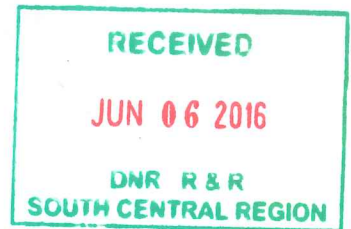




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June 1, 2016

WDNR # 03-57-2586
PECFA # 53913-2101-20-A

John Mason
Wisconsin Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg, WI 53711

Subject: Dick's Car Care SVE Remedial Project – Second Quarterly Report – with Cost Variance Request

Dear Mr. Mason,

Enclosed is the second quarterly report for the Dick's Car Care remedial project at 620 Broadway St., Baraboo. The system continues to run well, with regular monthly SVE air discharge sampling-monitoring of contamination recovery rate. The early, fast decline in recovery rate after start-up has slowed in this second quarter. As of month six sampling (May 9) recovery rate of Total Petroleum Hydrocarbon (GRO) was at 10 lbs/day. By GRO and PVOC analysis and flow metering, an estimated 6,950 lbs of GRO has been recovered, including 150 lbs of benzene, 530 lbs of toluene, 125 lbs of ethyl benzene, 540 lbs of xylenes, and 125 lbs of trimethylbenzenes. PVOC recovery as a fraction of total GRO recovery has systematically increased from ca. 16% of GRO at start-up to 28% now at the end of the 2nd quarter. This implies that there was/is a greater fraction of more volatile, faster-recoverable VOCs in the non-PVOC component of GRO than in the PVOC component. GRO recovery has in fact fallen from over 250 lbs/day at start-up to the aforementioned 10 lbs/day this May. At its current decline rate of 20-25% per month for the last several months, recovery would fall to 1 lb/day near the end of this year. The project is approved and budgeted to run through the November sample and the 4th quarter report. Monitoring well groundwater sampling is also being conducted quarterly. Both groundwater sampling and SVE air discharge results are reported here. In a later section of the present report we propose to change operating conditions (lower the vacuum level) to expose contaminated soil hidden within the mounded watertable in the source area, to boost recovery. We have worked up the needed cost variance request for this in a later section of the report.

In **Appendix A** are the project's Map Figures – site layout and Month 6 groundwater elevation/flow contours. The groundwater contamination plume contour map remains unchanged from 2014, but we include it here also. **Appendix B** compiles Tables of historical free product, groundwater monitoring results, and watertable levels through the 5/9/16 sampling event. **Appendix C** gives the Tables & Figures for the SVE remediation operation: discharge air sampling-recovery and O/M process data. Lab reports are compiled separately in **Appendix D** (groundwater) and **Appendix E** (remedial air discharge).

Free Product

Free product has not been observed since start-up on 11/13/16. See the historical summary of free product data in **Table 1, Appendix B.**

Groundwater Monitoring

PVOC Contamination. One new round of monitoring well sampling is reported here: May 9, 2016. See the compilation of this data in **Table A.1, Appendix B,** which summarizes all historical groundwater sampling rounds for PVOC. As with our last report, there is little to indicate that groundwater PVOC + N contamination

has changed measurably over this first half-year of SVE operation. The NA parameter field measurements, **Table A.7, Appendix B**, may indicate a difference between the highly contaminated source-area well, MW-2, and the less contaminated MW-3 and PZ-1, but that cannot indicate a response to the SVE remediation.

Watertable Elevation and Contours. See **Table A.6, Appendix B**, and the maps of **Appendix A**. The range of the watertable in the monitoring wells has been 2.8 ft over six years of site monitoring, based on the 3 outer periphery site monitoring wells, which are only marginally affected by the vacuum. New groundwater elevation/flow contours were constructed for the May, 2016 sampling. As we discussed in the 1st quarterly report, the application of strong vacuum has mounded the watertable, yielding – as an artifact – a reversal of the nominal historical site flow direction. The true flow can safely be assumed to be still south-southeast. Due to access constraints for drilling 55 ft wells in glacial till, there are no downgradient monitoring wells at this site.

SVE Remediation System Performance – Sampling and Vacuum Levels

See **Tables 1a-b-c in Appendix C** for tabulated summaries of the main (composite flow) air discharge sampling results – (a) air discharge concentrations (µg/l), (b) calculated mass recovery rates (lbs/day), and (c) cumulative recovery total mass (lbs). **Figures 1a-b-c in Appendix C** display these results graphically.

On Days 2 & 3, then in Week 3, and now again at Month 6 we took samples from the SVE well flows individually. These results are summarized in **Tables 1a-b of Appendix C**. It appears that all 3 SVE wells continue to contribute significantly to the overall (composite sample) contamination recovery, with SVE-2 again yielding the highest rates of the three, SVE-3 intermediate rates, and SVE-1 the lowest rates. This is just as it was in the first week's sampling, at that time at much higher recovery levels. All three SVE wells are yielding GRO contamination recovery within a factor of two of each other. By the current approved Plan, the three vacuum recovery wells will be sampled individually again at Month 12, this coming November.

Table 2, Appendix C, provides summaries of logged process operational data – process measurements that yield in particular the sve air discharge flowrate – directly by meter and, as checks, by calculation from manufacturer correlations with vacuum level and blower outlet temperature. **Graph Figure 2 in Appendix C** displays the trend of the best-estimate flowrate over this first half-year of operation. As always, the measured flowrate, nominally 180-200 scfm, includes the dilution air flow for vacuum level control, which may be ½ the total or more.

SVE Zone of Influence. We gathered more comprehensive data on this at the April 11 sampling, Month 5. It is fair to say that this data should completely replace the minimal data we presented from the start-up period in our first report. It appears the gauges were not effectively sealed in the well tops in that early effort. In this recent test we sampled all the monitoring wells of the site investigation, which has wells >100 ft distant from the center of the triangle of SVE wells. We summarize the results here, both vacuum level measured at the well tops and watertable elevation, while applying our normal full vacuum to the SVE wells – ca. 82 “H2O at blower inlet.

Monitoring Well	Vacuum (“H2O)	Depth to Water / msl Elevation (ft)	Distance from SVE Triangle (ft)
MW-7	1.35	45.17 / 832.43	125
MW-6	1.45	46.32 / 832.62	118
MW-8	1.65	45.20 / 832.32	90
MW-3	14.5	47.42 / 833.04	38
MW-2	28	46.67 / 834.14	10

This data's best-fit regression formula for vacuum vs distance is: $\text{“H2O Vacuum} = 37.12 \exp[-0.0269 (\text{ft})]$
 (t-ratio) → (18.0) (10.7)
 (std err) = 1.18 “H2O (R²)= 0.993

The data indicate that at this site the vacuum reaches out strongly for a very useful distance, probably in all directions, from the vacuum wells in the source area.

The pre-exponential in the above formula, 37.12 “H₂O, can be reasonably interpreted as the vacuum level in the center of the SVE well triangle (with ca. 82 “H₂O at blower inlet, and 70-75 “H₂O at the SVE well tops). This implies watertable mounding of perhaps 3+ ft in that central source area, with evidently significantly higher mounding near the SVE well screens themselves.

SVE Remediation System Operation & Maintenance

The SVE vacuum blower system has run reliably since start-up, with some minor problems with instrumentation. The blower has maintained process flow and vacuum levels well, with again a minor exception this past April due to a cracked elbow in the inlet header piping – which increased the 'dilution' flow and lowered vacuum level, not too seriously but for an indeterminate length of time of some weeks before we discovered the problem and had it fixed. See the quantified summary of the O&M in **Appendix C, Table 2** and **Graph Figure 2**, for process flow.

The project's logged run-time from start-up on November 13, through the end-of-second-quarter sampling on May 9, was **4152 hrs = 173 days (98% on-line percentage)**. Electrical costs have continued in the range of **\$700 per month, 5,000-6,000 kw-hrs monthly**.

This report's Tables, Maps, Graphs and Lab Reports are given in the Appendixes.

Proposed adjustment of Operating Conditions – Vacuum Level

It seems possible to increase GRO-PVOC recovery rates to some extent, perhaps significantly, possibly for an extended period of time, by lowering the system's applied vacuum level. We have been running at 80+ “H₂O (at blower inlet) since start-up, effectively. Now see **Figure 3** in **Appendix C**, which summarizes the results of some field measurements taken this past April. After we completed the survey of vacuum level at all site monitoring wells (for 82 “H₂O of applied vacuum), summarized above, we reduced the applied vacuum by half, to 41 “H₂O at blower inlet, which gives an estimated 30-35 “H₂O at the SVE well tops – and then undertook some watertable level & vacuum measurements vs time, to monitor the relaxation of the watertable. We measured the watertable fade-down and the corresponding relaxation of vacuum level at MW-2 and MW-3, the source area and near-source area monitoring wells. It is clear in the Table and Graph of **Figure 3** that watertable level follows measured vacuum level rather accurately – i.e., almost inch for inch. So that reducing vacuum level by 40 “H₂O should lower the watertable near the SVE wells (which are close in to the source area) by roughly that same amount, 3+ ft, exposing otherwise covered contamination. Exposure of additional contaminated soil further away from the SVE wells would be less pronounced – as quantified by the “H₂O of **Figure 3** – but the exposed depths would be at least 1½ ft out to the distance of MW-2 (10 ft from the center of the SVE triangle); and at least ½ ft at the distance of MW-3 (28 ft from both the center of vacuum and the central source area). There is likely considerable contamination to be scavenged from all such newly exposed soil in the source and near-source areas, since it resides immediately above the 'true' watertable, and relatively near the SVE wells supplying the vacuum.

We are therefore submitting a cost variance request to document this change in a useful way, going forward. We propose to take several samples over the first few hours after the change in vacuum, and then one each week for the following two weeks. In summary, five additional composite samples: [1] at 10 minutes after the change of vacuum; [2] at 30 minutes; [3] at 2 hrs, [4] at 1 week, and [5] at two weeks. Two weeks after that 5th sample we would resume the program of monthly sampling already scheduled. See again the data and graph of **Figure 3, Appendix C** – it documents well the easily-followed relaxation of both the watertable and vacuum level over that time period. At 90 minutes the relaxation to the new steady-state appears nearly complete.

Cost Variance Request for Extra Fieldwork with Sampling, Analysis, Data Reduction and Reporting

Task Description	Labor Hours - Engineer	Labor Hours – Project Manager	Labor Hours – Field Technician
Project Management	3	2	0
O&M and Air Sampling	0	0	20
Data Reduction & Analysis	4	0	0
Reporting (special discussion in remaining quarterly reports)	3	2	0
Total Hours	10	4	20
Billing Rate	\$85/hr	\$85/hr	\$55/hr
Total Dollars	\$850.00	\$340.00	\$1,100.00

Total METCO Consulting Costs from above: \$2,290.00

Schedule	GRO / PVOC + N	Tedlar Bags
Day 1 - @ 10 minutes	\$68.00	\$10.00
Day 1 - @ 30 minutes	\$68.00	\$10.00
Day 1 - @ 2 hours	\$68.00	\$10.00
Day 7	\$68.00	\$10.00
Day 14	\$68.00	\$10.00
Total Dollars	\$340.00	\$50.00

Total Laboratory Cost for the additional sampling above: \$390.00

Combined Cost for this Variance Request: \$2,680.00

Summary, Conclusions & Recommendations

Over its first half-year of operation, the SVE system has run well, with a 98% on-line percentage. We expect it to continue to run routinely going forward. From mid-November through mid-May, an estimated 6,950 lbs of total petroleum hydrocarbon (GRO), including 150 lbs of Benzene, has been recovered from the subsurface. The combined PVOC+N recovery (very little naphthalene), as a fraction of the GRO recovery, has grown systematically from ca. 16% of GRO at start-up to 28% now. This implies there has been a greater fraction of volatile, faster-recoverable VOCs in the non-PVOC component of GRO than in the PVOC component. In the cumulative average through May 9, PVOC recovery was 21% of GRO recovery. At the current rate of recovery (10 lbs/day of GRO at the May sampling) and the recent monthly rate of decline in recovery (20-25% per month), we expect recovery *in the current operational mode* to reach the 1 lb/day level near the end of 2016. Free product has been absent since start-up, but we believe that could be due in part to 'mounding' of the watertable in the source area by the applied vacuum, blocking volatilization & removal of some of the fp. In general, as we always knew, there remains contamination effectively inaccessible to recovery in the zone of significant vacuum influence, where both the water mounding and the GRO-PVOC contamination are greatest.

Therefore we have argued above for a change in operation – a significant lowering of vacuum level – to expose some of that contamination. Additional recovery sampling would be necessary to assess this effort adequately. We judge that cutting the vacuum level in half, from 82 “H2O at blower inlet to ca. 40 “ H2O will expose significant contamination to vacuum recovery. We have prepared a Cost Variance Request (above) to conduct, monitor and document this change in operation and its effect on contamination recovery – a request of **\$2,680.00 total**. If the maneuver works satisfactorily – that is, yields a significant increase in contamination recovery rate, extended in time – we can consider a further reduction of the applied vacuum later, to, say, 20 “ H2O.

We request of the DNR that they address this Variance Request in a timely way. Recovery of contamination at the site is at the right stage for initiating the proposed change in operation.

And possibly, extrapolating this approach to the maximum, one might consider designing a program to vary the vacuum level in a systematic and periodic way that would bring, at high vacuum, smear zone contaminated water up into (previously) vacuum-remediated 'clean' soil where the contamination may in some degree be 're-deposited'. Then by lowering the vacuum again, dropping the water level back down, it should be possible to recover, by re-exposure to vacuum, that freshly deposited contamination. And during the low-vacuum recovery phase, the lowered water level can 'load up' with contamination again from the upper part of the smear zone. The idea is to repeat this cyclically, in a designed-timed way with prior – and on-going – evaluation to estimate mass transfer between the soil and water phases. This would be a way of using vacuum alone, in simple reliable SVE-mode, to get at more of the smear zone contamination that is ordinarily blocked to vacuum by the watertable. Cycling the vacuum and water level in this way might be described as a process of 'distilling' contamination (very partially) out of the top part of the smear zone. [It would be technically more accurate to describe it as a cyclic chromatographic separation with removal.] This suggestion is just a thought, no doubt proposed before, but possibly it could be pursued at this site if the first step in that direction – that we recommend and are definitely proposing above – yields good results.

If you have any questions or comments, please call (608-781-8879) or email, tpp@metcohq.com.

Sincerely,



Thomas Pignet
Engineer

Attachments

c: Dave Christian – Broadway Auto Care, LLC

APPENDIX A


Site Maps

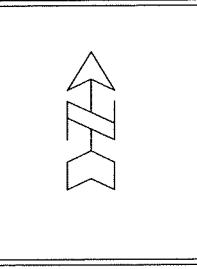
METCO

Environmental Consulting, Fuel System Design, Installation and Service

DETAILED SITE MAP

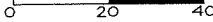
DICK'S CAR CARE













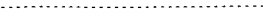



BARABOO, WISCONSIN
709 Gillette St., Ste 3
La Crosse, WI 54603
Tel: (608) 781-8879
Fax: (608) 781-8893
 DRAWN BY: ED DATE: 02/18/08
 MODIFIED BY: JJ DATE: 02/22/16

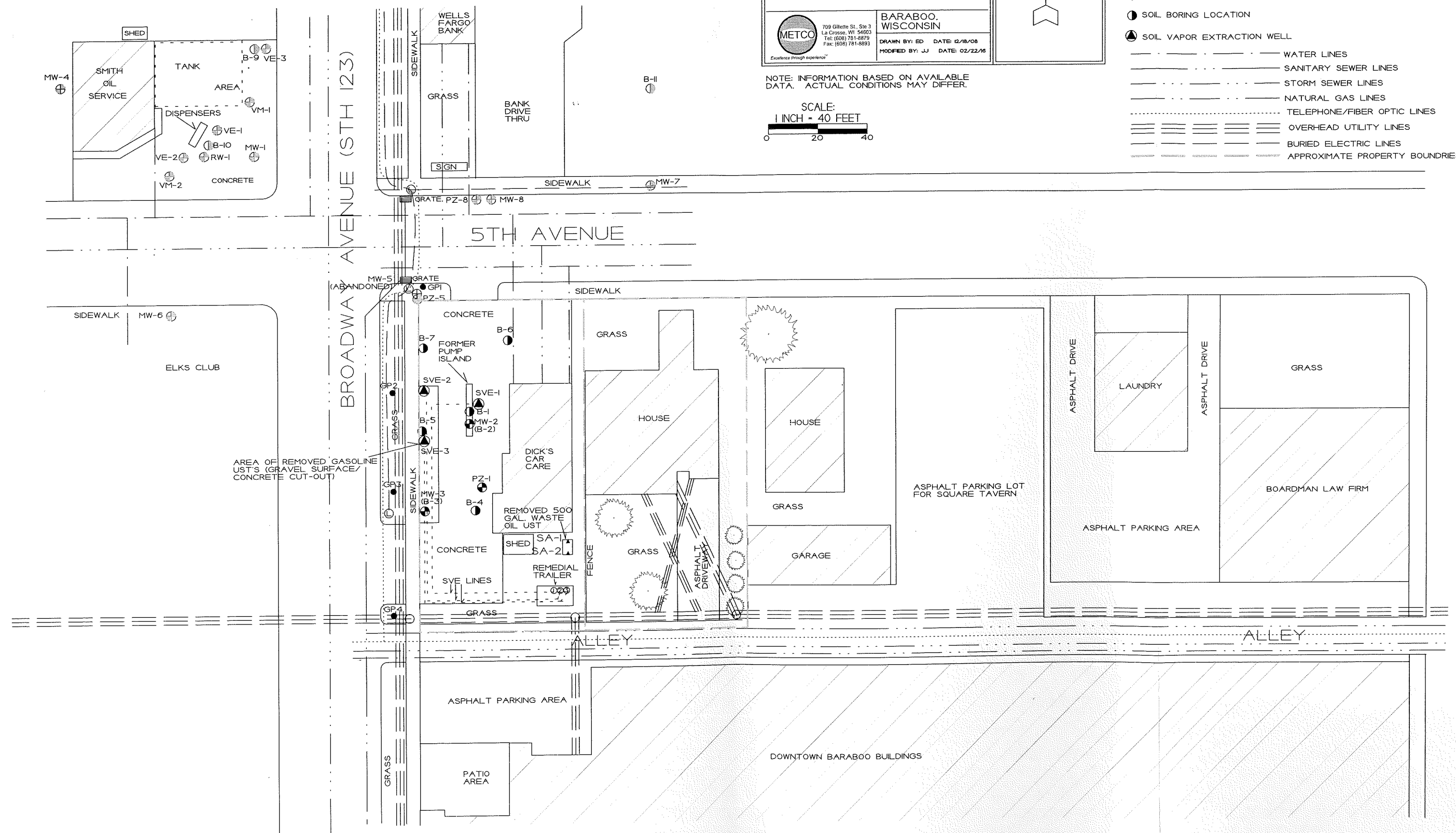


NOTE: INFORMATION BASED ON AVAILABLE DATA. ACTUAL CONDITIONS MAY DIFFER.

