VIA EMAIL AND USPS PRIORITY MAIL

Tuesday, February 22, 2005

Jonathan E. Hobill, Regional Engineer
DEP Bureau of Waste Site Cleanup
20 Riverside Drive
Lakeville, MA 02347

RE: IRA Plan Modification No. 4 Completion Report
131 Main Street, Carver (the Site); RTN 4-17582; NON-SE-03-3T-103

Dear Mr. Hobill:

On behalf of Eagle Gas, Inc., Decoulos & Company is pleased to submit the results from testing described in the Immediate Response Action (IRA) Plan Modification No. 4 for the above referenced release.

IRA Plan Mod. No. 4 was submitted to the Department on January 18, 2005. The following information describes the work completed under this IRA Plan; the data collected from the assessment related actions; and, the final design calculations for the pumping, treatment and infiltration of petroleum contaminated groundwater from the interceptor trench in the Main Street right-of-way.

HYDRAULIC CONDUCTIVITY ASSESSMENT AND LNAPL COLLECTION

Rising head slug tests were conducted at each observation well within the interceptor trench on February 2 and 3, 2005. The original data collected by the miniTROLLs© from In Situ, Inc. is presented in Appendix A.

Both miniTROLLs© were pre-programmed to begin collecting data at 12:30 pm on Wednesday February 2nd. Prior to inserting the first miniTROLL© in EOW-2, the well was pumped by a 3,500 gallon press vacuum tank truck operated by Alan Pierce of Lighthouse Environmental, Inc. of Reading, MA. A police detail was on hand to close the southbound lane of traffic. Between 12:31 pm and 12:46 pm, approximately 225 gallons of groundwater was pumped from EOW-2. At 12:50 pm, the miniTROLL© was set in EOW-2.

Observation well EOW-1 was pumped at 12:51 pm. At 1:00 pm it was observed that the collecting tubing was clogged. Various efforts were made to free the clogged debris from the tubing up to 1:20 pm. The well contains debris from the interceptor trench construction that could not be fully removed by the vacuum truck. At the time of initial pumping, approximately 295 gallons of groundwater had been evacuated from EOW-1. At 1:21 pm, the second miniTROLL© was set in EOW-1.

Light Non-Aqueous Phase Liquid (LNAPL) was then removed from wells ERW-1, BP-5RR, ERW-2, ERW-4 and DCW-7 with the vacuum truck. Four-inch diameter Keck passive recovery canisters (PRCs) were located within wells ERW-1 and ERW-2. The PRC from ERW-1 contained mostly water and the unit was raised 12 inches to adjust for elevated groundwater levels. The PRC at ERW-2 contained mostly LNAPL and the unit was raised 6 inches to adjust for seasonal groundwater changes. Manifests from the vacuum truck are provided in Appendix B. Approximately 75 gallons of groundwater and LNAPL was pumped from the five wells.

At 2:16 pm, the interceptor trench was pumped from the end of the pipe trench on the Eagle property. At 2:36 pm, the vacuum truck began collecting air and at 2:40 pm the pumping ceased. Altogether, approximately 1100 gallons of LNAPL and groundwater was pumped from the observation wells, monitoring wells and interceptor trench on February 2, 2005.

The data collected from the miniTROLLs© shows the initial drawdown at each observation well, followed by a groundwater recovery and a final pump of the interceptor trench at the trench end.

After conducting the rising head slug tests on February 2nd, the interceptor trench and LNAPL were vacuumed on February 9th and 16th. The interceptor trench was pumped from the two inch PVC conduit on the Eagle property and the LNAPL was recovered from ERW-1, BP-5RR, ERW-2, ERW-4 and DCW-7. Manifests are provided in Appendix B.

HYDRAULIC CONDUCTIVITY AND PUMPING RATE CALCULATIONS

Hydraulic conductivity was determined using the program AquiferWin32© from Environmental Simulations, Inc. This program ran our data through two test scenarios, providing two different but similar values from each miniTROLL©. Using the Bouwer & Rice[1] equation, the hydraulic conductivity at EOW-1 was determined to be 1.66×10^{-5} cm/sec, while using the Black[2] equation it was determined to be 1.67×10^{-5} cm/sec. Using the Bouwer & Rice equation, the hydraulic conductivity at EOW-2 was determined to be 1.81×10^{-5} cm/sec, while using the Black equation it was determined to be 1.85×10^{-5} cm/sec. Output and graphs from the analysis are provided in Appendix C.

[1] Bouwer, H., and R.C. Rice. 1976. A slug test for determining hydraulic conductivity of unconfined aquifers with completely or partially penetrating wells. ***Water Resour. Res.*** 12, no. 3: 423-428.
[2] Black, J.H. 1978. The use of the slug test in groundwater investigations. ***Water Services***, Vol. 29, pp. 174-178.

A flow rate has been established based upon the calculated permeability of the sandy silt layer between 5 and 11 feet below grade and the actual sidewall area of the 50 foot long by 3 foot wide trench. Using the saturated surface area of the trench, a flow rate for the pump and treat system was calculated:

Saturated Trench Sidewall Area (ft2)	**530**
Conversion (cm2/ft2)	**929**
Saturated Trench Sidewall Area (cm2)	**492,370**
Most Conservative Permeability (cm/sec)	**1.85E-05**
Area (cm2)	**492,370**
Flow rate (cm3/sec)	**9.11**
Conversion (cm3/mL)	**1**
Flow Rate (ml/sec)	**9.11**
Conversion (L/ml)	**0.00**
Flow Rate (L/sec)	**0.01**
Conversion (gallons/L)	**0.26**
Flow Rate (gal/sec)	**0.00**
Conversion (sec/min)	**60**
Flow Rate (gal/min)	**0.14**
Conversion (min/day)	**1440**
Anticipated Flow Rate (gal/day)	**207.77**

ACTIVATED CARBON CHANGEOUT PERIOD

On February 16th, during the course of vacuuming the interceptor trench, a groundwater sample was collected from the two inch PVC supply line to the trench. The sample was analyzed for Total Petroleum Hydrocarbons (TPH) and the certificate of analysis is presented in Appendix D. The TPH concentration reported from GeoLabs, Inc. of Braintree, MA is 16.6 mg/l.

Using the reported TPH concentration and a conservative pumping rate of 3.0 gallons per minute[3], representative Ken Kikta of the Carbtrol Corporation prepared an activated carbon usage estimate. Assuming 55 gallon drums of activated carbon, which contain 200 pounds of carbon per drum, it is estimated that breakthrough of the first activated carbon drum in series would occur at 128 days. See Appendix E.

With an adjusted flow rate of 0.14 gallons per minute, breakthrough of the first drum will occur well beyond one year of operation. As a conservative measure, changeout and replacement of the carbon drums shall occur every sixty (60) days. Monthly TPH analysis of the treatment system inlet shall be conducted to ensure that the TPH concentration does not significantly degrade and impact the changeout period.

[3] This rate was assumed prior to the hydraulic conductivity analysis.

GROUNDWATER INFILTRATION DESIGN

The discharge of treated groundwater shall occur in a subsurface leaching facility as shown in the Proposed Product Recovery Plan, Figure 1 of IRA Mod No. 3. Based upon the revised pumping rate and adjusted discharge factors, the size of the proposed leaching facility has been significantly reduced.

In the most recent design, a total of 42 high capacity Infiltrators© were proposed. The units were to be set in three separate trenches in an excavation 30 feet wide by 92 feet long. The design was based upon a percolation rate of 25 minutes per inch; a flow rate of 3 gallons per minute; and, an infiltration loading rate of 0.40 gallons per day per square foot. The loading rate was obtained directly from Title 5, 310 CMR 15.242.

In addition to a significant reduction in flow, the Title 5 loading rate is overly conservative for the proposed treated groundwater infiltration design. The Title 5 effluent loading rate is based upon septic effluent that is highly elevated in suspended solids and other constituents. A more appropriate design flow would be a greywater discharge as provided in 310 CMR 15.289(3)(a)(2).

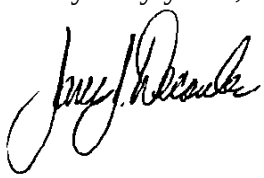
Adjusted infiltration calculations based upon the revised flow rate and greywater discharge rate reveal that 12 high capacity Infiltrators© are entirely suitable to handle the entire proposed subsurface discharge. The units shall be placed in two separate trenches that are 6.83 feet wide by 41.50 feet long. See calculations in Appendix F.

CONCLUSION

Based upon additional assessment and design considerations, Eagle is prepared to immediately begin construction of the revised remedial design first proposed in IRA Modification No. 3. The response action will follow the criteria set in Mod No. 3, with modified conditions that are now more accurate and representative of the current state.

Please feel free to call or email if you have any questions or concerns. Thank you.

Very truly yours,



James J. Decoulos, PE, LSP
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cc: Francis J. Casey, Carver Board of Selectmen
Robert C. Tinkham, Jr., Carver Board of Health
Sarah G. Hewins, Carver Conservation Commission
William A. Halunen, Carver Department of Public Works
David Bennett, Bennett & O'Reilly, Inc.
Najib Badaoui, Eage Gas, Inc.

APPENDIX A
DATA COLLECTED FROM miniTROLLS

In-Situ Inc. MiniTroll Pro

Report generated: 02/03/05 17:12:07
Report from file: ...\SN01966 2005-02-02 123000 EagleOW1.bin
Win-Situ Version 4.51

Serial number: 00001966
Firmware Version 3.09
Unit name: EagleOW1

Test name: EagleOW1

Test defined on: 02/02/05 07:42:16
Test scheduled for: 02/02/05 12:30:00
Test started on: 02/02/05 12:30:00
Test stopped on: N/A N/A

Data gathered using Linear testing
  Time between data points: 30.0 Seconds.
  Number of data samples: 3434

TOTAL DATA SAMPLES 3434

Channel number [1]
  Measurement type: Temperature
  Channel name:

Channel number [2]
  Measurement type: Pressure
  Channel name:
  Sensor Range: 30 PSIG.
  Specific gravity: 1.000

Date	Time	ET (sec)	Chan[1] Temperature Fahrenheit	Chan[2] Pressure Feet H2O
02/02/05	12:30:00	0.0	51.44	-0.015
02/02/05	12:30:30	30.0	50.28	-0.016
02/02/05	12:31:00	60.0	49.32	-0.007
02/02/05	12:31:30	90.0	48.40	-0.011
02/02/05	12:32:00	120.0	47.72	-0.016
02/02/05	12:32:30	150.0	47.24	-0.013
02/02/05	12:33:00	180.0	46.64	-0.010
02/02/05	12:33:30	210.0	46.34	-0.011
02/02/05	12:34:00	240.0	46.14	-0.013
02/02/05	12:34:30	270.0	45.84	-0.009
02/02/05	12:35:00	300.0	45.54	-0.014
02/02/05	12:35:30	330.0	45.04	-0.006
02/02/05	12:36:00	360.0	44.38	-0.007
02/02/05	12:36:30	390.0	43.94	-0.007
02/02/05	12:37:00	420.0	43.71	-0.004
02/02/05	12:37:30	450.0	43.46	-0.003
02/02/05	12:38:00	480.0	43.16	0.012
02/02/05	12:38:30	510.0	43.41	0.012

