (describe):										
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:											
<ul> <li>c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:</li> <li>1. For multiple discharges, number the discharges sequentially.</li> <li>2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water</li> <li>The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.</li> </ul>											
d) Provide the state water quality classification	on of the receiving	g water		;							
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving watercfs Please attach any calculation sheets used to support stream flow and dilution calculations.											
f) Is the receiving water a listed 303(d) water quality impaired or limited water? Yes No If yes, for which pollutant(s)? Is there a TMDL? Yes No If yes, for which pollutant(s)?											

Remediation General Permit - Notice of Intent

Appendix B – Best Management Practices Plan



127 Hartwell Street, Suite 3 West Boylston, Massachusetts 01583 Tel: 774.450.7177 Fax: 888.835.0617 www.lrt-llc.net

## **BEST MANAGEMENT PRACTICES PLAN**

National Pollutant Discharge Elimination System – Remediation General Permit Temporary Construction Dewatering East Pier, Building 7 – East Boston, Massachusetts

A Notice of Intent (NOI) for a Remediation General Permit (RGP) under the National Pollutant Discharge Elimination System (NPDES) has been submitted to the US Environmental Protection Agency (EPA) on behalf of the W.L. French Excavation Corporation (French) by Lockwood Remediation Technologies, LLC (LRT) in anticipation of temporary construction site dewatering planned to occur during proposed building construction at the above referenced job site (the Site). This Best Management Practices Plan (BMPP) was prepared in accordance with the general requirements of the NPDES RGP, and related guidance documentation provided by the EPA. The BMPP is included as Appendix B to the NOI and will be posted at the Site during the time of the work as specified in the NOI.

#### Water Treatment and Management

Construction dewatering will be conducted from either sumps or deep wells located inside the excavation. The treatment system will include a 21,000 gallon frac tank, pumps, filtration and options for carbon treatment, pH adjustment and cyanide treatment if necessary. This NOI has been prepared for the management of dewatering from the Site; please refer to Figure 1 Locus Plan for an overview of the immediate area surrounding the Site. The proposed work area, referred to as East Pier – Building 7, is depicted in Figure 2 along with the proposed discharge location adjacent to the Site.

#### **Discharge Monitoring and Compliance**

Routine Operation & Maintenance (O&M) will need to be completed on the water treatment system. Typical monitoring includes checking the flow of the system, routine bag filter changes and the collection of samples throughout the treatment system to verify the treatment system discharge is in compliance with the RGP. In the event that the system effluent is not within the discharge criteria of the RGP, modification to the treatment system may occur until discharge compliance can be consistently achieved. Please refer to Figure 3 for a layout of the proposed treatment system.

The total monthly discharge will be monitored by a non-resettable flow meter and totalizer. Monthly monitoring reports will be compiled and maintained on site. Employees who have direct or indirect responsibility for enduring compliance with the RGP will be trained by the treatment system operator.

#### **Management of Treatment System Materials**

Potential sources of pollutants from the site include TSS, naturally occurring metals associated with the TSS, SVOCs and cyanide are anticipated during construction dewatering activities. Dewatering effluent will be pumped directly to the treatment system from the excavation via sumps and hoses to minimize handling. The general contractor at the site will establish staging areas away from the excavation and treatment system. Sediment collected in the frac tank used in the treatment system will be characterized

Notice of Intent – Remediation General Permit East Pier – Building 7, East Boston, MA

and disposed of as soil at an appropriate receiving facility in accordance with the applicable laws and regulations. Any used bag filters will be containerized and disposed of at an appropriate receiving facility. If the carbon treatment system is used, the granular activated carbon will be profiled and recycled at an approved receiving facility.

Appendix C – Laboratory Data

#### ANALYTICAL REPORT

Friday, March 01, 2013

Paul Lockwood LRT, LLC 127 Hartwell Street, Suite 3 W. Boylston, MA 01583

TEL: (774) 450-7177 FAX:

Project: 2-1074 Location: East Pier GeoLabs, Inc.