SCALE:
1 INCH = 40 FEET



-  MONITORING/REMEDIAL WELL LOCATION (SMITH OIL SERVICE)
-  SOIL BORING LOCATION (SMITH OIL SERVICE)
-  GEOPROBE BORING LOCATION (P2ESA)
-  SOIL SAMPLE LOCATION (UST REMOVAL)
-  MONITORING WELL LOCATION
-  SOIL BORING LOCATION
-  SOIL VAPOR EXTRACTION WELL
-  WATER LINES
-  SANITARY SEWER LINES
-  STORM SEWER LINES
-  NATURAL GAS LINES
-  TELEPHONE/FIBER OPTIC LINES
-  OVERHEAD UTILITY LINES
-  BURIED ELECTRIC LINES
-  APPROXIMATE PROPERTY BOUNDRIES

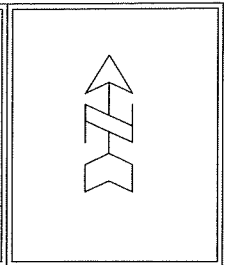


GROUNDWATER FLOW
DIRECTION (5/9/16)

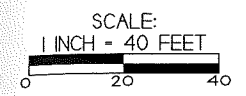
DICK'S CAR CARE



BARABOO,
WISCONSIN
DRAWN BY: ED DATE: 12/18/08
MODIFIED BY: JJ DATE: 02/22/16

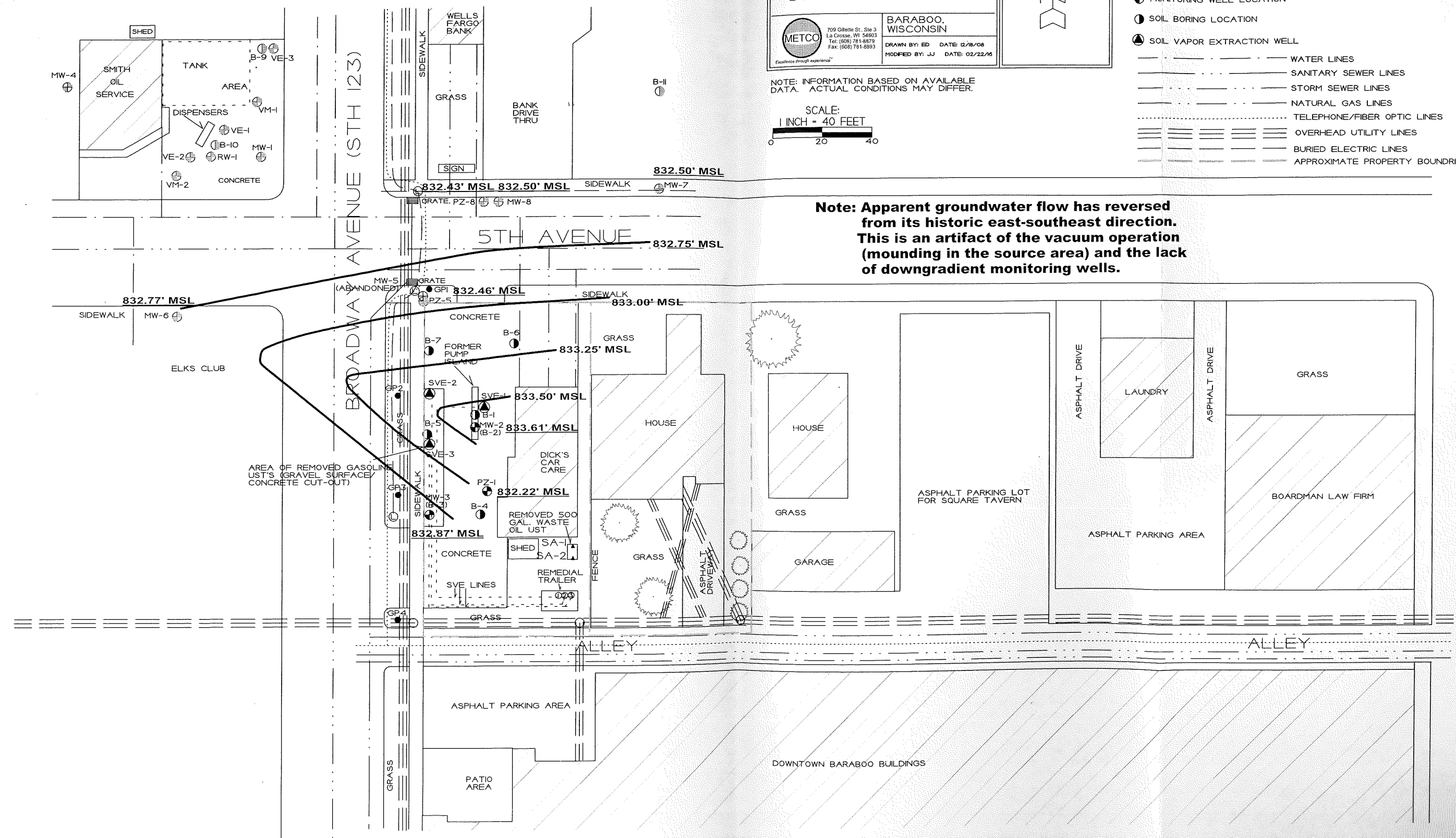


NOTE: INFORMATION BASED ON AVAILABLE DATA. ACTUAL CONDITIONS MAY DIFFER.



- ⊕ MONITORING/REMEDIAL WELL LOCATION (SMITH OIL SERVICE)
- ⊙ SOIL BORING LOCATION (SMITH OIL SERVICE)
- GEOPROBE BORING LOCATION (P2ESA)
- ▲ SOIL SAMPLE LOCATION (UST REMOVAL)
- ⊕ MONITORING WELL LOCATION
- ⊙ SOIL BORING LOCATION
- ⊕ SOIL VAPOR EXTRACTION WELL
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- STORM SEWER LINES
- NATURAL GAS LINES
- TELEPHONE/FIBER OPTIC LINES
- OVERHEAD UTILITY LINES
- BURIED ELECTRIC LINES
- APPROXIMATE PROPERTY BOUNDRIES

Note: Apparent groundwater flow has reversed from its historic east-southeast direction. This is an artifact of the vacuum operation (mounding in the source area) and the lack of downgradient monitoring wells.



AREA OF REMOVED GASOLINE UST'S (GRAVEL SURFACE/ CONCRETE CUT-OUT)

REMOVED 500 GAL. WASTE OIL UST

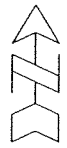
DOWNTOWN BARABOO BUILDINGS

GROUNDWATER ISOCONCENTRATION MAP (04/07/2014)

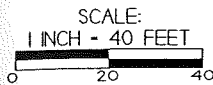
DICK'S CAR CARE



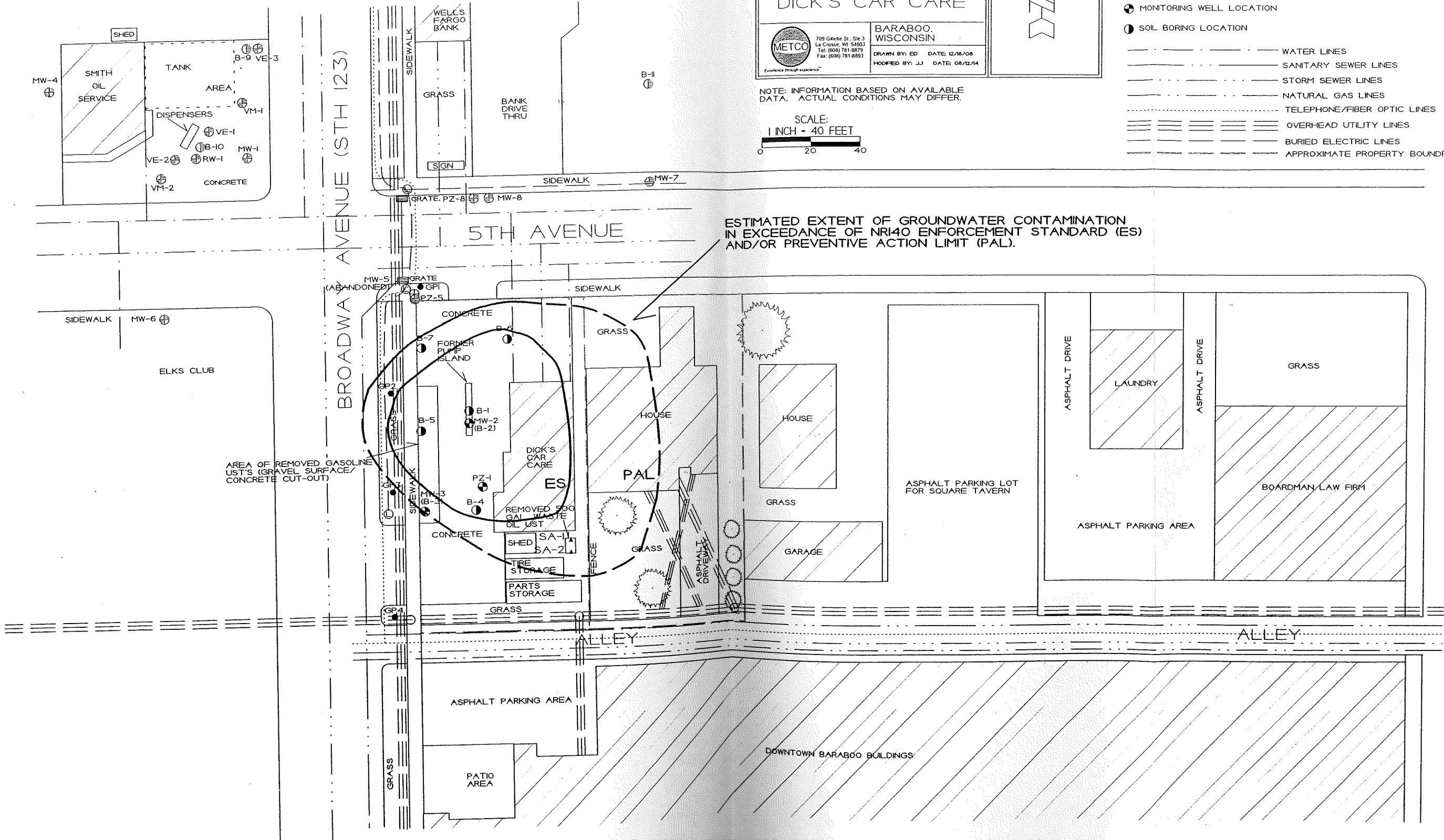
BARABOO, WISCONSIN
 DRAWN BY: ED DATE: 12/18/08
 MODIFIED BY: JJ DATE: 08/12/14



NOTE: INFORMATION BASED ON AVAILABLE DATA. ACTUAL CONDITIONS MAY DIFFER.



- ⊕ MONITORING/REMEDIAL WELL LOCATION (SMITH OIL SERVICE)
 - ⊙ SOIL BORING LOCATION (SMITH OIL SERVICE)
 - GEOPROBE BORING LOCATION (P2ESA)
 - ▲ SOIL SAMPLE LOCATION (UST REMOVAL)
 - ⊕ MONITORING WELL LOCATION
 - ⊙ SOIL BORING LOCATION
-
- WATER LINES
 - SANITARY SEWER LINES
 - STORM SEWER LINES
 - NATURAL GAS LINES
 - TELEPHONE/FIBER OPTIC LINES
 - OVERHEAD UTILITY LINES
 - BURIED ELECTRIC LINES
 - APPROXIMATE PROPERTY BOUNDRIES



ESTIMATED EXTENT OF GROUNDWATER CONTAMINATION IN EXCEEDANCE OF NRI40 ENFORCEMENT STANDARD (ES) AND/OR PREVENTIVE ACTION LIMIT (PAL).

AREA OF REMOVED GASOLINE UST'S (GRAVEL SURFACE/ CONCRETE CUT-OUT)

5TH AVENUE

BROADWAY AVENUE (STH 123)

ALLEY

ALLEY

APPENDIX B

Groundwater Tables

Summary of Free Product Levels & Recovery
 Dick's Car Care BRRTS# 03-57-258614

TABLE 1

DATE		MW-2	GALS REC./PERIOD	TOT GALS RECOVERED
03/17/10	Inches of FP Gals Rec. w/ Absorbent Sock Gals Rec. w/ Bailer	0.00 0.00 0	0.00	0.00
06/22/10	Inches of FP Gals Rec. w/ Absorbent Sock Gals Rec. w/ Bailer	0.00 0.00 0	0.00	0.00
10/20/11	Inches of FP Gals Rec. w/ Absorbent Sock Gals Rec. w/ Bailer	2.5 No Sock 0.11	0.11	0.11
01/18/12	Inches of FP Gals Rec. w/ Absorbent Sock Gals Rec. w/ Bailer	5.5 No Sock 0.26	0.26	0.37
04/18/12	Inches of FP Gals Rec. w/ Absorbent Sock Gals Rec. w/ Bailer	1.5 No Sock 0.10	0.10	0.47
07/18/12	Inches of FP Gals Rec. w/ Absorbent Sock Gals Rec. w/ Bailer	3.5 No Sock 0.11	0.11	0.58
04/07/14	Inches of FP Gals Rec. w/ Absorbent Sock Gals Rec. w/ Bailer	24.0 No Sock 0.67	0.67	1.25
10/07/15	Inches of FP Gals Rec. w/ Absorbent Sock Gals Rec. w/ Bailer	24.0 No Sock 1.50	1.50	2.75
11/13/15	SVE Remedial System Startup			
11/30/15	Inches of FP Gals Rec. w/ Absorbent Sock Gals Rec. w/ Bailer	0.00 No Sock 0.00	0.00	2.75
01/07/16	Inches of FP Gals Rec. w/ Absorbent Sock Gals Rec. w/ Bailer	0.00 No Sock 0.00	0.00	2.75
02/08/16	Inches of FP Gals Rec. w/ Absorbent Sock Gals Rec. w/ Bailer	0.00 No Sock 0.00	0.00	2.75
05/09/16	Inches of FP Gals Rec. w/ Absorbent Sock Gals Rec. w/ Bailer	0.00 No Sock 0.00	0.00	2.75

A.1 Groundwater Analytical Table
 Dick's Car Care BRRTS# 03-57-258614

Well MW-2

PVC Elevation =

880.81

(feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Lead (ppb)	Benzene (ppb)	1,2-Dichloroethane (ppb)	1,2-Dibromoethane (EDB) (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naphthalene (ppb)	Toluene (ppb)	Trimethylbenzenes (ppb)	Xylene (Total) (ppb)
03/17/10	833.39	47.42	NS	10900	NS	NS	930	1070	370	12800	600-900	4780
06/22/10	833.49	47.32	NS	11400	NS	NS	970	1140	330	12700	149-168	4440
06/13/11	833.86	46.95	NS	NOT SAMPLED								
10/20/11	833.59	47.22	5.6	9700	1440	1270	960	650	287	11100	833	4820
12/12/11	833.42	47.39	NS	NOT SAMPLED								
01/18/12	FREE PRODUCT		NS	9500	1910	1390	1190	700	312	11500	1038	5380
04/18/12	833.14	47.67	NS	7500	1150	1270	1310	620	490	11800	1540	6450
07/18/12	832.33	48.48	NS	8900	920	1140	1050	600	370	11400	967	5160
04/07/14	831.35	49.46	NS	7800	1360	1170	1270	198	530	11700	1136	5950
10/07/15	830.31	50.50	NS	6900	1000	780	960	275	340	5000	893	3920
11/13/15	SVE Remedial System Startup											
02/08/16	833.47	47.34	NS	4700	890	910	730	360	350	5900	1021	4550
05/09/16	833.61	47.20	NS	4900	930	910	640	297	430	5500	1286	5010
ENFORCEMENT STANDARD = ES - Bold			5	5	5	0.55	700	60	100	800	480	2000
PREVENTIVE ACTION LIMIT = PAL - <i>Italics</i>			0.5	0.5	0.5	0.005	140	12	10	160	96	400

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured

Note: Elevations are presented in feet mean sea level (msl).