02/02/05	12:39:00	540.0	43.92	0.014
02/02/05	12:39:30	570.0	44.44	0.013
02/02/05	12:40:00	600.0	44.83	0.010
02/02/05	12:40:30	630.0	45.04	0.012
02/02/05	12:41:00	660.0	45.15	0.009
02/02/05	12:41:30	690.0	45.29	0.009
02/02/05	12:42:00	720.0	45.38	0.010
02/02/05	12:42:30	750.0	45.38	0.012
02/02/05	12:43:00	780.0	45.52	0.011
02/02/05	12:43:30	810.0	45.84	0.011
02/02/05	12:44:00	840.0	46.23	0.009
02/02/05	12:44:30	870.0	46.46	0.009
02/02/05	12:45:00	900.0	46.71	0.008
02/02/05	12:45:30	930.0	46.98	0.007
02/02/05	12:46:00	960.0	47.24	0.006
02/02/05	12:46:30	990.0	47.42	0.006
02/02/05	12:47:00	1020.0	47.51	0.005
02/02/05	12:47:30	1050.0	47.49	0.005
02/02/05	12:48:00	1080.0	47.53	-0.016
02/02/05	12:48:30	1110.0	47.58	-0.010
02/02/05	12:49:00	1140.0	47.21	-0.010
02/02/05	12:49:30	1170.0	46.78	0.001
02/02/05	12:50:00	1200.0	46.50	-0.008
02/02/05	12:50:30	1230.0	46.12	-0.008
02/02/05	12:51:00	1260.0	45.98	0.008
02/02/05	12:51:30	1290.0	46.14	-0.013
02/02/05	12:52:00	1320.0	46.25	-0.012
02/02/05	12:52:30	1350.0	46.00	0.006
02/02/05	12:53:00	1380.0	45.84	0.007
02/02/05	12:53:30	1410.0	46.23	0.009
02/02/05	12:54:00	1440.0	46.60	0.005
02/02/05	12:54:30	1470.0	46.78	0.007
02/02/05	12:55:00	1500.0	46.62	-0.008
02/02/05	12:55:30	1530.0	46.23	-0.012
02/02/05	12:56:00	1560.0	45.93	0.002
02/02/05	12:56:30	1590.0	46.07	0.003
02/02/05	12:57:00	1620.0	46.34	0.004
02/02/05	12:57:30	1650.0	46.53	0.004
02/02/05	12:58:00	1680.0	46.78	0.005
02/02/05	12:58:30	1710.0	47.08	0.002
02/02/05	12:59:00	1740.0	47.37	0.002
02/02/05	12:59:30	1770.0	47.72	0.003
02/02/05	13:00:00	1800.0	48.13	0.002
02/02/05	13:00:30	1830.0	48.59	0.001
02/02/05	13:01:00	1860.0	48.91	0.002
02/02/05	13:01:30	1890.0	49.09	-0.000
02/02/05	13:02:00	1920.0	49.13	-0.001
02/02/05	13:02:30	1950.0	49.29	-0.001
02/02/05	13:03:00	1980.0	49.43	-0.002
02/02/05	13:03:30	2010.0	49.48	-0.003
02/02/05	13:04:00	2040.0	49.48	-0.003
02/02/05	13:04:30	2070.0	49.43	-0.000
02/02/05	13:05:00	2100.0	49.41	-0.002
02/02/05	13:05:30	2130.0	49.36	-0.004
02/02/05	13:06:00	2160.0	49.04	-0.014
02/02/05	13:06:30	2190.0	48.72	-0.015
02/02/05	13:07:00	2220.0	48.33	-0.015

02/02/05	13:07:30	2250.0	47.92	0.007
02/02/05	13:08:00	2280.0	47.90	0.007
02/02/05	13:08:30	2310.0	48.08	0.005
02/02/05	13:09:00	2340.0	48.08	0.005
02/02/05	13:09:30	2370.0	48.29	0.005
02/02/05	13:10:00	2400.0	48.65	0.004
02/02/05	13:10:30	2430.0	48.88	0.006
02/02/05	13:11:00	2460.0	49.11	0.005
02/02/05	13:11:30	2490.0	49.43	0.004
02/02/05	13:12:00	2520.0	49.66	0.003
02/02/05	13:12:30	2550.0	49.96	0.004
02/02/05	13:13:00	2580.0	50.12	0.002
02/02/05	13:13:30	2610.0	50.28	0.000
02/02/05	13:14:00	2640.0	50.44	-0.014
02/02/05	13:14:30	2670.0	50.23	-0.016
02/02/05	13:15:00	2700.0	49.68	-0.018
02/02/05	13:15:30	2730.0	48.93	0.331
02/02/05	13:16:00	2760.0	48.54	0.650
02/02/05	13:16:30	2790.0	48.36	0.654
02/02/05	13:17:00	2820.0	48.20	0.656
02/02/05	13:17:30	2850.0	48.04	0.660
02/02/05	13:18:00	2880.0	47.90	0.662
02/02/05	13:18:30	2910.0	47.74	0.666
02/02/05	13:19:00	2940.0	47.62	0.665
02/02/05	13:19:30	2970.0	47.51	0.668
02/02/05	13:20:00	3000.0	47.44	0.671
02/02/05	13:20:30	3030.0	47.40	0.672
02/02/05	13:21:00	3060.0	47.37	0.674
02/02/05	13:21:30	3090.0	47.35	0.676
02/02/05	13:22:00	3120.0	47.35	0.678
02/02/05	13:22:30	3150.0	47.33	0.681
02/02/05	13:23:00	3180.0	47.28	0.683
02/02/05	13:23:30	3210.0	47.21	0.684
02/02/05	13:24:00	3240.0	47.17	0.687
02/02/05	13:24:30	3270.0	47.14	0.687
02/02/05	13:25:00	3300.0	47.12	0.689
02/02/05	13:25:30	3330.0	47.14	0.691
02/02/05	13:26:00	3360.0	47.14	0.691
02/02/05	13:26:30	3390.0	47.14	0.695
02/02/05	13:27:00	3420.0	47.14	0.695
02/02/05	13:27:30	3450.0	47.14	0.697
02/02/05	13:28:00	3480.0	47.17	0.699
02/02/05	13:28:30	3510.0	47.17	0.701
02/02/05	13:29:00	3540.0	47.19	0.703
02/02/05	13:29:30	3570.0	47.19	0.705
02/02/05	13:30:00	3600.0	47.21	0.705
02/02/05	13:30:30	3630.0	47.21	0.707
02/02/05	13:31:00	3660.0	47.21	0.709
02/02/05	13:31:30	3690.0	47.24	0.711
02/02/05	13:32:00	3720.0	47.24	0.711
02/02/05	13:32:30	3750.0	47.24	0.713
02/02/05	13:33:00	3780.0	47.24	0.715
02/02/05	13:33:30	3810.0	47.24	0.715
02/02/05	13:34:00	3840.0	47.24	0.717
02/02/05	13:34:30	3870.0	47.26	0.719
02/02/05	13:35:00	3900.0	47.26	0.721
02/02/05	13:35:30	3930.0	47.26	0.721

02/02/05	13:36:00	3960.0	47.26	0.725
02/02/05	13:36:30	3990.0	47.28	0.725
02/02/05	13:37:00	4020.0	47.28	0.727
02/02/05	13:37:30	4050.0	47.28	0.727
02/02/05	13:38:00	4080.0	47.28	0.729
02/02/05	13:38:30	4110.0	47.30	0.731
02/02/05	13:39:00	4140.0	47.30	0.733
02/02/05	13:39:30	4170.0	47.30	0.733
02/02/05	13:40:00	4200.0	47.30	0.735
02/02/05	13:40:30	4230.0	47.30	0.737
02/02/05	13:41:00	4260.0	47.30	0.737
02/02/05	13:41:30	4290.0	47.30	0.739
02/02/05	13:42:00	4320.0	47.30	0.741
02/02/05	13:42:30	4350.0	47.33	0.741
02/02/05	13:43:00	4380.0	47.33	0.745
02/02/05	13:43:30	4410.0	47.33	0.745
02/02/05	13:44:00	4440.0	47.33	0.747
02/02/05	13:44:30	4470.0	47.33	0.749
02/02/05	13:45:00	4500.0	47.33	0.749
02/02/05	13:45:30	4530.0	47.33	0.751
02/02/05	13:46:00	4560.0	47.33	0.751
02/02/05	13:46:30	4590.0	47.33	0.753
02/02/05	13:47:00	4620.0	47.33	0.757
02/02/05	13:47:30	4650.0	47.33	0.755
02/02/05	13:48:00	4680.0	47.33	0.757
02/02/05	13:48:30	4710.0	47.33	0.757
02/02/05	13:49:00	4740.0	47.33	0.759
02/02/05	13:49:30	4770.0	47.33	0.761
02/02/05	13:50:00	4800.0	47.33	0.764
02/02/05	13:50:30	4830.0	47.35	0.763
02/02/05	13:51:00	4860.0	47.33	0.766
02/02/05	13:51:30	4890.0	47.35	0.765
02/02/05	13:52:00	4920.0	47.35	0.769
02/02/05	13:52:30	4950.0	47.35	0.772
02/02/05	13:53:00	4980.0	47.35	0.772
02/02/05	13:53:30	5010.0	47.35	0.774
02/02/05	13:54:00	5040.0	47.35	0.776
02/02/05	13:54:30	5070.0	47.35	0.776
02/02/05	13:55:00	5100.0	47.35	0.778
02/02/05	13:55:30	5130.0	47.35	0.780
02/02/05	13:56:00	5160.0	47.35	0.782
02/02/05	13:56:30	5190.0	47.35	0.782
02/02/05	13:57:00	5220.0	47.35	0.782
02/02/05	13:57:30	5250.0	47.35	0.784
02/02/05	13:58:00	5280.0	47.35	0.786
02/02/05	13:58:30	5310.0	47.35	0.788
02/02/05	13:59:00	5340.0	47.35	0.788
02/02/05	13:59:30	5370.0	47.35	0.790
02/02/05	14:00:00	5400.0	47.35	0.792
02/02/05	14:00:30	5430.0	47.35	0.792
02/02/05	14:01:00	5460.0	47.37	0.794
02/02/05	14:01:30	5490.0	47.37	0.794
02/02/05	14:02:00	5520.0	47.37	0.796
02/02/05	14:02:30	5550.0	47.37	0.798
02/02/05	14:03:00	5580.0	47.37	0.798
02/02/05	14:03:30	5610.0	47.37	0.798
02/02/05	14:04:00	5640.0	47.37	0.800