GeoLabs, Inc. 45 Johnson Lane Braintree MA 02184 Tele: 781 848 7844 Fax: 781 848 7811

Order No.: 1302172

Dear Paul Lockwood:

GeoLabs, Inc. received 1 sample(s) on 2/22/2013 for the analyses presented in the following report.

The laboratory results in this report relate only to samples submitted.

All data for associated QC met method or laboratory specifications, except when noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

David Mick Laboratory Director

For current certifications, please visit our website at www.geolabs.com Certifications: CT (PH-0148) - MA (M-MA015) - NH (2508) - RI (LA000252) Accredited in Accordance with NELAC

Date: 01-Mar-13

 CLIENT:
 LRT, LLC

 Project:
 2-1074

 Lab Order:
 1302172

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### CASE NARRATIVE

· ---- ·

Physical Condition of Samples

The project was received by the laboratory in satisfactory condition. The sample(s) were received undamaged, in appropriate containers with the correct preservation.

**Project Documentation** 

The project was accompanied by satisfactory Chain of Custody documentation.

Analysis of Sample(s)

All extractable samples were extracted and analyzed and any Volatile samples were analyzed within method specified holding times and according to GeoLabs documented Standard Operating Procedure, with the following exception:

TRC was analyzed out of holding time.

The following analytical anomalies or non-conformances were noted by the laboratory during the processing of these samples:

Chloride spike recovery indicates matrix interference.

SIGNATURE:

PRINTED NAME David Mick

LAB DIRECTOR

DATE: March 1, 2013

ANALYTICAL REPORT				Reported Da	ate:	
CLIENT: Lab Order: Project: Lab ID:	LRT, LLC 1302172 2-1074 1302172-001			Client Sample Collection Da Date Receiv Matu	ID: GW- ate: 2/21/ ed: 2/22/ rix: GRO	1 2013 3:10:00 PM 2013 UNDWATER
Analyses		Result	Det. Limit	Jual Units	DF	Date Analyzed
NON-POLAR 1	664A - E1664A				**	Analyst: Admi
	Prep Method:		Pre	ep Date:		
Total Petroleum Hydrocarbons		ND	5.00	mg/L	1	2/27/2013
TOTAL SUSPE	NDED SOLIDS - SM	2540D				Analyst: CR
	Prep Method:	Pre	p Date:			
Total Suspende	d Solids	18.0	4.00	mg/L	1	2/25/2013
PCBS - E608						Analyst: KG
	Prep Method:	(SW3510B)	Pre	p Date: 2/25/201	3 1:41:50 P	M
Aroclor 1016		ND	0.250	µg/L	1	2/26/2013
Aroclor 1221		ND	0.250	µg/L	1	2/26/2013
Aroclor 1232		ND	0.250	µg/L	1	2/26/2013
Aroclor 1242		ND	0.250	μg/L	1	2/26/2013
Aroclor 1248		ND	0.250	µg/L	1	2/26/2013
Aroclor 1254		ND	0.250	μg/L	1	2/26/2013
Aroclor 1260		ND	0.250	µg/L	1	2/26/2013
Surr: Decach	lorobiphenyl Signal 1	82.9	30-150	%REC	1	2/26/2013
Surr: Decach	lorobiphenyl Signal 2	80.5	30-150	%REC	1	2/26/2013
Surr: Tetrachl	loro-m-Xylene Signal	78.0	30-150	%REC	1	2/26/2013
Surr: Tetrachl 2	loro-m-Xylene Signal	76.6	30-150	%REC	1	2/26/2013
	S BY ICP - E200.7					Analyst: <b>ZYZ</b>
	Prep Method:	(200.7)	Pre	p Date: 2/28/2013	3 2:34:51 P	М
Antimony		ND	0.0125	mg/L	1	3/1/2013