Well MW-3

PVC Elevation =

880.46

(feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Lead (ppb)	Benzene (ppb)	1,2-Dichloroethane (ppb)	1,2-Dibromoethane (EDB) (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naphthalene (ppb)	Toluene (ppb)	Trimethylbenzenes (ppb)	Xylene (Total) (ppb)
03/17/10	833.38	47.08	NS	560	NS	NS	<43.5	<25	<85	<25.5	<130	<106.5
06/22/10	833.55	46.91	NS	620	NS	NS	30.8	<4.9	<12	14.6	68	59.5
06/13/11	833.97	46.49	NS	NOT SAMPLED								
10/20/11	834.05	46.41	<0.7	99	<5	<6.3	10.2	<8	<21	<5.3	<15.4	<19
12/12/11	833.92	46.54	NS	NOT SAMPLED								
01/18/12	833.94	46.52	NS	83	<5	<6.3	7.8	<8	<21	<5.3	<15.4	<19
04/18/12	833.40	47.06	NS	39	<0.5	<0.63	4.5	<0.8	<2.1	1.39	<1.54	1.18-1.98
07/18/12	832.78	47.68	NS	12	<0.5	<0.63	2.02	<0.8	<2.1	1.07	<1.54	<1.9
04/07/14	832.05	48.41	NS	0.5	<0.41	<0.44	<0.55	<0.23	<1.7	<0.69	<3.6	<1.32
10/07/15	831.76	48.70	NS	<0.44	<0.48	<0.63	<0.71	<1.1	<1.6	<0.44	<3.1	<3.1
11/13/15	SVE Remedial System Startup											
02/08/16	833.01	47.45	NS	<0.44	<0.48	<0.63	<0.71	<1.1	<1.6	<0.44	<3.1	<3.1
05/09/16	832.87	47.59	NS	<0.44	<0.48	<0.63	<0.71	<1.1	<1.6	<0.44	<3.1	<3.1
ENFORCEMENT STANDARD = ES - Bold			5	5	5	0.55	700	60	100	800	480	2000
PREVENTIVE ACTION LIMIT = PAL - <i>Italics</i>			0.5	0.5	0.5	0.005	140	12	10	160	96	400

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured

Note: Elevations are presented in feet mean sea level (msl).

Well MW-6 (Smith Oil)

PVC Elevation =

878.94

(feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Lead (ppb)	Benzene (ppb)	1,2-Dichloroethane (ppb)	1,2-Dibromoethane (EDB) (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naphthalene (ppb)	Toluene (ppb)	Trimethylbenzenes (ppb)	Xylene (Total) (ppb)
03/17/10	833.66	45.28		NOT SAMPLED								
06/22/10	833.87	45.07	NS	<0.38	NS	NS	<0.55	<0.25	<2.4	<0.72	<1.20	<1.62
06/13/11	835.25	43.69	NS	<0.5	NS	NS	<0.78	<0.8	<2.1	<0.53	<1.54	<1.9
10/20/2011	834.45	44.49	NOT SAMPLED									
01/18/12	834.36	44.58	NOT SAMPLED									
04/18/12	833.79	45.15	NOT SAMPLED									
07/18/12	833.16	45.78	NOT SAMPLED									
04/07/14	COULD NOT ACCESS - BAILER FROZEN											
10/07/15	834.38	44.56	NOT SAMPLED									
11/13/15	SVE Remedial System Startup											
02/08/16	832.26	46.68	NOT SAMPLED									
05/09/16	832.77	46.17	NOT SAMPLED									
ENFORCEMENT STANDARD = ES - Bold			5	5	5	0.55	700	60	100	800	480	2000
PREVENTIVE ACTION LIMIT = PAL - <i>Italics</i>			0.5	0.5	0.5	0.005	140	12	10	160	96	400

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured

Note: Elevations are presented in feet mean sea level (msl).

A.1 Groundwater Analytical Table
 Dick's Car Care BRRTS# 03-57-258614

Well MW-7 (Smith Oil)
 PVC Elevation =

877.60

(feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Lead (ppb)	Benzene (ppb)	1,2-Dichloroethane (ppb)	1,2-Dibromoethane (EDB) (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naphthalene (ppb)	Toluene (ppb)	Trimethylbenzenes (ppb)	Xylene (Total) (ppb)
03/17/10	833.52	44.08	NS	<0.4	NS	NS	<0.65	<0.49	<1.2	<0.86	<1.49	<2.15
06/22/10	833.59	44.01	NS	<0.38	NS	NS	<0.55	<0.25	<2.4	<0.72	<1.20	<1.62
06/13/11	835.03	42.57	NS	<0.5	NS	NS	<0.78	<0.8	<2.1	<0.53	<1.54	<1.9
10/20/2011	834.17	43.43	NOT SAMPLED									
01/18/12	834.08	43.52	NOT SAMPLED									
04/18/12	833.50	44.10	NOT SAMPLED									
07/18/12	832.89	44.71	NOT SAMPLED									
04/07/14	COULD NOT ACCESS - BAILER FROZEN											
10/07/15	831.81	45.79	NOT SAMPLED									
11/13/15	SVE Remedial System Startup											
02/08/16	832.06	45.54	NOT SAMPLED									
05/09/16	832.50	45.10	NOT SAMPLED									
ENFORCEMENT STANDARD = ES - Bold			5	5	5	0.55	700	60	100	800	480	2000
PREVENTIVE ACTION LIMIT = PAL - Italics			0.5	0.5	0.5	0.005	140	12	10	160	96	400

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured

Note: Elevations are presented in feet mean sea level (msl).

Well MW-8 (Smith Oil)
 PVC Elevation =

877.52

(feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Lead (ppb)	Benzene (ppb)	1,2-Dichloroethane (ppb)	1,2-Dibromoethane (EDB) (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naphthalene (ppb)	Toluene (ppb)	Trimethylbenzenes (ppb)	Xylene (Total) (ppb)
03/17/10	833.60	43.92	NS	<0.41	NS	NS	<0.87	6.6	<1.7	<0.51	<2.6	<2.13
06/22/10	833.74	43.78	NS	<0.38	NS	NS	<0.55	<0.25	<2.4	<0.72	<1.20	<1.62
06/13/11	835.04	42.48	NS	<0.5	NS	NS	<0.78	4.5	<2.1	<0.53	<1.54	<1.9
10/20/2011	834.20	43.32	NOT SAMPLED									
01/18/12	834.16	43.36	NOT SAMPLED									
04/18/12	833.57	43.95	NOT SAMPLED									
07/18/12	832.94	44.58	NOT SAMPLED									
04/07/14	832.19	45.33	NOT SAMPLED									
10/07/15	831.84	45.68	NOT SAMPLED									
11/13/15	SVE Remedial System Startup											
02/08/16	832.02	45.50	NOT SAMPLED									
05/09/16	832.50	45.02	NOT SAMPLED									
ENFORCEMENT STANDARD = ES - Bold			15	5	5	0.55	700	60	100	800	480	2000
PREVENTIVE ACTION LIMIT = PAL - Italics			1.5	0.5	0.5	0.005	140	12	10	160	96	400

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured

Note: Elevations are presented in feet mean sea level (msl).

Well PZ-1

PVC Elevation =

880.88

(feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Lead (ppb)	Benzene (ppb)	1,2-Dichloroethane (ppb)	1,2-Dibromoethane (EDB) (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naphthalene (ppb)	Toluene (ppb)	Trimethylbenzenes (ppb)	Xylene (Total) (ppb)
10/20/2011	833.85	47.03	0.7	730	190	37	34	208	<21	44	10.1-17.5	45-46.8
12/12/11	833.76	47.12	NS	NOT SAMPLED								
01/18/12	833.75	47.13	NS	2860	530	68	173	490	<105	122	55-92	257-297
04/18/12	833.26	47.62	NS	2920	380	48	264	480	<105	86	167	294-334
07/18/12	832.65	48.23	NS	3600	330	61	330	570	44	50	159	229.2
04/07/14	832.06	48.82	NS	1560	630	<22	198	570	<85	<34.5	<180	<66
10/07/15	831.39	49.49	NS	1050	193	<6.3	460	570	26.4	69	57-72	89.7
11/13/15	SVE Remedial System Startup											
02/08/16	831.70	49.18	NS	1670	81	<6.3	560	320	30.9	58	79-94	130.1
05/09/16	832.22	48.66	NS	1330	68	<6.3	500	470	21.8	54	62-77	103.6
ENFORCEMENT STANDARD = ES - Bold			5	5	5	0.55	700	60	100	800	480	2000
PREVENTIVE ACTION LIMIT = PAL - Italics			0.5	0.5	0.5	0.005	140	12	10	160	96	400

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured

Note: Elevations are presented in feet mean sea level (msl).

A.1 Groundwater Analytical Table
 Dick's Car Care BRRTS# 03-57-258614

Well PZ-5 (Smith Oil)
 PVC Elevation =

878.60 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Lead (ppb)	Benzene (ppb)	1,2-Dichloroethane (ppb)	1,2-Dibromoethane (EDB) (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naphthalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
03/17/10	833.49	45.11	NS	5.6	NS	NS	<0.87	170	<1.7	<0.51	1.76-3.26	9.1-9.63
06/22/10	833.57	45.03	NS	3.5	NS	NS	<0.55	165	<2.4	<0.72	0.86-1.41	6.3-6.82
06/13/11	835.05	43.55	NS	<0.5	NS	NS	<0.78	2.53	<2.1	<0.53	<1.54	<1.9
10/20/2011	834.12	44.48	NOT SAMPLED									
01/18/12	834.05	44.55	NOT SAMPLED									
04/18/12	833.48	45.12	NOT SAMPLED									
07/18/12	833.34	45.26	NOT SAMPLED									
04/07/14	832.13	46.47	NOT SAMPLED									
10/07/15	831.73	46.87	NOT SAMPLED									
11/13/15	SVE Remedial System Startup											
02/08/16	831.99	46.61	NOT SAMPLED									
05/09/16	832.46	46.14	NOT SAMPLED									
ENFORCEMENT STANDARD = ES - Bold			5	5	5	0.55	700	60	100	800	480	2000
PREVENTIVE ACTION LIMIT = <i>PAL - Italics</i>			0.5	0.5	0.5	0.005	140	12	10	160	96	400

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured
 Note: Elevations are presented in feet mean sea level (msl).

Well PZ-8 (Smith Oil)
 PVC Elevation =

877.62 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to Water (in feet)	Lead (ppb)	Benzene (ppb)	1,2-Dichloroethane (ppb)	1,2-Dibromoethane (EDB) (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naphthalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
03/17/10	834.69	42.93	NS		NS	NS						
06/22/10	833.58	44.04	NS		NS	NS						
06/13/11	834.97	42.65	NS		NS	NS						
10/20/2011	834.22	43.40	NOT SAMPLED									
01/18/12	834.07	43.55	NOT SAMPLED									
04/18/12	833.65	43.97	NOT SAMPLED									
07/18/12	833.00	44.62	NOT SAMPLED									
04/07/14	831.78	45.84	NOT SAMPLED									
10/07/15	831.83	45.79	NOT SAMPLED									
11/13/15	SVE Remedial System Startup											
02/08/16	832.33	45.29	NOT SAMPLED									
05/09/16	832.43	45.19	NOT SAMPLED									
ENFORCEMENT STANDARD = ES - Bold			5	5	5	0.55	700	60	100	800	480	2000
PREVENTIVE ACTION LIMIT = <i>PAL - Italics</i>			0.5	0.5	0.5	0.005	140	12	10	160	96	400

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured
 Note: Elevations are presented in feet mean sea level (msl).

A.7 Other
 Groundwater NA Indicator Results
 Dick's Car Care BRRTS# 03-57-258614

Well MW-2

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
04/07/14	0.48	6.76	-42	12.5	15	NS	NS	NS	NS
10/07/15	NOT SAMPLED					NS	NS	NS	NS
11/13/15	SVE Remedial System Startup								
02/08/16	1.87	6.69	11	8.8	912	NS	NS	NS	NS
05/09/16	1.19	6.74	19	13.9	841	NS	NS	NS	NS
ENFORCE MENT STANDARD = ES - Bold						10	-	-	300
PREVENTIVE ACTION LIMIT = PAL - Italics						2	-	-	60

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured
 Note: Elevations are presented in feet mean sea level (msl).

Well MW-3

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
04/07/14	1.59	6.58	202	12.3	2087	NS	NS	NS	NS
10/07/15	NOT SAMPLED					NS	NS	NS	NS
11/13/15	SVE Remedial System Startup								
02/08/16	4.36	6.87	184	8.5	810	NS	NS	NS	NS
05/09/16	1.97	6.78	103	14.4	1227	NS	NS	NS	NS
ENFORCE MENT STANDARD = ES - Bold						10	-	-	300
PREVENTIVE ACTION LIMIT = PAL - Italics						2	-	-	60

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured
 Note: Elevations are presented in feet mean sea level (msl).

Well MW-6 (Smith Oil)

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
04/07/14	COULD NOT ACCESS - BAILER FROZEN					NS	NS	NS	NS
10/07/15	NOT SAMPLED					NS	NS	NS	NS
11/13/15	SVE Remedial System Startup								
02/08/16	NOT SAMPLED					NS	NS	NS	NS
05/09/16	NOT SAMPLED					NS	NS	NS	NS
ENFORCE MENT STANDARD = ES - Bold						10	-	-	300
PREVENTIVE ACTION LIMIT = PAL - Italics						2	-	-	60

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured
 Note: Elevations are presented in feet mean sea level (msl).

Well MW-7 (Smith Oil)

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
04/07/14	COULD NOT ACCESS - BAILER FROZEN					NS	NS	NS	NS
10/07/15	NOT SAMPLED					NS	NS	NS	NS
11/13/15	SVE Remedial System Startup								
02/08/16	NOT SAMPLED					NS	NS	NS	NS
05/09/16	NOT SAMPLED					NS	NS	NS	NS
ENFORCE MENT STANDARD = ES - Bold						10	-	-	300
PREVENTIVE ACTION LIMIT = PAL - Italics						2	-	-	60

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured
 Note: Elevations are presented in feet mean sea level (msl).

A.7 Other

Groundwater NA Indicator Results
 Dick's Car Care BRRTS# 03-57-258614

Well MW-8 (Smith Oil)

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
04/07/14	NOT SAMPLED					NS	NS	NS	NS
10/07/15	NOT SAMPLED					NS	NS	NS	NS
11/13/15	SVE Remedial System Startup								
02/08/16	NOT SAMPLED					NS	NS	NS	NS
05/09/16	NOT SAMPLED					NS	NS	NS	NS
ENFORCE MENT STANDARD = ES - Bold						10	-	-	300
PREVENTIVE ACTION LIMIT = PAL - Italics						2	-	-	60

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured
 Note: Elevations are presented in feet mean sea level (msl).

Well PZ-1

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
04/07/14	1.14	7.16	-97	12.8	1601	NS	NS	NS	NS
10/07/15	NOT SAMPLED					NS	NS	NS	NS
11/13/15	SVE Remedial System Startup								
02/08/16	2.91	7.06	93	8.6	687	NS	NS	NS	NS
05/09/16	1.57	6.8	46	13.4	857	NS	NS	NS	NS
ENFORCE MENT STANDARD = ES - Bold						10	-	-	300
PREVENTIVE ACTION LIMIT = PAL - Italics						2	-	-	60

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured
 Note: Elevations are presented in feet mean sea level (msl).

Well PZ-5 (Smith Oil)

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
04/07/14	COULD NOT ACCESS - BAILER FROZEN					NS	NS	NS	NS
10/07/15	NOT SAMPLED					NS	NS	NS	NS
11/13/15	SVE Remedial System Startup								
02/08/16	NOT SAMPLED					NS	NS	NS	NS
05/09/16	NOT SAMPLED					NS	NS	NS	NS
ENFORCE MENT STANDARD = ES - Bold						10	-	-	300
PREVENTIVE ACTION LIMIT = PAL - Italics						2	-	-	60

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured
 Note: Elevations are presented in feet mean sea level (msl).

Well PZ-8 (Smith Oil)

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
04/07/14	NOT SAMPLED					NS	NS	NS	NS
10/07/15	NOT SAMPLED					NS	NS	NS	NS
11/13/15	SVE Remedial System Startup								
02/08/16	NOT SAMPLED					NS	NS	NS	NS
05/09/16	NOT SAMPLED					NS	NS	NS	NS
ENFORCE MENT STANDARD = ES - Bold						10	-	-	300
PREVENTIVE ACTION LIMIT = PAL - Italics						2	-	-	60

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured
 Note: Elevations are presented in feet mean sea level (msl).