02/02/05	14:04:30	5670.0	47.40	0.802
02/02/05	14:05:00	5700.0	47.37	0.804
02/02/05	14:05:30	5730.0	47.37	0.804
02/02/05	14:06:00	5760.0	47.37	0.807
02/02/05	14:06:30	5790.0	47.37	0.807
02/02/05	14:07:00	5820.0	47.37	0.811
02/02/05	14:07:30	5850.0	47.37	0.811
02/02/05	14:08:00	5880.0	47.37	0.813
02/02/05	14:08:30	5910.0	47.37	0.813
02/02/05	14:09:00	5940.0	47.37	0.815
02/02/05	14:09:30	5970.0	47.37	0.817
02/02/05	14:10:00	6000.0	47.37	0.817
02/02/05	14:10:30	6030.0	47.37	0.819
02/02/05	14:11:00	6060.0	47.37	0.821
02/02/05	14:11:30	6090.0	47.37	0.821
02/02/05	14:12:00	6120.0	47.37	0.823
02/02/05	14:12:30	6150.0	47.37	0.825
02/02/05	14:13:00	6180.0	47.40	0.825
02/02/05	14:13:30	6210.0	47.40	0.767
02/02/05	14:14:00	6240.0	47.37	0.730
02/02/05	14:14:30	6270.0	47.37	0.674
02/02/05	14:15:00	6300.0	47.37	0.610
02/02/05	14:15:30	6330.0	47.35	0.546
02/02/05	14:16:00	6360.0	47.35	0.475
02/02/05	14:16:30	6390.0	47.33	0.413
02/02/05	14:17:00	6420.0	47.33	0.347
02/02/05	14:17:30	6450.0	47.33	0.281
02/02/05	14:18:00	6480.0	47.30	0.219
02/02/05	14:18:30	6510.0	47.30	0.152
02/02/05	14:19:00	6540.0	47.30	0.086
02/02/05	14:19:30	6570.0	47.28	0.020
02/02/05	14:20:00	6600.0	47.26	-0.002
02/02/05	14:20:30	6630.0	47.24	-0.000
02/02/05	14:21:00	6660.0	47.21	-0.002
02/02/05	14:21:30	6690.0	47.21	0.000
02/02/05	14:22:00	6720.0	47.19	0.000
02/02/05	14:22:30	6750.0	47.17	0.001
02/02/05	14:23:00	6780.0	47.14	-0.001
02/02/05	14:23:30	6810.0	47.12	-0.001
02/02/05	14:24:00	6840.0	47.12	-0.001
02/02/05	14:24:30	6870.0	47.10	-0.003
02/02/05	14:25:00	6900.0	47.08	-0.002
02/02/05	14:25:30	6930.0	47.05	-0.000
02/02/05	14:26:00	6960.0	47.05	-0.002
02/02/05	14:26:30	6990.0	47.03	-0.002
02/02/05	14:27:00	7020.0	47.01	-0.002
02/02/05	14:27:30	7050.0	47.01	-0.004
02/02/05	14:28:00	7080.0	46.98	-0.001
02/02/05	14:28:30	7110.0	46.96	-0.003
02/02/05	14:29:00	7140.0	46.96	-0.003
02/02/05	14:29:30	7170.0	46.94	-0.005
02/02/05	14:30:00	7200.0	46.92	-0.003
02/02/05	14:30:30	7230.0	46.92	-0.003
02/02/05	14:31:00	7260.0	46.89	-0.005
02/02/05	14:31:30	7290.0	46.89	-0.005
02/02/05	14:32:00	7320.0	46.87	-0.004
02/02/05	14:32:30	7350.0	46.85	0.000

In-Situ Inc. MiniTroll Pro

Report generated: 02/03/05 17:04:31
Report from file: ...\SN09040 2005-02-02 123000 EagleOW2.bin
Win-Situ Version 4.51

Serial number: 00009040
Firmware Version 3.09
Unit name: EagleOW2

Test name: EagleOW2

Test defined on: 02/02/05 07:54:08
Test scheduled for: 02/02/05 12:30:00
Test started on: 02/02/05 12:30:00
Test stopped on: N/A N/A

Data gathered using Linear testing
  Time between data points: 30.0 Seconds.
  Number of data samples: 3409

TOTAL DATA SAMPLES 3409

Channel number [1]
  Measurement type: Temperature
  Channel name:

Channel number [2]
  Measurement type: Pressure
  Channel name:
  Sensor Range: 30 PSIG.
  Specific gravity: 1.000

Date	Time	ET (sec)	Chan[1] Temperature Fahrenheit	Chan[2] Pressure Feet H2O
02/02/05	12:30:00	0.0	52.19	-0.025
02/02/05	12:30:30	30.0	51.10	-0.025
02/02/05	12:31:00	60.0	50.00	-0.024
02/02/05	12:31:30	90.0	48.88	-0.005
02/02/05	12:32:00	120.0	48.18	-0.018
02/02/05	12:32:30	150.0	47.49	-0.015
02/02/05	12:33:00	180.0	46.85	-0.017
02/02/05	12:33:30	210.0	46.42	-0.012
02/02/05	12:34:00	240.0	46.14	-0.010
02/02/05	12:34:30	270.0	45.76	-0.008
02/02/05	12:35:00	300.0	45.44	-0.011
02/02/05	12:35:30	330.0	44.91	-0.005
02/02/05	12:36:00	360.0	44.25	-0.011
02/02/05	12:36:30	390.0	43.81	-0.008
02/02/05	12:37:00	420.0	43.58	-0.001
02/02/05	12:37:30	450.0	43.40	-0.004
02/02/05	12:38:00	480.0	43.17	0.007
02/02/05	12:38:30	510.0	43.17	0.009

02/02/05	12:39:00	540.0	43.40	0.012
02/02/05	12:39:30	570.0	43.72	0.013
02/02/05	12:40:00	600.0	43.97	0.013
02/02/05	12:40:30	630.0	44.25	0.013
02/02/05	12:41:00	660.0	44.52	0.012
02/02/05	12:41:30	690.0	44.70	0.012
02/02/05	12:42:00	720.0	45.05	0.014
02/02/05	12:42:30	750.0	45.32	0.012
02/02/05	12:43:00	780.0	45.62	0.011
02/02/05	12:43:30	810.0	45.94	-0.001
02/02/05	12:44:00	840.0	46.05	-0.011
02/02/05	12:44:30	870.0	46.49	2.240
02/02/05	12:45:00	900.0	47.42	2.375
02/02/05	12:45:30	930.0	47.93	2.454
02/02/05	12:46:00	960.0	48.20	2.479
02/02/05	12:46:30	990.0	48.34	2.489
02/02/05	12:47:00	1020.0	48.45	2.503
02/02/05	12:47:30	1050.0	48.52	2.517
02/02/05	12:48:00	1080.0	48.56	2.530
02/02/05	12:48:30	1110.0	48.59	2.544
02/02/05	12:49:00	1140.0	48.61	2.555
02/02/05	12:49:30	1170.0	48.63	2.563
02/02/05	12:50:00	1200.0	48.66	2.566
02/02/05	12:50:30	1230.0	48.66	2.566
02/02/05	12:51:00	1260.0	48.66	2.560
02/02/05	12:51:30	1290.0	48.68	2.544
02/02/05	12:52:00	1320.0	48.68	2.501
02/02/05	12:52:30	1350.0	48.68	2.476
02/02/05	12:53:00	1380.0	48.68	2.476
02/02/05	12:53:30	1410.0	48.70	2.477
02/02/05	12:54:00	1440.0	48.70	2.481
02/02/05	12:54:30	1470.0	48.70	2.483
02/02/05	12:55:00	1500.0	48.70	2.485
02/02/05	12:55:30	1530.0	48.70	2.487
02/02/05	12:56:00	1560.0	48.70	2.489
02/02/05	12:56:30	1590.0	48.70	2.491
02/02/05	12:57:00	1620.0	48.72	2.493
02/02/05	12:57:30	1650.0	48.72	2.493
02/02/05	12:58:00	1680.0	48.72	2.493
02/02/05	12:58:30	1710.0	48.72	2.494
02/02/05	12:59:00	1740.0	48.72	2.494
02/02/05	12:59:30	1770.0	48.75	2.494
02/02/05	13:00:00	1800.0	48.75	2.498
02/02/05	13:00:30	1830.0	48.77	2.496
02/02/05	13:01:00	1860.0	48.77	2.496
02/02/05	13:01:30	1890.0	48.77	2.498
02/02/05	13:02:00	1920.0	48.77	2.498
02/02/05	13:02:30	1950.0	48.77	2.500
02/02/05	13:03:00	1980.0	48.77	2.498
02/02/05	13:03:30	2010.0	48.77	2.498
02/02/05	13:04:00	2040.0	48.77	2.498
02/02/05	13:04:30	2070.0	48.77	2.498
02/02/05	13:05:00	2100.0	48.77	2.500
02/02/05	13:05:30	2130.0	48.77	2.500
02/02/05	13:06:00	2160.0	48.77	2.500
02/02/05	13:06:30	2190.0	48.77	2.500
02/02/05	13:07:00	2220.0	48.77	2.500

02/02/05	13:07:30	2250.0	48.77	2.502
02/02/05	13:08:00	2280.0	48.77	2.502
02/02/05	13:08:30	2310.0	48.77	2.502
02/02/05	13:09:00	2340.0	48.77	2.502
02/02/05	13:09:30	2370.0	48.77	2.504
02/02/05	13:10:00	2400.0	48.75	2.504
02/02/05	13:10:30	2430.0	48.75	2.502
02/02/05	13:11:00	2460.0	48.75	2.504
02/02/05	13:11:30	2490.0	48.75	2.504
02/02/05	13:12:00	2520.0	48.75	2.504
02/02/05	13:12:30	2550.0	48.75	2.504
02/02/05	13:13:00	2580.0	48.75	2.504
02/02/05	13:13:30	2610.0	48.75	2.504
02/02/05	13:14:00	2640.0	48.75	2.508
02/02/05	13:14:30	2670.0	48.75	2.506
02/02/05	13:15:00	2700.0	48.77	2.506
02/02/05	13:15:30	2730.0	48.77	2.508
02/02/05	13:16:00	2760.0	48.77	2.506
02/02/05	13:16:30	2790.0	48.77	2.508
02/02/05	13:17:00	2820.0	48.77	2.508
02/02/05	13:17:30	2850.0	48.77	2.508
02/02/05	13:18:00	2880.0	48.77	2.509
02/02/05	13:18:30	2910.0	48.77	2.509
02/02/05	13:19:00	2940.0	48.77	2.509
02/02/05	13:19:30	2970.0	48.77	2.509
02/02/05	13:20:00	3000.0	48.77	2.509
02/02/05	13:20:30	3030.0	48.77	2.509
02/02/05	13:21:00	3060.0	48.77	2.511
02/02/05	13:21:30	3090.0	48.77	2.511
02/02/05	13:22:00	3120.0	48.77	2.513
02/02/05	13:22:30	3150.0	48.77	2.513
02/02/05	13:23:00	3180.0	48.77	2.513
02/02/05	13:23:30	3210.0	48.77	2.513
02/02/05	13:24:00	3240.0	48.79	2.515
02/02/05	13:24:30	3270.0	48.79	2.513
02/02/05	13:25:00	3300.0	48.79	2.515
02/02/05	13:25:30	3330.0	48.79	2.515
02/02/05	13:26:00	3360.0	48.79	2.515
02/02/05	13:26:30	3390.0	48.79	2.515
02/02/05	13:27:00	3420.0	48.79	2.515
02/02/05	13:27:30	3450.0	48.79	2.517
02/02/05	13:28:00	3480.0	48.79	2.517
02/02/05	13:28:30	3510.0	48.79	2.517
02/02/05	13:29:00	3540.0	48.79	2.517
02/02/05	13:29:30	3570.0	48.82	2.519
02/02/05	13:30:00	3600.0	48.82	2.519
02/02/05	13:30:30	3630.0	48.82	2.519
02/02/05	13:31:00	3660.0	48.84	2.518
02/02/05	13:31:30	3690.0	48.84	2.518
02/02/05	13:32:00	3720.0	48.84	2.520
02/02/05	13:32:30	3750.0	48.84	2.520
02/02/05	13:33:00	3780.0	48.84	2.520
02/02/05	13:33:30	3810.0	48.84	2.520
02/02/05	13:34:00	3840.0	48.84	2.522
02/02/05	13:34:30	3870.0	48.84	2.522
02/02/05	13:35:00	3900.0	48.84	2.522
02/02/05	13:35:30	3930.0	48.84	2.522