	J Analyte detected below quantitation limits			H Holding times for preparation or analysis ex ND Not Detected at the Reporting Limit			
Qualifiers:	B	Analyte detected in the associated Method	Blank	BRL Below Reporting Limit			
Nickel		0.00125	0.00125	mg/L	1	3/1/2013	
Lead		0.00462	0.00125	mg/L	1	3/1/2013	
Iron		0.313	0.00750	mg/L	1	3/1/2013	
Copper		0.00262	0.00250	mg/L	1	3/1/2013	
Cadmium		ND	0.000250	mg/L	1	3/1/2013	
Arsenic		0.0308	0.00625	mg/L	1	3/1/2013	
Antimony		· ND	0.0125	mg/L	1	3/1/2013	

Spike Recovery outside recovery limits S

#### GeoLabs, Inc. 45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

CLIENT:	LRT, LLC			Client	Sample ID:	GW-1	
Lab Order:	1302172			Colle	vation Doto.	2/21/20	12 2.10.00 01 4
Project:	2-1074			D	D · · ·	2/21/20	13 3:10:00 PM
Lab ID:	1302172-001			Dat	e Received:	2/22/20	13
Analyses						GROUI	NDWATER
Analyses		Kesult	Det. Limit	Qual Unit	S	DF	Date Analyzed
TOTAL METALS B	Y ICP - E200.7						Analyst: <b>ZYZ</b>
	Prep Method:	(200.7)	F	Prep Date:	2/28/2013 2:3	34:51 PM	
Selenium		ND	0.00625	mg/L		1	3/1/2013
Silver		ND	0.00100	mg/L		1	3/1/2013
Zinc		0.0180	0.0125	mg/L		1	3/1/2013
TOTAL MERCURY	- E245.1						Analyst: EC
	Prep Method:	(SW7470A/E245.1	I) F	rep Date:	2/27/2013 4:2	23:34 PM	
Mercury		ND	0.0005	mg/L		1	2/27/2013
PAH - SW8270C-SI	M						Analyst: <b>Jsi</b>
	Prep Method:	(SW3510)	P	rep Date:	2/26/2013 8:4	1:21 AM	
2-Methylnaphthalene	9	0.215	0.0500	μg/L		1	2/26/2013
Acenaphthene		ND	0.0500	µg/L		1	2/26/2013
Acenaphthylene		0.565	0.0500	µg/L		1	2/26/2013
Anthracene		ND	0.0500	µg/L		1	2/26/2013
Benz(a)Anthracene		ND	0.0500	μg/L		1	2/26/2013
Benzo(a)Pyrene		ND	0.0500	µg/L		1	2/26/2013
Benzo(b)Fluoranther	ne	ND	0.0500	μg/L		1	2/26/2013
Benzo(g,h,i)Perylene	e	ND	0.0500	µg/L		1	2/26/2013
Benzo(k)Fluoranther	ıe	ND	0.0500	µg/L		1	2/26/2013
Chrysene		ND	0.0500	µg/L		1	2/26/2013
Dibenz(a,h)Anthrace	ene	ND	0.0500	µg/L		1	2/26/2013
Fluoranthene		0.0800	0.0500	µg/L		1	2/26/2013
Fluorene		0.110	0.0500	µg/L		1	2/26/2013
Indeno(1,2,3-cd)Pyre	ene	ND	0.0500	µg/L		1	2/26/2013
Naphthalene		0.0800	0.0500	µg/L		1	2/26/2013
Phenanthrene		ND	0.0500	µg/L		1	2/26/2013
Pyrene		ND	0.0500	µg/L		1	2/26/2013

**Reported Date:** 

#### **VOLATILE ORGANIC COMPOUNDS - SW8260B**

ANALYTICAL REPORT

	Prep Method:			Pre	p Date:			
1,1,1,2-Tetrachloroethane		oethane	ND	2.00	hð	j/L	1	2/22/2013 3:45:00 PM
Oualifiers:	В	Analyte detected in the asso	ciated Method Blank		BRL	Below Re	porting Limit	
	Е	Value above quantitation ra	ntitation range			Holding (	ation or analysis exceeded	
	J	Analyte detected below quar	ntitation limits		ND	Not Dete	cted at the Rep	orting Limit
	s	Spike Recovery outside reco	overy limits				-	-