A.6 Water Level Elevations
Dick's Car Care BRRTS# 03-57-258614
Baraboo, Wisconsin

	MW-2	MW-3	MW-6 (Smith Oil)	MW-7 (Smith Oil)	MW-8 (Smith Oil)	PZ-1	PZ-5 (Smith Oil)	PZ-8 (Smith Oil)
Ground Surface (feet msl)	NM	NM	NM	NM	NM	NM	NM	NM
PVC top (feet msl)	880.81	880.46	878.94	877.60	877.52	880.88	878.60	877.62
Well Depth (feet)	53.00	54.00	NM	NM	NM	75.00	NM	NM
Top of screen (feet msl)	NM	NM	NM	NM	NM	NM	NM	NM
Bottom of screen (feet msl)	NM	NM	NM	NM	NM	NM	NM	NM
Depth to Water From Top of PVC (ft)								
03/17/10	47.42	47.08	45.28	44.08	43.92	NI	45.11	42.93
06/22/10	47.32	46.91	45.07	44.01	43.78	NI	45.03	44.04
06/13/11	46.95	46.49	43.69	42.57	42.48	NI	43.55	42.65
10/20/11	47.22	46.41	44.49	43.43	43.32	47.03	44.48	43.40
12/12/11	47.39	46.54	44.63	43.55	43.43	47.12	44.60	43.54
01/18/12	FP	46.52	44.58	43.52	43.36	47.13	44.55	43.55
04/18/12	47.67	47.06	45.15	44.10	43.95	47.62	45.12	43.97
07/18/12	48.48	47.68	45.78	44.71	44.58	48.23	45.26	44.62
04/07/14	49.46	48.41	CNA	CNA	45.33	48.82	46.47	45.84
10/07/15	50.50	48.70	44.56	45.79	45.68	49.49	46.87	45.79
11/13/15	SVE Remedial System Startup							
02/08/16	47.34	47.45	46.68	45.54	45.50	49.18	46.61	45.29
05/09/16	47.20	47.59	46.17	45.10	45.02	48.66	46.14	45.19
Groundwater Elevation (ft msl)								
03/17/10	833.39	833.38	833.66	833.52	833.60	NI	834.69	833.49
06/22/10	833.49	833.55	833.87	833.59	833.74	NI	833.58	833.57
06/13/11	833.86	833.97	835.25	835.03	835.04	NI	834.97	835.05
10/20/11	833.59	834.05	834.45	834.17	834.20	833.85	834.12	834.22
12/12/11	833.42	833.92	834.31	834.05	834.09	833.76	834.00	834.08
01/18/12	FP	833.94	834.36	834.08	834.16	833.75	834.05	834.07
04/18/12	833.14	833.40	833.79	833.50	833.57	833.26	833.48	833.65
07/18/12	832.33	832.78	833.16	832.89	832.94	832.65	833.34	833.00
04/07/14	831.35	832.05	CNA	CNA	832.19	832.06	832.13	831.78
10/07/15	830.31	831.76	834.38	831.81	831.84	831.39	831.73	831.83
11/13/15	SVE Remedial System Startup							
02/08/16	833.47	833.01	832.26	832.06	832.02	831.70	831.99	832.33
05/09/16	833.61	832.87	832.77	832.50	832.50	832.22	832.46	832.43

Note: Elevations are presented in feet mean sea level (msl).

NI = Not Installed

FP = Free Product

CNA = Could Not Access

APPENDIX C

SVE Remediation System Tables & Graphs

SVE Vacuum Recovery – Lab Analyses

TABLE 1a

	Sample Date	GRO (µg/liter)	Benzene (µg/liter)	Ethyl Benzene (µg/liter)	MtBE (µg/liter)	Naphthalene (µg/liter)	Toluene (µg/liter)	Trimethyl- benzenes (1-2-4+1-3-5) (µg/liter)	Xylenes (o-m-p) (µg/liter)
# Composite									
1	11/13/15	18900	810	182	0	0	1380	95	706
2	11/14/15	12000	390	121	0	0	870	65.2	495
5	11/15/15	10400	430	144	0	0	930	89.7	588
7	11/24/15	6400	146	115	0	18.4	530	101	452
8	11/30/15	4400	98	91	0	0	410	73.2	380
9	12/07/15	3300	41	51	0	0	205	43.7	229
13	01/07/16	1460	18.9	30.2	0	0	104	34.3	137
14	02/08/16	1310	14.6	28.6	0	0	88	37.6	130
15	03/08/16	870	8.1	22.2	0	1.16	63	34.9	106.3
16	04/11/16	670	5.4	20.1	0	0	53	33.0	99.2
17	05/09/16	500	1.98	11.5	0	0	33	18.1	60.6
*****Individual Well Sampling*****									
SVE-1									
3	11/14/15	3800	103	37	0	0	211	28.2	149
10	12/07/15	1035	10.6	18.2	0	0	52	29.6	73.1
18	05/09/16	132	0.278	1.54	0	0	5.2	2.76	9.32
SVE-2									
4	11/14/15	5500	257	71	0	0	530	46.5	286
11	12/07/15	2050	42	54	0	0	193	46.7	219
19	05/09/16	257	1.23	6.3	0	0	16.6	8.74	33.5
SVE-3									
6	11/15/15	4000	181	63	0	0	360	46.8	264
12	12/07/15	1560	37	33	0	0	159	33.5	148
20	05/09/16	181	0.71	3.5	0	0	11.6	5.75	18.6

Dick's Car Care BRRTS # 03-57-258614 SVE Air Discharge Recovery Summary – by METCO

SVE Vacuum Recovery – Lbs per Day

TABLE 1b

#	Sample Date	Vacuum Recovery Flow (scfm)	GRO (lbs/day)	Benzene (lbs/day)	Ethyl Benzene (lbs/day)	MTBE (lbs/day)	Naphthalene (lbs/day)	Toluene (lbs/day)	Trimethyl-benzenes (1-2-4+1-3-5) (lbs/day)	Xylenes (o-m-p) (lbs/day)	Σpvoc+n lbs per GRO lbs (ratio)
1	11/13/15	175.8	298.6	12.8	2.9	0.0	0.0	21.8	1.5	11.2	0.168
2	11/14/15	182.2	253.1	9.8	2.5	0.0	0.0	18.4	1.3	9.8	0.166
5	11/15/15	183.2	184.4	6.7	2.2	0.0	0.0	14.8	1.3	8.9	0.184
7	11/24/15	181.3	136.9	4.7	2.1	0.0	0.1	11.9	1.6	8.5	0.211
8	11/30/15	166.5	80.8	1.8	1.5	0.0	0.1	7.0	1.3	6.2	0.224
9	12/07/15	180.4	62.4	1.1	1.2	0.0	0.0	5.0	0.9	4.9	0.211
13	01/07/16	208.1	44.5	0.6	0.8	0.0	0.0	2.9	0.7	3.4	0.188
14	02/08/16	183.2	22.8	0.3	0.5	0.0	0.0	1.6	0.6	2.2	0.225
15	03/08/16	183.2	17.9	0.2	0.4	0.0	0.0	1.2	0.6	1.9	0.245
16	04/11/16	181.3	12.5	0.1	0.3	0.0	0.0	0.9	0.6	1.7	0.290
17	05/09/16	200.7	10.6	0.1	0.3	0.0	0.0	0.8	0.5	1.4	0.287

*****Individual Well Sampling*****

SVE-1

3	11/14/15	180.4	61.6	1.7	0.6	0.0	0.0	3.4	0.5	2.4	0.139
10	12/07/15	180.4	16.8	0.2	0.3	0.0	0.0	0.8	0.5	1.2	0.177
18	05/09/16	200.7	2.4	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.145

SVE-2

4	11/14/15	183.2	90.5	4.2	1.2	0.0	0.0	8.7	0.8	4.7	0.216
11	12/07/15	180.4	33.2	0.7	0.9	0.0	0.0	3.1	0.8	3.6	0.271
19	05/09/16	199.8	4.6	0.0	0.1	0.0	0.0	0.3	0.2	0.6	0.258

SVE-3

6	11/15/15	180.4	64.9	2.9	1.0	0.0	0.0	5.8	0.8	4.3	0.229
12	12/07/15	180.4	25.3	0.6	0.5	0.0	0.0	2.6	0.5	2.4	0.263
20	05/09/16	199.8	3.3	0.0	0.1	0.0	0.0	0.2	0.1	0.3	0.222

SVE Vacuum Recovery – Cumulative Lbs

TABLE 1c

Sample Date	Vacuum Running Time (total hours)	GRO (total lbs)	Benzene (total lbs)	Ethyl Benzene (total lbs)	MtBE (total lbs)	Naphthalene (total lbs)	Toluene (total lbs)	Trimethylbenzenes (1-2-4+1-3-5) (total lbs)	Xylenes (o-m-p) (total lbs)	Σpvoc+n lb per GRO lbs (cumulative)
Composite										
11/13/15	1.3	15.6	0.67	0.15	0.00	0.00	1.14	0.08	0.58	0.1679
11/14/15	22.0	254.0	10.4	2.5	0.0	0.0	18.5	1.3	9.7	0.1669
11/15/15	45.0	463.6	18.4	4.7	0.0	0.0	34.5	2.5	18.6	0.1698
11/24/15	256.0	1875.9	68.7	23.6	0.0	0.7	151.9	15.0	95.1	0.1892
11/30/15	401.0	2533.6	88.4	34.6	0.0	1.5	209.1	23.6	139.5	0.1960
12/07/15	567.0	3029.0	98.6	43.9	0.0	2.0	250.6	31.4	178.1	0.1996
01/07/16	1199.9	4439.1	120.8	69.1	0.0	2.0	354.5	53.5	288.3	0.2001
02/08/16	1968.8	5517.6	134.2	89.0	0.0	2.0	426.1	74.7	378.4	0.2002
03/08/16	2664.0	6107.8	140.9	102.1	0.0	2.1	467.0	91.9	438.4	0.2034
04/11/16	3480.0	6626.3	146.0	115.1	0.0	2.5	504.2	111.4	499.9	0.2081
05/09/16	4152.0	6949.7	148.5	123.9	0.0	2.6	528.3	125.6	543.6	0.2119

SVE Blower Operations

In-line process flowmeter nominally calibrated as SCFM – corrected by factor = 0.925
 Process vacuum gauge readings, in "H2O and discharge header pressure, positive, "H2O
 Blower outlet temperature, (°F)
 SVE Runtime (Hrs)

Cp-air	0.0004321	hp/scfm/°F	(nominal)
blower pwr	10	hp	(nominal)
inlet air T	60	deg F	(nominal)
B1	2692.2	Blower Input	
B2	1405.7	Power – Flow	
B3	-3360.3	Correlation Coeffs	

Mfg'r correlation – Blower Inlet Vacuum vs Flowrate
 SCFM = 397.8 – 2.186 ("H2Ovacuum) – 0.005078 ("H2Ovacuum)² [by regression]
 Mfg'r correlation – Blower Delta Temperature vs Flowrate
 SCFM = 868.78 + 3.7594 (Delta °F) – 105.61 sqrt (Delta °F) [by regression]

Composite Sampling	SVE-1 well Inlet Vacuum (-) ("H2O) (gauge)	SVE-2 well Inlet Vacuum (-) ("H2O) (gauge)	SVE-3 well Inlet Vacuum (-) ("H2O) (gauge)	Blower Inlet Vacuum (-) ("H2O) (gauge)	Blower Outlet Temperature (°F)	Discharge Header Pressure ("H2O) (gauge) [+]	Process Outlet Flowrate (scfm) (by meter)	Measured Flowrate (corrected) (scfm) 0.925	Process Flowrate Flow vs Vacuum (scfm) (mfg'r curve)	Process Flowrate Flow vs Temp (scfm) (mfg'r curve)	Blower Input Power Power vs Flow (kilowatts) (mfg'r curve)	Process Runtime (Hrs)
11/13/15	88.0	88.0	87.0	90.0	170.0	1.5	190.0	175.8	164.6	174.7	10.48	1.3
11/14/15	85.0	82.0	85.0	85.0	166.0	1.5	197.0	182.2	179.9	180.0	10.39	22.0
11/15/15	85.5	85.0	86.2	88.5	180.5	1.0	198.0	183.2	167.6	162.5	10.38	45.0
11/24/15	88.0	88.0	90.0	91.0	167.0	1.0	196.0	181.3	159.9	178.6	10.41	256.0
11/30/15	68 entrained	69 water	70 fouling	94.0	181.0	1.0	180.0	166.5	150.6	162.0	10.56	401.0
12/07/15	64 entrained	64 water	65 fouling	88.0	169.0	1.0	195.0	180.4	169.2	176.0	10.42	567.0
01/07/16	73.00	72.00	73.00	76.0	T gauge out	0.5	225.0	208.1	203.8	T gauge out	9.89	1199.9
01/07/16	81.00	80.00	81.00	85.0	T gauge out	0.5	180.0	166.5	176.8	T gauge out	10.56	1200.5
02/08/16	79.00	79.00	80.00	82.5	T gauge out	1.0	198.0	183.2	185.9	T gauge out	10.38	1968.8
03/08/16	77.00	76.00	78.00	81.00	171.0	1.0	198.0	183.2	190.4	173.4	10.38	2664.0
04/11/16	79.00	79.00	80.00	83.00	174.0	1.0	196.0	181.3	184.4	169.7	10.41	3480.0
05/09/15	70.00	70.00	72.00	74.00	166.0	1.0	217.0	200.7	211.2	180.0	10.06	4152.0

***** Individual Well Flows *****

	SVE-1 well Inlet Vacuum (-) ("H2O) (gauge)	SVE-2 well Inlet Vacuum (-) ("H2O) (gauge)	SVE-3 well Inlet Vacuum (-) ("H2O) (gauge)	Blower Inlet Vacuum (-) ("H2O) (gauge)	Blower Outlet Temperature (°F)	Discharge Header Pressure ("H2O) (gauge) (+)	Process Flowrate (scfm)	Runtime (Hrs)	Discharge Air Sample #
SVE-1 Well Sampling									
11/14/15	85.00	off-line	off-line	86.5	171.0	1.5	180.4	22.0	3
12/07/15	77.00	off-line	off-line	88.0	169.0	1.0	180.4	567.8	10
05/09/16	71.00	off-line	off-line	74.0	162.0	1.0	200.7	4152.5	18
SVE-2 Well Sampling									
11/14/15	off-line	83.0	off-line	86.2	172.0	1.5	183.2	22.3	4
12/07/15	off-line	82.0	off-line	88.0	170.0	1.0	180.4	567.8	11
05/09/16	off-line	70.0	off-line	74.0	164.0	1.0	199.8	4153.0	19
SVE-3 Well Sampling									
11/15/15	off-line	off-line	86.0	88.5	182.5	1.5	183.2	45.5	6
12/07/15	off-line	off-line	88.0	88.0	170.0	1.0	180.4	568.0	12
05/09/16	off-line	off-line	73.0	74.0	166.0	1.0	199.8	4153.2	20

see note above, 12/7/15

Figure 1a

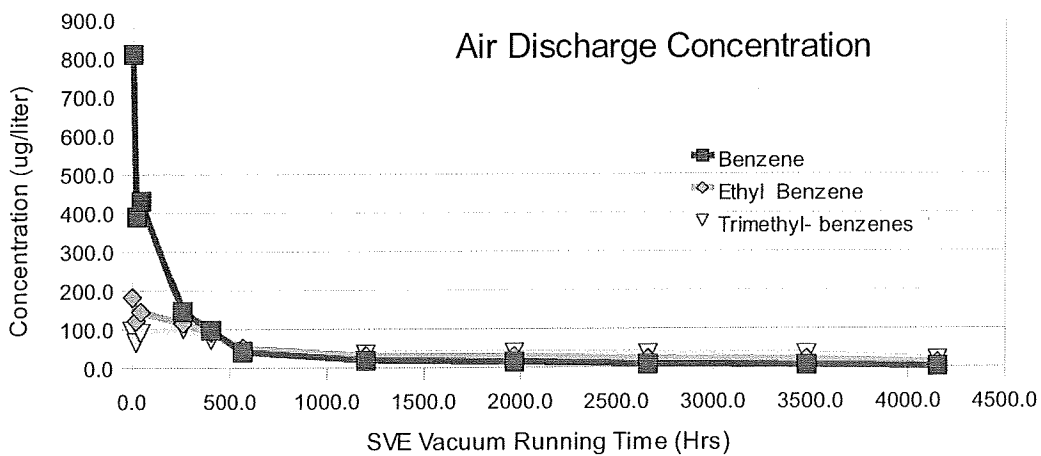
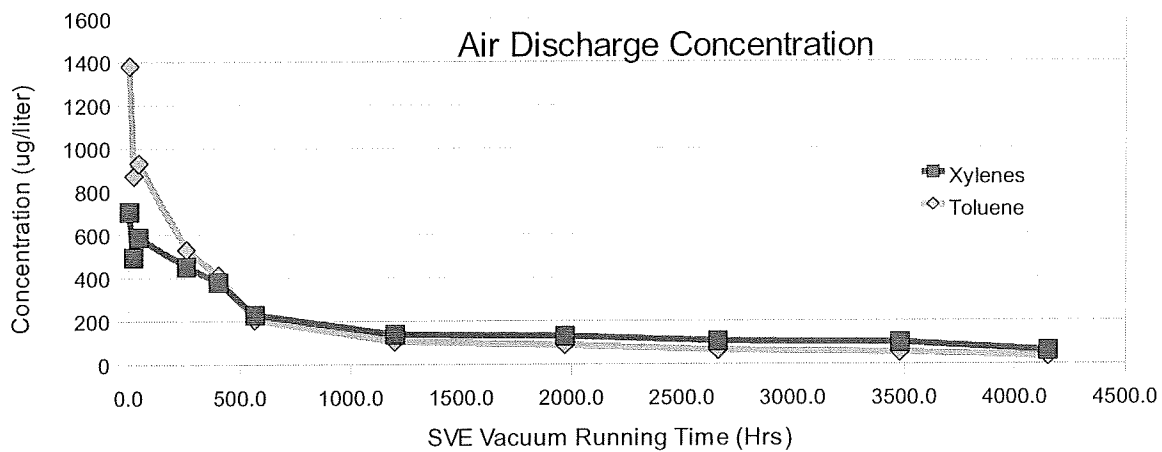
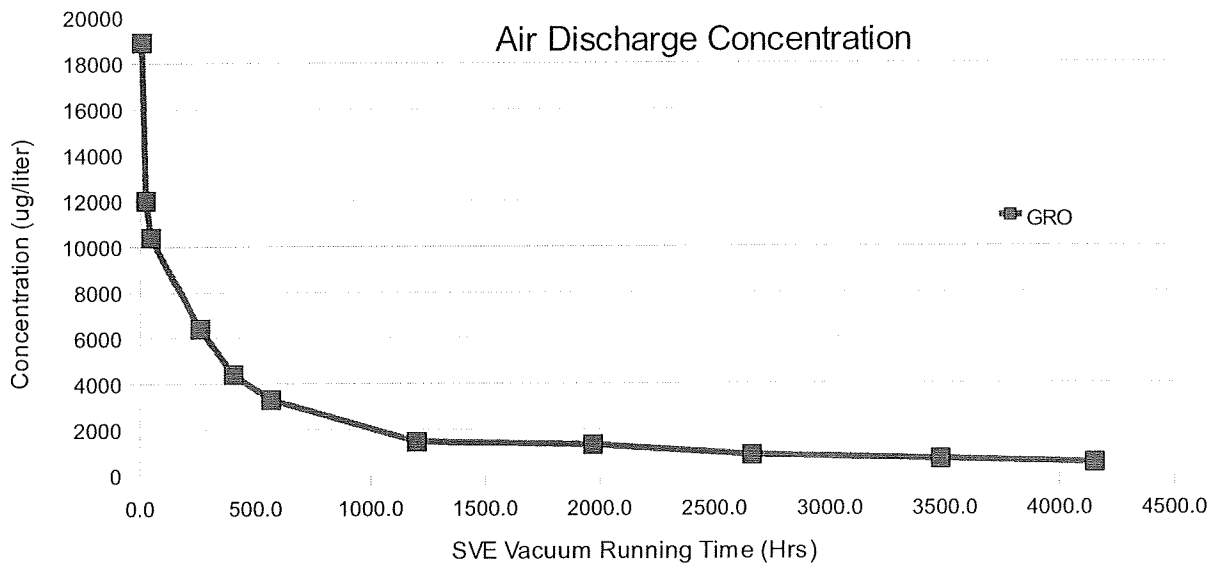