02/02/05	13:36:00	3960.0	48.86	2.522
02/02/05	13:36:30	3990.0	48.86	2.524
02/02/05	13:37:00	4020.0	48.86	2.524
02/02/05	13:37:30	4050.0	48.84	2.524
02/02/05	13:38:00	4080.0	48.84	2.524
02/02/05	13:38:30	4110.0	48.84	2.524
02/02/05	13:39:00	4140.0	48.86	2.520
02/02/05	13:39:30	4170.0	48.86	2.520
02/02/05	13:40:00	4200.0	48.86	2.520
02/02/05	13:40:30	4230.0	48.86	2.520
02/02/05	13:41:00	4260.0	48.86	2.522
02/02/05	13:41:30	4290.0	48.86	2.522
02/02/05	13:42:00	4320.0	48.88	2.521
02/02/05	13:42:30	4350.0	48.88	2.521
02/02/05	13:43:00	4380.0	48.88	2.521
02/02/05	13:43:30	4410.0	48.88	2.523
02/02/05	13:44:00	4440.0	48.88	2.523
02/02/05	13:44:30	4470.0	48.88	2.523
02/02/05	13:45:00	4500.0	48.88	2.523
02/02/05	13:45:30	4530.0	48.91	2.523
02/02/05	13:46:00	4560.0	48.91	2.525
02/02/05	13:46:30	4590.0	48.91	2.525
02/02/05	13:47:00	4620.0	48.91	2.525
02/02/05	13:47:30	4650.0	48.91	2.525
02/02/05	13:48:00	4680.0	48.91	2.525
02/02/05	13:48:30	4710.0	48.91	2.525
02/02/05	13:49:00	4740.0	48.91	2.527
02/02/05	13:49:30	4770.0	48.91	2.527
02/02/05	13:50:00	4800.0	48.93	2.527
02/02/05	13:50:30	4830.0	48.93	2.527
02/02/05	13:51:00	4860.0	48.93	2.529
02/02/05	13:51:30	4890.0	48.93	2.529
02/02/05	13:52:00	4920.0	48.95	2.528
02/02/05	13:52:30	4950.0	48.93	2.529
02/02/05	13:53:00	4980.0	48.95	2.528
02/02/05	13:53:30	5010.0	48.95	2.528
02/02/05	13:54:00	5040.0	48.95	2.530
02/02/05	13:54:30	5070.0	48.95	2.530
02/02/05	13:55:00	5100.0	48.95	2.530
02/02/05	13:55:30	5130.0	48.95	2.530
02/02/05	13:56:00	5160.0	48.95	2.528
02/02/05	13:56:30	5190.0	48.98	2.532
02/02/05	13:57:00	5220.0	48.98	2.532
02/02/05	13:57:30	5250.0	48.98	2.532
02/02/05	13:58:00	5280.0	48.98	2.532
02/02/05	13:58:30	5310.0	48.98	2.532
02/02/05	13:59:00	5340.0	48.98	2.532
02/02/05	13:59:30	5370.0	48.98	2.534
02/02/05	14:00:00	5400.0	48.98	2.534
02/02/05	14:00:30	5430.0	48.98	2.534
02/02/05	14:01:00	5460.0	48.98	2.534
02/02/05	14:01:30	5490.0	49.00	2.533
02/02/05	14:02:00	5520.0	49.00	2.533
02/02/05	14:02:30	5550.0	49.00	2.535
02/02/05	14:03:00	5580.0	49.00	2.535
02/02/05	14:03:30	5610.0	49.00	2.537
02/02/05	14:04:00	5640.0	49.00	2.535

02/02/05	14:04:30	5670.0	49.02	2.537
02/02/05	14:05:00	5700.0	49.02	2.537
02/02/05	14:05:30	5730.0	49.02	2.539
02/02/05	14:06:00	5760.0	49.02	2.539
02/02/05	14:06:30	5790.0	49.02	2.539
02/02/05	14:07:00	5820.0	49.02	2.537
02/02/05	14:07:30	5850.0	49.02	2.539
02/02/05	14:08:00	5880.0	49.02	2.539
02/02/05	14:08:30	5910.0	49.04	2.541
02/02/05	14:09:00	5940.0	49.04	2.541
02/02/05	14:09:30	5970.0	49.04	2.541
02/02/05	14:10:00	6000.0	49.04	2.541
02/02/05	14:10:30	6030.0	49.07	2.542
02/02/05	14:11:00	6060.0	49.07	2.540
02/02/05	14:11:30	6090.0	49.07	2.542
02/02/05	14:12:00	6120.0	49.09	2.542
02/02/05	14:12:30	6150.0	49.09	2.542
02/02/05	14:13:00	6180.0	49.09	2.544
02/02/05	14:13:30	6210.0	49.09	2.528
02/02/05	14:14:00	6240.0	49.11	2.524
02/02/05	14:14:30	6270.0	49.11	2.520
02/02/05	14:15:00	6300.0	49.11	2.512
02/02/05	14:15:30	6330.0	49.11	2.504
02/02/05	14:16:00	6360.0	49.11	2.500
02/02/05	14:16:30	6390.0	49.11	2.491
02/02/05	14:17:00	6420.0	49.11	2.483
02/02/05	14:17:30	6450.0	49.11	2.481
02/02/05	14:18:00	6480.0	49.14	2.473
02/02/05	14:18:30	6510.0	49.14	2.469
02/02/05	14:19:00	6540.0	49.14	2.465
02/02/05	14:19:30	6570.0	49.14	2.457
02/02/05	14:20:00	6600.0	49.14	2.453
02/02/05	14:20:30	6630.0	49.14	2.445
02/02/05	14:21:00	6660.0	49.16	2.441
02/02/05	14:21:30	6690.0	49.16	2.431
02/02/05	14:22:00	6720.0	49.16	2.429
02/02/05	14:22:30	6750.0	49.16	2.425
02/02/05	14:23:00	6780.0	49.16	2.419
02/02/05	14:23:30	6810.0	49.18	2.415
02/02/05	14:24:00	6840.0	49.18	2.407
02/02/05	14:24:30	6870.0	49.18	2.401
02/02/05	14:25:00	6900.0	49.18	2.395
02/02/05	14:25:30	6930.0	49.18	2.389
02/02/05	14:26:00	6960.0	49.18	2.384
02/02/05	14:26:30	6990.0	49.18	2.374
02/02/05	14:27:00	7020.0	49.20	2.367
02/02/05	14:27:30	7050.0	49.20	2.364
02/02/05	14:28:00	7080.0	49.20	2.354
02/02/05	14:28:30	7110.0	49.20	2.350
02/02/05	14:29:00	7140.0	49.20	2.342
02/02/05	14:29:30	7170.0	49.20	2.340
02/02/05	14:30:00	7200.0	49.23	2.328
02/02/05	14:30:30	7230.0	49.23	2.320
02/02/05	14:31:00	7260.0	49.23	2.314
02/02/05	14:31:30	7290.0	49.23	2.308
02/02/05	14:32:00	7320.0	49.23	2.296
02/02/05	14:32:30	7350.0	49.23	2.296

APPENDIX B
HAZARDOUS WASTE MANIFESTS

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS MATERIALS
One Winter Street
Boston, Massachusetts 02108

DEP

IN-STAT...

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

In case of emergency or spill, immediately call the National Response Center (800) 424-8802.

MA M825661 COPY>4: GENERATOR RETAINS

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator US EPA ID No. MA9099999099 | Manifest Document No. 00332 | 2. Page 1 of 4 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Eagle Gas Inc, 131 ... St ..., MA 0...

A. State Manifest Document Number: MA M825661

B. State Gen. ID: Same

4. Generator's Phone (508) 366 7098

5. Transporter 1 Company Name: LIGHTHOUSE ENVIRONMENTAL SOLUTIONS LLC | 6. US EPA ID Number: MAR000501404

C. State Trans. ID: K51199MA

D. Transporter's Phone: 781-893-7771

7. Transporter 2 Company Name | 8. US EPA ID Number

E. State Trans. ID

F. Transporter's Phone

9. Designated Facility Name and Site Address: OLSON'S GREENHOUSE, INC. 590 South Street East Raynham, MA 02767 | 10. US EPA ID Number: MAD059753378

G. State Facility's ID: Not Required

H. Facility's Phone: 508-977-0261

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Combustible Liquid N.O.S. (Fuel/ Oily water) Combustible, NA 1993, PG III	001	TT	01100	G	MA97
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above (include physical state and hazard code.)
a. (L) Oily Water
b.
c.
d.

K. Handling Codes for Wastes Listed Above
a. 02
b.
c.
d.

15. Special Handling Instructions and Additional Information
Line 11A ERG Guide # 128
24 Hour Emergency Response Phone # 781-893-7771

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name | Signature | Date Month Day Year: 02 21 05

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Allan C. Peirce | Signature | Date Month Day Year: 02 21 05

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name | Signature | Date Month Day Year

Form Approved OMB No. 2050-0039
EPA Form 8700-22 (Rev. 9-94) Previous editions are obsolete.