Analyst: **ZC** 

#### ANALYTICAL REPORT

**Reported Date:** 

**Date Analyzed** 

Analyst: ZC

302172-001	Matrix:	GROUNDWATER
-1074	Date Received:	2/22/2013
302172	<b>Collection Date:</b>	2/21/2013 3:10:00 PM
RT, LLC	Client Sample ID:	GW-1
	RT, LLC 302172 -1074	LRT, LLCClient Sample ID:302172Collection Date:-1074Date Received:

Result Det. Limit Qual Units

#### VOLATILE ORGANIC COMPOUNDS - SW8260B

Prep Method:		P	rep D			
1,1,2-Trichloroethane	ND	2.00		µg/L	1	2/22/2013 3:45:00 PM
1,1-Dichloroethane	ND	2.00		µg/L	1	2/22/2013 3:45:00 PM
1,1-Dichloroethene	ND	2.00		µg/L	1	2/22/2013 3:45:00 PM
1,2-Dichlorobenzene	ND	2.00		μg/L	1	2/22/2013 3:45:00 PM
1,2-Dichloroethane	ND	2.00		μg/L	1	2/22/2013 3:45:00 PM
1,3-Dichlorobenzene	ND	2.00		µg/L	1	2/22/2013 3:45:00 PM
1,4-Dichlorobenzene	ND	2.00		µg/L	1	2/22/2013 3:45:00 PM
1,4-Dioxane	ND	500		µg/L	1	2/22/2013 3:45:00 PM
2-Methoxy-2-Methylbutane (TAME)	ND	2.00		µg/L	1	2/22/2013 3:45:00 PM
Acetone	ND	10.0		µg/L	1	2/22/2013 3:45:00 PM
Benzene	ND	2.00		µg/L	1	2/22/2013 3:45:00 PM
Carbon Tetrachloride	ND	2.00		µg/L	1	2/22/2013 3:45:00 PM
cis-1,2-Dichloroethene	ND	2.00		µg/L	1	2/22/2013 3:45:00 PM
Ethylbenzene	ND	2.00		µg/L	1	2/22/2013 3:45:00 PM
Methyl Tert-Butyl Ether	ND	2.00		µg/L	1	2/22/2013 3:45:00 PM
Methylene Chloride	ND	2.00		µg/L	1	2/22/2013 3:45:00 PM
Naphthalene	ND	2.00		µg/L	1	2/22/2013 3:45:00 PM
t-Butyl Alcohol	ND	20.0		µg/L	1	2/22/2013 3:45:00 PM
Tetrachloroethene	ND	2.00		µg/L	1	2/22/2013 3:45:00 PM
Toluene	ND	2.00		µg/L	1	2/22/2013 3:45:00 PM
Trichloroethene	ND	2.00		µg/L	1	2/22/2013 3:45:00 PM
Vinyl Chloride	ND	2.00		µg/L	1	2/22/2013 3:45:00 PM
Xylenes, Total	ND	2.00		µg/L	1	2/22/2013 3:45:00 PM
Surr: 1,2-Dichloroethane-d4	138	70-130	S	%REC	1	2/22/2013 3:45:00 PM
Surr: 4-Bromofluorobenzene	93.8	70-130		%REC	1	2/22/2013 3:45:00 PM
Surr: Dibromofluoromethane	107	70-130		%REC	1	2/22/2013 3:45:00 PM
Surr: Toluene-d8	93.4	70-130		%REC	1	2/22/2013 3:45:00 PM

#### **EDB - SIM METHOD**

Anal	yst:	ZC
------	------	----

		Pi						
1,2-Dibromoethane		ND	0.020		µg/L	1	2/22/2013	
Surr: Toluene-d8		1.00	70-130	S	%REC	1	2/22/2013	

<b>Oualifiers:</b>	В	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
-	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	S	Spike Recovery outside recovery limits		