Figure 1b

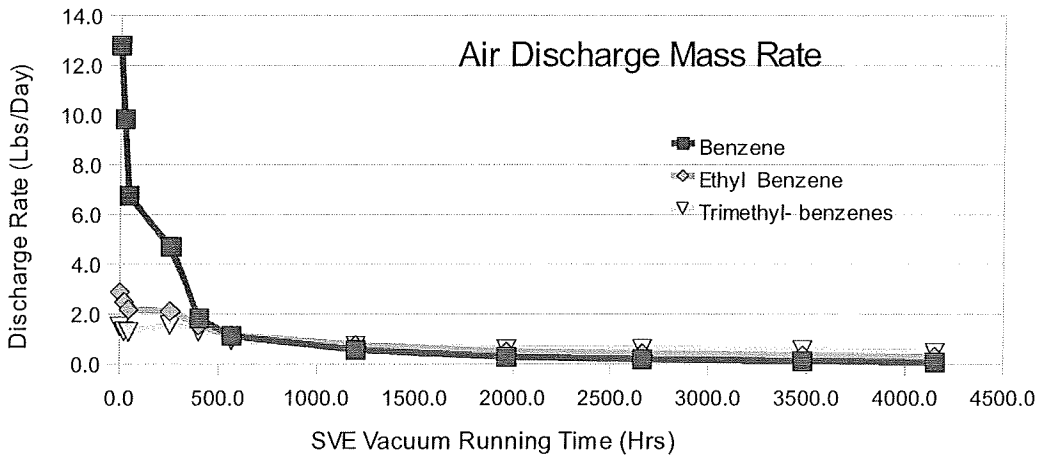
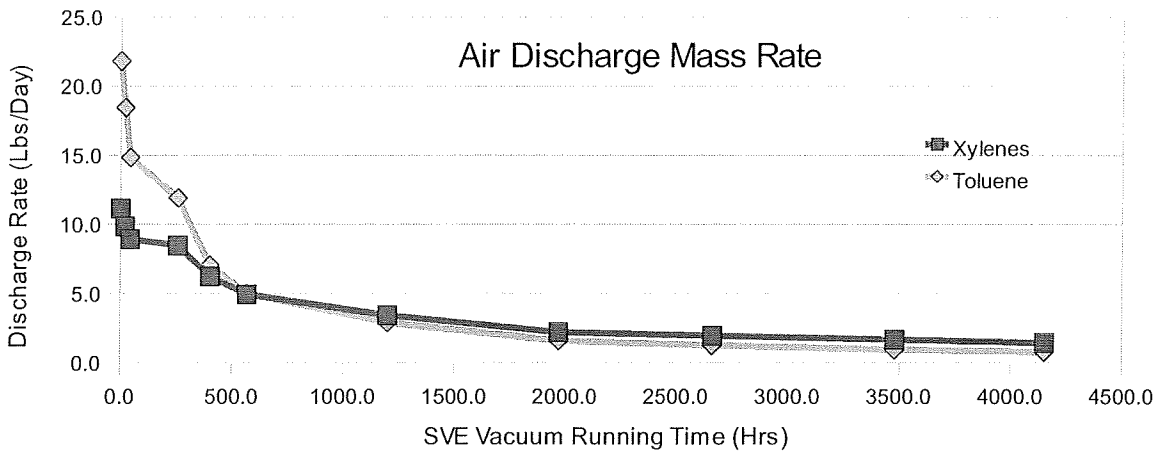
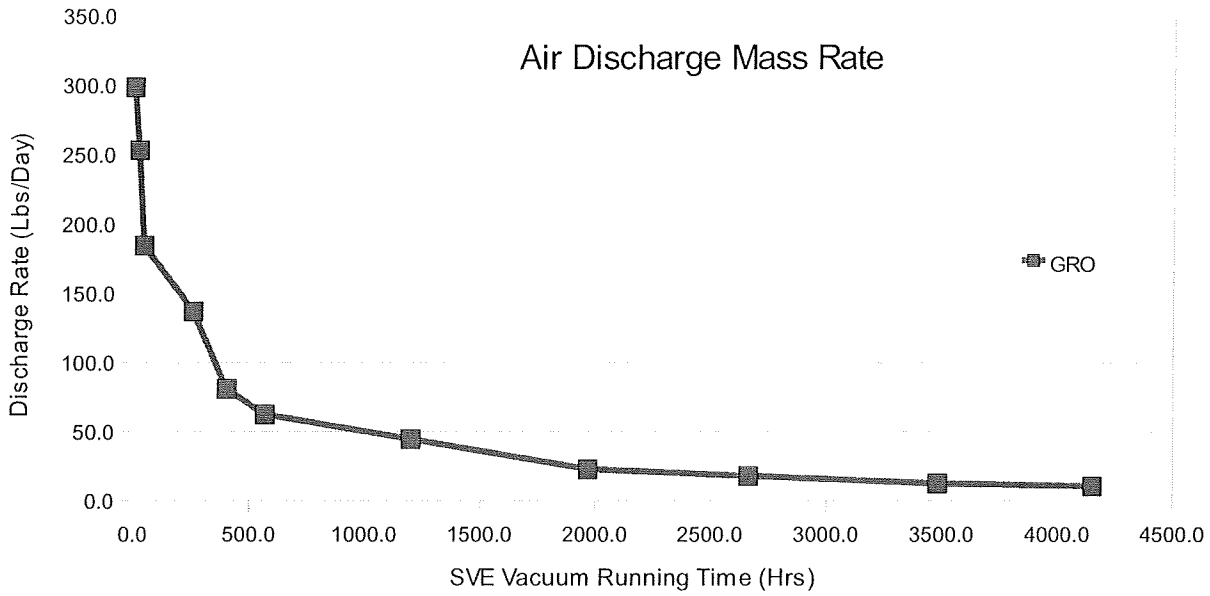


Figure 1c

Air Discharge Cumulative Mass

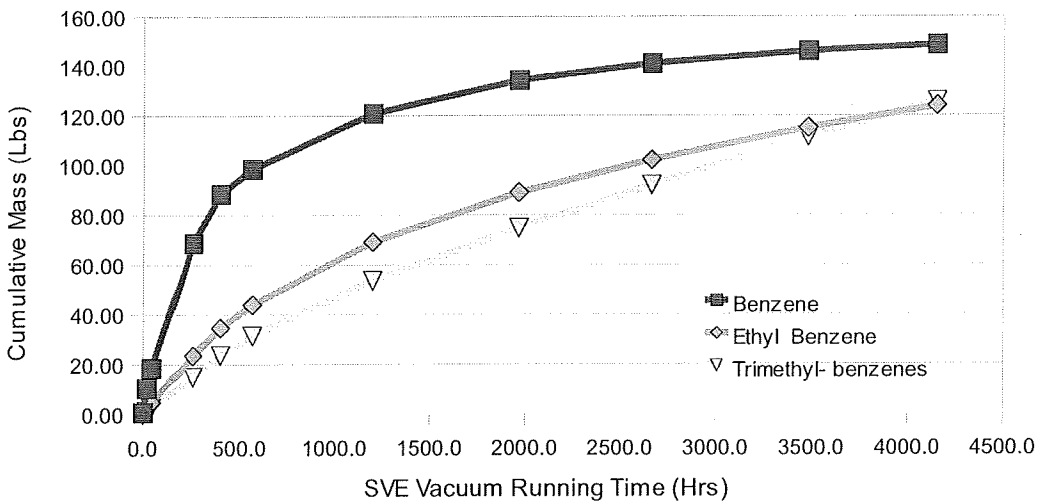
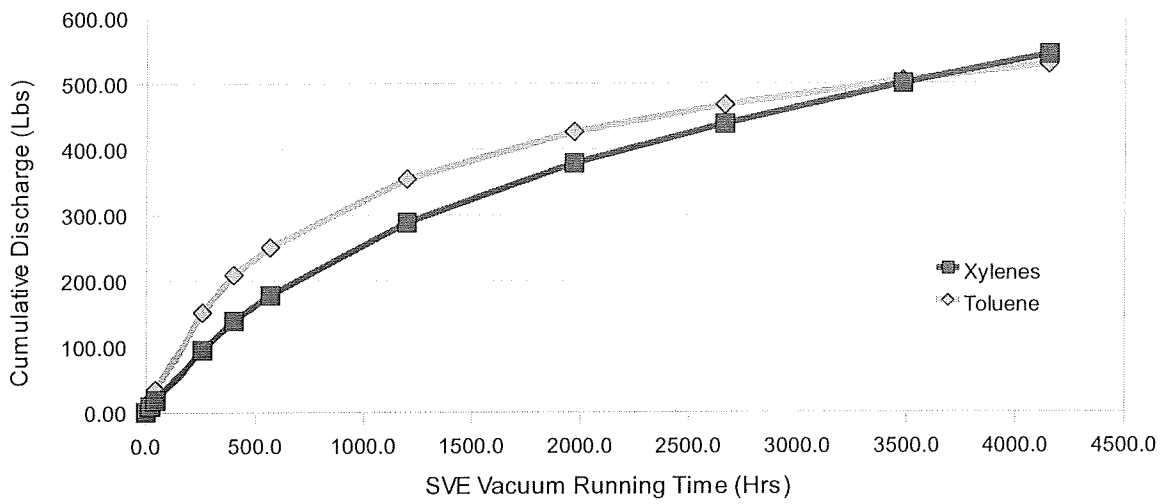
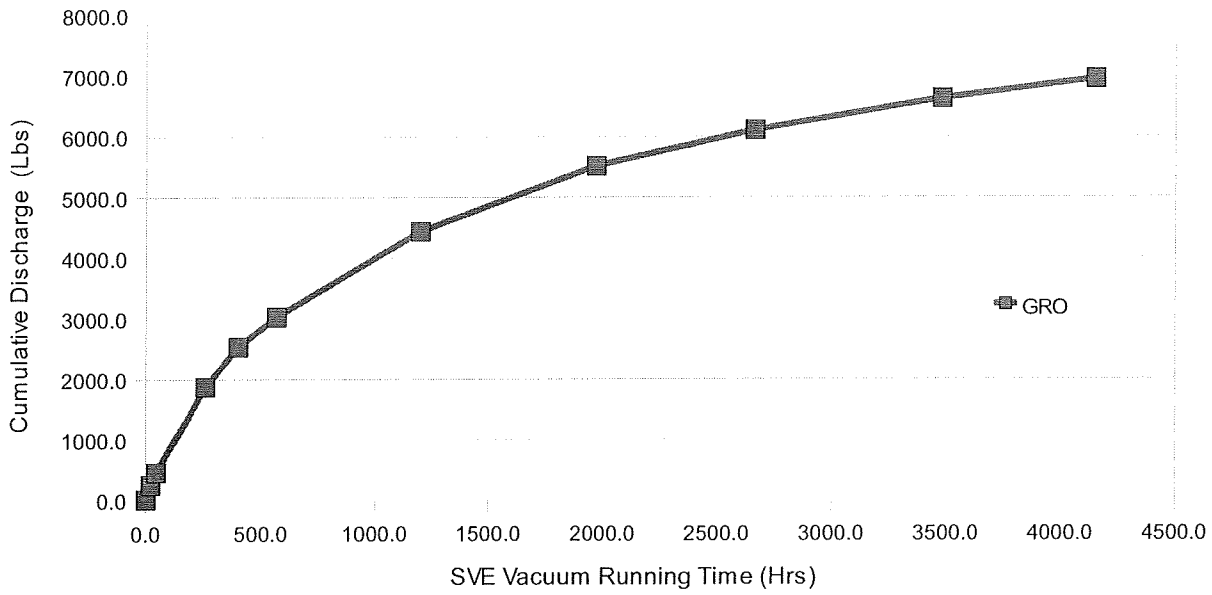


Figure 2

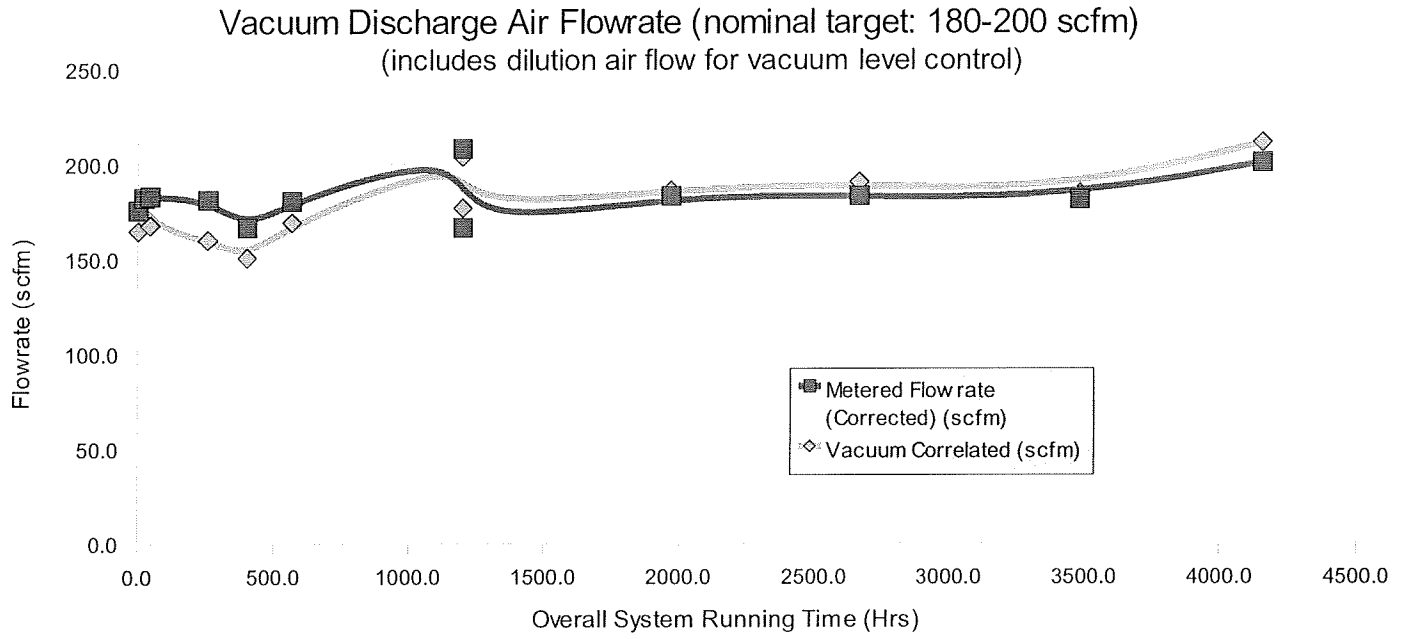


Figure 3

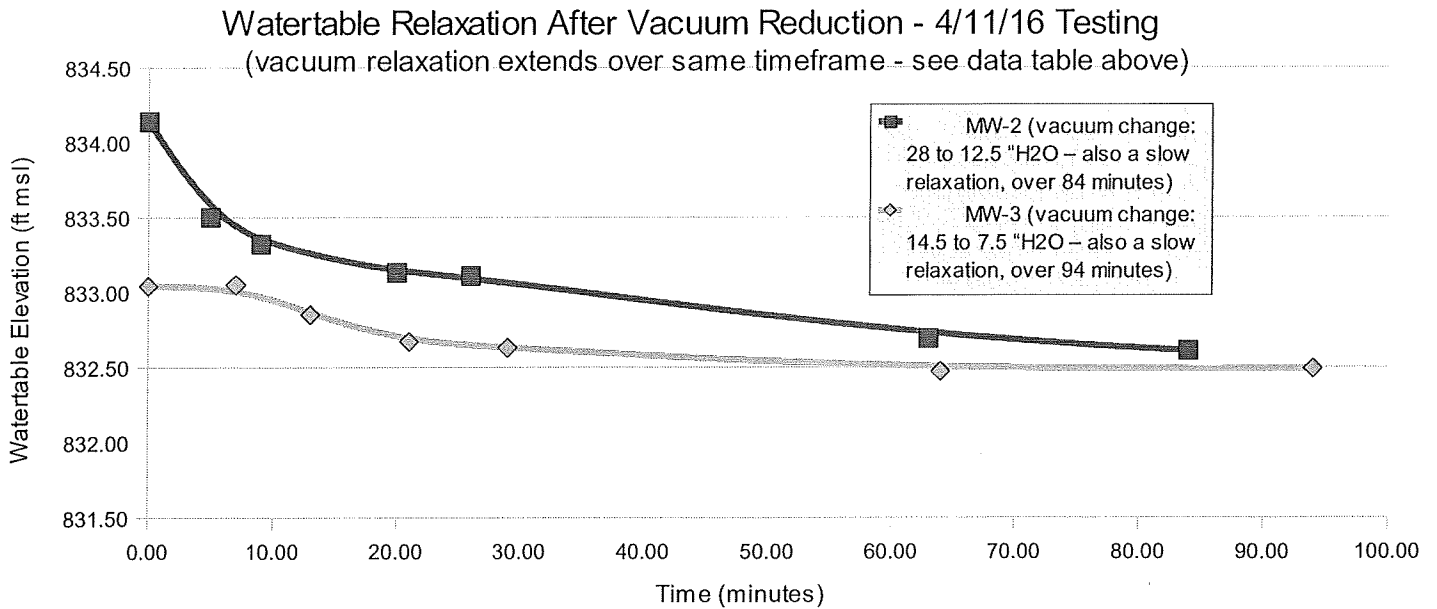
Watertable Relaxation after Vacuum Reduction by half → reduced by ~ 40 "H2O

4/11/16 Vacuum reduction – by 50% – 82 to 41 "H2O at blower inlet
 → 35-38 "H2O on inlet header.... Monitoring watertable relaxation

Start
 9:49 a.m.