COPY>4: GENERATOR RETAINS

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS MATERIALS
One Winter Street
Boston, Massachusetts 02108

FOR IN-STATE WASTE OIL ONLY OR IN-STATE VSQG HW/WO

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator US EPA ID No. MA5101866909897 Manifest Document No. 00330
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address EAGLE GAS, INC 131 MAIN ST. CARVER, MA. 02330
4. Generator's Phone (508 866-9098
A. State Manifest Document Number MA M825669
B. State Gen. ID SAME
5. Transporter 1 Company Name LIGHTHOUSE ENVIRONMENTAL SOLUTIONS LLC
6. US EPA ID Number MAD000510404
C. State Trans. ID MS1/1419 MA
D. Transporter's Phone 781 893-7771
7. Transporter 2 Company Name
8. US EPA ID Number
E. State Trans. ID
F. Transporter's Phone ( )
9. Designated Facility Name and Site Address OLSON'S GREENHOUSE, INC. 590 South Street East Raynham, MA 02767
10. US EPA ID Number MAD059733378
G. State Facility's ID Not Required
H. Facility's Phone 508-977-0261

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Combustible Liquid N.O.S. (Fuel Oil/WATER) Combustible, NA 1993, PG III	001	TT	01115[illegible]	G	MA97
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above (include physical state and hazard code.)
a. (L) OILY WATER
K. Handling Codes for Wastes Listed Above
a. [illegible]

15. Special Handling Instructions and Additional Information
Line 11A ERG Guide # 128
24 Hour Emergency Response Phone # 781-893-7771

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name: R. Wright | Signature: [signature] | Date Month Day Year 02 19 05

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: ALLAN C PEIRCE | Signature: [signature] | Date Month Day Year 02 19 05

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name | Signature | Date Month Day Year

In case of emergency or spill, immediately call the National Response Center (800) 424-8802.

MA M825669 COPY>4: GENERATOR RETAINS

Form Approved OMB No. 2050-0039
EPA Form 8700-22 (Rev. 9-94) Previous editions are obsolete.

COPY>4: GENERATOR RETAINS

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS MATERIALS
One Winter Street
Boston, Massachusetts 02108

FOR IN-STATE WASTE OIL ONLY OR IN-STATE VSQG HW/WO

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator US EPA ID No. / Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law.
	MA[illegible] / 00523	1	

3. Generator's Name and Mailing Address: [illegible] Gas Inc, 131 [illegible] St [illegible] 02[illegible]

4. Generator's Phone ([illegible]) 566 9096

5. Transporter 1 Company Name: LIGHTHOUSE ENVIRONMENTAL SOLUTIONS LLC

6. US EPA ID Number: MAR000510405

7. Transporter 2 Company Name:

8. US EPA ID Number:

9. Designated Facility Name and Site Address: OLSON'S GREENHOUSE, INC. 590 South Street East Raynham, MA 02767

10. US EPA ID Number: MAD059733378

A. State Manifest Document Number: MA M825654

B. State Gen. ID: Same

C. State Trans. ID: KS[illegible]MA

D. Transporter's Phone (781) 893-7771

E. State Trans. ID:

F. Transporter's Phone ( )

G. State Facility's ID: Not Required

H. Facility's Phone ([illegible])

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Combustible Liquid N.O.S. (Fuel Oil) Combustible,, NA 1993, PG III	001	T	01200	G	[illegible]
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above (include physical state and hazard code.)
a. (L) Oily Water
b.
c.
d.

K. Handling Codes for Wastes Listed Above
a. [illegible]
b.
c.
d.

15. Special Handling Instructions and Additional Information
Line 11A ERG Guide # 128
24 Hour Emergency Response Phone # 781-893-7771

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name	Signature	Date Month Day Year
NAJIB SADAK	[signature]	02/16/05

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year
ALLAN C. PEIRCE	[signature]	02/16/05

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Date Month Day Year

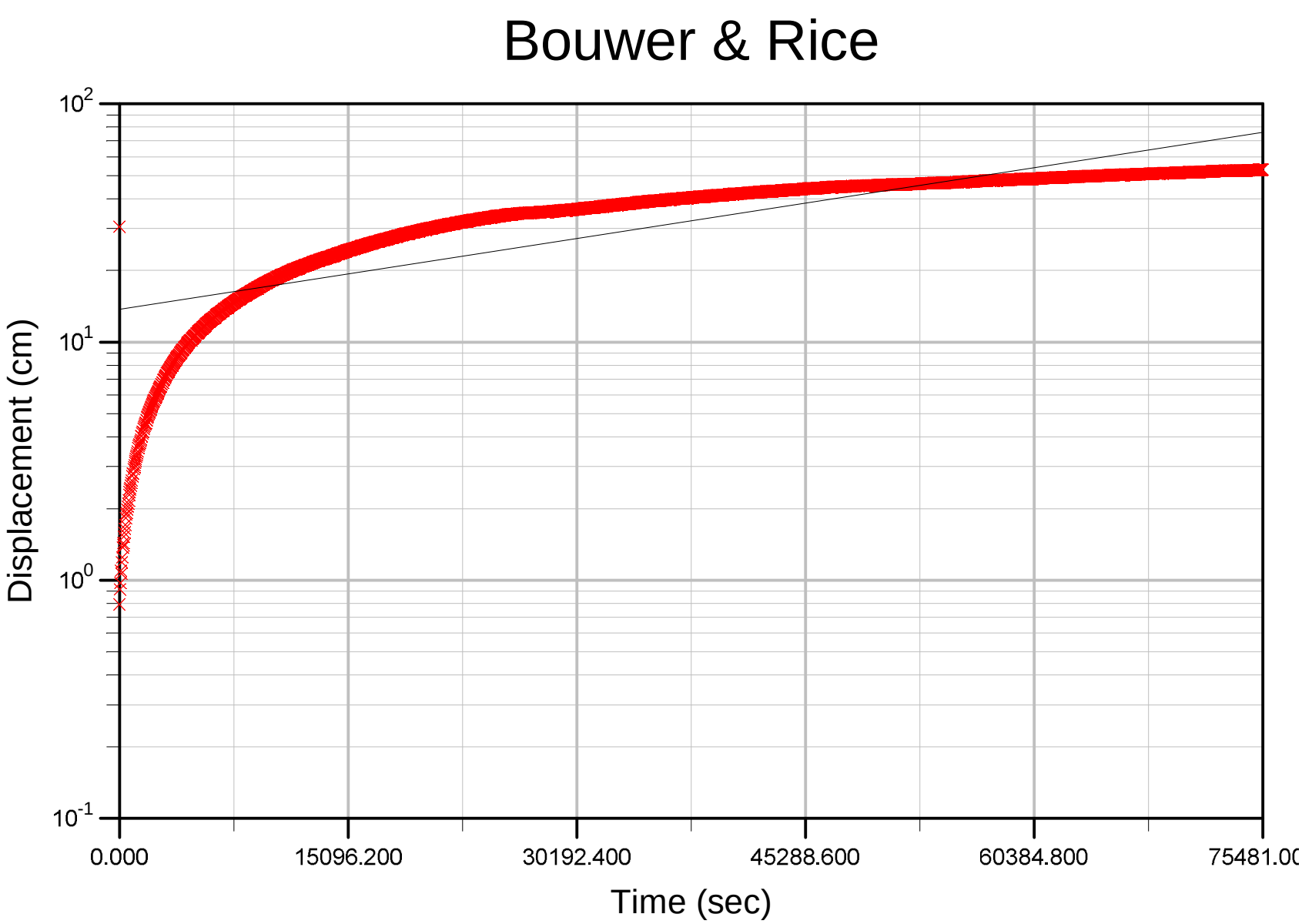
GENERATOR / TRANSPORTER / FACILITY

In case of emergency or spill, immediately call the National Response Center (800) 424-8802.

MA M825654 COPY>4: GENERATOR RETAINS

COPY>4: GENERATOR RETAINS

APPENDIX C
HYDRAULIC CONDUCTIVITY CALCULATIONS


Bouwer & Rice
Displacement (cm)
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10^1
10^0
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30192.400
45288.600
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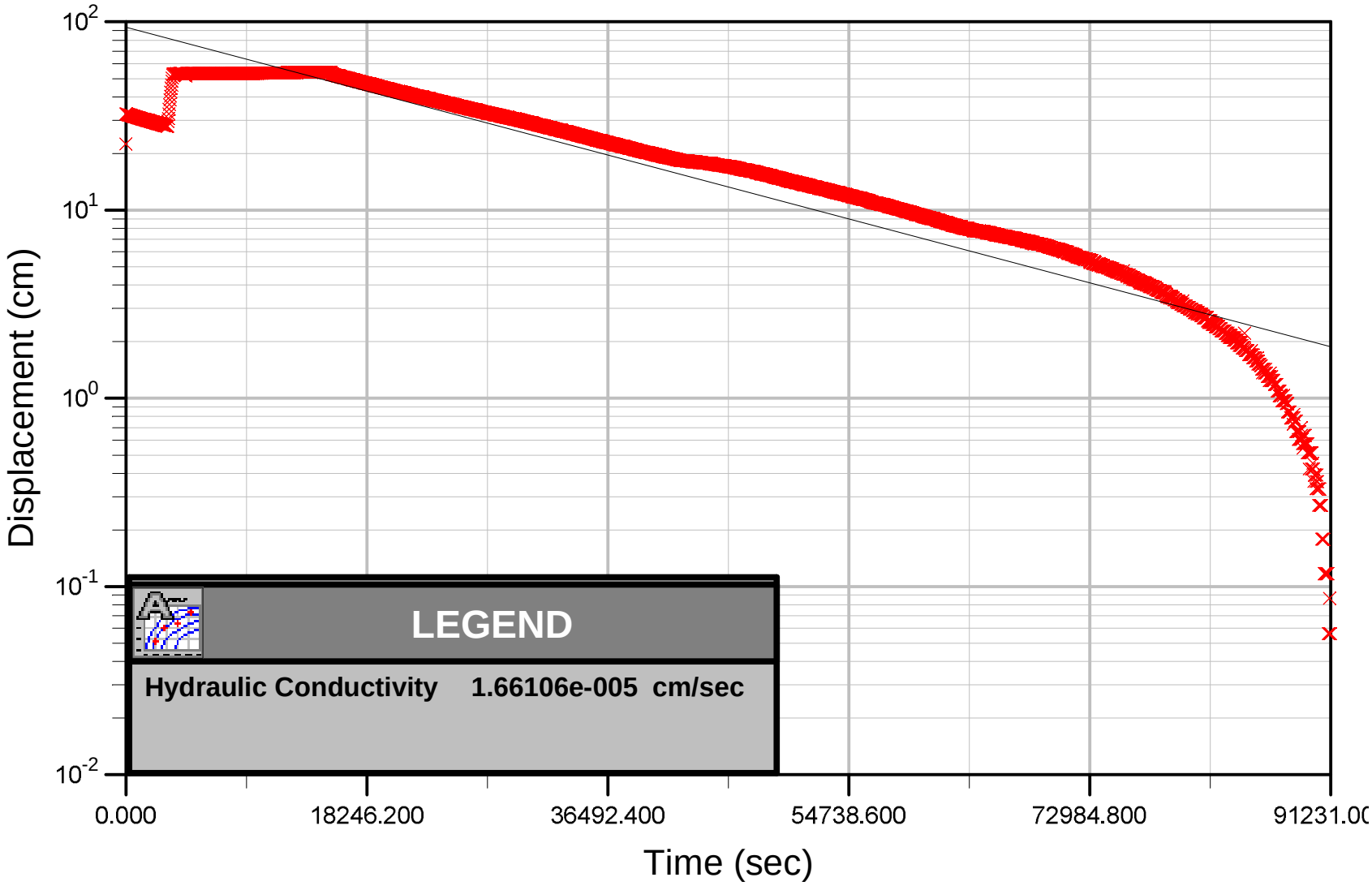
75481.00
Time (sec)