#### GeoLabs, Inc. 45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

ANALYTICA	L REPORT			<b>Reported Date:</b>		
CLIENT: Lab Order: Project: Lab ID:	LRT, LLC 1302172 2-1074 1302172-001			Client Sample ID: Collection Date: Date Received: Matrix:	GW- 2/21/ 2/22/ GRO	1 2013 3:10:00 PM 2013 UNDWATER
Analyses		Result	Det. Limit Qual	Units	DF	Date Analyzed
CHLORIDE - L-	10-117-07-1-В					Analyst: RF
	Prep Method:		Prep D	ate:		
Chloride NOTES: + Spike recover	y indicates matrix interference.	4410	100	mg/L	100	2/26/2013
CYANIDE, TOTA	AL - SM4500-CN-C,E					Analyst: RP
	Prep Method:		Prep Da	ate:		
Cyanide, Total		4.64	0.796	µg/L	1	2/27/2013
TRIVALENT CH	ROMIUM IN WATER - 6010	0C&3500				Analyst: DR
Prep Method:			Prep Da	ite:		_,
Trivalent Chromi	ium,Cr3+	ND	0.050	mg/L	1	3/1/2013
EXAVALENT	CHROMIUM - SM3500-CR-	D				Analyst: <b>RP</b>
	Prep Method:		Prep Da	ite:		
		ND	0.0500	ma/L	1	2/22/2013 3:00:00 PM
Chromium, Hexa	avalent	ND	0.0000			
Chromium, Hexa	AL CHLORINE - HACH 816	37	0.0000			Analyst: <b>RP</b>
Chromium, Hexa	AL CHLORINE - HACH 816 Prep Method:	37	Prep Da	te:		Analyst: <b>RP</b>

Qualifiers:	В	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	l	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	S	Spike Recovery outside recovery limits		

RETURIONS PAGE 1 OF 1 / RETUDDS AND DETECTION IN THE FIRID (2, 74 049 13	(s) fidence Protocols) teria	1/2/2/ 1/2/1/ 1/2011	A A A A A A A A A A A A A A A A A A A			Containers:     0 = 0ther       A = Amber     B = Bag     0 = 0ther       G = Glass     P = Plastic     S = Summa	Date / Time 222 3 9745	1 0: インデュ NH (2508) NJ (MA-009) RI (LA000252) ME (MA - 0015)
A TT LIST FOI PEMP MEASURED	Requirements: circle choice CT RCP (Reasonable Con State / Fed Program - Cri	Project:         Z_AST           Project PO:         2 - 10           Invoice to *:         LRT	1 628' 701 N	xx 5 X 4d 1 X 551 X 908 X		5 = NaOH 7 = Other 6 = MEOH		<u>ය/ අ. (PH-0148)</u> CT (PH-0148)
choice ) SSE	MCP Methods DEP Other	1-7-110.000	GeoLabs SAMPLE NUMBER	100-0210		<b>Preservatives</b> 1 = Hc 3 = H2S04 2 = HN03 4 = M2S203	Received by:	Decision of the second of the second of the second of the second credit cards.
Filtration Done Filtration Done Not Need Lab to do Preservation Lab to do	hoice (s) GW-1 email S-1 PDF 0C	one:		т х н в в		Received on Ice	9-9/-/3	hends are made. Past due balances su notipping off samples. We accept ca
ISTODY RECORD tental Laboratories tree, MA 02184 781.848.7811	Data Delivery: circle c Fax Format: Excel	LC 35 PH		5 <i>W−1 p</i> <b>W</b> G		r S = Soil A = Air 0 = 0il 0T = 0ther	Date / Time 2	and due within 30 days unless other arranger Homeowners and Law Firms must pay whe
CHAIN OF CU GeoLabs, Inc. <i>Environm</i> 45 Johnson Lane, Brain p 781.848.7844 • f www.geolabs.com	maround: circle one 3-day 5 / 7-days	2 R T 127 HANTINE 41 BOYLSTO 406 LOCK	LLECTION M A M A M A M A M A M A M A M A M A M A	E E E		<b>is:</b> Water DW = Drinking Water Vater &L = Sludge	the little back	of CR.09/22/10 Range Symme
GeoLahs, Inc.	1-day	Client: Address: Contact:	04+1	3.21-13		Matrix Code GW = Ground WW = Waste V	Relinquished	2010730.J&P.C.