Well	DTW (Ft)	Vacuum (Inches H2O)	Time	Minutes	Top of Casing (ft msl)	Water Table (Ft MSL)
MW-2	46.67	28.00	9:49 a.m.	0.00	880.81	834.14
MW-2	47.31		9:54 a.m.	5.00	880.81	833.50
MW-2	47.49		9:58 a.m.	9.00	880.81	833.32
MW-2	47.68		10:09 a.m.	20.00	880.81	833.13
MW-2	47.70	16.00	10:15 a.m.	26.00	880.81	833.11
MW-2	48.12		10:52 a.m.	63.00	880.81	832.69
MW-2	48.20	12.50	11:13 a.m.	84.00	880.81	832.61
MW-3	47.42	14.50	9:49 a.m.	0.00	880.46	833.04
MW-3	47.41		9:56 a.m.	7.00	880.46	833.05
MW-3	47.61		10:02 a.m.	13.00	880.46	832.85
MW-3	47.79		10:10 a.m.	21.00	880.46	832.67
MW-3	47.83	10.50	10:18 a.m.	29.00	880.46	832.63
MW-3	47.99		10:53 a.m.	64.00	880.46	832.47
MW-3	47.97	7.50	11:23 a.m.	94.00	880.46	832.49

MW-2 (vacuum change: 28 to 12.5 "H2O – also a slow relaxation, over 84 minutes)
 MW-3 (vacuum change: 14.5 to 7.5 "H2O – also a slow relaxation, over 94 minutes)



APPENDIX D

Lab Reports – Groundwater Sampling

Project Name DICK'S CAR CARE
 Project #

Invoice # E31008

Lab Code 5031008D
 Sample ID REMEDIAL AIR #
 Sample Matrix Air Tedlar Bag
 Sample Date 5/9/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
SUR - 4-Bromofluorobenzene	101	% REC			0	0.75 8260B		5/19/2016	CJR	I
SUR - Dibromofluoromethane	99	% REC			0	0.75 8260B		5/19/2016	CJR	I

Lab Code 5031008E
 Sample ID MW-3
 Sample Matrix Water
 Sample Date 5/9/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Nap + 1,2 DCA + EDB										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		5/16/2016	CJR	I
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		5/16/2016	CJR	I
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		5/16/2016	CJR	I
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		5/16/2016	CJR	I
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		5/16/2016	CJR	I
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		5/16/2016	CJR	I
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		5/16/2016	CJR	I
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		5/16/2016	CJR	I
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		5/16/2016	CJR	I
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		5/16/2016	CJR	I
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		5/16/2016	CJR	I

Lab Code 5031008F
 Sample ID PZ-1
 Sample Matrix Water
 Sample Date 5/9/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Nap + 1,2 DCA + EDB										
Benzene	1330	ug/l	4.4	14	10	8260B		5/17/2016	CJR	I
1,2-Dichloroethane	68	ug/l	4.8	15	10	8260B		5/17/2016	CJR	I
EDB (1,2-Dibromoethane)	< 6.3	ug/l	6.3	20	10	8260B		5/17/2016	CJR	I
Ethylbenzene	500	ug/l	7.1	23	10	8260B		5/17/2016	CJR	I
Methyl tert-butyl ether (MTBE)	470	ug/l	11	37	10	8260B		5/17/2016	CJR	I
Naphthalene	21.8 "J"	ug/l	16	52	10	8260B		5/17/2016	CJR	I
Toluene	54	ug/l	4.4	14	10	8260B		5/17/2016	CJR	I
1,2,4-Trimethylbenzene	62	ug/l	16	50	10	8260B		5/17/2016	CJR	I
1,3,5-Trimethylbenzene	< 15	ug/l	15	48	10	8260B		5/17/2016	CJR	I
m&p-Xylene	93	ug/l	22	69	10	8260B		5/17/2016	CJR	I
o-Xylene	10.6 "J"	ug/l	9	29	10	8260B		5/17/2016	CJR	I

Project #

Lab Code 5031008G
 Sample ID MW-2
 Sample Matrix Water
 Sample Date 5/9/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Nap + 1,2 DCA + EDB										
Benzene	4900	ug/l	22	70	50	8260B	5/17/2016	5/17/2016	CJR	1
1,2-Dichloroethane	930	ug/l	24	75	50	8260B	5/17/2016	5/17/2016	CJR	1
EDB (1,2-Dibromoethane)	910	ug/l	31.5	100	50	8260B	5/17/2016	5/17/2016	CJR	1
Ethylbenzene	640	ug/l	35.5	115	50	8260B	5/17/2016	5/17/2016	CJR	1
Methyl tert-butyl ether (MTBE)	297	ug/l	55	185	50	8260B	5/17/2016	5/17/2016	CJR	2
Naphthalene	430	ug/l	80	260	50	8260B	5/17/2016	5/17/2016	CJR	1
Toluene	5500	ug/l	22	70	50	8260B	5/17/2016	5/17/2016	CJR	1
1,2,4-Trimethylbenzene	990	ug/l	80	250	50	8260B	5/17/2016	5/17/2016	CJR	1
1,3,5-Trimethylbenzene	296	ug/l	75	240	50	8260B	5/17/2016	5/17/2016	CJR	1
m&p-Xylene	3400	ug/l	110	345	50	8260B	5/17/2016	5/17/2016	CJR	1
o-Xylene	1610	ug/l	45	145	50	8260B	5/17/2016	5/17/2016	CJR	1

Lab Code 5031008H
 Sample ID TB
 Sample Matrix Water
 Sample Date 5/9/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Nap + 1,2 DCA + EDB										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B	5/16/2016	5/16/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B	5/16/2016	5/16/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B	5/16/2016	5/16/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B	5/16/2016	5/16/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B	5/16/2016	5/16/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B	5/16/2016	5/16/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B	5/16/2016	5/16/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B	5/16/2016	5/16/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B	5/16/2016	5/16/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B	5/16/2016	5/16/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B	5/16/2016	5/16/2016	CJR	1

"J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

Code Comment

- 1 Laboratory QC within limits.
- 2 Relative percent difference failed for laboratory spiked samples.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature

Michael Ricker

CHAIN OF STUDY RECORD

Synergy

Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # No 287
Page 2 of 2

Sample Handling Request

Rush Analysis Date Required _____
(Rushes accepted only with prior authorization)
 Normal Turn Around

Lab I.D. # _____
Account No.: _____
Quote No.: _____
Project #: _____
Sampler's signature: *Jan Jones*
Project Name / Location: *Dick's car care / Bamboo*
Reports To: _____
Company: _____
Address: _____
City State Zip: _____
Phone: _____
FAX: _____
Invoice To: _____
Company: *See Page 1*
Address: _____
City State Zip: _____
Phone: _____
FAX: _____

Lab I.D.	Sample I.D.	Collection Date	Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE + 1,2-DCA	SULFATE	TOTAL SUSPENDED SOLIDS	VOC (EPA 542.2)	VOC (EPA 8260)	8-PCRA METALS	Other Analysis	PID/ FID
	MW-3	5-9	1020				3	GW	HELL																
	P2-1		1045				↓	↓	↓																
	MW-2		1110				↓	↓	↓																
	TB																								

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

See Page 1 for Air sampling Analysis
GW - PVOC + Naph + 1,2-DCA + EOB @ 43.79 / sample

Sample Integrity - To be completed by receiving lab.
Method of Shipment: *Next*
Temp. of Temp. Blank _____ °C On Ice
Cooler seal intact upon receipt: Yes No

Reinquired By: (sign) *Jan Jones* Time *9:00 AM* Date *5-10-16*
Received in Laboratory By: *M. Widger - JFE* Time: *5-11-16* Date: *5-11-16*

APPENDIX E

Lab Reports – Remedial Air Discharge Sampling

Synergy Environmental Lab,

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

DAVE CHRISTIAN
DAVE CHRISTIAN
707 ANGLE STREET
BARABOO, WI 53913

Report Date 14-Mar-16

Project Name DICK'S CAR CARE
Project #

Invoice # E30620

Lab Code 5030620A
Sample ID remedial air smpl #15
Sample Matrix Air Tedlar Bag
Sample Date 3/8/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
GRO/PVOC + Naphthalene										
Gasoline Range Organics	870	ug	21	66	0.75	GRO95/8021		3/11/2016	CJR	1
Benzene	8.1	ug	0.165	0.525	0.75	GRO95/8021		3/11/2016	CJR	1
Ethylbenzene	22.2	ug	0.1575	0.51	0.75	GRO95/8021		3/11/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.15	ug	0.15	0.465	0.75	GRO95/8021		3/11/2016	CJR	1
Naphthalene	1.16	ug	0.105	0.3375	0.75	GRO95/8021		3/11/2016	CJR	1
Toluene	63	ug	0.165	0.5325	0.75	GRO95/8021		3/11/2016	CJR	1
1,2,4-Trimethylbenzene	23.5	ug	0.1275	0.3975	0.75	GRO95/8021		3/11/2016	CJR	1
1,3,5-Trimethylbenzene	11.4	ug	0.135	0.42	0.75	GRO95/8021		3/11/2016	CJR	1
m&p-Xylene	79	ug	0.2625	0.825	0.75	GRO95/8021		3/11/2016	CJR	1
o-Xylene	27.3	ug	0.2775	0.9	0.75	GRO95/8021		3/11/2016	CJR	1

"J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

Code **Comment**

1 Laboratory QC within limits.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature

Michael Ricker

CHAIN OF CUSTODY RECORD

Synergy

Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # **NO 286**

Page **1** of **1**

Sample Handling Request

Rush Analysis Date Required
(Rushes accepted only with prior authorization)
 Normal Turn Around

Lab I.D. # _____

Account No.: _____ Quote No.: _____

Project #: _____

Sampler: (signature) *Jan Gunn*

Project (Name / Location): *Dicks car care / Bamboe*

Reports To: *Dave Christian* Invoice To: *D Christian*

Company: _____ Company: *C/O METCO*

Address: *707 Angie St* Address: *709 Gillette St, ste. 3*

City State Zip: *Bamboe WI 53913* City State Zip: *La Crosse, WI 54603*

Phone: _____ Phone: _____

FAX: _____ FAX: _____

Lab I.D.	Sample I.D.	Collection Date	Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)	Preservation	Analysis Requested											Other Analysis								
										DRO (Mod DRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 8422)	VOC (EPA 8260)	6-PCRA METALS	PID/ FID						
<i>5030620A</i>	<i>Remain Air sample #15</i>	<i>3-8</i>	<i>8:30</i>				<i>1</i>	<i>Air</i>	<i>-</i>	<input checked="" type="checkbox"/>																			

Comments/Special Instructions ("Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)
Lab to send copy of report to METCO / Tom P. (Invoice to METCO)

* Agent status Note: *GRO + PVOC + N @ \$68.00 (as quoted)*

Sample Integrity - To be completed by receiving lab.

Method of Shipment: *Pushover*

Temp. of Temp. Blank: _____ °C On Ice:

Cooler seal intact upon receipt: Yes No

Relinquished By: (signature) _____ Time: *12:00 PM* Date: *3-8-16*

Received in Laboratory By: (signature) *Shirley Rose* Time: *8:00* Date: *3/9/16*

Synergy Environmental Lab,

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

DAVE CHRISTIAN
DAVE CHRISTIAN
707 ANGLE STREET
BARABOO, WI 53913

Report Date 26-Apr-16

Project Name DICK'S CAR CARE
Project #

Invoice # E30835

Lab Code 5030835A
Sample ID REMEDIAL AIR
Sample Matrix Air Tedlar Bag
Sample Date 4/11/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
GRO/PVOC + Naphthalene										
Gasoline Range Organics	670	ug	21	66	0.75	GRO95/8021		4/26/2016	CJR	1
Benzene	5.4	ug	0.165	0.525	0.75	GRO95/8021		4/26/2016	CJR	1
Ethylbenzene	20.1	ug	0.1575	0.51	0.75	GRO95/8021		4/26/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.15	ug	0.15	0.465	0.75	GRO95/8021		4/26/2016	CJR	1
Naphthalene	< 0.105	ug	0.105	0.3375	0.75	GRO95/8021		4/26/2016	CJR	1
Toluene	53	ug	0.165	0.5325	0.75	GRO95/8021		4/26/2016	CJR	1
1,2,4-Trimethylbenzene	22.1	ug	0.1275	0.3975	0.75	GRO95/8021		4/26/2016	CJR	1
1,3,5-Trimethylbenzene	10.9	ug	0.135	0.42	0.75	GRO95/8021		4/26/2016	CJR	1
m&p-Xylene	73	ug	0.2625	0.825	0.75	GRO95/8021		4/26/2016	CJR	1
o-Xylene	26.2	ug	0.2775	0.9	0.75	GRO95/8021		4/26/2016	CJR	1

"J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

Code **Comment**

1 Laboratory QC within limits.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature

Michael Ricker

Lab I.D. # _____

Account No.: _____ Quote No.: _____

Project #: for Jim

Sampler: (signature) for Jim

Sample Handling Request

Rush Analysis Date Required _____
 (Rushes accepted only with prior authorization)

Normal Turn Around

1990 Prospect Ct. • Appleton, WI 54914
 920-830-2455 • FAX 920-733-0631

Project (Name / Location): Dick's Car Care / Bamboo

Reports To: Dave Christian Invoice To: D. Christian

Company: _____ Company: c/o METCO

Address: 707 Angle st Address: 709 Gillette st, ste. 3

City State Zip: Bamboo, WI 53913 City State Zip: La Crosse, WI 54603

Phone: _____ Phone: _____

FAX: _____ FAX: _____

Analysis Requested

Analysis Requested	Other Analysis
DRO (Mod DRO Sep 95)	
GRO (Mod GRO Sep 95)	
LEAD	
NITRATE/NITRITE	
OIL & GREASE	
PAH (EPA 8270)	
PCB	
PVOC (EPA 8021)	<input checked="" type="checkbox"/>
PVOC + NAPHTHALENE	
SULFATE	
TOTAL SUSPENDED SOLIDS	
VOC DW (EPA 542.2)	
VOC (EPA 8260)	
9-PCRA METALS	

Lab I.D.	Sample I.D.	Collection Date Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	PID/ FID
<u>555-0835A</u>	<u>Remedial Action sample #16</u>	<u>11/18/45</u>				<u>1</u>	<u>Air</u>	<u>-</u>	

Comments/Special Instructions ("Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.):

Lab to send copy of report to METCO / Tom P. (Invoice to METCO)

*Agent status Note: CBO + PVOC + N @ \$68.00 (as quoted)

Sample integrity - To be completed by receiving lab.