Bouwer & Rice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10^{-1}
10^{-2}
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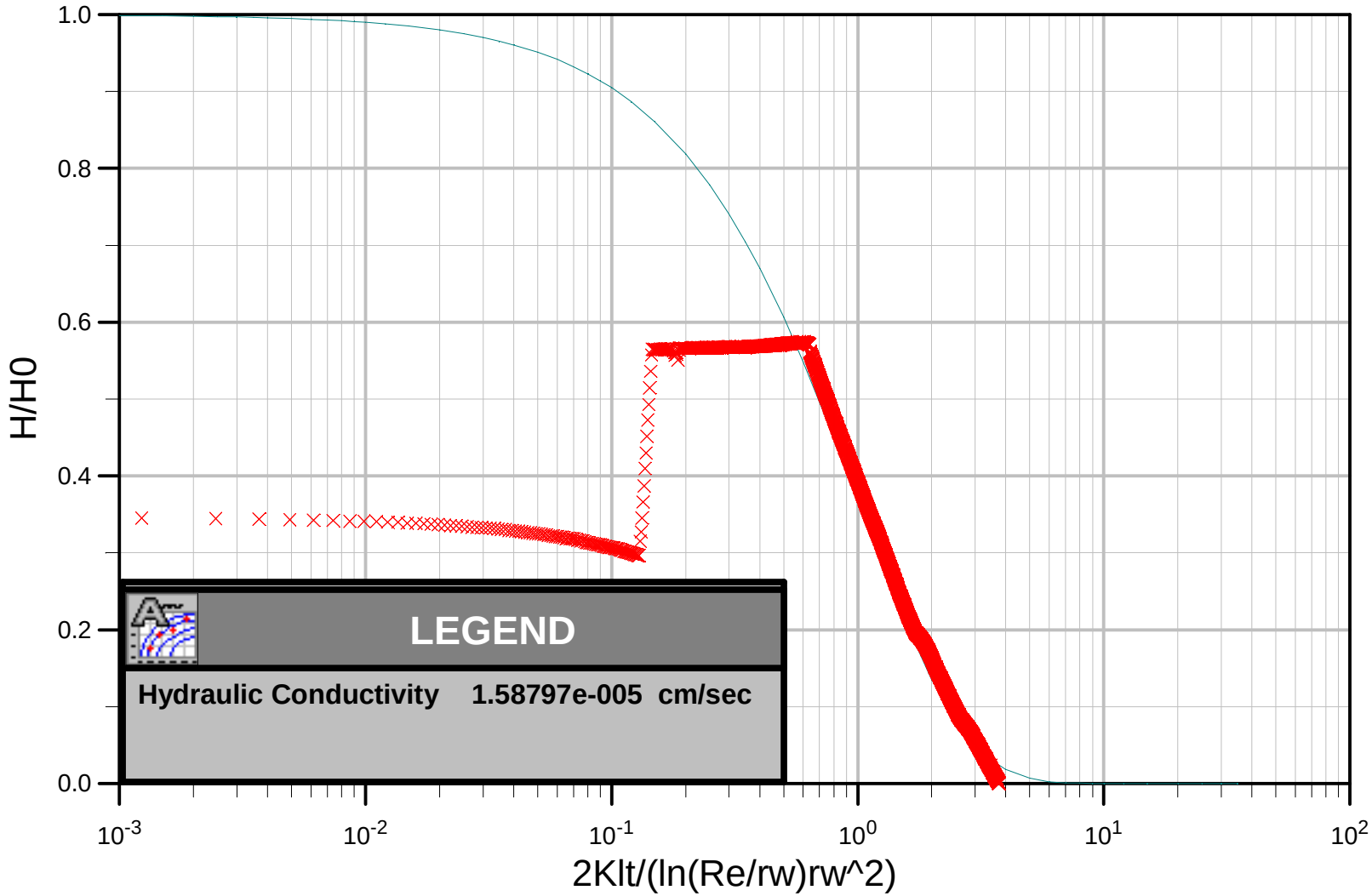
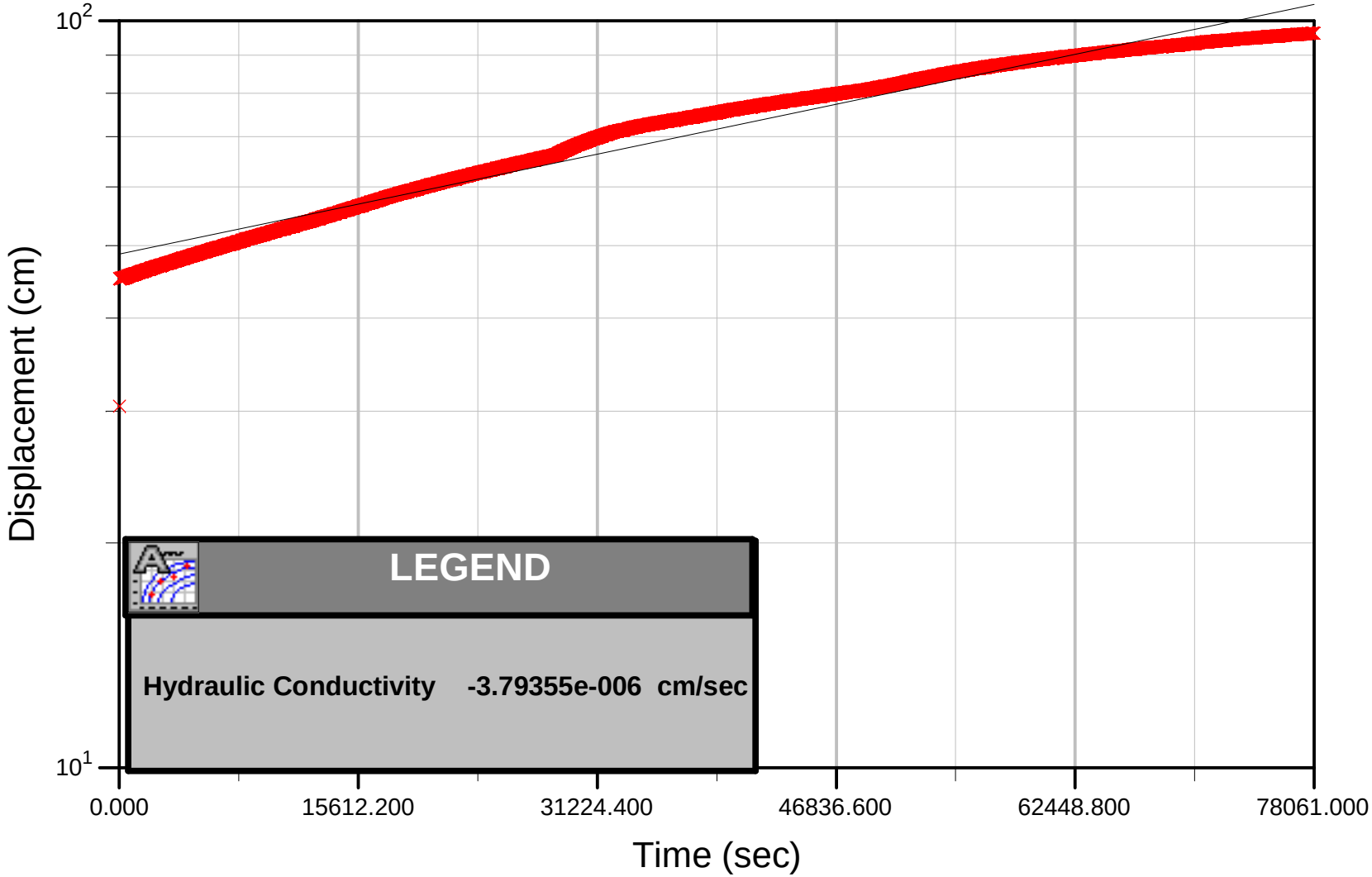
Time (sec)
LEGEND
Hydraulic Conductivity 1.66106e-005 cm/sec

Black


1.0
0.8
0.6
0.4
0.2
0.0
H/H0
LEGEND
Hydraulic Conductivity 1.58797e-005 cm/sec
10-3
10-2
10-1
100
101
102
2Klt/(ln(Re/rw)rw^2)

Bouwer & Rice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Time (sec)
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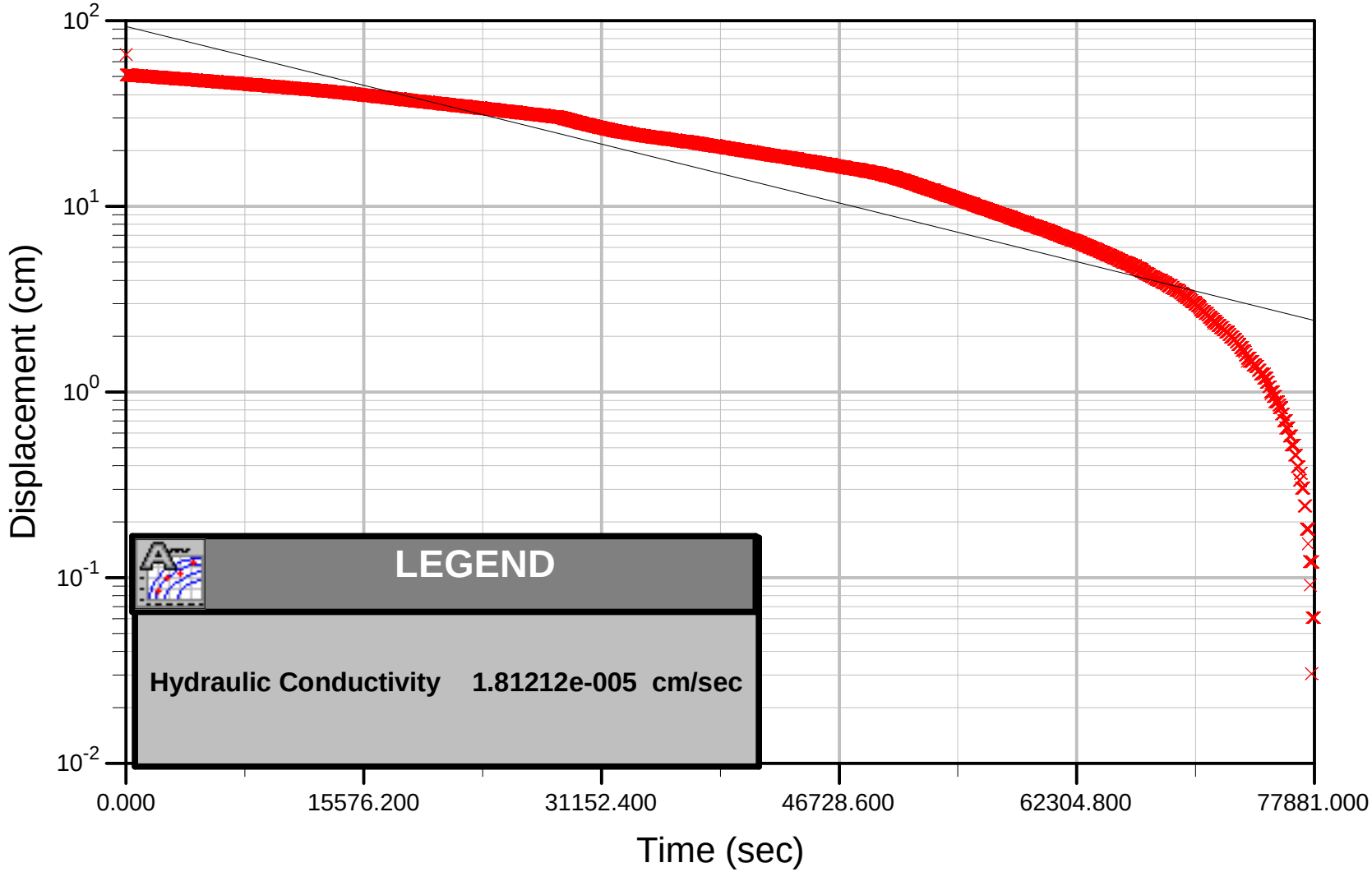
Hydraulic Conductivity -3.79355e-006 cm/sec

Bouwer & Rice


Displacement (cm)
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10^1
10^0
10^{-1}
10^{-2}
0.000
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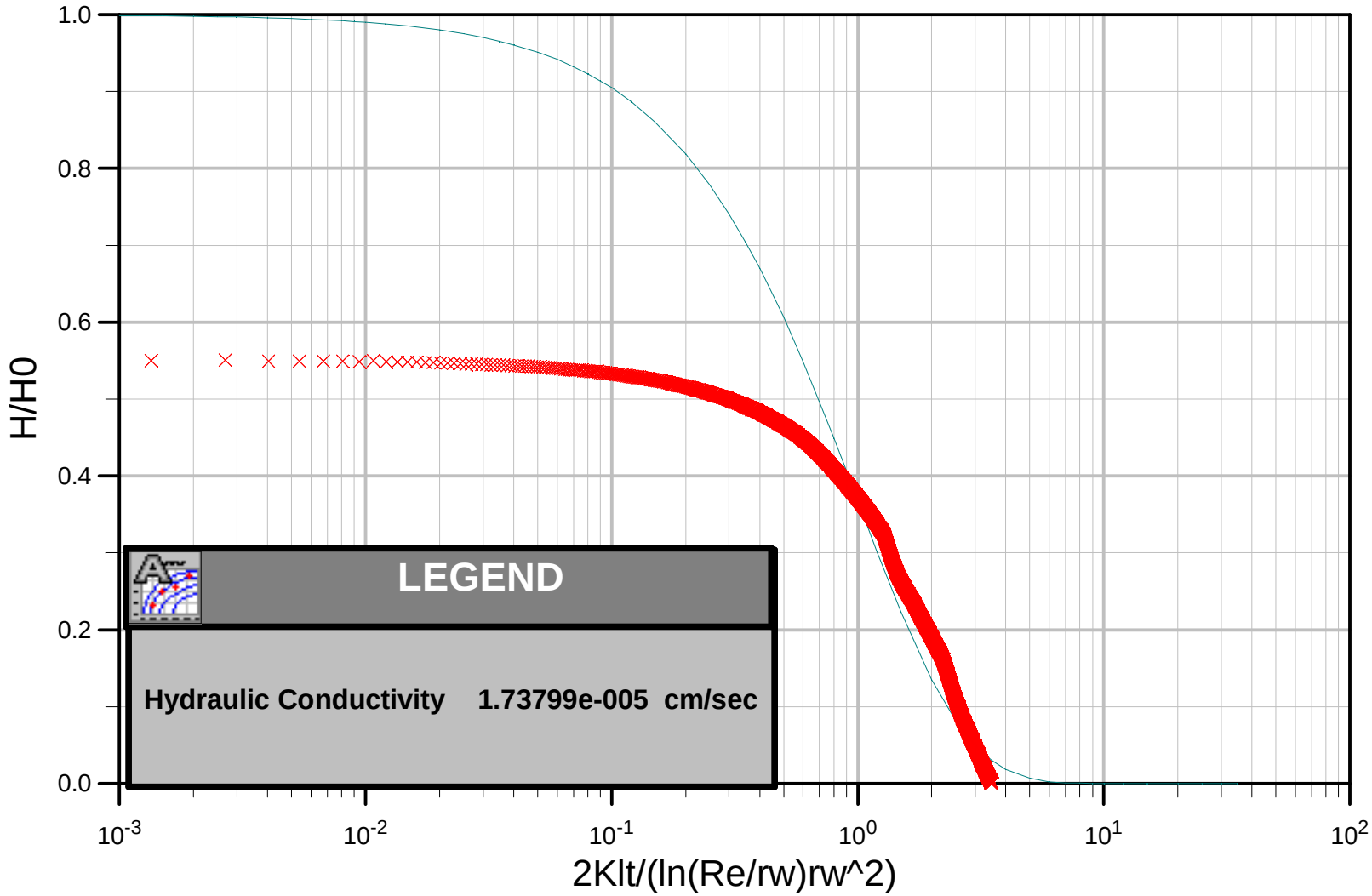
46728.600
62304.800
77881.000
Time (sec)
LEGEND
Hydraulic Conductivity 1.81212e-005 cm/sec

Black


1.0
0.8
0.6
0.4
0.2
0.0
H/H0
LEGEND
Hydraulic Conductivity 1.73799e-005 cm/sec
10-3
10-2
10-1
100
101
102
2Klt/(ln(Re/rw)rw^2)

APPENDIX D
CERTIFICATE OF ANALYSIS

GeoLabs, Inc.

Environmental Laboratories

LABORATORY REPORT

PREPARED FOR:

Decoulos & Company
3 Electronics Avenue
Danvers, MA 01923

Attn: Jim Decoulos

PROJECT ID:	Eagle Gas Station Carver, MA
GEOLABS CERTIFICATION #:	M-MA015
SAMPLE NUMBER:	161500
DATE PREPARED:	February 17, 2005
PREPARED BY:	Karen Mullally
APPROVED BY:	_____ Jim Chen, Laboratory Director

Location: 45 Johnson Lane
Braintree, MA 02184
Phone: (781) 848-7844
Fax: (781) 848-7811

GeoLabs, Inc.

Environmental Laboratories

MADEP MCP Response Action Analytical Report Certification Form

Laboratory Name:	GeoLabs, Inc.	Project #:	Eagle Gas Station
Project Location:	Carver, MA	MADEP RTN:	

This form provides certifications for the following data set: 161500

Sample matrices: Groundwater (x) Soil / Sediment ( ) Drinking Water ( ) Other ( )

MCP SW-846 Methods Used	8260B ( )	8151A ( )	8330 ( )	6010B ( )	7470/1A ( )	Other: (x)	8100M
	8270C ( )	8081A ( )	VPH ( )	6020 ( )	9014M[2] ( )		
	8082 ( )	8021B ( )	EPH ( )	7000 S[3] ( )			
As specified in MADEP Compendium of Analytical Methods (Check all that apply)	1- List Release Tracking Number (RTN), if known 2- M - SW-846 Method 9014 or MADEP Physiologically Available Cyanide (PAC) Metl 3- S - SW-846 Methods 7000 Series (List individual method and analyte)						

An affirmative response to questions A, B, and C is required for "*Presumptive Certainty*" status

A	Were all samples received by the laboratory in a condition consistent with that described on the Chain-of-Custody documentation for the data set?	Yes (x)	No[1] ( )
B	Were all QA/QC procedures required for the specified analytical method(included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	Yes (x)	No[1] ( )
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in Section 2.0 of the MADEP documents CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (x)	No[1] ( )

A response to questions D and E below is required for "*Presumptive Certainty*" status

D	Were all QC performance standards and recommendations for the specified methods achieved?	Yes (x)	No[1] ( )
E	Were results for all analyte-list compounds/elements for the specified method(s) reported?	Yes (x)	No[1] ( )

[1]All NO answeres must be addressed in an attached Environmental Laboratory case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature:		Position:	Lab Director
Printed Name:	Jim Chen	Date:	February 17, 2005

GeoLabs, Inc.

Environmental Laboratories

Case Narrative

Project ID: Eagle Gas Station
Client Name: Decoulos & Company

Sample Number: 161500
Received: 02/16/05

Physical Condition of Samples

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

1. Sample received on ice at 5 degrees C.

Project Documentation

This project was accompanied by satisfactory Chain of Custody documentation. The sample container label(s) agreed with the Chain of Custody.

Analysis of Sample(s)

No analytical anomalies or non-conformances were noted by the laboratory during the processing of these sample(s).

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	**Decoulos & Co.**	PROJECT ID:	Eagle Gas Station
SAMPLE TYPE:	GROUND WATER	REPORT DATE:	02/17/05
COLLECTION DATE:	02/16/05	ANALYZED BY:	GAP
REC'D BY LAB:	02/16/05	ANALYSIS DATE:	02/17/05
COLLECTED BY:	CLIENT	DIGESTION DATE:	02/17/05
PRESERVATIVE:	SULFURIC ACID		

TOTAL PETROLEUM HYDROCARBONS

SAMPLE NUMBER	SAMPLE LOCATION	TPH (mg/L)	DETECTION LIMIT (mg/L)
161500	S-1	**16.6**	0.20

ND = NOT DETECTED

Method Reference:

EPA Method 8100 (1) Modified

1) U.S. EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 1986, 3rd Edition.

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	**Decoulos & Co.**	PROJECT ID:	Eagle Gas Station
SAMPLE TYPE:	GROUND WATER	REPORT DATE:	02/17/05
COLLECTION DATE:	02/16/05	ANALYZED BY:	GAP
REC'D BY LAB:	02/16/05		
COLLECTED BY:	CLIENT		

TPH WATER QA/QC

	BLANK	MDL	LCS %	% REC.
Gasoline	ND	0.2 mg/L		
Kerosene / Jet Fuel	ND	0.2 mg/L		
Diesel Fuel #2	ND	0.2 mg/L	92%	40-140%
Fuel #4	ND	0.2 mg/L		
Fuel #6	ND	0.2 mg/L		
Transformer Oil	ND	0.2 mg/L		
Parafin Oil	ND	0.2 mg/L		
Motor Oil	ND	0.2 mg/L		
Surrogate				
OTP % Recovery	94%		100%	40-140%

GEOLABS, INC.
45 JOHNSON LANE
BRAINTREE, MA 02184
M-MA015

LIMITATIONS & EXCLUSIONS

All the professional opinions presented in this report are based solely on the scope of work conducted and sources referred to in our report. The data presented by GeoLabs in this report was collected and analyzed using generally accepted industry methods and practices at the time the report was generated. This report represents the conditions, locations and materials that were observed at the time the work was conducted. No inferences regarding other conditions, locations or materials, at a later or earlier time may be made based on the contents of the report. No other warranty, express or implied is made.