Method of Shipment: Dry Ice

Temp. of Temp. Blank: _____ °C On Ice:

Cooler seal intact upon receipt: Yes ___ No

Relinquished By: (sign) for Jim Time 8:00 AM 4-12-16 Date _____

Received By: (sign) _____ Time: 8:00 Date: 4/13/16

Synergy Environmental Lab,

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

DAVE CHRISTIAN
DAVE CHRISTIAN
707 ANGLE STREET
BARABOO, WI 53913

Report Date 24-May-16

Project Name DICK'S CAR CARE
Project #

Invoice # E31008

Lab Code 5031008A
Sample ID REMEDIAL AIR #17
Sample Matrix Air Tedlar Bag
Sample Date 5/9/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
General										
Gasoline Range Organics VOC's	500	ug	21	66	0.75	GRO95/8021		5/23/2016	CJR	I
Benzene	1.98	ug	0.135	0.435	0.75	8260B		5/19/2016	CJR	I
Bromobenzene	< 0.18	ug	0.18	0.5625	0.75	8260B		5/19/2016	CJR	I
Bromodichloromethane	< 0.21	ug	0.21	0.675	0.75	8260B		5/19/2016	CJR	I
Bromoform	< 0.195	ug	0.195	0.615	0.75	8260B		5/19/2016	CJR	I
tert-Butylbenzene	< 0.2025	ug	0.2025	0.675	0.75	8260B		5/19/2016	CJR	I
sec-Butylbenzene	0.47 "J"	ug	0.1875	0.5625	0.75	8260B		5/19/2016	CJR	I
n-Butylbenzene	0.95	ug	0.195	0.6225	0.75	8260B		5/19/2016	CJR	I
Carbon Tetrachloride	< 0.1875	ug	0.1875	0.615	0.75	8260B		5/19/2016	CJR	I
Chlorobenzene	< 0.135	ug	0.135	0.6225	0.75	8260B		5/19/2016	CJR	I
Chloroethane	< 0.3525	ug	0.3525	1.125	0.75	8260B		5/19/2016	CJR	I
Chloroform	< 0.1575	ug	0.1575	0.495	0.75	8260B		5/19/2016	CJR	I
Chloromethane	< 0.4575	ug	0.4575	1.5	0.75	8260B		5/19/2016	CJR	I
2-Chlorotoluene	< 0.12	ug	0.12	0.3825	0.75	8260B		5/19/2016	CJR	I
4-Chlorotoluene	< 0.12	ug	0.12	0.3825	0.75	8260B		5/19/2016	CJR	I
1,2-Dibromo-3-chloropropane	< 0.495	ug	0.495	1.575	0.75	8260B		5/19/2016	CJR	I
Dibromochloromethane	< 0.1275	ug	0.1275	0.3975	0.75	8260B		5/19/2016	CJR	I
1,4-Dichlorobenzene	< 0.165	ug	0.165	0.54	0.75	8260B		5/19/2016	CJR	I
1,3-Dichlorobenzene	< 0.1575	ug	0.1575	0.5025	0.75	8260B		5/19/2016	CJR	I
1,2-Dichlorobenzene	< 0.2025	ug	0.2025	0.675	0.75	8260B		5/19/2016	CJR	I
Dichlorodifluoromethane	< 0.2475	ug	0.2475	0.825	0.75	8260B		5/19/2016	CJR	I
1,2-Dichloroethane	< 0.2325	ug	0.2325	0.735	0.75	8260B		5/19/2016	CJR	I
1,1-Dichloroethane	< 0.1725	ug	0.1725	0.735	0.75	8260B		5/19/2016	CJR	I
1,1-Dichloroethene	< 0.225	ug	0.225	0.7275	0.75	8260B		5/19/2016	CJR	I
cis-1,2-Dichloroethene	< 0.2175	ug	0.2175	0.675	0.75	8260B		5/19/2016	CJR	I
trans-1,2-Dichloroethene	< 0.195	ug	0.195	0.6225	0.75	8260B		5/19/2016	CJR	I
1,2-Dichloropropane	< 0.18	ug	0.18	0.5625	0.75	8260B		5/19/2016	CJR	I
2,2-Dichloropropane	< 0.2025	ug	0.2025	0.675	0.75	8260B		5/19/2016	CJR	I
1,3-Dichloropropane	< 0.1875	ug	0.1875	0.5625	0.75	8260B		5/19/2016	CJR	I
Di-isopropyl ether	< 0.1275	ug	0.1275	0.4125	0.75	8260B		5/19/2016	CJR	I
EDB (1,2-Dibromoethane)	< 0.2475	ug	0.2475	0.825	0.75	8260B		5/19/2016	CJR	I

Project

Lab Code 5031008A
 Sample ID REMEDIAL AIR #17
 Sample Matrix Air Tedlar Bag
 Sample Date 5/9/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Ethylbenzene	11.5	ug	0.3075	0.975	0.75	8260B	5/19/2016	5/19/2016	CJR	I
Hexachlorobutadiene	< 0.825	ug	0.825	2.7	0.75	8260B	5/19/2016	5/19/2016	CJR	I
Isopropylbenzene	1.14	ug	0.165	0.54	0.75	8260B	5/19/2016	5/19/2016	CJR	I
p-Isopropyltoluene	0.36 "J"	ug	0.1725	0.555	0.75	8260B	5/19/2016	5/19/2016	CJR	I
Methylene chloride	< 2.475	ug	2.475	8.25	0.75	8260B	5/19/2016	5/19/2016	CJR	I
Methyl tert-butyl ether (MTBE)	< 0.1275	ug	0.1275	0.42	0.75	8260B	5/19/2016	5/19/2016	CJR	I
Naphthalene	< 0.975	ug	0.975	3.075	0.75	8260B	5/19/2016	5/19/2016	CJR	I
n-Propylbenzene	2.9	ug	0.1425	0.4575	0.75	8260B	5/19/2016	5/19/2016	CJR	I
1,1,2,2-Tetrachloroethane	< 0.255	ug	0.255	0.825	0.75	8260B	5/19/2016	5/19/2016	CJR	I
1,1,1,2-Tetrachloroethane	< 0.1875	ug	0.1875	0.6225	0.75	8260B	5/19/2016	5/19/2016	CJR	I
Tetrachloroethene	< 0.1875	ug	0.1875	0.6225	0.75	8260B	5/19/2016	5/19/2016	CJR	I
Toluene	33	ug	0.39	1.275	0.75	8260B	5/19/2016	5/19/2016	CJR	I
1,2,4-Trichlorobenzene	< 0.555	ug	0.555	1.725	0.75	8260B	5/19/2016	5/19/2016	CJR	I
1,2,3-Trichlorobenzene	< 1.05	ug	1.05	3.3	0.75	8260B	5/19/2016	5/19/2016	CJR	I
1,1,1-Trichloroethane	< 0.1875	ug	0.1875	0.6225	0.75	8260B	5/19/2016	5/19/2016	CJR	I
1,1,2-Trichloroethane	< 0.195	ug	0.195	0.6225	0.75	8260B	5/19/2016	5/19/2016	CJR	I
Trichloroethene (TCE)	< 0.1875	ug	0.1875	0.5625	0.75	8260B	5/19/2016	5/19/2016	CJR	I
Trichlorofluoromethane	< 0.3975	ug	0.3975	1.275	0.75	8260B	5/19/2016	5/19/2016	CJR	I
1,2,4-Trimethylbenzene	13	ug	1.275	3.9	0.75	8260B	5/19/2016	5/19/2016	CJR	I
1,3,5-Trimethylbenzene	5.1	ug	0.825	2.55	0.75	8260B	5/19/2016	5/19/2016	CJR	I
Vinyl Chloride	< 0.105	ug	0.105	0.3225	0.75	8260B	5/19/2016	5/19/2016	CJR	I
m&p-Xylene	44	ug	0.39	1.275	0.75	8260B	5/19/2016	5/19/2016	CJR	I
o-Xylene	16.6	ug	0.3525	1.125	0.75	8260B	5/19/2016	5/19/2016	CJR	I
SUR - 1,2-Dichloroethane-d4	101	% REC		0	0.75	8260B	5/19/2016	5/19/2016	CJR	I
SUR - 4-Bromofluorobenzene	108	% REC		0	0.75	8260B	5/19/2016	5/19/2016	CJR	I
SUR - Dibromofluoromethane	98	% REC		0	0.75	8260B	5/19/2016	5/19/2016	CJR	I
SUR - Toluene-d8	94	% REC		0	0.75	8260B	5/19/2016	5/19/2016	CJR	I

Project

Lab Code 5031008B

Sample ID REMEDIAL AIR # 18

Sample Matrix Air Tedlar Bag

Sample Date 5/9/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
General										
Gasoline Range Organics	132	ug	21	66	0.75	GRO95/8021	5/23/2016	CJR		I
VOC's										
Benzene	0.278 "J"	ug	0.135	0.435	0.75	8260B	5/19/2016	CJR		I
Bromobenzene	< 0.18	ug	0.18	0.5625	0.75	8260B	5/19/2016	CJR		I
Bromodichloromethane	< 0.21	ug	0.21	0.675	0.75	8260B	5/19/2016	CJR		I
Bromoform	< 0.195	ug	0.195	0.615	0.75	8260B	5/19/2016	CJR		I
tert-Butylbenzene	< 0.2025	ug	0.2025	0.675	0.75	8260B	5/19/2016	CJR		I
sec-Butylbenzene	< 0.1875	ug	0.1875	0.5625	0.75	8260B	5/19/2016	CJR		I
n-Butylbenzene	0.195 "J"	ug	0.195	0.6225	0.75	8260B	5/19/2016	CJR		I
Carbon Tetrachloride	< 0.1875	ug	0.1875	0.615	0.75	8260B	5/19/2016	CJR		I
Chlorobenzene	< 0.135	ug	0.135	0.6225	0.75	8260B	5/19/2016	CJR		I
Chloroethane	< 0.3525	ug	0.3525	1.125	0.75	8260B	5/19/2016	CJR		I
Chloroform	< 0.1575	ug	0.1575	0.495	0.75	8260B	5/19/2016	CJR		I
Chloromethane	< 0.4575	ug	0.4575	1.5	0.75	8260B	5/19/2016	CJR		I
2-Chlorotoluene	< 0.12	ug	0.12	0.3825	0.75	8260B	5/19/2016	CJR		I
4-Chlorotoluene	< 0.12	ug	0.12	0.3825	0.75	8260B	5/19/2016	CJR		I
1,2-Dibromo-3-chloropropane	< 0.495	ug	0.495	1.575	0.75	8260B	5/19/2016	CJR		I
Dibromochloromethane	< 0.1275	ug	0.1275	0.3975	0.75	8260B	5/19/2016	CJR		I
1,4-Dichlorobenzene	< 0.165	ug	0.165	0.54	0.75	8260B	5/19/2016	CJR		I
1,3-Dichlorobenzene	< 0.1575	ug	0.1575	0.5025	0.75	8260B	5/19/2016	CJR		I
1,2-Dichlorobenzene	< 0.2025	ug	0.2025	0.675	0.75	8260B	5/19/2016	CJR		I
Dichlorodifluoromethane	< 0.2475	ug	0.2475	0.825	0.75	8260B	5/19/2016	CJR		I
1,2-Dichloroethane	< 0.2325	ug	0.2325	0.735	0.75	8260B	5/19/2016	CJR		I
1,1-Dichloroethane	< 0.1725	ug	0.1725	0.735	0.75	8260B	5/19/2016	CJR		I
1,1-Dichloroethene	< 0.225	ug	0.225	0.7275	0.75	8260B	5/19/2016	CJR		I
cis-1,2-Dichloroethene	< 0.2175	ug	0.2175	0.675	0.75	8260B	5/19/2016	CJR		I
trans-1,2-Dichloroethene	< 0.195	ug	0.195	0.6225	0.75	8260B	5/19/2016	CJR		I
1,2-Dichloropropane	< 0.18	ug	0.18	0.5625	0.75	8260B	5/19/2016	CJR		I
2,2-Dichloropropane	< 0.2025	ug	0.2025	0.675	0.75	8260B	5/19/2016	CJR		I
1,3-Dichloropropane	< 0.1875	ug	0.1875	0.5625	0.75	8260B	5/19/2016	CJR		I
Di-isopropyl ether	< 0.1275	ug	0.1275	0.4125	0.75	8260B	5/19/2016	CJR		I
EDB (1,2-Dibromoethane)	< 0.2475	ug	0.2475	0.825	0.75	8260B	5/19/2016	CJR		I
Ethylbenzene	1.54	ug	0.3075	0.975	0.75	8260B	5/19/2016	CJR		I
Hexachlorobutadiene	< 0.825	ug	0.825	2.7	0.75	8260B	5/19/2016	CJR		I
Isopropylbenzene	0.21 "J"	ug	0.165	0.54	0.75	8260B	5/19/2016	CJR		I
p-Isopropyltoluene	< 0.1725	ug	0.1725	0.555	0.75	8260B	5/19/2016	CJR		I
Methylene chloride	< 2.475	ug	2.475	8.25	0.75	8260B	5/19/2016	CJR		I
Methyl tert-butyl ether (MTBE)	< 0.1275	ug	0.1275	0.42	0.75	8260B	5/19/2016	CJR		I
Naphthalene	< 0.975	ug	0.975	3.075	0.75	8260B	5/19/2016	CJR		I
n-Propylbenzene	0.35 "J"	ug	0.1425	0.4575	0.75	8260B	5/19/2016	CJR		I
1,1,2,2-Tetrachloroethane	< 0.255	ug	0.255	0.825	0.75	8260B	5/19/2016	CJR		I
1,1,1,2-Tetrachloroethane	< 0.1875	ug	0.1875	0.6225	0.75	8260B	5/19/2016	CJR		I
Tetrachloroethene	< 0.1875	ug	0.1875	0.6225	0.75	8260B	5/19/2016	CJR		I
Toluene	5.2	ug	0.39	1.275	0.75	8260B	5/19/2016	CJR		I
1,2,4-Trichlorobenzene	< 0.555	ug	0.555	1.725	0.75	8260B	5/19/2016	CJR		I
1,2,3-Trichlorobenzene	< 1.05	ug	1.05	3.3	0.75	8260B	5/19/2016	CJR		I
1,1,1-Trichloroethane	< 0.1875	ug	0.1875	0.6225	0.75	8260B	5/19/2016	CJR		I
1,1,2-Trichloroethane	< 0.195	ug	0.195	0.6225	0.75	8260B	5/19/2016	CJR		I
Trichloroethene (TCE)	< 0.1875	ug	0.1875	0.5625	0.75	8260B	5/19/2016	CJR		I
Trichlorofluoromethane	< 0.3975	ug	0.3975	1.275	0.75	8260B	5/19/2016	CJR		I
1,2,4-Trimethylbenzene	1.93 "J"	ug	1.275	3.9	0.75	8260B	5/19/2016	CJR		I
1,3,5-Trimethylbenzene	0.83 "J"	ug	0.825	2.55	0.75	8260B	5/19/2016	CJR		I
Vinyl Chloride	< 0.105	ug	0.105	0.3225	0.75	8260B	5/19/2016	CJR		I
m&p-Xylene	6.7	ug	0.39	1.275	0.75	8260B	5/19/2016	CJR		I
o-Xylene	2.62	ug	0.3525	1.125	0.75	8260B	5/19/2016	CJR		I
SUR - 4-Bromofluorobenzene	99	% REC		0	0.75	8260B	5/19/2016	CJR		I
SUR - Dibromofluoromethane	96	% REC		0	0.75	8260B	5/19/2016	CJR		I

Project Name DICK'S CAR CARE

Invoice # E31008

Project #

Lab Code 5031008B

Sample ID REMEDIAL AIR # 18

Sample Matrix Air Tedlar Bag

Sample Date 5/9/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
SUR - Toluene-d8	97	% REC			0 0.75	8260B		5/19/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	98	% REC			0 0.75	8260B		5/19/2016	CJR	1

Project #

Lab Code 5031008C
 Sample ID REMEDIAL AIR # 19
 Sample Matrix Air Tedlar Bag
 Sample Date 5/9/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
General										
Gasoline Range Organics	257	ug	21	66	0.75	GRO95/8021		5/23/2016	CJR	I
VOC's										
Benzene	1.23	ug	0.135	0.435	0.75	8260B		5/19/2016	CJR	I
Bromobenzene	< 0.18	ug	0.18	0.5625	0.75	8260B		5/19/2016	CJR	I
Bromodichloromethane	< 0.21	ug	0.21	0.675	0.75	8260B		5/19/2016	CJR	I
Bromoform	< 0.195	ug	0.195	0.615	0.75	8260B		5/19/2016	CJR	I
tert-Butylbenzene	< 0.2025	ug	0.2025	0.675	0.75	8260B		5/19/2016	CJR	I
sec-Butylbenzene	0.195 "J"	ug	0.1875	0.5625	0.75	8260B		5/19/2016	CJR	I
n-Butylbenzene	0.48 "J"	ug	0.195	0.6225	0.75	8260B		5/19/2016	CJR	I
Carbon Tetrachloride	< 0.1875	ug	0.1875	0.615	0.75	8260B		5/19/2016	CJR	I
Chlorobenzene	< 0.135	ug	0.135	0.6225	0.75	8260B		5/19/2016	CJR	I
Chloroethane	< 0.3525	ug	0.3525	1.125	0.75	8260B		5/19/2016	CJR	I
Chloroform	< 0.1575	ug	0.1575	0.495	0.75	8260B		5/19/2016	CJR	I
Chloromethane	< 0.4575	ug	0.4575	1.5	0.75	8260B		5/19/2016	CJR	I
2-Chlorotoluene	< 0.12	ug	0.12	0.3825	0.75	8260B		5/19/2016	CJR	I
4-Chlorotoluene	< 0.12	ug	0.12	0.3825	0.75	8260B		5/19/2016	CJR	I
1,2-Dibromo-3-chloropropane	< 0.495	ug	0.495	1.575	0.75	8260B		5/19/2016	CJR	I
Dibromochloromethane	< 0.1275	ug	0.1275	0.3975	0.75	8260B		5/19/2016	CJR	I
1,4-Dichlorobenzene	< 0.165	ug	0.165	0.54	0.75	8260B		5/19/2016	CJR	I
1,3-Dichlorobenzene	< 0.1575	ug	0.1575	0.5025	0.75	8260B		5/19/2016	CJR	I
1,2-Dichlorobenzene	< 0.2025	ug	0.2025	0.675	0.75	8260B		5/19/2016	CJR	I
Dichlorodifluoromethane	< 0.2475	ug	0.2475	0.825	0.75	8260B		5/19/2016	CJR	I
1,2-Dichloroethane	< 0.2325	ug	0.2325	0.735	0.75	8260B		5/19/2016	CJR	I
1,1-Dichloroethane	< 0.1725	ug	0.1725	0.735	0.75	8260B		5/19/2016	CJR	I
1,1-Dichloroethene	< 0.225	ug	0.225	0.7275	0.75	8260B		5/19/2016	CJR	I
cis-1,2-Dichloroethene	< 0.2175	ug	0.2175	0.675	0.75	8260B		5/19/2016	CJR	I
trans-1,2-Dichloroethene	< 0.195	ug	0.195	0.6225	0.75	8260B		5/19/2016	CJR	I
1,2-Dichloropropane	< 0.18	ug	0.18	0.5625	0.75	8260B		5/19/2016	CJR	I
2,2-Dichloropropane	< 0.2025	ug	0.2025	0.675	0.75	8260B		5/19/2016	CJR	I
1,3-Dichloropropane	< 0.1875	ug	0.1875	0.5625	0.75	8260B		5/19/2016	CJR	I
Di-isopropyl ether	< 0.1275	ug	0.1275	0.4125	0.75	8260B		5/19/2016	CJR	I
EDB (1,2-Dibromoethane)	< 0.2475	ug	0.2475	0.825	0.75	8260B		5/19/2016	CJR	I
Ethylbenzene	6.3	ug	0.3075	0.975	0.75	8260B		5/19/2016	CJR	I
Hexachlorobutadiene	< 0.825	ug	0.825	2.7	0.75	8260B		5/19/2016	CJR	I
Isopropylbenzene	0.61	ug	0.165	0.54	0.75	8260B		5/19/2016	CJR	I
p-Isopropyltoluene	< 0.1725	ug	0.1725	0.555	0.75	8260B		5/19/2016	CJR	I
Methylene chloride	< 2.475	ug	2.475	8.25	0.75	8260B		5/19/2016	CJR	I
Methyl tert-butyl ether (MTBE)	< 0.1275	ug	0.1275	0.42	0.75	8260B		5/19/2016	CJR	I
Naphthalene	< 0.975	ug	0.975	3.075	0.75	8260B		5/19/2016	CJR	I
n-Propylbenzene	1.35	ug	0.1425	0.4575	0.75	8260B		5/19/2016	CJR	I
1,1,2,2-Tetrachloroethane	< 0.255	ug	0.255	0.825	0.75	8260B		5/19/2016	CJR	I
1,1,1,2-Tetrachloroethane	< 0.1875	ug	0.1875	0.6225	0.75	8260B		5/19/2016	CJR	I
Tetrachloroethene	< 0.1875	ug	0.1875	0.6225	0.75	8260B		5/19/2016	CJR	I
Toluene	16.6	ug	0.39	1.275	0.75	8260B		5/19/2016	CJR	I
1,2,4-Trichlorobenzene	< 0.555	ug	0.555	1.725	0.75	8260B		5/19/2016	CJR	I
1,2,3-Trichlorobenzene	< 1.05	ug	1.05	3.3	0.75	8260B		5/19/2016	CJR	I
1,1,1-Trichloroethane	< 0.1875	ug	0.1875	0.6225	0.75	8260B		5/19/2016	CJR	I
1,1,2-Trichloroethane	< 0.195	ug	0.195	0.6225	0.75	8260B		5/19/2016	CJR	I
Trichloroethene (TCE)	< 0.1875	ug	0.1875	0.5625	0.75	8260B		5/19/2016	CJR	I
Trichlorofluoromethane	< 0.3975	ug	0.3975	1.275	0.75	8260B		5/19/2016	CJR	I
1,2,4-Trimethylbenzene	6.2	ug	1.275	3.9	0.75	8260B		5/19/2016	CJR	I
1,3,5-Trimethylbenzene	2.54 "J"	ug	0.825	2.55	0.75	8260B		5/19/2016	CJR	I
Vinyl Chloride	< 0.105	ug	0.105	0.3225	0.75	8260B		5/19/2016	CJR	I
m&p-Xylene	24.5	ug	0.39	1.275	0.75	8260B		5/19/2016	CJR	I
o-Xylene	9.0	ug	0.3525	1.125	0.75	8260B		5/19/2016	CJR	I
SUR - Dibromofluoromethane	104	% REC		0	0.75	8260B		5/19/2016	CJR	I
SUR - 4-Bromofluorobenzene	98	% REC		0	0.75	8260B		5/19/2016	CJR	I

Project Name DICK'S CAR CARE

Invoice # E31008

Project #

Lab Code 5031008C

Sample ID REMEDIAL AIR # 19

Sample Matrix Air Tedlar Bag

Sample Date 5/9/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
SUR - 1,2-Dichloroethane-d4	99	% REC			0 0.75	8260B		5/19/2016	CJR	I
SUR - Toluene-d8	97	% REC			0 0.75	8260B		5/19/2016	CJR	I

Project

Lab Code 5031008D
 Sample ID REMEDIAL AIR # 20
 Sample Matrix Air Tedlar Bag
 Sample Date 5/9/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
General										
Gasoline Range Organics	181	ug	21	66	0.75	GRO95/8021		5/23/2016	CJR	I
VOC's										
Benzene	0.71	ug	0.135	0.435	0.75	8260B		5/19/2016	CJR	I
Bromobenzene	< 0.18	ug	0.18	0.5625	0.75	8260B		5/19/2016	CJR	I
Bromodichloromethane	< 0.21	ug	0.21	0.675	0.75	8260B		5/19/2016	CJR	I
Bromoform	< 0.195	ug	0.195	0.615	0.75	8260B		5/19/2016	CJR	I
tert-Butylbenzene	< 0.2025	ug	0.2025	0.675	0.75	8260B		5/19/2016	CJR	I
sec-Butylbenzene	< 0.1875	ug	0.1875	0.5625	0.75	8260B		5/19/2016	CJR	I
n-Butylbenzene	0.255 "J"	ug	0.195	0.6225	0.75	8260B		5/19/2016	CJR	I
Carbon Tetrachloride	< 0.1875	ug	0.1875	0.615	0.75	8260B		5/19/2016	CJR	I
Chlorobenzene	< 0.135	ug	0.135	0.6225	0.75	8260B		5/19/2016	CJR	I
Chloroethane	< 0.3525	ug	0.3525	1.125	0.75	8260B		5/19/2016	CJR	I
Chloroform	< 0.1575	ug	0.1575	0.495	0.75	8260B		5/19/2016	CJR	I
Chloromethane	< 0.4575	ug	0.4575	1.5	0.75	8260B		5/19/2016	CJR	I
2-Chlorotoluene	< 0.12	ug	0.12	0.3825	0.75	8260B		5/19/2016	CJR	I
4-Chlorotoluene	< 0.12	ug	0.12	0.3825	0.75	8260B		5/19/2016	CJR	I
1,2-Dibromo-3-chloropropane	< 0.495	ug	0.495	1.575	0.75	8260B		5/19/2016	CJR	I
Dibromochloromethane	< 0.1275	ug	0.1275	0.3975	0.75	8260B		5/19/2016	CJR	I
1,4-Dichlorobenzene	< 0.165	ug	0.165	0.54	0.75	8260B		5/19/2016	CJR	I
1,3-Dichlorobenzene	< 0.1575	ug	0.1575	0.5025	0.75	8260B		5/19/2016	CJR	I
1,2-Dichlorobenzene	< 0.2025	ug	0.2025	0.675	0.75	8260B		5/19/2016	CJR	I
Dichlorodifluoromethane	< 0.2475	ug	0.2475	0.825	0.75	8260B		5/19/2016	CJR	I
1,2-Dichloroethane	< 0.2325	ug	0.2325	0.735	0.75	8260B		5/19/2016	CJR	I
1,1-Dichloroethane	< 0.1725	ug	0.1725	0.735	0.75	8260B		5/19/2016	CJR	I
1,1-Dichloroethene	< 0.225	ug	0.225	0.7275	0.75	8260B		5/19/2016	CJR	I
cis-1,2-Dichloroethene	< 0.2175	ug	0.2175	0.675	0.75	8260B		5/19/2016	CJR	I
trans-1,2-Dichloroethene	< 0.195	ug	0.195	0.6225	0.75	8260B		5/19/2016	CJR	I
1,2-Dichloropropane	< 0.18	ug	0.18	0.5625	0.75	8260B		5/19/2016	CJR	I
2,2-Dichloropropane	< 0.2025	ug	0.2025	0.675	0.75	8260B		5/19/2016	CJR	I
1,3-Dichloropropane	< 0.1875	ug	0.1875	0.5625	0.75	8260B		5/19/2016	CJR	I
Di-isopropyl ether	< 0.1275	ug	0.1275	0.4125	0.75	8260B		5/19/2016	CJR	I
EDB (1,2-Dibromoethane)	< 0.2475	ug	0.2475	0.825	0.75	8260B		5/19/2016	CJR	I
Ethylbenzene	3.5	ug	0.3075	0.975	0.75	8260B		5/19/2016	CJR	I
Hexachlorobutadiene	< 0.825	ug	0.825	2.7	0.75	8260B		5/19/2016	CJR	I
Isopropylbenzene	0.292 "J"	ug	0.165	0.54	0.75	8260B		5/19/2016	CJR	I
p-Isopropyltoluene	< 0.1725	ug	0.1725	0.555	0.75	8260B		5/19/2016	CJR	I
Methylene chloride	< 2.475	ug	2.475	8.25	0.75	8260B		5/19/2016	CJR	I
Methyl tert-butyl ether (MTBE)	< 0.1275	ug	0.1275	0.42	0.75	8260B		5/19/2016	CJR	I
Naphthalene	< 0.975	ug	0.975	3.075	0.75	8260B		5/19/2016	CJR	I
n-Propylbenzene	0.94	ug	0.1425	0.4575	0.75	8260B		5/19/2016	CJR	I
1,1,2,2-Tetrachloroethane	< 0.255	ug	0.255	0.825	0.75	8260B		5/19/2016	CJR	I
1,1,1,2-Tetrachloroethane	< 0.1875	ug	0.1875	0.6225	0.75	8260B		5/19/2016	CJR	I
Tetrachloroethene	< 0.1875	ug	0.1875	0.6225	0.75	8260B		5/19/2016	CJR	I
Toluene	11.6	ug	0.39	1.275	0.75	8260B		5/19/2016	CJR	I
1,2,4-Trichlorobenzene	< 0.555	ug	0.555	1.725	0.75	8260B		5/19/2016	CJR	I
1,2,3-Trichlorobenzene	< 1.05	ug	1.05	3.3	0.75	8260B		5/19/2016	CJR	I
1,1,1-Trichloroethane	< 0.1875	ug	0.1875	0.6225	0.75	8260B		5/19/2016	CJR	I
1,1,2-Trichloroethane	< 0.195	ug	0.195	0.6225	0.75	8260B		5/19/2016	CJR	I
Trichloroethene (TCE)	< 0.1875	ug	0.1875	0.5625	0.75	8260B		5/19/2016	CJR	I
Trichlorofluoromethane	< 0.3975	ug	0.3975	1.275	0.75	8260B		5/19/2016	CJR	I
1,2,4-Trimethylbenzene	3.9	ug	1.275	3.9	0.75	8260B		5/19/2016	CJR	I
1,3,5-Trimethylbenzene	1.85 "J"	ug	0.825	2.55	0.75	8260B		5/19/2016	CJR	I
Vinyl Chloride	< 0.105	ug	0.105	0.3225	0.75	8260B		5/19/2016	CJR	I
m&p-Xylene	13.4	ug	0.39	1.275	0.75	8260B		5/19/2016	CJR	I
o-Xylene	5.2	ug	0.3525	1.125	0.75	8260B		5/19/2016	CJR	I
SUR - Toluene-d8	97	% REC		0	0.75	8260B		5/19/2016	CJR	I
SUR - 1,2-Dichloroethane-d4	91	% REC		0	0.75	8260B		5/19/2016	CJR	I

Project Name DICK'S CAR CARE
 Project #

Invoice # E31008

Lab Code 5031008D
 Sample ID REMEDIAL AIR # 20
 Sample Matrix Air Tedlar Bag
 Sample Date 5/9/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
SUR - 4-Bromofluorobenzene	101	% REC			0 0.75	8260B		5/19/2016	CJR	I
SUR - Dibromofluoromethane	99	% REC			0 0.75	8260B		5/19/2016	CJR	I

Lab Code 5031008E
 Sample ID MW-3
 Sample Matrix Water
 Sample Date 5/9/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Nap + 1,2 DCA + EDB										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		5/16/2016	CJR	I
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		5/16/2016	CJR	I
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		5/16/2016	CJR	I
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		5/16/2016	CJR	I
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		5/16/2016	CJR	I
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		5/16/2016	CJR	I
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		5/16/2016	CJR	I
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		5/16/2016	CJR	I
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		5/16/2016	CJR	I
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		5/16/2016	CJR	I
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		5/16/2016	CJR	I

Lab Code 5031008F
 Sample ID PZ-1
 Sample Matrix Water
 Sample Date 5/9/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Nap + 1,2 DCA + EDB										
Benzene	1330	ug/l	4.4	14	10	8260B		5/17/2016	CJR	I
1,2-Dichloroethane	68	ug/l	4.8	15	10	8260B		5/17/2016	CJR	I
EDB (1,2-Dibromoethane)	< 6.3	ug/l	6.3	20	10	8260B		5/17/2016	CJR	I
Ethylbenzene	500	ug/l	7.1	23	10	8260B		5/17/2016	CJR	I
Methyl tert-butyl ether (MTBE)	470	ug/l	11	37	10	8260B		5/17/2016	CJR	I
Naphthalene	21.8 "J"	ug/l	16	52	10	8260B		5/17/2016	CJR	I
Toluene	54	ug/l	4.4	14	10	8260B		5/17/2016	CJR	I
1,2,4-Trimethylbenzene	62	ug/l	16	50	10	8260B		5/17/2016	CJR	I
1,3,5-Trimethylbenzene	< 15	ug/l	15	48	10	8260B		5/17/2016	CJR	I
m&p-Xylene	93	ug/l	22	69	10	8260B		5/17/2016	CJR	I
o-Xylene	10.6 "J"	ug/l	9	29	10	8260B		5/17/2016	CJR	I

CHAIN OF STUDY RECORD

Synergy

Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # No. 272

Page 1 of 2

Sample Handling Request

Rush Analysis Date Required
(Rushes accepted only with prior authorization)

Normal Turn Around

Lab I.D. # _____
Account No.: _____
Project #: _____
Sampler: *for form*

Project (Name / Location): *Dicks Car Care / Bamboo*

Reports To: *Dave Christian*
Company: _____
Address: *707 Angie St.*
City State Zip: *Bamboo WI 53913*
Phone: _____
FAX: _____

Invoice To: *D. Christian*
Company: *c/o METCO*
Address: *709 Gillette St, Ste 3*
City State Zip: *La Crosse, WI 54603*
Phone: _____
FAX: _____

Lab I.D.	Sample I.D.	Collection Date Time	Comp Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	9-ROCA METALS	Other Analysis	PID/ FID	
<i>S031008A</i>	<i>Remedial Air Sample #17</i>	<i>5-9</i>			<i>1</i>	<i>A</i>	<i>-</i>	<input checked="" type="checkbox"/>												<input checked="" type="checkbox"/>				
<i>B</i>	<i>Remedial Air Sample #18</i>				<i>1</i>	<i>A</i>	<i>-</i>	<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>								
<i>C</i>	<i>Remedial Air Sample #19</i>				<i>1</i>	<i>A</i>	<i>-</i>	<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>								
<i>D</i>	<i>Remedial Air</i>				<i>1</i>	<i>A</i>	<i>-</i>	<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>								

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)
sample #20

*Lab to send copy of report to METCO (Tom P. Invoice to METCO)
VOC @ 64.50 per sample + GRO @ 43.70
GRO/PVOC + Napk @ 69.00 (As Quoted)*

Sample Integrity - To be completed by receiving lab.
Method of Shipment: *Refrigerated*
Temp. of Temp. Blank: _____ °C On Ice: _____
Cooler seal intact upon receipt: Yes _____ No

Relinquished By: (sign) *for form* Date: *5-10-16* Time: *8:00 AM*

Received in Laboratory By: *[Signature]* Date: *5-11-16* Time: *8:30 AM*

CHAIN OF STUDY RECORD

Synergy

Environmental Lab, Inc.

Chain # No 287

Page 2 of 2

Lab I.D. # _____ Quote No.: _____

Account No.: _____

Project #: _____

Sampler Signature: *for Dave*

Project (Name / Location): *Dick's car care / Burbank*

Reports To: _____

Company: *See page 1*

Address: _____

City State Zip: _____

Phone: _____

FAX: _____

Sample Handling Request
 Rush Analysis Date Required _____
 (Rushes accepted only with prior authorization)
 Normal Turn Around

Analysis Requested		Other Analysis	
DRO (Mod DRO Sep 95)			
GRO (Mod GRO Sep 95)			
LEAD			
NITRATE/NITRITE			
OIL & GREASE			
PAH (EPA 8270)			
PCB			
PVOC (EPA 8021)			
PVOC + NAPHTHALENE #1,2-DCH4	X		
SULFATE			
TOTAL SUSPENDED SOLIDS			
VOC DW (EPA 542.2)			
VOC (EPA 8260)			
8-PCRA METALS			

Lab I.D.	Sample I.D.	Collection Date	Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)	Preservation	PID/ FID
231004	MW-3	5-9	10:30				3	GW	HEL	
	P2-1		10:45				↓	↓	↓	
	MW-2		11:0				↓	↓	↓	
	TB									

Comments/Special Instructions ("Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

See Page 1 for Air sampling Analysis
 GW - PVOC + Naph + 1,2-DCA + 603 @ 43.79/sample

Sample Integrity - To be completed by receiving lab.
 Method of Shipment: *Overnight*
 Temp. of Temp. Blank: _____ °C On Ice
 Cooler seal intact upon receipt: Yes No

Relinquished By: (sign) *[Signature]* Time 8:00 AM Date 5-10-16
 Received By: (sign) *[Signature]* Time 5:11-16 Date 5-10-16