This report was prepared for the sole use of our client. Portions of the report may not be used independent of the entire report.

All analyses were performed within required holding times, in accordance with EPA protocols and using accepted QA/QC procedures. All QA/QC meets acceptable limits unless otherwise noted. The information contained in this report is, to the best of my knowledge, accurate and complete.

This lab report meets all requirements of NELAC unless otherwise noted.

Any and all subsequent pages of this report are chain(s) of custody.

GeoLabs, Inc.
Environmental Laboratories
45 Johnson Lane
Braintree, MA 02184
Phone: 781-848-7844
Fax: 781-848-7811

Turnaround Time
RUSH: 24hrs ☐ 48hrs ☑ 72hrs ☐ **STANDARD:** 5 Days____ Rush Approved By:____

Page 1 of 1

SPECIAL INSTRUCTIONS

Client: Decoulos + Co.
Address: 185 Alewife Brook Parkway Cambridge, MA. 02138
Phone: 617-489-7795
Fax: 877-842-9629
Contact: Jim
E-mail:

Project Number:
Project Location: Eagle Gas Station Carver, Ma.
Purchase Order #:
Collected By:

ANALYSES REQUESTED

SAMPLE ID	COLLECTION DATE	COLLECTION TIME	COLLECTION SAMPLED BY	SAMPLE LOCATION	CONTAINER TYPE	CONTAINER QUANT	MATRIX	COMP	GRAB	PRES	GEOLABS SAMPLE NUMBER	TPH 8100 m								TEMPERATURE	LAB PH
S-1	2/16	8:30			A	1	GW		✓	1		✓									

CONTAINER CODES:	MATRIX CODES:	PRESERVATIVE CODES:	Relinquished By:	Date/Time	Received By:	Date/Time:
A = Amber	GW = Ground Water	1 = HCl 7 = ICE		2/16/05		2/16/05 12:35
B = Bag	WW = Wastewater	2 = HNO_3	Relinquished By:		Received By:	
G = Glass	DW = Drinking Water	3 = H_2SO_4				
P = Plastic	SL = Sludge	4 = $Na_2S_2O_3$	Relinquished By:		Received By GeoLabs:	
S = Summa Canister	S = Soil A = Air	5 = NaOH				
O = Other V = VOA	O = Oil OT = Other	6 = MeOH	GEOLABS CHAIN OF CUSTODY			

APPENDIX E
ACTIVATED CARBON DESIGN

PROJECT: Decoulos & Co. MA Eagle Gas Station

FLOW IN GPM: 3.00
FLOW IN GPD: 4320.00

PERFORMANCE:

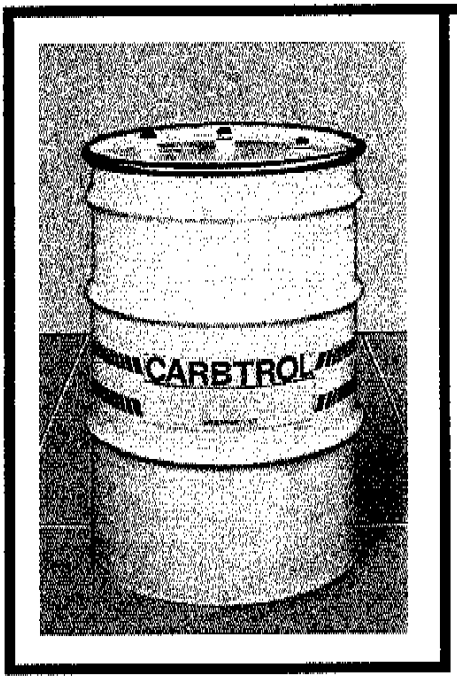
CONTAMINANT	CONC(ppb)	#CONT /DAY	# CARBON /DAY	# CONT /1000 gal	# CARBON /1000 gal
Diesel (as Naphthalene)	17000	0.61	1.56	0.14	0.36
TOTALS	17000	0.61	1.56	0.14	0.36

Calculation based on CARBTROL CSL carbon having an Iodine number of: 1100.00

CARBTROL®

WATER PURIFICATION CANISTER 200 POUND ACTIVATED CARBON

L-1



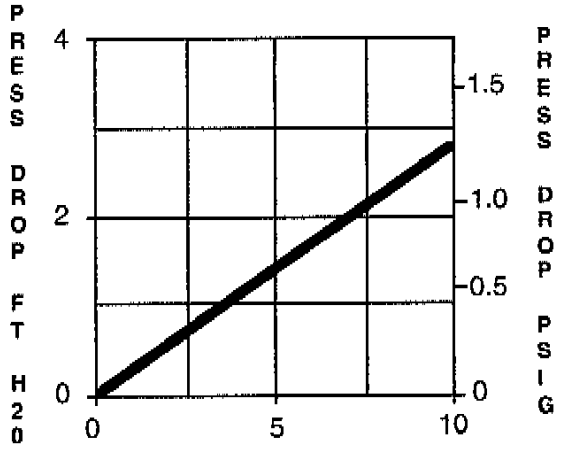
The CARBTROL L-1 (liquid) Canister handles up to 10 gpm.

FEATURES

- 200 pounds of high activity carbon.
- Large 1 1/4" internal piping. Low pressure drop allows operation of three canisters in series.
- Standard FPT couplings for easy installation - saves time and money.
- Special "no leak" lid gasket.
- Heavy duty steel drums. Acceptable for transport of hazardous spent carbon.
- Piping design eliminates channeling.

SPECIFICATIONS

DRUM:	24" Ø x 34" high, mild steel, epoxy phenolic internal coating with polyethylene liner.
CARBON:	200 lbs.
SHIPPING WEIGHT:	250 lbs.
INLET:	1 1/4" FPT, steel
OUTLET:	1 1/4" FPT, steel
INTERNAL PIPING:	1 1/4" PVC
DRAIN:	3/4" bung
PRESSURE DROP:	1.25 psi @ 10 gpm
MAX. OPERATING PRESSURE:	10 psi



AT-100/#2

CARBTROL® CORPORATION

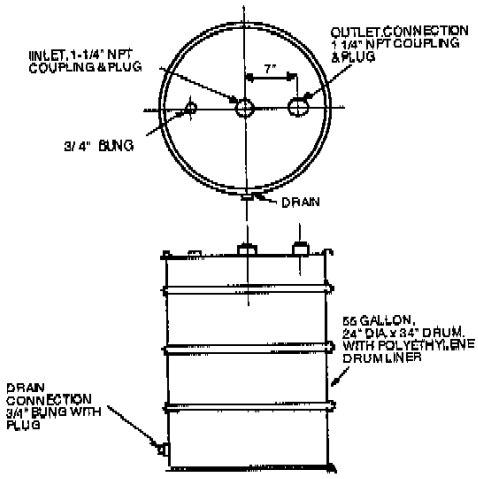
955 Connecticut Ave., Suite 5202
Bridgeport, CT 06607

800-242-1150 Fax: 203-337-4353
www.carbtrol.com info@carbtrol.com

CARBTROL®

WATER PURIFICATION CANISTER 200 POUND ACTIVATED CARBON

L-1



OPTIONS

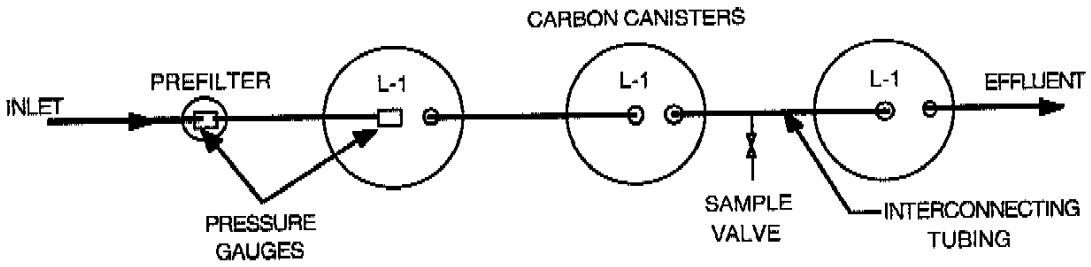
Interconnecting Piping Kit

Flexible 1 1/4" diameter PVC tubing with hose clamps. Includes inlet pressure gauge and intermediate sample valve.

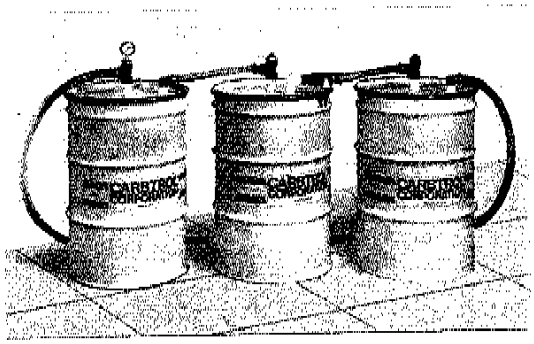
Pre-filter for Suspended Solids Removal

Pre-filter consisting of a basket filter piped and mounted on support frame. Filter is of carbon steel construction.

ARRANGEMENT (3) L-1 Canisters in series for 10 gpm flow (Contact time @ 10 gpm - 15 minutes)



TYPICAL INSTALLATION



CARBTROL® CORPORATION
955 Connecticut Ave., Suite 5202
Bridgeport, CT 06607
800-242-1150 Fax: 203-337-4353
www.carbtrol.com info@carbtrol.com

APPENDIX F
INFILTRATION CALCULATIONS

GROUNDWATER INFILTRATION TRENCH DESIGN
EAGLE GAS, INC.
131 MAIN STREET, CARVER, MA

Saturated Trench Sidewall Area (ft2)	530	
Conversion (cm2/ft2)	929	
Saturated Trench Sidewall Area (cm2)	492,370	
Worst Expected Permeability (cm/sec)	1.85E-05	
Area (cm2)	492,370	
Flow rate (cm3/sec)	9.11	
Conversion (cm3/mL)	1	
Flow Rate (ml/sec)	9.11	
Conversion (L/ml)	0.00	
Flow Rate (L/sec)	0.01	
Conversion (gallons/L)	0.26	
Flow Rate (gal/sec)	0.00	
Conversion (sec/min)	60	
Flow Rate (gal/min)	0.14	
Conversion (min/day)	1440	
Anticipated Flow Rate (gal/day)	207.77	
adjusted Title 5 greywater design rate	124.66	GPD, which equals 60% of design flow (see 310 CMR 15.289(3)(a)(2))
...using a Safety Factor of 2.5	311.65	GPD (for Title 5 infiltration design)

Aggregate border around each Infiltrator	2	ft
Infiltrators per Trench	6	
Length	41.50	ft
Width	6.83	ft
Sidewall Height	2.00	ft
No. of Chamber Trenches	2	
Sidewall Area =	386.67	sf
Bottom Area =	567.17	sf
Total Area =	953.83	sf
TOTAL FLOW CAPACITY =	314.77	GPD (using Soil Class III at 25 min/in perc rate) (see 310 CMR 15.242)